APPENDIX A - PROPOSAL COVER SHEET
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
RFP 6100032526

Enclosed in three separately sealed submittals is the proposal of the Offeror identified below for the above-referenced RFP:

Offeror Information:	
Offeror Name	Data Recognition Corporation
Offeror Mailing Address	13490 Bass Lake Road Maple Grove, MN 55311
Offeror Website	www.datarecognitioncorp.com
Offeror Contact Person	Susan Engeleiter
Contact Person's Phone Number	763-268-2102
Contact Person's Facsimile Number	763-268-3054
Contact Person's E-Mail Address	sengeleiter@datarecognitioncorp.com
Offeror Federal ID Number	41-1810970
Offeror SAP/SRM Vendor Number	164344

Submittals Enclosed and Separately Sealed:	
X	Technical Submittal
	Small Diverse Business Participation Submittal
	Cost Submittal

Signature	
Signature of an official authorized to bind the Offeror to the provisions contained in the Offeror's proposal:	Susan S. Engeleiter
Printed Name	Susan S. Engeleiter
Title	Chief Executive Officer and President

FAILURE TO COMPLETE, SIGN AND RETURN THIS FORM WITH THE OFFEROR'S PROPOSAL MAY RESULT IN THE REJECTION OF THE OFFEROR'S PROPOSAL

Appendix B: Test Development Supporting Documentation

Fairness in Testing

Guidelines for Training on Bias, Fairness, and Sensitivity Issues

Table of Contents

Introduction

Critical to the development of any new test is ensuring balanced treatment; accessible, unbiased items; and control of potential bias, stereotyping, and insensitivity in the items or in the test-related materials (both paper based and computer based). Data Recognition Corporation (DRC) understands that the presence of any type of bias in a test is undesirable not only from a civil rights point of view but also from a measurement point of view. Issues of bias, fairness, and sensitivity in testing can have a direct impact on test scores. Our test developers are committed to the development of items and tests that are fair for all students. At every stage of the item–and–test development process, we employ procedures that are designed to ensure that our items and tests meet the *Standards for Educational and Psychological Testing*, particularly Standard 3.2 (American Educational Research Association[AERA], American Psychological Association[APA], & National Council on Measurement in Education[NCME], 2014):

> Test developers are responsible for developing tests that measure the intended construct and for minimizing the potential for tests' being affected by construct-irrelevant characteristics, such as linguistic, communicative, cognitive, cultural, physical, or other characteristics. (AERA, APA, & NCME, 2014, p. 64).

The *Code of Fair Testing Practices in Education* (the *Code*) provides guidance on the development and selection of content and strives for fairness in the test development process (Joint Committee on Testing Practices, 2004). DRC expands on these practices by employing procedures to avoid potentially offensive content or language when developing test questions and related materials.

For state clients who have adopted the Common Core State Standards (CCSS), our assessments are developed to measure the CCSS. At every stage of the item–and–test development process, we employ procedures that ensure that items and tests are designed using the elements of universally designed assessments developed by the National Center on Educational Outcomes (NCEO). Our test development team has been fully trained in the elements of Universal Design and how those elements relate to developing large-scale statewide assessments. Moreover, universally designed assessments allow participation of the widest possible range of students and result in valid inferences about the performance of all students who participate. They are based on the premise that each child in school is a part of the population to be tested and that testing results should not be affected by disability, gender, race, or English language ability (Thompson, Johnstone, Anderson, & Miller, 2002).

In meeting Standard 3.2 and the *Code*, as well as in developing universally designed assessments, DRC implements a series of internal quality steps that we believe are among the best in the industry. Accessibility is integrated into items from the beginning, and bias

Introduction (continued)

review procedures ensure that quality is retained in all items (Thompson, Johnstone, Anderson, & Miller, 2002). DRC may incorporate guidelines developed by the Smarter Balanced Assessment Consortium (SBAC) to ensure that items and passages allow students with disabilities and English language learner (ELL) students greater accessibility to assessment.

We provide specific training for our test developers, item writers, and reviewers on how to write, review, revise, and edit items for issues of bias, fairness, and sensitivity, as well as for technical quality. Our training also includes an awareness of and sensitivity to issues of cultural diversity. Additionally, our item writer training includes universal design and accessibility principles that align with consideration for test developers.

In addition to providing *internal* training in reviewing items to eliminate potential bias, we also provide *external* training to our clients, including state departments of education and review panels of minority experts, teachers (including special education teachers), and other stakeholders. DRC understands the importance of having external panels with a wide variety of expertise review items and tests for potential bias. Bias and sensitivity review procedures ensure that items and passages do not create barriers because of a lack of sensitivity to disability, culture, or other subgroups (Thompson, Thurlow, & Malouf, 2004). External panels of professionals review items for subtle forms of bias that can often be perceived only by individuals who possess appropriate expertise and represent specific constituencies.

This manual is part of the training materials that have been prepared to summarize DRC's guidelines for bias, fairness, and sensitivity, including how to eliminate language, symbols, words, phrases, and content that might be considered offensive by members of racial, ethnic, gender, or other groups. Our guidelines may be modified to meet clients' requirements and/or state-specific guidelines.

Definition of Bias and Sensitivity

While there are many definitions of *bias*, the following definition is provided in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014):

> The term *bias* in test fairness refers to construct underrepresentation or construct-irrelevant components of test scores that differentially affect the performance of different groups of test takers and consequently the reliability/precision and validity of interpretations and uses of their test scores. (AERA, APA, & NCME, 2014, p. 216)

Moreover, no members of a group should have an advantage or disadvantage when responding to a test question.

In assessment, *sensitivity* refers to the content of an item or passage that evokes an unintentional emotional reaction from a test taker. It would be unfair if a group of test takers were distracted by the content of the item or passage. Additionally, "sensitivity" is used to refer to an awareness of the need to avoid bias in assessment. (*Smarter Balanced Assessment Consortium*, 2012)

Items (questions and responses), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries must be examined for bias, fairness, and sensitivity concerns.

Types of Bias

There are many types of bias. They include stereotyping and discriminating against people because of gender, regionalism or geographical differences, ethnicity or culture, socioeconomic or class status, religion, or age, as well as bias against other groups of people, including those with disabilities. A definition of each type of bias, along with samples, is provided below.

Stereotyping

"Stereotype is an image formed by ascribing certain characteristics (e.g., physical, cultural, personal, occupational, historical) to all members of a group" (National Evaluation Systems, 1990, p. 2). Stereotyping might include physical characteristics, intellectual characteristics, emotions, careers, activities, and domestic or social roles. In test items it is very important that all groups are portrayed fairly and without stereotyping. **As a result, in items or on tests there should be a range of characteristics, careers, and social roles across all groups of people; no one group should be characterized by any particular attribute or characteristic.** The following are examples of stereotyping.

Stereotyping	*Examples*
Physical characteristics	Males are strong and capable leaders. Females are weak. The elderly are feeble and sickly. Children are healthy and full of energy. The elderly are dependent upon others. People with disabilities are dependent upon others. Females worry about their hair.
Intellectual characteristics	Males do better in mathematics and science. Females do better in reading and language arts. Asian Americans excel in academics.
Emotions	Males are aggressive, courageous, and strong. Females are weak, weepy, tender, and fearful.
Careers	Females are nurses, teachers, and secretaries. Males are doctors, principals, superintendents, lawyers, and skilled laborers (e.g., plumbers, construction workers, painters). African Americans are athletes. Hispanics operate lawn care businesses. Asian Americans own dry cleaning businesses.

Types of Bias (continued)

Stereotyping	*Examples*
Activities	Females play with dolls and read books. Females do domestic chores (e.g., clean house, cook, sew). Females spend money. Males play sports and work with tools. Boys are rowdy. Girls are quiet.
Domestic/social roles	Females are responsible for childcare. Men work outside of the home and are the breadwinners.
Community	Asian Americans live in ethnic neighborhoods. African Americans live in high-rise apartment buildings located in urban areas. American Indians live on reservations.
Leadership	Men are leaders and rulers. Women are followers. Women are dependent upon men. Men are elected to political positions. Females in leadership roles are aggressive and pushy.

Discretion must be exercised when considering the balance of depicted characteristics, careers, and social roles across an entire test. Fairness in presenting these elements does not prohibit contextual presentation when such a depiction is respectful and fair. For example, a child can be healthy and a person with a mobility challenge can use a wheelchair, but depicting them exclusively as healthy and as using a wheelchair respectively would not exhibit fairness and would be considered stereotyping and biased.

Gender Bias

Gender bias may result when members of either sex are unnecessarily presented in stereotypical activities, occupations, and/or situations, or as having stereotypical emotions or characteristics. Considerations of fairness in the presentation of gender do not demand exclusion of all possibly stereotypical presentations, but they must be balanced throughout the test. Often, gender bias may be avoided simply by not using demeaning labels and antiquated terminology.

Types of Bias (continued)

Examples of gender bias

Use of gender-specific terms to refer to humanity as a whole, such as

- Mankind
- Manhood
- Manpower
- Man of the hour
- Man-hours
- Man-made

Use of gender-specific terms for occupations, such as

- Fireman
- Workman
- Chairman
- Policeman
- Mailman
- Salesman
- Insurance man
- Businessman
- Congressman

Use of pronouns that imply a stereotype, such as

- The nurse went to the hospital, and *she* was able to talk with the patient.
- The factory worker needed to earn more money for *his* family.
- When the lawyer delivered *his* closing remarks, the jury listened carefully.
- A politician must give a lot of speeches when *he* runs for office.
- The childcare worker helped *her* children paint pictures.

Use of phrases that identify gender in terms of roles or occupations, such as

- It was hard work for the men to extract the ore from the rock.
- The travelers took their wives and children with them.

Use of phrases or words with an emphasis on marital status, such as

- Abraham Lincoln and *Mrs.* Lincoln attended the play.
- Dr. and *Mrs.* Jones attended the opening of the new warehouse.

Use of words that identify gender in the salutation of a business letter, such as

- Dear Sir:
- Dear Madam:
- Dear Gentlemen:

Types of Bias (continued)

Use of words or phrases that are not parallel, such as

- The girls' restroom is down the hall, and the men's restroom is on the second floor.
- The boys' locker room door is painted green, and the women's locker room door is painted yellow.
- The men's department is on the right; the ladies' department is on the left.

Use of figures of speech, such as

- Old wives' tale
- Right-hand man
- Man versus nature
- The best man for the job
- The better half

Use of gender-specific terms or diminutive words, such as

- Usherette
- Housewife
- Maid
- Cleaning lady
- Little woman
- Career girl
- Houseboy
- Steward

Discretion must be exercised when considering the balance of depicted gender roles across an entire testing document. Fairness and diversity in the presentation of gender through contextual presentation of activities, emotions, occupations, characteristics, and/or situations should be respectful and fair. For example, a doctor can be a man, and a homemaker can be a woman, but exclusive depictions of such roles filled by these genders would not exhibit fairness and would be considered gender bias.

Regionalism

Regionalism may result from the inclusion of terms that are not commonly used nationwide or within a particular region of the state in which the test will be given. It also involves the use of terms that have different connotations in different geographical regions and/or parts of the country. It is important to note that some experiences may not be common to all students. For example, within a given geographic area not all students may be familiar with snow, so questions involving sleds and toboggans, for example, may reflect regionalism.

Types of Bias (continued)

Examples of regionalism

- Go get your toboggan (hat or type of sled).
- We are having heroes (sandwiches) for lunch.
- Bake the hot dish (casserole) for one hour.
- Please order a soda (soft drink, pop, Coke) for me.

Context within permissioned passages may mitigate the impact of a potential regional or geographical bias, and discretion should be employed when using terms under these conditions. For example, if the context clearly communicates what a toboggan is and how it is used, a bias may not exist.

Discretion must also be exercised when considering terms that are common to the modern world or common to the human experience. For example, trees are sometimes not plentiful in some arid regions and shopping malls may not be present in extremely rural areas, but all students are expected to understand both terms with little, if any, additional context. Some terms may require consideration of a student's grade level. For example, a fourth-grade student should know what snow is through classroom exposure, even if the student has never seen snow.

Ethnic or Cultural Bias

Ethnic or cultural bias may result from the inclusion of terms, concepts, or situations that are demeaning and/or offensive to a particular ethnic group or culture. For example, some groups do not eat pork or beef. Therefore, a recipe should explain how to make a vegetarian dish rather than a pork or beef dish (Downing & Haladyna, 2006). Also, within an assessment, no group should be portrayed as being uneducated or poor.

Examples of ethnic or cultural bias

- Maria was in the kitchen making tamales.
- Native Americans are very close to nature.
- African Americans live in high-rise apartment buildings in urban areas.

The use of language that is not accessible to English language learners (ELL) students presents a barrier to fairness. Culturally specific knowledge should be avoided, along with the use of idioms or figures of speech, jargon, and slang. Using idioms or figures of speech is acceptable when measuring a CCSS or content standard, but jargon and slang may be challenging to translate into other languages.

Types of Bias (continued)

Examples of idioms, figures, of speech, jargon, and slang

- "Slow your roll."
- Neal has to hit the rack by 10:00 PM.
- "You have my stamp of approval," said Amy.
- Marisa said, "Hasta luego," as she exited the room.
- We had long faces when we learned that the amusement park had closed.

Terminology

Terms that have a negative connotation or that reinforce negative judgments should also be avoided. The following is a list of **acceptable** terms:

- African American
- Asian American, Pacific Island American, Chinese American, Japanese American
- Latino or Latina, Mexican American, Hispanic American, Hispanic, Cuban American
- Tribal name (preferred), American Indian, Native American
- European American

Context within permissioned passages may mitigate the impact of a potential ethnic or cultural bias, and discretion should be used when allowing such depictions. For example, if the context clearly communicates the English equivalent of a phrase provided in another language, the ethnic or cultural bias may not exist.

Note: Assessment accommodations and/or alternate assessments may be provided by state education agencies for students who are non-English speaking or who have limited English ability (e.g., ELL students).

Socioeconomic or Class Bias

Socioeconomic or class bias may result from the inclusion of activities, possessions, or ideas that may not be common to all students. For example, not all students own tablet computers or video game consoles, nor do all students in a given area participate in certain sports, such as golf, snow skiing, or sailing. In addition, not all students take expensive vacations or attend expensive schools.

Examples of socioeconomic or class bias

- Van loves to go scuba diving.
- My family is a member of the country club.
- During our vacation, we shopped at the King of Prussia Mall.

Types of Bias (continued)

- We're hiking along the Shooting Star State Trail.
- My great aunt lives in a town house overlooking Lake Paupac.

Discretion must also be exercised when considering topics that are common to the modern world or to the human experience. For example, technology is a part of the modern world and should not be avoided just because not all students have access to a computer outside of an educational setting.

Religious Bias

Religious bias may result from the inclusion of terms, concepts, or situations that are demeaning and/or offensive to a particular religious group.

Examples of religious bias

- Mom is making hamburgers for dinner.
- The house on Smith Street is decorated for Halloween.
- There were several Christmas trees in the window.
- The students in the class will stand and say the Pledge of Allegiance.

Notes:

- It is acceptable to mention non-religious holidays, but only if contextual information is provided (e.g., New Year's Day).
- Traditionally, *birthdays* have been a religious bias. It is acceptable to mention *birthdays*, but only if contextual information is provided.

Requiring knowledge of any particular religion is to be avoided. It is also important to note that no religious belief or practice should be portrayed as a universal norm or as inferior or superior to any other.

Ageism (Bias against a Particular Age Group)

There are other subtle forms of bias such as "ageism," which includes bias against elders, youth, and children. Ageism may result from the inclusion of terms, concepts, or situations that are demeaning and/or offensive to elders or to older persons (defined as people older than the reference group).* Ageism can also involve issues of bias with other age groups, including teenagers and young children—or even with the age of the reference group itself, where the grade (age) of the student is depicted negatively.

Images of older persons in a nursing home or with a cane, wearing special shoes, or in wheelchairs should be avoided when such depictions are unnecessary. It is important to note, however, that representing older persons or any age group fairly does not mean that the content of items has to be revised or rewritten to seem unrealistic. Rather, as a whole,

Types of Bias (continued)

the items and the test should show older people, or any age group, in a variety of roles and activities whenever such depictions would occur naturally in the test content.

Examples of ageism (bias against a particular age group)

- My grandfather is taking his afternoon nap.
- They were acting like typical irresponsible teenagers.
- Despite the fact that she was very old, she was able to walk down the stairs.

*Note: When describing an elder, or older person, in assessment materials, referring to "people 65 years of age or older" or stating the age of the person is preferred.

Bias against Persons with Disabilities

Another form of subtle bias involves issues related to persons with disabilities. This type of bias may result from the inclusion of terms, concepts, or situations that are demeaning and/or offensive to persons with disabilities. It is important to note, however, that representing persons with disabilities does not mean that the content of items has to be revised or rewritten to seem unrealistic. Rather, as a whole, the items and the test should show people with disabilities in a variety of roles and activities whenever such depictions would occur naturally in the test content. Moreover, the items should focus on the person and not the person's disability.

Examples of bias against persons with disabilities

- She is a blind person.
- The student is handicapped.
- "In the hallway, use your quiet voice."
- He became a successful writer despite his disability.
- The child made great strides in overcoming her disability.
- After the car accident, the student was confined to a wheelchair.

Types of Bias (continued)

Terminology

Terms that have a negative connotation or that reinforce negative judgments (e.g., words like *crippled*, *victim*, *afflicted*, *confined*) should be avoided. It is also important that no one with a disability should be pictured as helpless or portrayed as pitiful.

Do not use	*Use*
Retarded, Mentally retarded	Developmental disability, person with an intellectual disability or cognitive disability
Deaf and dumb, Deaf-mute	Deaf, hard of hearing
Learning disabled	Person with a learning disability
Handicap	Disability, physical disability
Blind	Visually impaired, vision impaired, or blind (used accurately). Use “a person who is blind” rather than “a blind person.”

Accommodations

As was mentioned earlier, DRC takes several steps to ensure fairness for all test takers. DRC is keenly aware of the Smarter Balanced Assessment Consortium: Usability, Accessibility, and Accommodations Guidelines (the *Guidelines*) and the Partnership for Assessment of Readiness for College and Careers (PARCC) Accessibility Features and Accommodations Manual. Both documents support the application of Universal Design features (e.g., accessible, non-biased items). The *Guidelines* focus on universal tools, designated supports, and accommodations for the Smarter Balanced content assessments of English language arts/literacy and mathematics (Smarter Balanced Assessment Consortium, 2014). The PARCC Accessibility Features and Accommodations Manual addresses most accommodations that are currently being used in PARCC states to ensure that

- participation in the assessments is consistent across PARCC states for students with disabilities and English learners;
- appropriate tools are used by all students to address their individual learning needs, and accommodations are provided to eligible students (including students with disabilities, English learners, and English learners with disabilities); and
- accommodations used on PARCC assessments are generally consistent with accommodations used in daily instruction (Partnership for Assessment of Readiness for College and Careers, 2013).

Accommodations may be necessary for students in special populations (i.e., students with disabilities, English language learners, English language learners with disabilities) to

Types of Bias (continued)

participate fully in assessments. Some accommodations (e.g., large-print test books, Braille, audio tapes, videos) may be developed by DRC as requested by the state client.

State education agencies may also provide assessment accommodations for specific disabilities. DRC implements state-specific item and test specifications for artwork, graphs, charts, and test-related ancillaries, along with the principles of Universal Design, in the development of tests for persons with disabilities in order to match disability-related characteristics.

We have incorporated Universal Design principles into computer–based testing, which ensures that online testing is accessible to the widest possible range of students. Online accommodations and specialized tools (e.g., color chooser, contrast color, magnifier, line guide) are available for students who require it.

Braille, Large Print

Students who are visually impaired will consistently score lower than they should on a test that has not been administered for them in Braille or large print. Their difficulties in reading the items on the pages will negatively impact their scores (U.S. Department of Education Office for Civil Rights, 2000). Therefore, items should be presented in a larger font size or Braille version. Also, unnecessary maps, charts, or graphs in an item should be avoided unless such a stimulus helps measure a specific skill for a content area. Graphics should be used only when necessary. If graphics are used, they should be clearly labeled and the text should describe the content of the graphic. (See *Graphics)*

Videos, Audiotapes

For students who are deaf or hard of hearing, state clients may require the development of videos that are prerecorded with American Sign Language (ASL) or Signed Exact Language translations. The use of jargon, slang and other problematic phrases are to be avoided due to the difficulty of translating them into ASL. If audiotapes are required, content-specific audio guidelines are used in the development of audio test materials.

Graphics

In addition to written text materials, some items or passages may require graphics. All graphics are developed by DRC using the principles of Universal Design (i.e., making items accessible, non-biased). The examples provided show the original graphics for some science, social studies, and mathematics items and the same graphics after the principles of Universal Design were applied.

Types of Bias (continued)

Examples

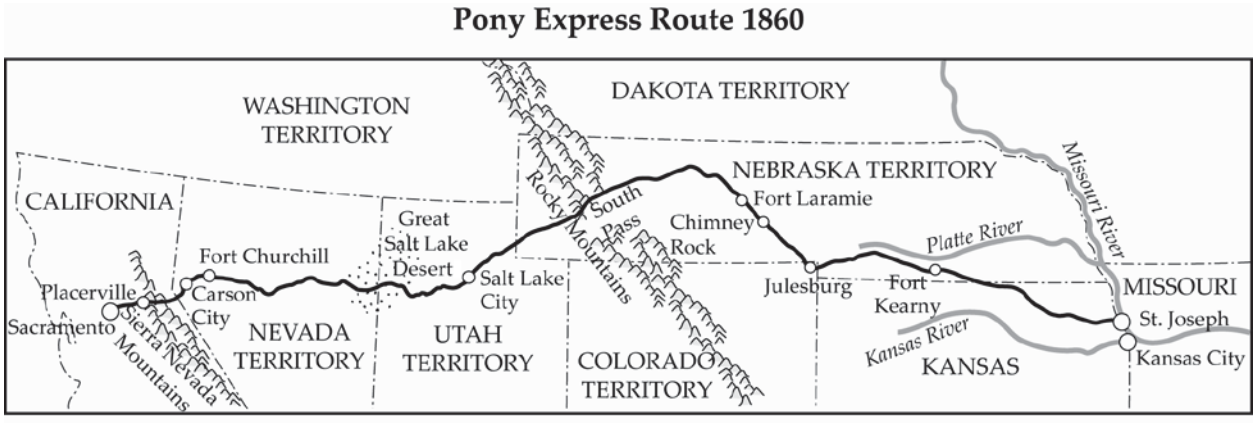
READING

Original Graphic

The Pony Express

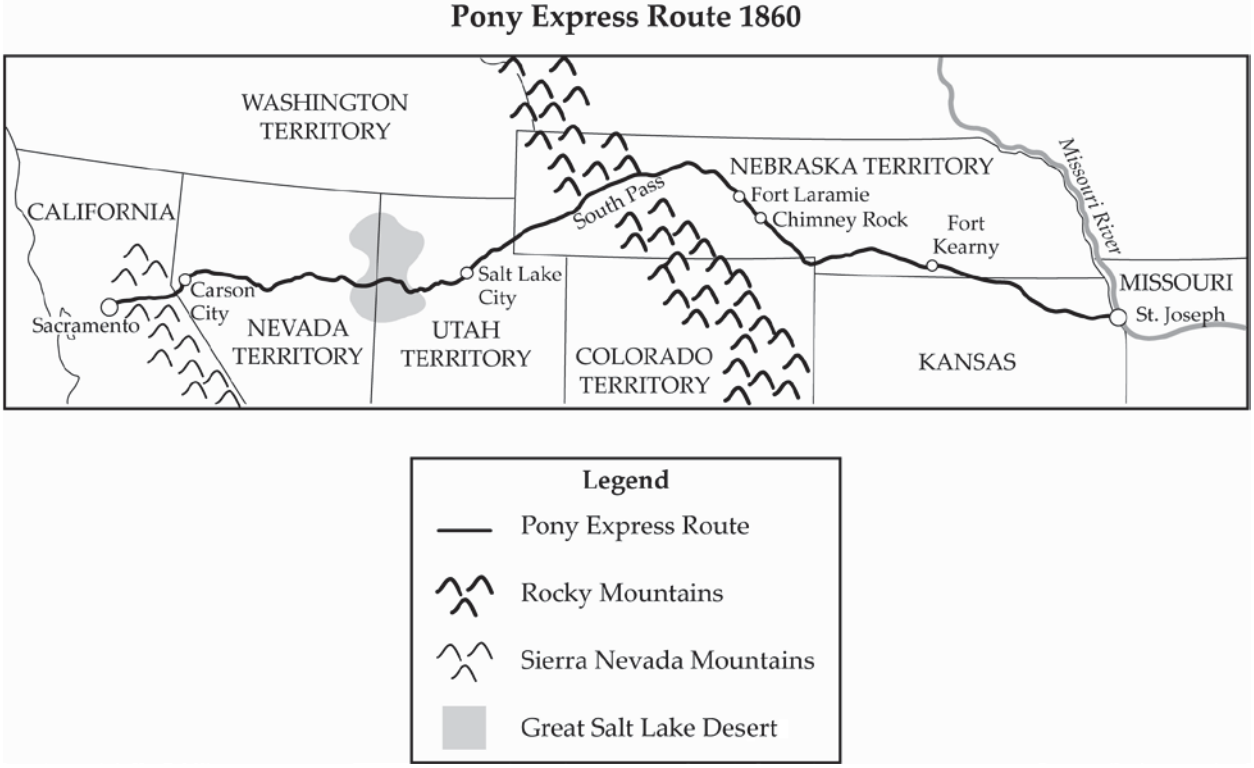
The Pony Express route was a distance of almost 2,000 miles. On the east end, it left the state of Missouri and followed part of the Oregon Trail through Kansas and Nebraska Territories. Fort Kearny, Chimney Rock, and Fort Laramie were important markers for the Pony Express riders. After going over the formidable Rocky Mountains at South Pass, the route headed south toward Salt Lake City. Then it crossed the deserts of Utah and Nevada Territories and the rugged Sierra Nevada Mountains, finally arriving at Sacramento, California.

The Pony Express needed horses that were strong, tough, and fast runners. The owners of the Pony Express bought hundreds of mustangs, quarter horses, and thoroughbreds. The riders needed to be lightweight and courageous. They had to endure great hardships while riding across the frontier. Above all, they needed to be expert horse riders. Way stations were built along the route where horses and riders ate and rested.



Types of Bias (continued)

Principles of Universal Design Applied



Passage: no changes needed for Universal Design

Graphic: changes applied to graphic to meet Universal Design

- Removed nonessential or secondary information such as river names not mentioned in the passage.
- Applied a legend to help identify features and understand the map.
- Used consistent and easily distinguishable symbols to indicate features.
- Used larger icons for the different features for clarity and visual appeal, which reduced the business in the graphic.
- Changed dashed lines to solid lines, which are easier to distinguish.
- Cleaned up text that crossed over lines within the graphic for ease of reading the words.

Types of Bias (continued)

Original Graphic

Use the chart below to answer the following question.

Mileage Between Cities

	Akron	Ashtabula	Bowling Green	Canton	Cincinnati	Cleveland	Columbus	Defiance	East Liverpool	Erie PA	Lima	Lorain	Mansfield	Massillon	Pittsburgh PA	Sandusky	Steubenville	Toledo	Warren	Youngstown
Akron		82	124	20	235	37	126	167	63	125	155	55	64	21	104	81	81	124	41	50
Cleveland	37	58	115	60	249		144	154	89	99	151	29	78	54	129	60	109	116	52	77
Columbus	126	194	114	122	111	144		132	171	238	89	127	65	113	187	106	143	144	165	170
Toledo	124	168	22	144	210	116	144	56	190	211	82	83	95	133	231	53	204		156	170
Youngstown	50	58	170	50	278	77	170	212	35	93	202	93	112	57	80	121	62	170	15	

How many miles is it from Toledo to Columbus?

A. 124
B. 126
C. 144
D. 154

Types of Bias (continued)

Principles of Universal Design Applied

Use the chart below to answer the following question.

MILEAGE BETWEEN CITIES

	Akron	Cincinnati	Cleveland	Columbus	East Liverpool	Sandusky	Steubenville	Toledo	Warren	Youngstown
Akron		235	37	126	63	81	81	124	41	50
Cleveland	37	249		144	89	60	109	116	52	77
Columbus	126	111	144		171	106	143	144	165	170
Toledo	124	210	116	144	190	53	204		156	170
Youngstown	50	278	77	170	35	121	62	170	15	

How many miles is it from Toledo to Columbus?

A. 124
B. 126
C. 144
D. 154

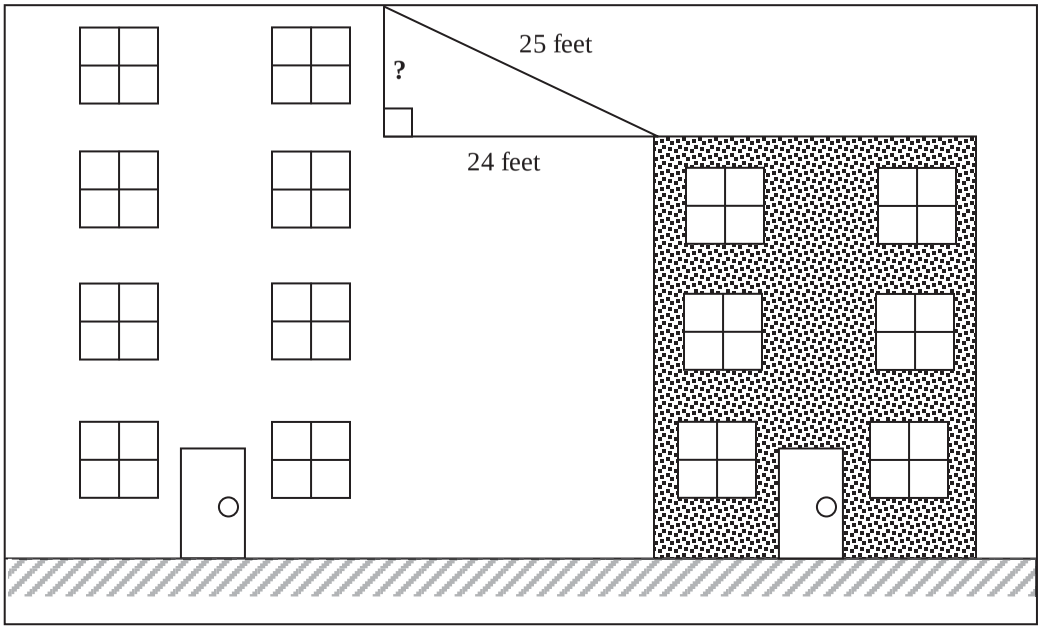
Changes applied to graphic to meet Universal Design:

- Clearer format
- Fewer labels are included in the chart
- Larger fonts
- Enlarged chart for easier viewing

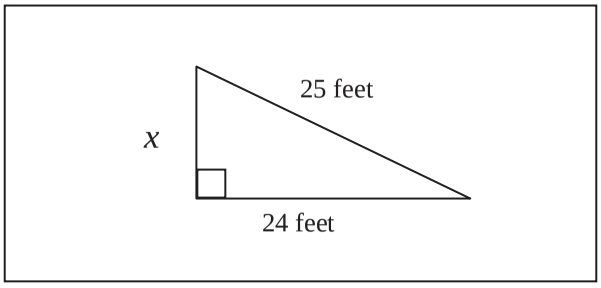
Types of Bias (continued)

Mathematics

Original Graphic



Principles of Universal Design Applied



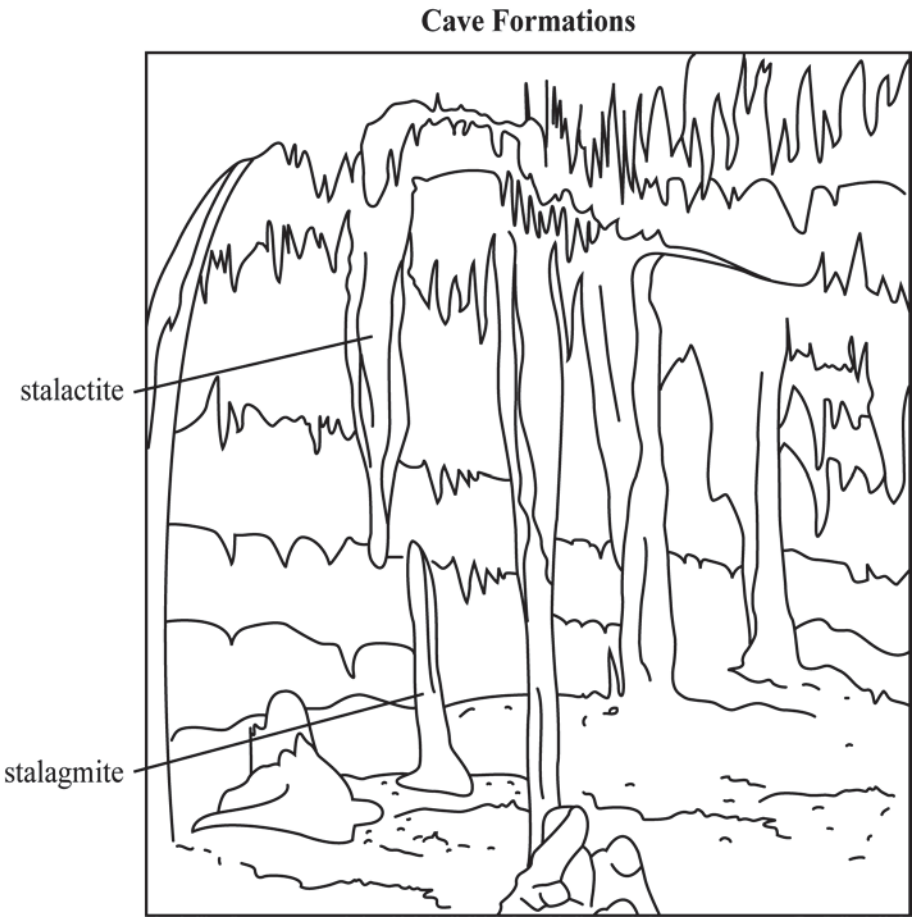
Changes applied to graphic to meet Universal Design:

- Irrelevant material removed
- Simplified structure

Types of Bias (continued)

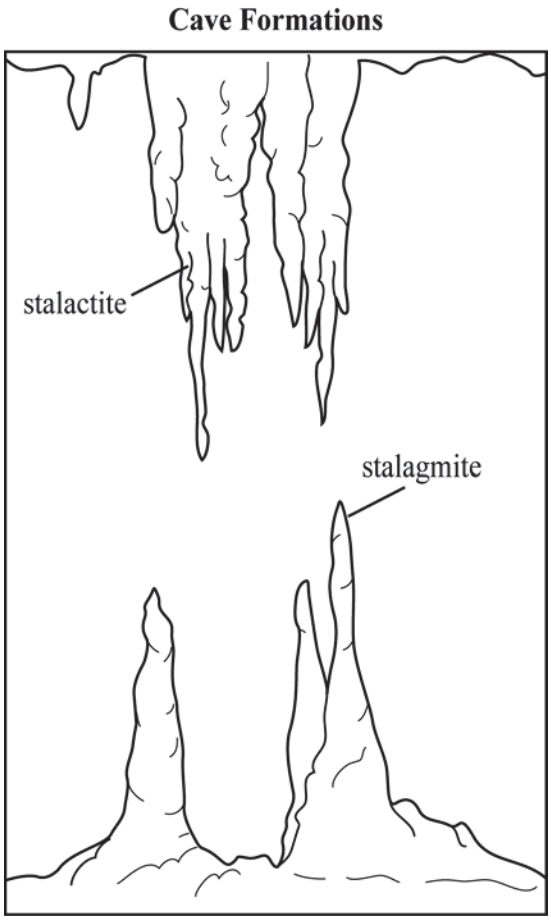
Science

Original Graphic



Types of Bias (continued)

Principles of Universal Design Applied



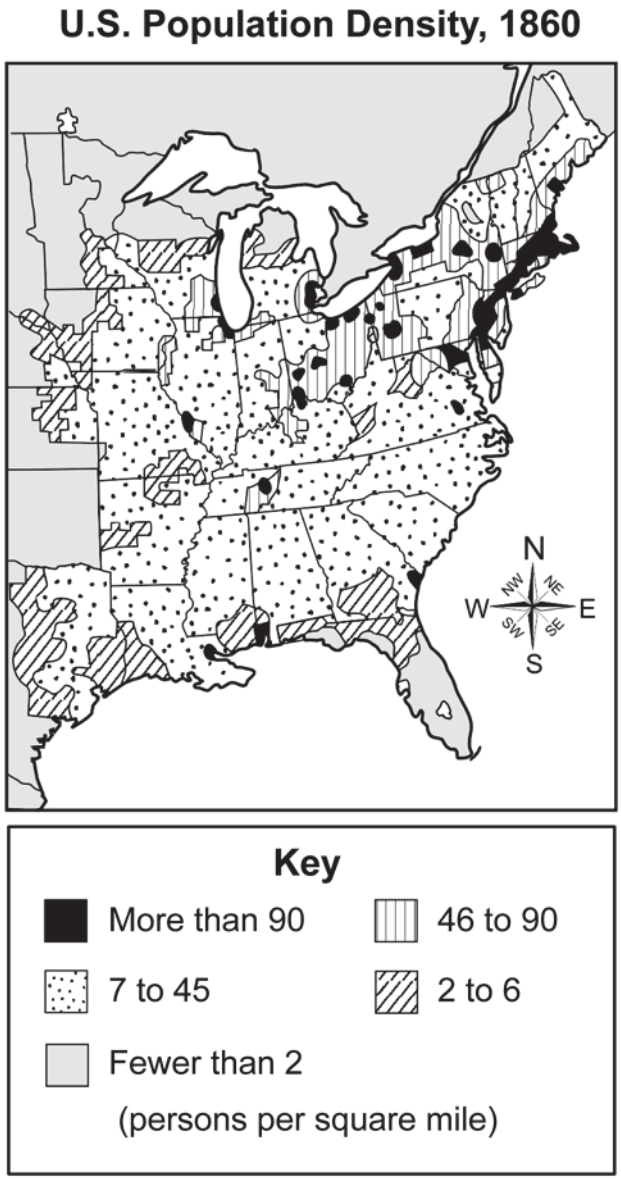
Changes applied to graphic to meet Universal Design**:**

- Extraneous details eliminated
- Edits that highlight the cave formations while reducing the unnecessary background detail of the cave environment

Types of Bias (continued)

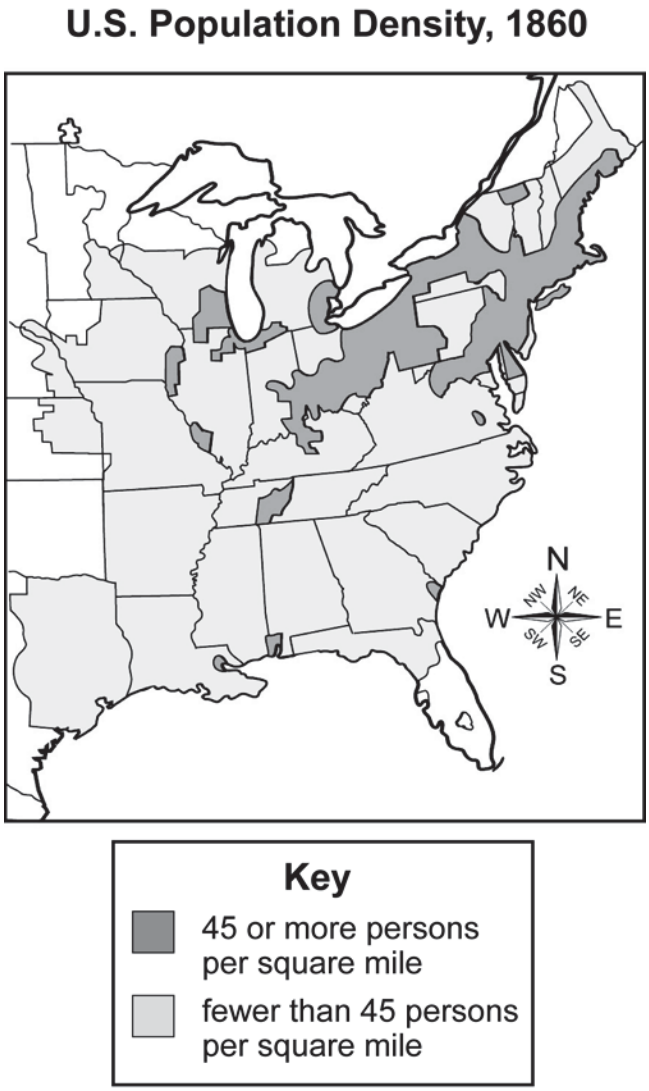
Social Studies or History

Original Graphic



Types of Bias (continued)

Principles of Universal Design Applied



Changes applied to graphic to meet Universal Design:

- Patterns in the map have been removed to make the map easier to read.
- Categories in the key have been reduced from five to two, to remove extraneous information.
- The words “persons per square mile” were added to each symbol in the key—instead of having the information in parentheses below.
- The white background for all areas is not referenced in the key.
- The graphic in the Universal Design version is slightly larger.

Maintaining Balance

Bias may also occur as a result of underrepresentation of a particular ethnic group and/or gender. Therefore, whenever possible, tests and test-related materials should contain content that is balanced across ethnic groups and gender. The content of the pool of items and each test as a whole should also reflect cultural diversity. In order to achieve balance, the test developers at DRC review the pool of items and the test as a whole to determine whether there is an adequate representation of

- females and males in both traditional and nontraditional roles.
- female and male names.
- minority groups in various environments and occupations.
- names from various minority groups.
- various family structures (e.g., one- and two-parent households, multigenerational families)

In most large-scale assessment programs, stimulus prompts are needed to adequately assess domain-specific standards. These stimulus prompts become part of an assessment pool from which stimuli are selected for placement on a large-scale assessment. Within this pool, there should be varied stimuli that adequately balance gender, race, ethnicity, and related topics to represent the populations that are being assessed. Although stimuli are usually evaluated independently or in a small set, it is of paramount importance that the entire pool be reviewed also to ensure balance of representation.

Additionally, not all stimuli in a pool will show the genders in non-stereotypical roles. For example, some mothers work at home, but there should also be depictions of mothers who work outside the home. As long as there is a balance of stimuli within the assessment pool, the potential for bias is reduced. DRC test developers evaluate stimuli for inclusion on a test form. Various stimuli are selected to provide an adequate representation across the test form of the diverse population that will be tested.

The issue of bias and fairness also involves content inclusiveness. Subtle forms of bias can result from omitting certain areas of information and/or from omitting certain topics. Wherever possible, the content should show people in everyday situations, and groups should be depicted as fully integrated in society, reflecting the diverse multicultural composition of society as a whole (National Evaluation Systems, 1990, p. 9).

Topics

Issues of bias, fairness, and sensitivity in testing can have a direct impact on test scores; therefore, it is important that sensitive and offensive topics be avoided and that considerations should be made when discussing specific topics. DRC employs a series of steps "to avoid bias toward or against any group of students that may cause them to have difficulty responding to items or create emotional stress" (Thompson, Johnstone, Anderson, & Miller, 2005).

Topics to Avoid

A topic might be considered offensive or controversial if it offends teachers, students, parents, or the community at large. This guideline includes highly charged and controversial topics, such as abortion and the death penalty. In addition, topics that appear to promote or defend a particular set of values should be avoided. It is important to remember that the ability of the student to take the test should never be undermined. Guidance from the state is also critical in defining specific topics that need to be avoided for a particular program. The following are examples of topics that should be avoided.

Examples of topics generally to be avoided

- Abortion
- Animals dying or being mistreated, killing of animals for sport
- Contraception
- Controversial authors
- Criticism of democracy or capitalism
- Dangerous behavior
- Death, murder, and suicide (e.g., of parents, siblings, family pets)
- Disrespect toward any racial or religious group
- Double meanings of words that include sexually suggestive meanings
- Family experiences that may be upsetting (e.g., divorce, loss of a job or home, being homeless, caring for siblings)
- Feminist or chauvinistic topics
- Guns and gun control
- Immigration (i.e., deportation)
- Inappropriate behaviors (e.g., stealing, cheating, lying, failing to attend school or do homework, and other criminal and/or antisocial behaviors and activities)
- Junk food (e.g., candy, gum, chips)
- Left- or right-wing politics

Topics (continued)

- Luxuries (e.g., homes with swimming pools, expensive clothes, expensive vacations, and sports, such as snow skiing, that typically require the purchase of expensive equipment)
- Murder
- Parapsychology, Scientology
- Physical, emotional, and/or mental abuse (e.g., animal, child, and/or spousal abuse; family issues; bullying; or teasing)
- Prayer in school
- Pregnancy
- Sex (e.g., kissing, dating)
- Specific music (e.g., rock, rap, heavy metal)
- Tobacco
- Violence against people and animals
- Witchcraft, sorcery, or magic
- Words that might be problematic for a specific ethnic group

Topics of Concern

The topics below are acceptable in assessments when used to measure a Common Core State Standard or content standard and are acceptable if presented appropriately.

Examples of topics acceptable if presented appropriately

- Alcohol, illegal drugs, tobacco products
- Animals that are frightening to children, including poisonous snakes and spiders (avoid the concept of dangerous animals around younger children; avoid the concept of animals attacking other animals)
- Birthdays (traditionally not permitted; mention of birthdays must include contextual information)
- Biographies of controversial figures whether or not they are still alive (acceptable if used in a literary or historical context)
- Cancer and other diseases and illnesses that might be considered fatal (e.g., HIV, AIDS); avoid details that may be upsetting to students
- Dancing of all types *except* couples dancing socially
- Gambling (cards and number cubes may be used for mathematics problems)
- Global warming (acceptable if items focus on “climate change” in a curricular context)
- Fossils, owls, dinosaurs (acceptable if presented in a curricular context)
- Holidays (traditionally not permitted; acceptable to mention non-religious holidays, but only if contextual information is provided.)
- Homelessness (should not focus on emotional distress)
- Immigration

Topics (continued)

Topics of Concern

- Junk food–typically, junk foods (e.g., candy, gum, chips) are to be avoided. However, pizza and pie are permitted when used as a graphic to assess a content standard.
- Mom and Dad (use "Mom" or "Mother" and "Dad" or "Father"; "parent," "parents," "caregiver," or "guardian")
- Obesity and body image
- Sports, activities that may be unfamiliar to students (i.e., golf, hockey, soccer, camping, hiking) (acceptable if contextual information is provided)
- Technology (e.g., modem, bits) (acceptable if contextual information is provided)
- Wars (acceptable if presented in a historical context)

Special Circumstances

Curricular Contexts

In certain subject areas, a sensitive topic may be acceptable because the topic is a part of the course of study or may be required in order to measure the specific Common Core State Standard or content standard. Guidance from the state is also critical when defining special circumstances that are relevant for a particular program. The following content-specific special circumstances must be considered.

Science

At times, an inherently sensitive topic may be part of a science content standard. Various techniques can be used to prevent sensitive topics from becoming bias issues that impact the fairness and validity of a large-scale assessment:

- Items can focus on nonhuman examples that support the biological **theory of evolution**.
- Items can focus on the origin or analysis of **fossil** evidence without including specific time-period estimates.
- Items can use the terminology "climate change" as opposed to "global warming."

Topics (continued)

- Items related to **natural disasters** can focus on the scientific phenomena as opposed to their impacts on people and society.
- Items can supply information related to specific environments involving prior knowledge that could be perceived as advantageous to students living in a particular region.

  Example: An item assessing Nature of Science skills that includes the context of tide pools would require some prior knowledge. Providing supplemental information may prevent giving an unfair advantage to students living near a coastal region over students living in a noncoastal region.

It is important to note that instruction is assumed to have occurred for science content standards assessed on criterion-referenced tests. Some science topics are best addressed when presented by a teacher and followed up with a discussion facilitated by the teacher.

Historical Contexts

Social Studies

In order to measure the curriculum content standards, social studies tests often include topics that might otherwise be deemed controversial. For example, in a history test, the topic of slavery might occur. The student would know that such a controversial topic is used to assess knowledge of a particular curriculum content standard and/or set of objectives and, therefore, that the topic does not reflect the views of the test developer.

Other topics that may appear in social studies tests include

- geography questions relating to the causes and effects of natural disasters or human-environment interaction.
- civics questions about controversial court cases, political viewpoints and systems, or specific legislation.
- history questions about controversial events or figures (e.g., wars, genocide, exploration and conquest, world religions, dictators).
- economics questions relating to issues of unemployment, standard or cost of living, or social programs.

In some cases, quotations or documents used in items may include knowledge or beliefs that are not accepted today but that do reflect the perspectives of the person quoted or the society in which the documents were produced. Such sources would be used to address particular content standards related to historical thinking skills, to compare and contrast different ideologies, to demonstrate change over time, or to assess the student's ability to put events and beliefs in their historical and social contexts.

Topics (continued)

In all cases, it is important to ensure that content is presented in accordance with current research in the field and that appropriate and inclusive terminology is used. It is possible that preferred terminology for some groups (e.g., "Native American" versus "American Indian" versus specific tribal names) may vary by state or region. In these cases, the test developer will use the terminology preferred by the client.

Literary Contexts

English Language Arts

Today's tests often require the use of authentic or previously published passages. As a result, sometimes a given passage or prompt might contain controversial material, including sentences, phrases, and/or words. Some mythology, folktales, and fables may contain religious elements as part of literary excerpts. If the overall passage or prompt is acceptable, it may be possible to edit and/or delete the objectionable sentences, phrases, words, and/or references in order to eliminate the potential bias. In such cases, DRC test developers request permission from the publisher to make these edits, which are applied only if permission is granted. Some language arts items may contain idioms or figures of speech. These types of items are acceptable when used to address a content standard.

Reading Passages

DRC utilizes reading passages from a variety of genres. Some may contain informational text that could be unfamiliar to students. For example, a passage about basketball is acceptable, as long as the items do not ask for the definition of a "hook shot" or other information about the sport that requires prior knowledge. Informational passages are usually unbiased. Although some students may not have played basketball, they may read about the sport and understand it based on the text. **DRC test developers do not construct items that focus on information that may require prior knowledge; instead, they write items that can be supported by information in the text.** However, there are some subtle biases that can be found in passages, stimuli, or prompts in addition to the more obvious ones stated earlier. Consider, for example, "Summer is a time when you may notice honeybees buzzing around your yard." The use of "your yard" implies that students have a yard. Also, using "your" is more personal, and some students may not be able to relate to the phrase. Replacing "your yard" with "outside" is a feasible solution to eliminate this type of subtle bias.

Points to Remember

When reviewing items (questions and answer options), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries for issues of bias, fairness, and sensitivity, the following questions should be asked.

1. Do the items (questions and answer options), passages, prompts, stimulus materials, artwork, graphs, charts, and test-related ancillaries

    - demean any religious, ethnic, cultural, or social group?
    - unnecessarily portray any person or group in a stereotypical manner?
    - contain any other forms of bias—gender, regionalism, ethnic or cultural, socioeconomic or class, religious, age-related or bias against persons with disabilities?

2. Are there any topics that are not described clearly enough with the result that they might disadvantage a student for any reason?

3. Are there any terms, difficult words, culturally specific concepts or ideas, figures of speech, jargon, or slang that might disadvantage a group of students?

4. Are the questions and activities in the items or on the test as a whole relevant to the life experiences of the students responding to the items?

5. Is the test or pool of items and graphics balanced across ethnic groups and genders, including an adequate representation of

    - females and males in both traditional and nontraditional roles?
    - female and male names?
    - minority groups in various environments and occupations?
    - names from various minority groups?

6. Wherever possible, does the content show minority groups in everyday situations and as being fully integrated in society, reflecting the diverse, multicultural composition of society as a whole?

Sample Review Form

Name: _____ Date: _____

Subject Area: _____ Grade: _____

Type of Bias: stereotyping, gender, regionalism, ethnic or cultural, socioeconomic, religious, ageism, disability

Item ID #	Bias-Sensitivity Description

General Comments: _____

_____

_____

_____

Signature: _____

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Sample Items with Bias, Fairness, and/or Sensitivity Concerns

1. Franco Piccione cooked spaghetti for his family. When he placed 6 ounces of noodles into the water, the water temperature was 160°F. After 3 minutes, the water temperature reached 212°F. What information is **not** needed to find the mean (average) rate at which the water temperature changed?

A. 6 ounces of noodles

B. 160°F water temperature

C. 3 minutes

D. 212°F water temperature

Type of bias: _____

2. For a community service project, Amanda's class spent 2 hours at an old folks' home. They spent $\frac{1}{2}$ of the time doing jigsaw puzzles, $\frac{1}{4}$ of the time reading, and the rest of the time watching television. How much time did they spend watching television?

A. 30 minutes

B. 45 minutes

C. 60 minutes

D. 90 minutes

Type of bias: _____

3. Which of the following items did Kathleen buy at the fair?

A. a snowball

B. a funnel cake

C. a slice of pizza

D. a piece of pie

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

4. On January 1, Parker's father purchased a share of Jolter Corporation stock was $123.38. On July 1, the price of a share was $97.41. What is the percent of decrease in the price of a share of Jolter Corporation stock between January 1 and July 1? (Round to the nearest hundredth.)

A. 1.27%

B. 21.05%

C. 25.97%

D. 26.67%

Type of bias: _____

5. What is the main idea of the article?

A. Doctors work long hours and neglect their wives and children.

B. Doctors deal with many pressures in modern American society.

C. Doctors pay a large amount of money to attend medical school.

D. Doctors leave the profession more now than they did ten years ago.

Type of bias: _____

6. What is the main conflict in the story?

A. man versus man

B. man versus nature

C. man versus society

D. man versus self

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

7. What did Eduardo learn from the visit with his grandfather?

A. Age does not affect one's personality.

B. Older people need help with everyday tasks.

C. Age lessens one's appreciation for life.

D. Older people often have special medical needs.

Type of bias: _____

8. You will have up to 60 minutes to plan, write, and proofread your response to this writing prompt:

Write an essay that describes your experience with playing golf.

Write your response on the next two pages.

Type of bias: _____

9. What does Mya enjoy most about summer?

A. going to the festival

B. swimming at the lake

C. playing softball at the park

D. reading her favorite books

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

10. What could someone learn from reading the article?

A. Mexicans often wear sombreros and eat tacos.

B. Mexico has become a popular tourist destination.

C. Mexicans are very friendly and helpful.

D. Mexico produces many different kinds of fruit.

Type of bias: _____

11. The Wampanoag people and the Pilgrims both lived in the same environment at the same time.Which is one way the Indians used their environment **before** the Pilgrims arrived?

A. to dig wells

B. to grow corn, squash, and beans

C. to raise sheep for wool

D. to saw trees into boards to build houses

Type of bias: _____

12. According to the article, how is Marie different from the other children in her class?

A. She likes to play the piano.

B. She is blind.

C. She is tall.

D. She likes to work alone.

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

13. Samantha entered an ice-fishing contest. She drilled an 8-inch hole. What is the circumference of the hole Samantha drilled?

Use $\pi = 3.14$.

A. 12.56 inches

B. 25.12 inches

C. 32 inches

D. 50.24 inches

Type of bias: _____

Use the table to answer question 14.

Favorite Sports	
Sport	**Number of Members**
Golf	13
Polo	9
Rugby	5
Sailing	21

14. Melissa conducted a survey at the Morningside Country Club. She asked members to name their two favorite sports. The table above shows the results. How many members are included in Melissa's survey?

A. 12

B. 21

C. 24

D. 48

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

15. In the story, Charlie says to Mia, "You can kill two birds with one stone." What does this phrase mean? Use details from the story to support your answer.

Type of bias: _____

16. Mrs. Sanders ordered new windows for her house. The salesman told her that each window would be made from 4 sections of glass. Which expression represents the number of sections of glass necessary to make *w* windows for Mrs. Sanders's house?

A. $w + 4$

B. $w - 4$

C. $w \div 4$

D. $w \bullet 4$

Type of bias: _____

Use the table to answer question 17.

Science Test Scores	
Student	**Test Score**
John	93
Susan	61
Juan	96
Tao	93
Jessica	55
Keisha	70

17. The science test scores of six students in a lab group in Mr. Gomez's class are shown in the table above. What is the mean (average) score of the test scores in the lab group?

A. 41

B. 77.5

C. 80.5

D. 93

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

18. Animals are adapted to survive in their specific environments. Which breed of livestock would be best suited for meat production in the grassland prairies of the Great Plains?

A. Angora goat

B. buffalo

C. Hereford cattle

D. Suffolk sheep

Type of bias: _____

19. Scientists studying the fossil record have observed gradual changes in the structural morphology of numerous organisms that occurred over millions of years. These changes are most likely the result of—

A. accidents from cloning experiments.

B. adaptive responses to environmental change.

C. God's little mistakes leading to his creation of mankind.

D. hallucinations of an occupant of the HMS *Beagle*.

Type of bias: _____

Sample Items with Bias, Fairness, and/or Sensitivity Concerns (continued)

20. This question has two parts. Answer Part One and then answer Part Two.

Part One

What best describes Jason's attitude about Parker's soccer skills?

A. He thinks Parker should practice his kick aim.

B. He wishes Parker could pass the ball better.

C. He hopes Parker will improve on kicking the ball.

D. He thinks Parker is a better dribbler than himself.

Part Two

Which sentence from the passage supports the answer in Part One? Choose **one** answer.

A. "Parker and Jason walked home to eat a ham sandwich and talk about what to expect the next day."

B. "After it was over, they received a phone call about making the team."

C. "He thought to himself, *he'll make the team, and I'll watch from the bleachers*."

D. "Tryouts,' Jason said, barely looking at him as he kept the pace with Parker."

Type of bias: _____

ELA
Bias & Sensitivity Review Form

Name: _____ Date: _____

Subject Area: *ELA* **Grade_____**

Type of Bias: stereotyping, gender, ethnic/cultural, regionalism, religious, socioeconomic, ageism, disability

Passage ID# or Item #	**Bias-Sensitivity Description**

GENERAL COMMENTS:

_____

_____

_____

Signature: _____

Mathematics
Bias & Sensitivity Review Form

Name: _____ Date: _____

Subject Area: *Mathematics* **Grade_____**

Type of Bias: stereotyping, gender, ethnic/cultural, regionalism, religious, socioeconomic, ageism, disability

Item #	Bias-Sensitivity Description

GENERAL COMMENTS:

_____

_____

_____

Signature: _____

Science
Bias & Sensitivity Review Form

Name: _____ Date: _____

Subject Area: *Science* **Grade_____**

Type of Bias: stereotyping, gender, ethnic/cultural, regionalism, religious, socioeconomic, ageism, disability

Item #	Bias-Sensitivity Description

GENERAL COMMENTS:

_____

_____

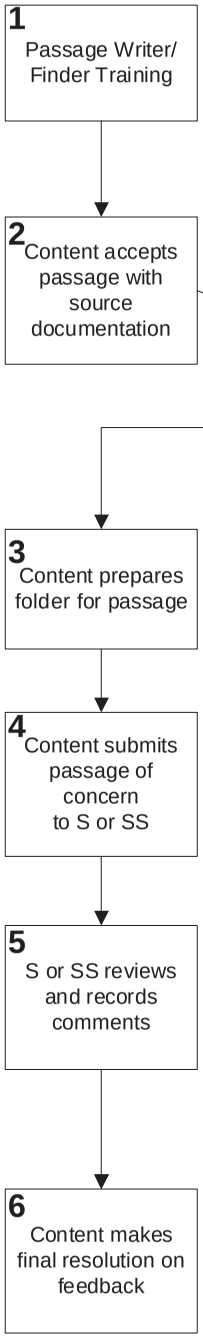
_____

Signature: _____

Internally-Created Passage/Prompt Subject Expertise Review Process

When a passage/prompt contains science and/or social studies information needing verification, the passage/prompt should go through a subject-expertise review. The following are subject-expertise review process steps.

STEPS



Content Specialist/Lead trains passage/prompt writers and finders to DRC specifications, client standards, test specifications, and other considerations specific to a client. The Content Specialist/ Lead clearly communicates the critical importance of content accuracy and the required need for source material. Included in this training for passage/prompt writers and finders will be the use of professional/reputable/technical sources for passage/prompt content.

Content Specialist/Lead accepts passage/prompt from trained writer, including all source material used by the writer. Source material is mandatory for any passage/prompt that contains historical/ factual information related to science or social studies.

Content Specialist/Lead prepares a folder for each passage/prompt containing science and/or social studies information needing verification.

Prior to beginning item development, **Content Specialist/Lead** submits hard copy or electronic sets of each passage/prompt needing verification and all supporting source material to the appropriate **Science or Social Studies Director**.

(Electronic files may be provided to the Director of Science or Social Studies or placement on the J drive may be shared as the Science and Social Studies people may prefer to write electronically; suggested revisions/edits will be made directly on the hard copies or on the electronic files.)

Science or Social Studies Director assigns passage/prompt to individuals with expertise relevant to each passage/prompt needing verification. At least one independent review should be completed. (A review may be completed by the director, by a content specialist, or some other combination as the director deems necessary.) Each **Independent Content Reviewer** will complete and record comments on the hard copy or electronically, and if needed, consult with the Content Director about issues or concerns. Suggested rewording/edits will be written directly on each hard copy or electronic copy of the passage/prompt.

ELA Director and/or ELA Content Lead reviews the recommendations provided by the Science or Social Studies Reviewer and seeks clarification from the appropriate person concerning any recommendation, makes the final determination if the passage/prompt is used or rejected, and what edits, if any, need to be made. Final decisions will be added to the hard copy or electronic passage/prompt file. Any edits made to a permissioned passage will be submitted as part of the regular permissions process to the Permissions Editor.

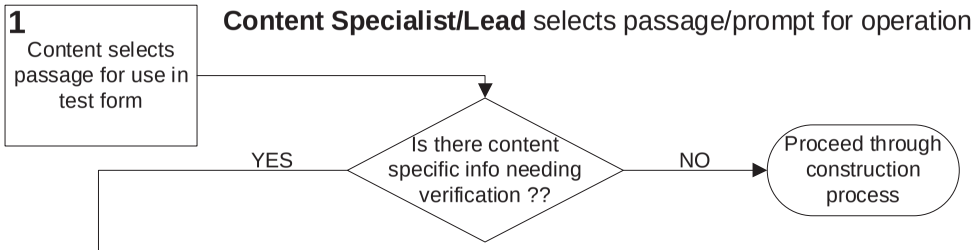
Note: If a client has a Passage/Prompt Review meeting, steps one through six must be completed prior to the Passage/Prompt Review meeting. For any client that does not have a separate Passage/Prompt Review meeting steps one through six must be completed prior to the Item Review Meeting.

The documentation of the content-area sign-off may be provided to review committees and/or the client as deemed necessary.

Externally-Created Passage/Prompt Subject Expertise Review Process

When a passage/prompt is created externally by another vendor and/or received as part of an Item Bank with accompanying data and contains science and/or social studies information needing verification, the passage/prompt should go through a subject-expertise review at the time the passage/prompt is selected for operational use. The following are subject-expertise review process steps.

STEPS



Content Specialist/Lead selects passage/prompt for operational use.

2 Content prepares folder for passage

As externally developed passages/prompts with data are selected for operational use, **Content Specialist/Lead** prepares a folder for each passage/prompt needing verification.

3 Content submits passage of concern to S or SS

Content Specialist/Lead submits hard copy or electronic sets of each passage/prompt needing verification, and all supporting source material (if any provided by external vendor) to appropriate **Science or Social Studies Director**.

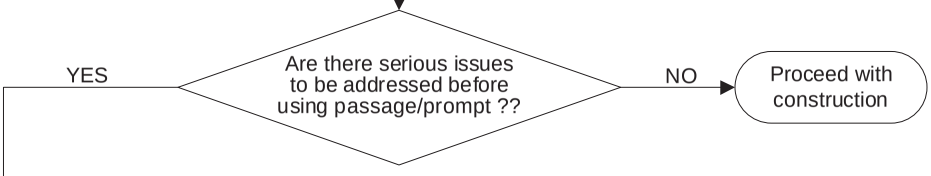
(Electronic files may be provided to the Director of Science or Social Studies or placement on the J drive may be shared as the Science and Social Studies people may prefer to write electronically; suggested revisions/edits will be made either directly on the hard copies or on the electronic files.)

4 S or SS reviews and records comments

Science or Social Studies Director assigns passage/prompt to individuals with expertise relevant to each passage/prompt needing verification. At least one independent review should be completed. (A review may be completed by the director, by a content specialist, or some other combination as the director deems necessary.) Each **Independent Content Reviewer** will complete and record comments on the hard copy or electronically, and if needed, consult with the Content Director about issues or concerns. Suggested rewording/edits will be written directly on each hard copy or electronic copy of the passage/prompt.

5 Content makes final resolution on feedback

ELA Director and/or ELA Content Lead reviews the recommendations provided by the Science or Social Studies Reviewer and seeks clarification from the appropriate person concerning any recommendation, makes the final determination if the passage/prompt is used or rejected, and what edits, if any, need to be made. Final decisions will be added to the hard copy or electronic passage/prompt file. Any edits made to a permissioned passage will be submitted as part of the regular permissions process to the Permissions Editor.



6 Sr VP TD determines course of action for issues

Serious content issues relating to passages/prompts that already have associated data should be brought to the attention of the Senior Vice President of Test Development by the **ELA Content Director**. The **Sr VP of Test Development** will determine the course of action concerning these passages/prompts.

The documentation of the content-area sign-off may be provided to review committees and/or the client as deemed necessary.

DATA RECOGNITION DRC CORPORATION

Universal Design Samples

READING

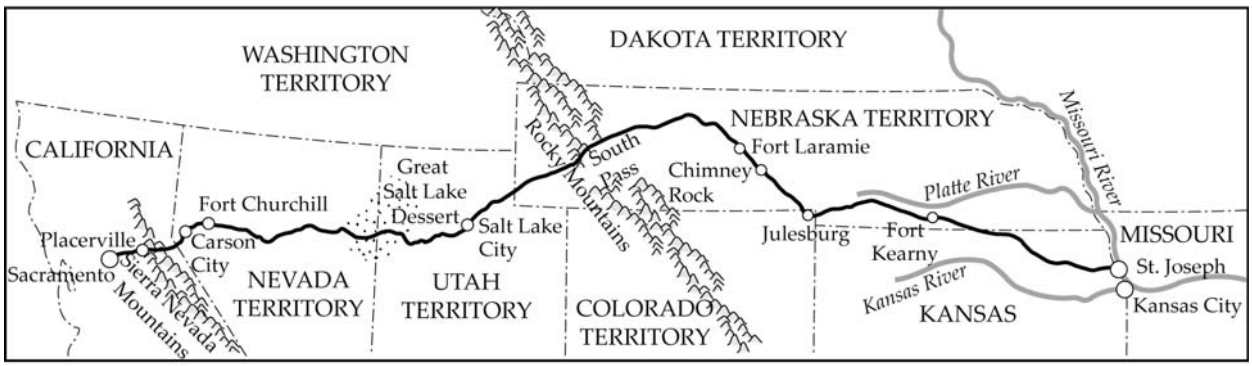
Original Passage and Graphic

The Pony Express

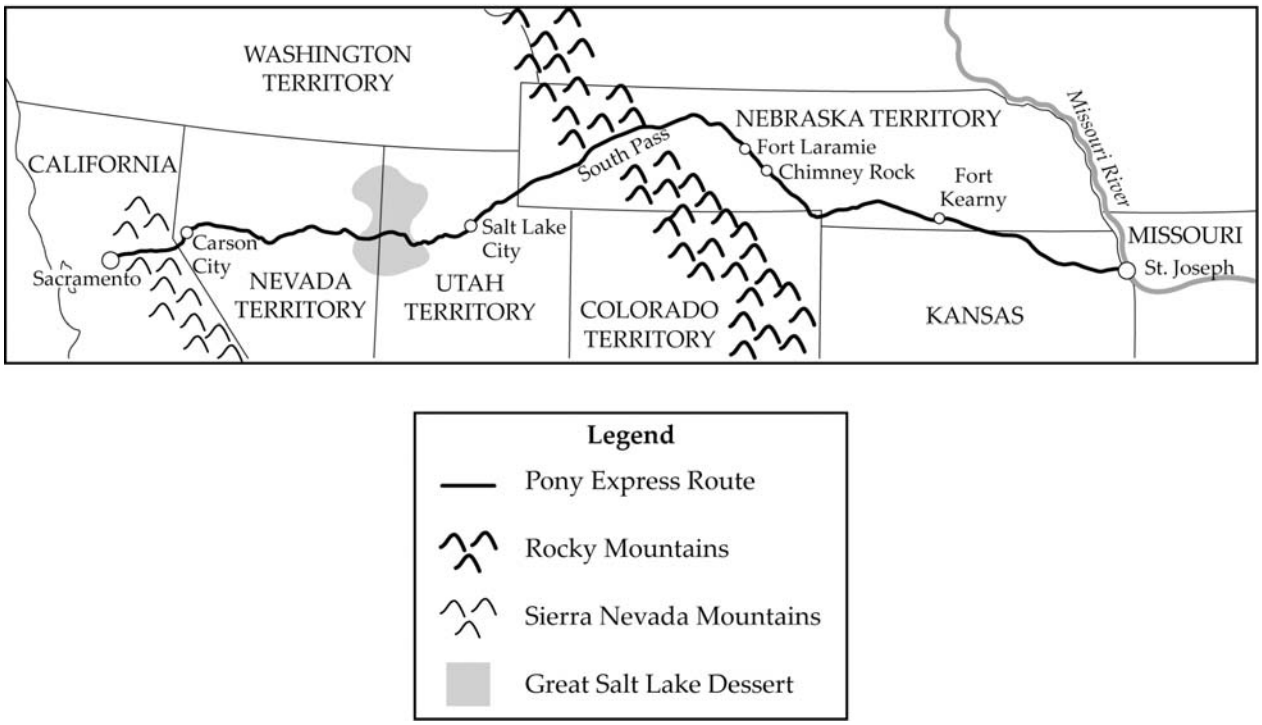
The Pony Express Route was a distance of almost 2000 miles. On the east end, it left the state of Missouri and followed part of the Oregon Trail through Kansas and Nebraska Territories. Fort Kearny, Chimney Rock, and Fort Laramie were important markers for the Pony Express riders. After going over the formidable Rocky Mountains at South Pass, the route headed south toward Salt Lake City. Then it crossed the deserts of Utah and Nevada Territories and the rugged Sierra Nevada Mountains, finally arriving at Sacramento, California.

The Pony Express needed horses that were strong, tough, and fast runners. The owners of the Pony Express bought hundreds of mustangs, quarter horses, and thoroughbreds. The riders needed to be light-weight and courageous. They had to endure great hardships while riding across the frontier. Above all, they needed to be expert horse riders. Way stations were built along the route where horses and riders ate and rested.

Pony Express Route 1860



Principles of Universal Design Applied



Passage –no changes needed for universal design.

Graphic: Changes applied to graphic to meet universal design

- Removed nonessential or secondary information such as river names not mentioned in the passage.
- Applied a legend to help identify features and ease of understanding the map
- Used consistent and easily distinguishable symbols to indicate features
- Used larger icons for the different features for clarity and visual appeal, which reduced the busyness in the graphic.
- Changed dashed lines to solid lines, which are easier to distinguish.
- Cleaned up text that crossed over lines within the graphic for ease of reading the words.

Original Item

The Casteluccio family decided to repaint the outside of their house themselves. They called a local painting company to find out the price the company would charge to do the same job. The company's charges would be $45 an hour. The family kept a record of the time they painted. If they spent 1 hour and 30 minutes one day, 1 hour and 20 minutes the next day, 2 hours and 10 minutes the third day, 1 hour and 5 minutes the next day, and 2 hours and 40 minutes the last day, how much money did they save by doing the painting themselves?

A. $315.00

B. $382.50

C. $393.75*

D. $405.00

Principles of Universal Design Applied Item

The table below shows the amount of time each day it took Ben to repaint the outside of his house.

Painting Time

Day	**Time**
Monday 1	hour 30 minutes
Tuesday	1 hour 20 minutes
Wednesday	2 hours 10 minutes
Thursday 1	hour 5 minutes
Friday 2	hours 40 minutes

The local house-painting company charges $45 per hour for the same job. How much money did Ben save by painting the house himself?

A. $315.00

B. $382.50

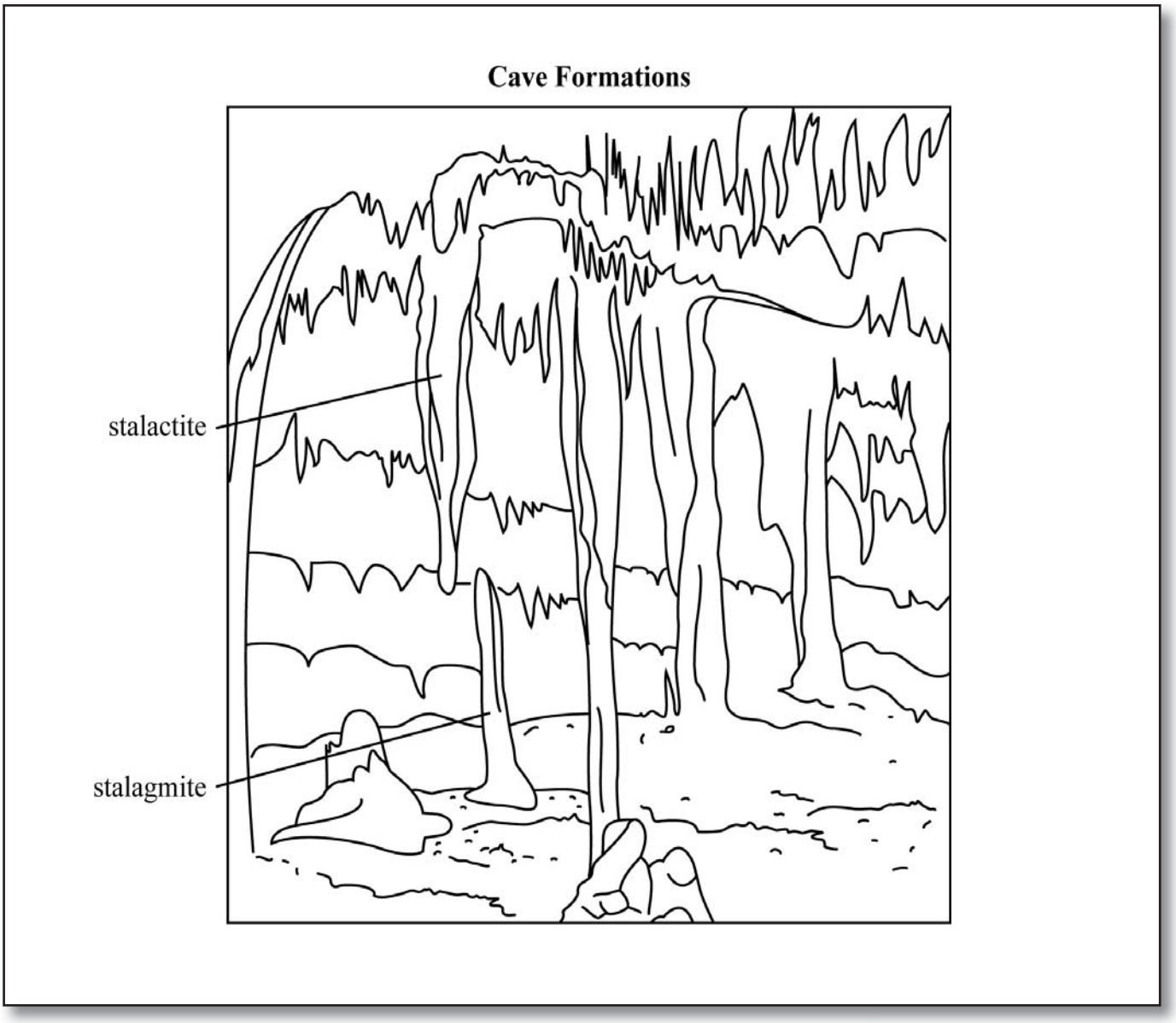
C. $393.75*

D. $405.00

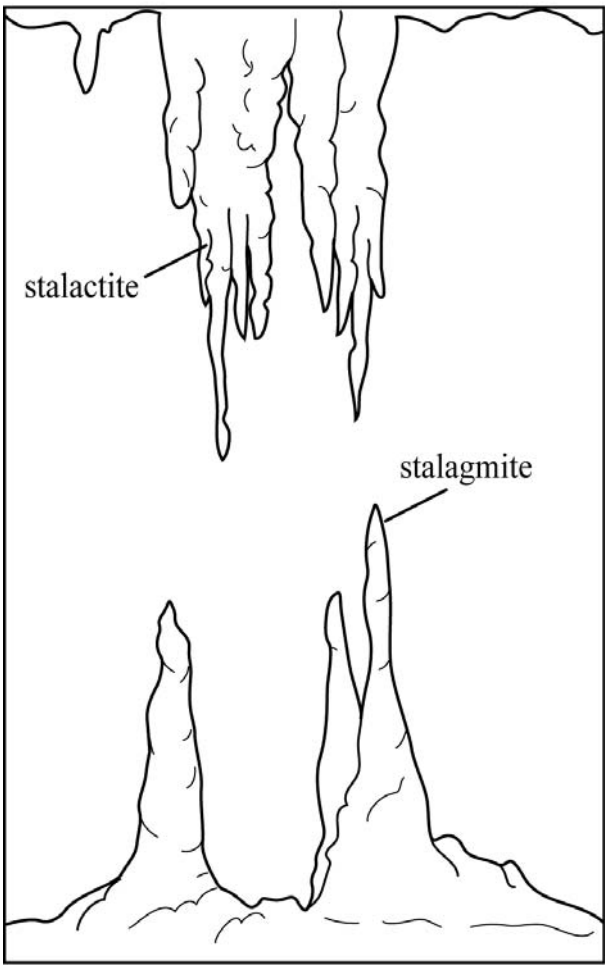
The item has been revised to reflect the Principles of Universal Design by

- removing irrelevant material
- reducing wordiness
- simplifying structure
- changing format to increase spacing
- replacing proper name with a simple, common name
- creating a table with clear title and headings to convey information
- using plain language in a straightforward and concise manner.

Original Graphic



Principles of Universal Design Applied Graphic



Universal Design Principles applied:

1. Extraneous details in the graphic have been eliminated.

2. Edits to this graphic highlight the cave formations while reducing the unnecessary background detail of the cave environment.

Accessible Assessments

Making Assessments Accessible and Inclusive:

A Handbook for DRC Employees

Introduction

Accessible Assessments was designed to educate and train DRC internal and external reviewers, test developers, item writers, and editors. DRC supports and encourages the intent of current legislation impacting accessibility and in an effort to make assessments that we develop all-inclusive, we thoroughly train our staff to understand the underlying pedagogy that is the very foundation of accessibility.

Table of Contents

Universal Design: Guidelines and Features

The issue of universally designed assessments has been addressed by federal legislation. *Title I* and *IDEA* regulations demand universally designed assessments that are accessible and valid for all students including students with disabilities and students with limited English proficiency. The *No Child Left Behind Act* (NCLB; reauthorization of the Elementary and Secondary Education Act) requires that each state must "provide for the participation in [statewide] assessments of all students" [Section 1111 (b)(3)(C)(ix)(1)].

Best practice in universal design (UD) demands that content curriculum standards and grade-level expectations (GLEs) be analyzed and that items should be developed without removing core content. To ensure that development of items are valid and fair for all students, DRC provides a listing of all GLEs that might not fit this criteria.

Definition

Universally refers to the rigor of the research that shows the item works across populations and conditions (University of Oregon).

Universally designed assessments allow participation of the widest possible range of students because items and tests are developed on the premise that every student is a participant in the assessment. The results are not affected by disability, gender, race or English language ability and valid inferences about student performance can be made (NCEO & DRC).

Seven Principles

- **Inclusive Assessment Population**
  - When tests are first conceptualized, they need to be considered in the context of who will be tested.
  - The target population must include every student participating in the state/district/school accountability plan, except those students who are assessed with an alternate assessment.
  - Item/test questions must not create barriers because of lack of sensitivity to disability, cultural, or other subgroups.
  - Accessibility to all students is incorporated as a primary dimension of the item/test specifications.

- **Precisely Defined Constructs**
  - Items/tests actually measure what they are intended to measure.
  - Remove physical, sensory, cognitive and all non-construct-oriented barriers to all types of people in public and private structures.
  - Remove extraneous information while creating items that
    - are engaging,
    - mirror sound instructional practices,
    - contain "teachable moments,"
    - are authentic, and
    - are based upon real-life experiences.
  - Create an item poll large enough for items to survive the rigors of content review, bias/fairness/sensitivity review, and universal design review. [DRC creates between 200-300 percent item overage for UD review.]

- Avoid long repetitive distractors.

- **Accessible, Non-Biased Items**
  - Items/tests are created with sensitivity to disability and cultural subgroups.
  - Accessibility is built into items and into test specifications.
  - Accessibility is woven into the fabric of the test as a primary dimension of test specification.
  - Internal and external reviews of items and test specifications ensure that barriers are created because of lack of sensitivity to disability, cultural, or other subgroups.
  - Encourage states/districts/schools to include experts who are familiar with the unique needs of students with disabilities and students with limited English proficiency in item/bias/universal design review committees.

- **Amenable to Accommodations**
  - Items must be compatible with accommodations.
  - Items must be compatible with a variety of widely-used adaptive equipment and assistive technology.
  - Ensure that individual state guidelines on the use of accommodations are compatible with the assessment being developed.
  - Describe a graphic with words.
  - Create items that allow for changes to format without changing construct being measured, or the meaning or difficulty of the item.

- **Simple, Clear, and Intuitive Instructions and Procedures**
  - Assessment instructions should be easy to understand regardless of a student's experience, knowledge, language skills, or current concentration level.
  - Directions and questions should be stated in simple, clear, and understandable language.
  - Knowledge questions that are posed within complex language invalidate the test if students cannot understand how they are expected to respond to a question.

- **Maximum Readability and Comprehensibility**
  - Universally infers that text is maximally readable and comprehensible.
  - Readability and comprehensibility characteristics are affected by student background, sentence difficulty, organization of text, etc.; these features must be considered in during item development.
  - Use plain language in assessments. [plain language is defined as "language that is straightforward and concise"].
  - DRC employs these strategies to produce plain language during the editing process:
    - reduce excessive length
    - use common words
    - avoid ambiguous words
    - avoid irregularity spelled words
    - avoid inconsistent naming and graphic conventions
    - avoid unclear signals about how to direct attention
    - mark all questions
    - simplify graphics and artwork

- **Maximum Legibility**
  - Physical appearance and shapes of letters and numbers must be easy to read.

- Style guidelines should include dimensions of universal design.
- Use common fonts (e.g. standard serif, sans-serif)

Guidelines for Universally Designed Items

1. **Items measure what they are intended to measure.**
   - Assure that writers and reviewers have a clear understanding of each state's academic content standards.
   - In all phases of test development, present items with content standard information to ensure that each item reflects the intended content standard.

2. **Items respect the diversity of the assessment population.**
   - Avoid item types that may unfairly advantage or disadvantage any student subgroup.
   - Review items for issues of bias, fairness, sensitivity, and issues of cultural and regional diversity.

3. **Items have a clear format for text.**
   - Decisions about how items are presented to students should allow for maximum readability for all students.
   - Use common fonts such as Times New Roman or Arial.
   - Use standard typeface; italics is far less legible and is read considerably more slowly.
   - Use point sizes of 10 and 12 point for test booklets, captions, footnotes, keys, and legends.
   - Use point sizes for young students and those with visual difficulties.
   - Use white space to increase legibility by creating
     - sufficient spacing between letters, words, and lines,
     - blankspace around paragraphs,
     - blankspace between columns, and
     - staggering right margins.

4. **Stimuli and items have clear pictures and graphics.**
   - Pictures and graphics should provide essential information.
   - Pictures and graphics should be clear and uncluttered.
   - Illustrations should be placed directly next to the information to which they refer.
   - Use labels where possible.
   - Increase readability by using sufficient contrast between background and text.
   - Increase readability for students with visual impairments by minimizing the use of shading.
   - Avoid use of color to convey important information.

5. **Items have concise and readable text.**
   - Use simple, clear commonly used words whenever possible.
   - Omit unnecessary words and extraneous text.
   - Use grade-level appropriate vocabulary and sentence complexity.
   - Only use technical terms and abbreviations when they are related to the content being measured.
   - Ensure that definitions and examples are clear and understandable.
   - Avoid idioms, unless idiomatic speech is being assessed.
   - Ensure that the questions to be answered are clearly identifiable.

6. **Items allow changes to format without changing meaning or difficulty.**
    - Items should be created to allow for
        - Braille or other tactile formats,
        - signing to a student,
        - the use of oral presentation,
        - the use of assistive technology, and
        - translation into other languages.

7. **The test has an overall appearance that is clean and organized.**
    - Avoid images, pictures, and text that may not be necessary or that may be distracting.
    - Omit extraneous topographical features from maps; use only the portion of the map that is pertinent to the item.
    - Avoid decorative images.
    - Organize information in a manner that is consistent with an academic English framework with a left-right, top-bottom flow.

Research Perspective

- **Current Status**
    - The NCEO website has posted training materials and information that includes
    - Annotated guidelines
    - Research supported statements
    - Short form worksheets
    - Completion of Delphi process (summer 2004)
    - Training PowerPoint presentation
    - Consideration "checkmarks" – simply flag issues; issues are not solved
    - The goal is transparency in process
    - Choices must be made
    - Training must focus on fixing problems and not just identification of them

- **Reliability**
  Language factors may be the source of measurement error affecting the reliability of English language learners (ELL) and students with disabilities (SWD) assessment.

- **Validity**
    - Language factors may be a source of construct irrelevant variance, threatening the construct validity of ELL and SWD assessment.
    - Linguistically complex, content-based test items may confound knowledge of language and of content.
    - Confounding complicates interpretation of assessment results for students who are ELLs.
    - Construct validity of assessments with unnecessarily complex language is questionable.

- **Threats to Internal Validity**
  - Selection
  - Maturation
  - Instrumentation
  - Statistical regression
  - Testing
  - History
  - Diffusion of treatment
  - Experimenter bias

- **Threats to External Validity**
  - Random selection of subjects (ELL/LEP SWD, non-LEP/non-SWD)
  - Intact classrooms versus randomly assigning subjects
  - Willingness to participate
  - Legal issues in random sampling
    - Must have active consent
    - The cultural and linguistic factors differ from state-to-state even for students who are of the same ethnicity

- **Improve Assessment Quality for English Language Learners and Students with Disabilities**
  - Reduce unnecessary linguistic modification on ELLs and SWDs under experimentally controlled conditions with the following characteristics:
    - Manipulate the level of linguistic complexity of assessments and see the effect of manipulation on the outcome variable
    - Randomly assign students (intact classrooms) to linguistically complex/non-complex groups
    - Examine the effect of linguistic modification
    - Control for students' reading ability by using reading score as a covariate

- **Considerations and Recommendations from a Research Perspective**
  - Existing and newly developed content-based achievement tests (NRT and CRT) may have complex linguistic structures and may not be relevant for all ELL, SWD, and other subgroups of students.
  - To increase authenticity of assessments for all, irrelevant constructs must be identified and removed in an experimentally controlled assessment situation.
  - Assessment accommodations can help ELLs and SWDs to show shat they know without disadvantaging other students. Such accommodations must be considered to provide more valid assessment of ELLs.

- **Challenges**
  - Cost – item development and refinement
  - Aggravation – assessment director blues
  - Search for balance – tossing items that can be saved, accepting trade-offs
  - Assistive technology – computer-based options
  - Language proficiency tests vs. standards-based achievement tests – different issues

- **Literacy Issues**
  - What is literacy?

  - Related to sanctity of the construct discussion
  - Is it time to reconsider our content specifications?
  - Do we need to rethink more than our assessments?
- Discussion points in NCEO literacy paper include
  - Current large-scale assessments may not capture the complexities of state reading standards in their current formats.
  - Clarification of standards that are tested – and whether accommodations that reflect alternative modes of interaction with print are consistent with those standards – is an essential step that must be taken in all states
  - Require students to read print using visual or tactile modes when testing phonemic skill, and to have access to auditory and multiple print interaction modes when standards in the areas of comprehension, interpretation, and catalyst for personal growth are being assessed
  - Align tests to reflect the diverse definitions of standards then allow students to access non-decoding items multi-modally

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Abedi, Jamal. (2004). Universal Design for Assessment: Theoretical Foundation and Practical Implications. University of California, Los Angeles/CRESST.

Barton, Karen E. and Finch, Holmes (2004) Item Analyses and Universal Design: DIF, Dimensionality, and Item Qualities. CTB/McGraw-Hill and Ball State University.

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Ketterkin Geller, Leanne. (2004). Computer-Based Diagnostic Inventory Map. University of Oregon.

McDivitt, Patty. (2004). Promoting Valid Score Inferences: Putting the Principles into Practice. Data Recognition Corporation.

National Center on Educational Outocomes. (2004) Considerations for Universally Designed Assessment Items.

Quenemoen, Rachel. (2004). Universal Design of Assessments: What do we know and what do we need to know? National Center for Educational Outcomes.

Zhang, Liru. (2004). Using Universal Design to Improve Statewide Assessment. Delaware Department of Education.

Making Text Legible for Everyone

10 Basic Guidelines for Making Text Legible

Impaired vision often makes reading difficult by:

- Reducing the amount of light that enters the eye
- Blurring the retinal image
- Damaging the central portion of the retina best suited to reading

Light reduction and blurring reduce the effective contrast of the text, while central retinal damage impairs the ability to see small print and to make eye movements that are crucial to reading.

1. Contrast

Text should be printed with the highest possible contrast. There is good evidence that for many readers who are older or partially sighted, light (white or light yellow) letters on a dark (black) background are more readable than dark letters on a light background. However, the traditional dark on light may be aesthetically preferable.

2. Type Color

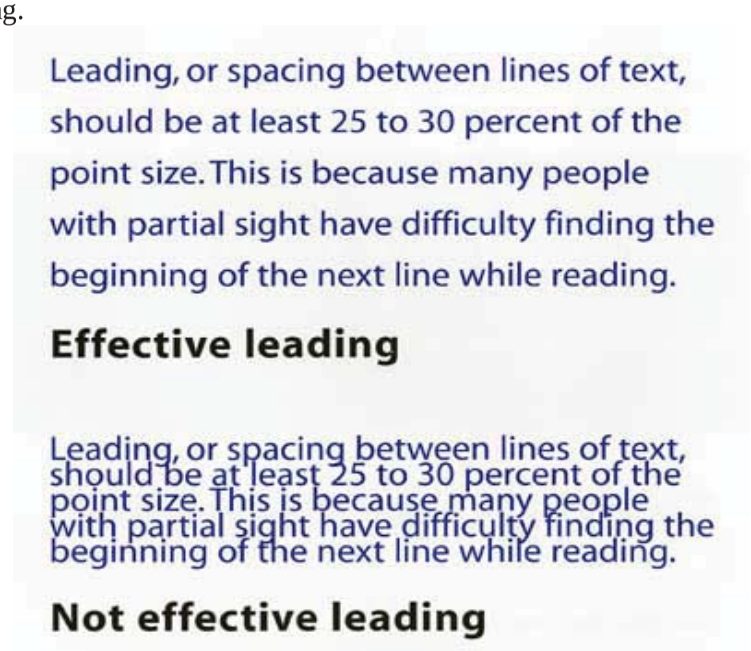
Very high contrasts are difficult to achieve with color combinations other than black and white. Printed material, generally, is most readable in black and white. Different colors may be important for aesthetic or other reasons, but it is better to use such combinations only for larger or highlighted text, such as headlines and titles.

3. Point Size

Type should be large, preferably at least 16 to 18 points, but keep in mind that the relationship between readability and point size differs somewhat among typefaces. Some states demand a larger point size (e.g., 20 or 22).

4. Leading

Leading, or spacing between lines of text, should be at least 25 to 30 percent of the point size. This is because many people with partial sight have difficulty finding the beginning of the next line while reading.

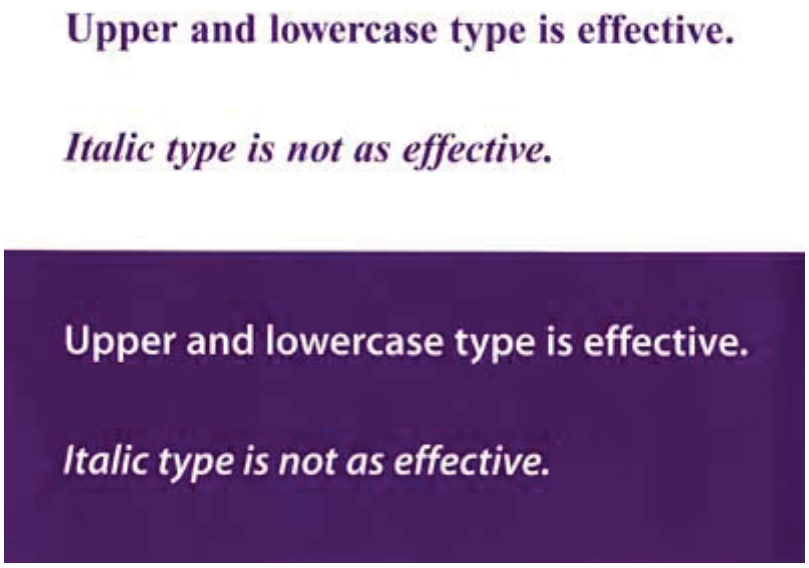


5. Font Family

Avoid complicated, decorative or cursive fonts and, when they must be used, reserve them for emphasis only. Standard serif or sans-serif fonts, with familiar, easily recognizable characters are best. Also, there is some evidence that sans-serif fonts are more legible when character size is small relative to the reader's visual acuity.

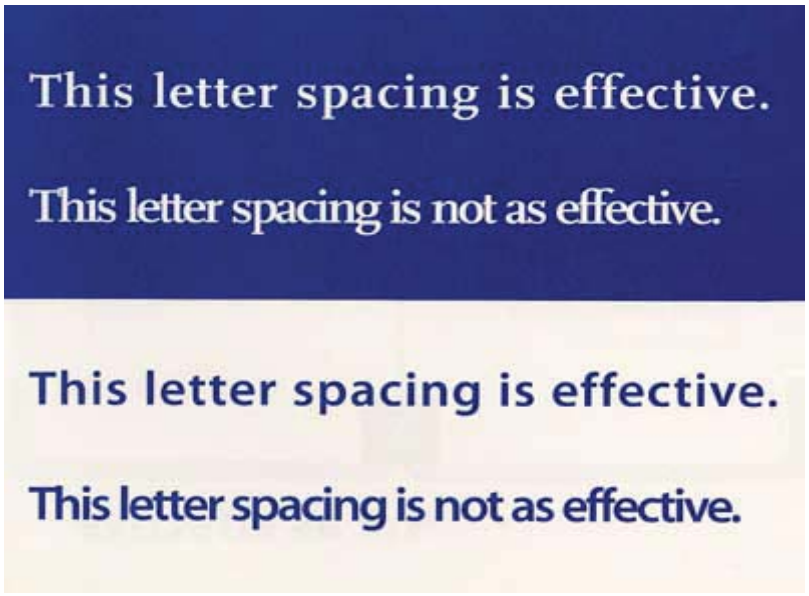
6. Font Style

While there is little reliable information on the comparative legibility of typefaces, there is some evidence that a roman typeface, using upper and lower cases, is more readable than italics, oblique or condensed.



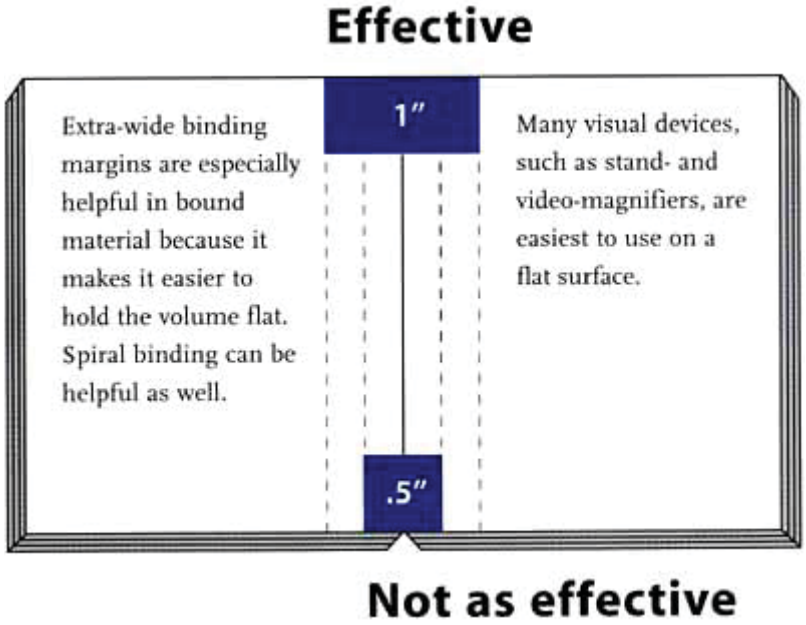
7. Letter Spacing

Text with close letter spacing often presents difficulties for readers who are partially sighted, especially those with central visual field defects. Where possible, spacing should be wide. Monospaced fonts rather than proportionally spaced fonts seem to be more legible for these readers.



8. Margins

Extra-wide binding margins are especially helpful in bound material because it makes it easier to hold the volume flat. Spiral binding can be helpful as well. Many visual devices, such as stand- and video-magnifiers, are easiest to use on a flat surface.



9. Paper Finish

Paper with a glossy finish can lessen legibility because many people who are older or who have partial sight also have problems with glare.

10. Distinctiveness

Visual impairment often makes it difficult to find a book or other document that is buried among similar publications, especially for sets with volumes that differ only in title or number. Use of distinctive colors, sizes and formats on the covers can be especially helpful to older individuals and those who are partially sighted.

Effective Color Contrast

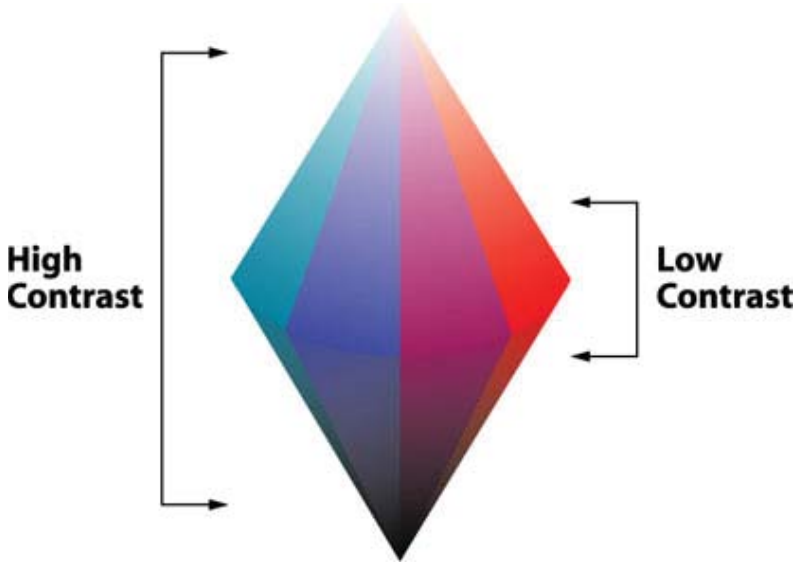
Basic Guidelines: Effective Color Choices that Work for Nearly Everyone

The guidelines are better understood when we understand the three perceptual attributes of color: hue, lightness and saturation, in the particular way that they are used by vision scientists.

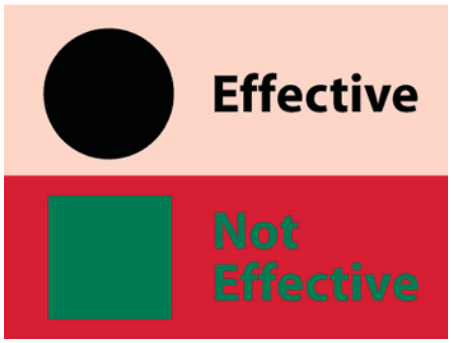
How does impaired vision affect color perception?

Partial sight, aging and congenital color deficits all produce changes in perception that reduce the visual effectiveness of certain color combinations. Two colors that contrast sharply to someone with normal vision may be far less distinguishable to someone with a visual disorder. It is important to appreciate that it is the contrast of colors one against another that makes them more or less discernible rather than the individual colors themselves.

Three simple rules for making effective color choices:

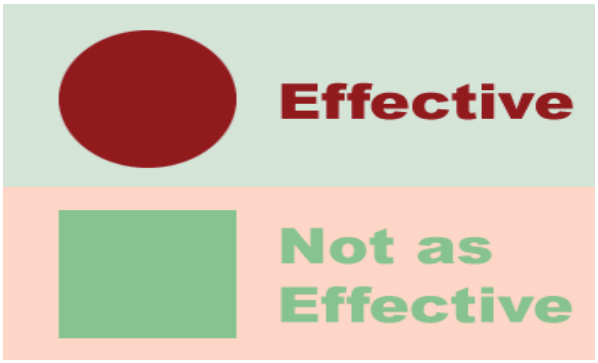


1. Exaggerate lightness differences between foreground and background colors, and avoid using colors of similar lightness adjacent to one another, even if they differ in saturation or hue.

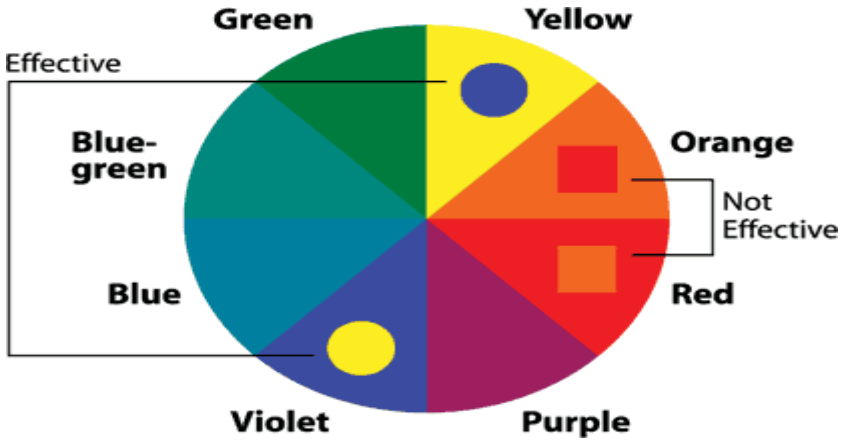


Don't assume that the lightness you perceive will be the same as the lightness perceived by people with color deficits. You can generally assume that they will see less contrast between colors than you will. If you lighten the light colors and darken the dark colors in your design, you will increase the visual accessibility.

2. Choose dark colors with hues from the bottom half of the hue circle against light colors from the top half of the circle. Avoid contrasting light colors from the bottom half against dark colors from the top half.



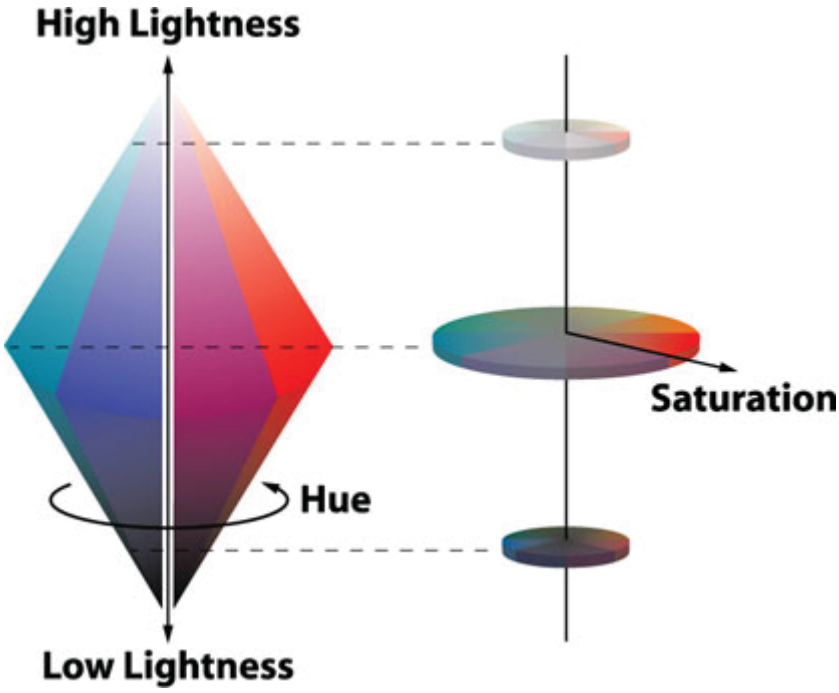
For most people with partial sight and/or congenital color deficiencies, the lightness values of colors in the bottom half of the hue circle tend to be reduced.



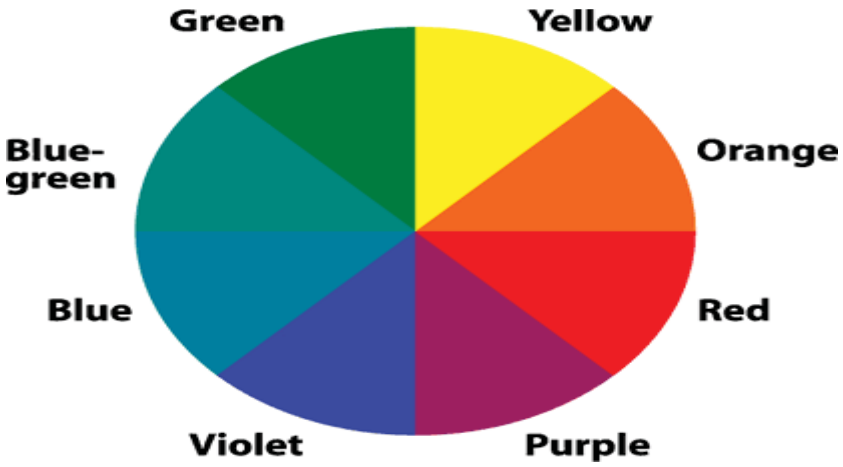
3. Avoid contrasting hues from adjacent parts of the hue circle, especially if the colors do not contrast sharply in lightness.

Color deficiencies associated with partial sight and congenital deficiencies make it difficult to discriminate between colors of similar hue.

Hue, lightness, and saturation - the three perceptual attributes of color - can be envisioned as a solid.

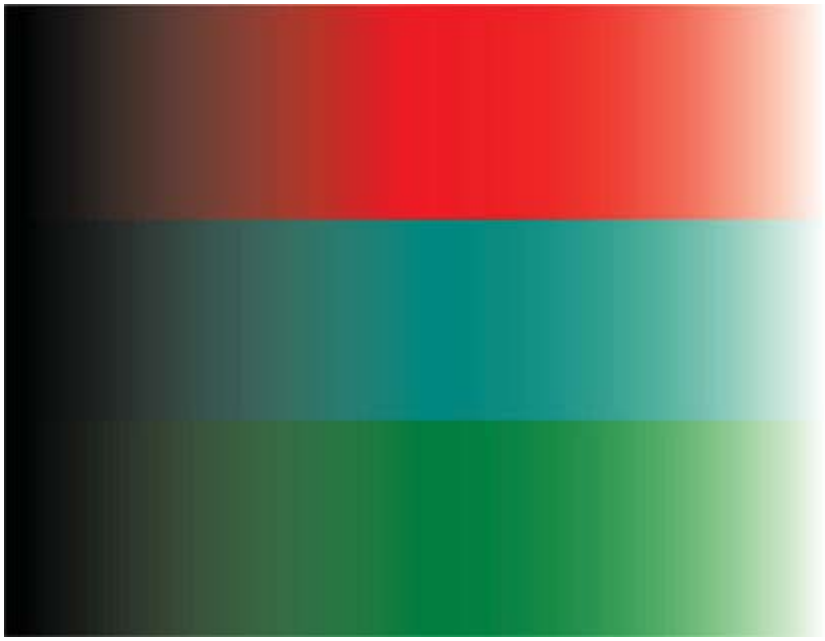


Hue varies around the solid; lightness varies from top to bottom and saturation is the distance from the center.

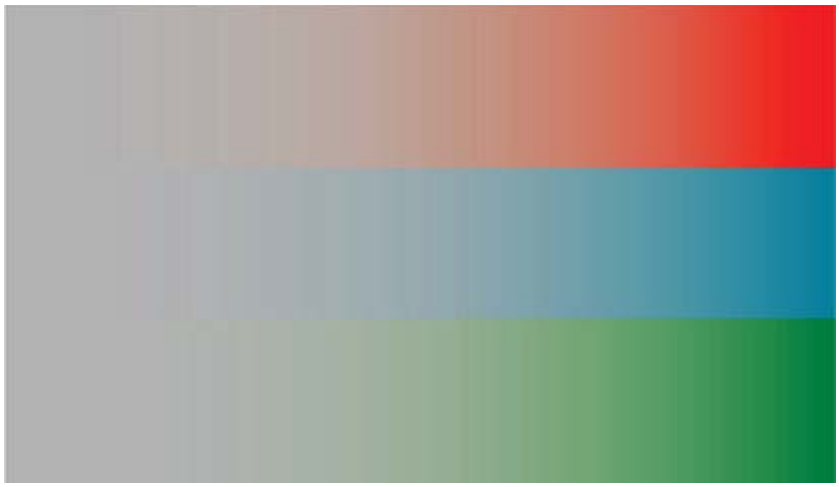


Hue is the perceptual attribute associated with elementary color names.

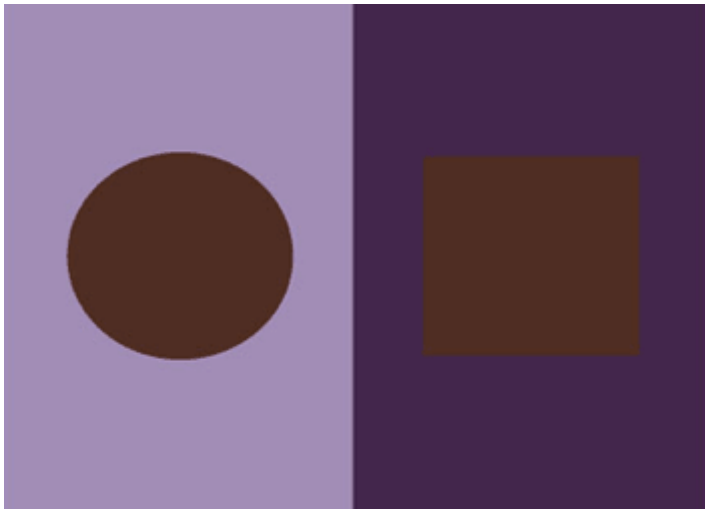
Hue enables us to identify basic colors, such as blue, green, yellow, red and purple. People with normal color vision report that hues follow a natural sequence based on their similarity to one another. With most color deficits, the ability to discriminate between colors on the basis of hue is diminished.



Lightness corresponds to how much light appears to be reflected from a surface in relation to nearby surfaces. Lightness, like hue, is a perceptual attribute that cannot be computed from physical measurements alone. It is the most important attribute in making contrast more effective. With color deficits, the ability to discriminate colors on the basis of lightness is reduced.



Saturation is the degree of color intensity associated with a color's perceptual difference from a white, black or gray of equal lightness. Slate blue is an example of a desaturated color because it is similar to gray. A deep blue, even if it has the same lightness as slate blue, has greater saturation. Congenital and acquired color deficits typically make it difficult to discriminate between colors on the basis of saturation.



To a person with color-deficient partial sight, the left-hand panel might appear like the right-hand panel appears to a person with normal color vision. With color deficits, the ability to discriminate colors on the basis of all three attributes - hue, lightness and saturation -- is reduced. Designers can help to compensate for these deficits by making colors differ more dramatically in all three attributes.

References

Arditi, Aries. (2004) Making Text Legible. International Lighthouse of the Blind website: http://www.lighthouse.org/index.html

Arditi, Aries. (2004) Effective Color Contrast International Lighthouse of the Blind website: http://www.lighthouse.org/index.html

Creating Better Tests for Everyone Through Universally Designed Assessments

Sandra Thompson and Martha Thurlow

University of Minnesota

David B. Malouf

U.S. Department of Education

Abstract

Universally designed assessments are designed and developed to allow participation of the widest possible range of students, in a way that results in valid inferences about performance on grade-level standards for all students who participate in the assessment. This paper explores the development of universal design and considers its application to large-scale assessments.

Building on universal design principles presented by the Center for Universal Design (Center for Universal Design, 1997), seven elements of universally designed assessments are identified and described. These elements were derived from a review of literature on universal design, assessment and instructional design, and research on topics such as assessment accommodations (Thompson, Johnstone, & Thurlow, 2002).

The seven elements are:
1. Inclusive assessment population
2. Precisely defined constructs
3. Accessible, non-biased items
4. Amenable to accommodations
5. Simple, clear, and intuitive instructions and procedures
6. Maximum readability and comprehensibility
7. Maximum legibility

Each of the elements is explored in this paper. Numerous resources relevant to each of the elements are identified, with specific suggestions for ways in which assessments can be designed to meet the needs of the widest range of students possible. Challenges and opportunities arising from the application of universally designed assessments are identified.

Creating Better Tests for Everyone Through Universally Designed Assessments

Universal design is a concept that began in the field of architecture, but has been quickly expanding into environmental initiatives, recreation, the arts, health care, and now, education. Despite a slow but steady start in its application to instruction (Hitchcock, 2001), the potential for dramatically affecting the design of large-scale assessments is great. There is a tremendous push to expand national and state testing, and at the same time to require that assessment systems include all students - including those with disabilities and those with limited English proficiency - many of whom have not been included in these systems in the past (Thurlow, Quenemoen, Thompson, & Lehr, 2001). Rather than having to retrofit existing assessments to include these students (through the use of large numbers of accommodations or a variety of alternative assessments), new assessments can be designed and developed to allow participation of the widest possible range of students, in a way that results in valid inferences about performance for all students who participate in the assessment.

With the shift to standards-based reform during the past decade, valid assessments for measuring the achievement of all students on grade-level standards are essential. There is no longer an option for test developers to ignore the possibilities that universal design can bring to truly inclusive assessment systems. States that release requests for proposals for their state assessments have a similar obligation: to ensure that any proposal from test developers meets criteria that reflect the elements of universal design highlighted in this paper.

Universal design opens the door to rethinking assessments—to ensure that the assessments themselves are not the barriers to improved learning. Universally designed assessments are a promising approach to providing appropriate assessment conditions for all students, giving each student a comparable opportunity to demonstrate achievement of the standards being tested.

Background

The standard administration of assessments is not appropriate for all students who must participate in state and district assessments today. The use of accommodations – changes in administration procedures or materials – is evidence that there are students who cannot participate in assessments or receive valid scores unless something is changed. Only a very small percentage of students need a completely different assessment, identified in federal special education law as an alternate assessment (Thompson, Quenemoen, Thurlow, & Ysseldyke, 2001). A much larger group of students need changes in the regular assessment.

Because of the emphasis on testing and including all students, the provision of accommodations and decisions about who should participate in alternate assessments has become very complex. There is a great deal of controversy about the “fairness” of many test accommodations and about which students should have access to accommodations and how decisions are made. According to the National Research Council (1999), “fairness, like validity, cannot be properly addressed as an afterthought once the test has been developed, administered, and used. It must be confronted throughout the interconnected phases of the testing process, from test design and development to

administration, scoring, interpretation, and use" (p. 81). The Standards for Educational and Psychological Testing (AERA, APA, NCME, 1999) also address this need by requiring that "all examinees be given a comparable opportunity to demonstrate their standing on the construct(s) the test is intended to measure. Just treatment also includes such factors as appropriate testing conditions and equal opportunity to become familiar with the test format, practice materials, and so forth... Fairness also requires that all examinees be afforded appropriate testing conditions" (p. 74).

Research to validate accommodation use is growing, but the research is difficult to conduct and rarely provides conclusive evidence about the effects of accommodations on validity (Bielinski & Sheinker, 2001; Elliott, Kratochwill, & McKevitt, 2001; Koretz, & Hamilton, 2000; Thompson, Blount, & Thurlow, 2002; Thurlow & Bolt, 2001; Tindal & Fuchs, 1999). States grapple with decisions about which accommodations should be included in school accountability and which invalidate assessment scores. Further, they frequently revise their accommodation policies (Thurlow, Lazarus, Thompson, & Robey, 2002), thereby increasing the likelihood of confusion about what the policies really are, and decreasing the likelihood that the policies will be implemented as intended. It is time to take a more global approach to addressing these testing issues, an approach in which increased access for all students is considered.

Applying Universal Design to Assessments

The concept of universal design is not new. Its use began in the field of architecture, but its application has spread rapidly into environmental initiatives, recreation, the arts, health care, and education. Principles of universal design that traverse all of these areas have been developed (see Table 1). It is reasonable to expect that they can apply equally as well to large-scale assessments.

Table 1. Principles of Universal Design in Architecture and Other Areas

Principle	Explanation
Equitable Use	The design is useful and marketable to people with diverse abilities.
Flexibility in Use	The design accommodates a wide range of individual preferences and abilities.
Simple and Intuitive Use	Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
Perceptible Information	The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
Tolerance for Error	The design minimizes hazards and the adverse consequences of accidental or unintended actions.
Low Physical Effort	The design can be used efficiently and comfortably and with a minimum of fatigue.
Size and Space for Approach and Use	Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Source: The Center for Universal Design, North Carolina State University (1997).

The goal of applying universal design principles to assessments is to be able to design and develop assessments that allow participation of the widest range of students, and result in valid inferences about their performance. The need that many students have for accommodations could be reduced if assessments could be universally designed. Universally designed assessments are not intended to eliminate individualization, or to take away from the Individualized Educational Program (IEP) process. Instead, they could make the IEP process richer by focusing on instructional needs rather than on all the changes that will have to be made for the student to participate in the assessment. Universal design is the best way to increase participation in general state and district assessments.

Universal design is based on the same ethics of equity and inclusiveness that are expected for people with disabilities and others in schools, communities, and on the job – an ethic that values differences in age, ability, culture, and lifestyle. Test performance should not be affected by disability, gender, race, English language ability, or levels of anxiety about tests. On the other hand, it is important to remember that universal design does not address deficiencies in instruction. Students who have not had an opportunity to learn the material tested will be disadvantaged during testing no matter how universal the design of the assessment.

Elements of Universally Designed Assessments

The National Center for Educational Outcome (NCEO) has conducted an extensive review of all research relevant to the assessment development process and the principles of universal design (Thompson et al., 2002). This review produced a set of seven elements of universal design that apply to assessments (see Table 2). Each of these seven elements is discussed here.

Table 2. Elements of Universally Designed Assessments

Element	Explanation
Inclusive Assessment Population	Tests designed for state, district, or school accountability must include every student except those in the alternate assessment, and this is reflected in assessment design and field testing procedures.
Precisely Defined Concepts	The specific constructs tested must be clearly defined so that all construct irrelevant cognitive, sensory, emotional, and physical barriers can be removed.
Accessible, Non-Biased Items	Accessibility is built into items form the beginning, and bias review procedures ensure that quality is retained in all items.
Amenable to Accommodations	The test design facilitates the use of needed accommodations (e.g., all items can be Brailled).
Simple, Clear, and Intuitive Instructions and Procedures	All instructions and procedures are simple, clear, and presented in understandable language.
Maximum Readability and Comprehensibility	A variety of readability and plain language guidelines are followed (e.g., sentence length and number of difficult words are kept to a minimum) to produce readable and comprehensible text.
Maximum Legibility	Characteristics that ensure easy decipherability are applied to text, to tables, figures, and illustrations, and to response formats.

Based on Thompson, Johnstone, and Thurlow (2002).Inclusive Assessment

Population

When tests are first conceptualized, they need to be thought of in the context of who will be tested (AERA, APA, NCME, 1999; National Research Council, 1999). If the test is designed for state, district, or school accountability purposes, the target population must include every student except those who will participate in accountability through the alternate assessment. Assessments need to be responsive to growing demands – increased diversity, increased inclusion of all types of students in the general curriculum, and increased emphasis and commitment to accountability for all students.

Precisely Defined Constructs

An important function of well-designed assessments is that they actually measure what they are intended to measure. According to Popham and Lindheim (1980), "a test development project begins with a careful consideration of the skills or attitudinal characteristics proposed for measurement" (p. 3). Test developers need to carefully examine what is to be tested and design items that offer the greatest opportunity for success within those constructs. Just as universally designed architecture removes physical, sensory, and cognitive barriers to all types of people in public and private structures, universally designed assessments must remove all construct irrelevant cognitive, sensory, emotional, and physical barriers.

Accessible, Non-Biased Items

Items are reviewed through bias review or sensitivity review procedures to ensure that they do not create barriers because of lack of sensitivity to disability, cultural, or other subgroups. But, perhaps more important, items are developed by individuals who understand the varied characteristics of students, and the characteristics of items that might create difficulties for any group of students. Accessibility is incorporated as a primary dimension of test specifications, so that accessibility is woven into the fabric of the test rather than being added after the fact (Kopriva, 2000).

Amenable to Accommodations

Even though items on universally designed assessments will be accessible for most students, there will still be some students who continue to need accommodations. Thus, another essential element of any universally designed assessment is that it is compatible with accommodations and a variety of widely used adaptive equipment and assistive technology. For example, the use of Braille as an accommodation will be facilitated if the following features are avoided in the design of the test:

- Use of construct irrelevant graphs or pictures
- Use of vertical or diagonal text
- Keys and legends located to the left or bottom of the item, where they are more difficult to locate in Braille formats
- Items that depend on reading of graphic representations (such as blueprints, furniture in a room) that do not also have verbal/textual descriptions that can be translated into Braille
- Items that include distracting or purely decorative pictures, which draw attention away from the item content

These features are also relevant for students with visual disabilities who do not use Braille, and possibly also for many students for whom visual features may create distractions.

Simple, Clear, and Intuitive Instructions and Procedures

Assessment instructions should be easy to understand, regardless of a student's experience, knowledge, language skills, or current concentration level. Directions and questions need to be in simple, clear, and understandable language so that "test takers can respond to a task in the manner that the test developer intended" (AERA, APA, NCME, 1999, p. 47). Knowledge questions that are posed within complex language certainly invalidate the test if students cannot understand how they are expected to respond to a question (Elliott, 1999; Willingham, Ragosta, Bennett, Braun, Rock & Powers, 1988).

Maximum Readability and Comprehensibility

A variety of guidelines exist to ensure that text is maximally readable and comprehensible (Gaster & Clark, 1995). These features go beyond what is measured by readability formulas. Readability and comprehensibility are affected by many characteristics, including student background, sentence difficulty, organization of text, and others. All of these features need to be considered in developing the text of assessments.

Plain language is a concept now being highlighted in research on assessments. For example, Kiplinger, Haug, and Abedi (2000) found that the performance of students on a mathematics assessment with high proportions of word problems was directly related to their proficiency in reading in English. Plain language has been defined as language that is straightforward and concise. Several strategies that have been identified for editing text to produce plain language are shown in Table 3.

Table 3. Plain Language Editing Strategies

Strategy	Description
Reduce excessive length	Reduce wordiness and remove irrelevant material.
Use common words	Eliminate unusual or low frequency words and replace with common words (e.g., replace "utilize" with "use").
Avoid ambiguous words	For example, "crane" should be avoided because it could be a bird or a piece of heavy machinery.
Avoid irregularly spelled words	Examples of irregularly spelled words are "trough" and "feign."
Avoid proper names	Replace proper names with simple common names such as first names.
Avoid inconsistent naming and graphic conventions	Avoid multiple names for the same concept. Be consistent in the use of typeface.
Avoid unclear signals about how to direct attention	Well-designed heading and graphic arrangement can convey information about the relative importance of information and order in which it should be considered.
Mark all questions	Give an obvious graphic signal (e.g., bullet, letter, number) to indicate separate questions.

Source: Brown (1999).

Maximum Legibility

Legibility is the physical appearance of text, the way that the shapes of letters and numbers enable people to read text easily. As delineated by Schriver (1997), a leading document designer, text that is legible can be read "quickly, effortlessly, and with understanding" (p. 252). Despite a great deal of research on what the characteristics of maximum legibility are, the personal opinions of editors about how they want text to look often prevail.

Bias results when tests contain physical features that interfere with a student's focus on or understanding of the constructs that test items are intended to assess. Dimensions can include contrast, type size, spacing, typeface, leading, justification, line length/width, blank space, graphs and tables, illustrations, and response formats (see Table 4).

Table 4. Dimensions of Legibility and Characteristics of Maximum Legibility

Dimension	Maximum Legibility Characteristics
Contrast	Black type on matte pastel or off-white paper is most favorable for both legibility and eye strain.
Type Size	Large type sizes are most effective for young students who are learning to read, students with visual difficulties, and individuals with eye fatigue issues. The legal size for large print text is 14 point.
Spacing	The amount of space between each character can affect legibility. Spacing needs to be wide between both letters and words. Fixed-space fonts seem to be more legible for some readers than proportional-spaced fonts.
Leading	Leading, the amount of vertical space between lines of type, must be enough to avoid type that looks blurry and has a muddy look. The amount needed varies with type size (for example, 14-point type needs 3-6 points of leading).
Typeface	Standard typeface, using upper and lower case, is more readable than italic, slanted, small caps, or all caps.
Justification	Unjustified text (with staggered right margin) is easier to see and scan than justified text especially for poor readers.
Line Length	Optimal length is about 4 inches or 8 to 10 words per line. This length avoids reader fatigue and difficulty locating the beginning of the next line, which causes readers to lose their place.
Blank Space	A general rule is to allow text to occupy only about half of a page. Blank space anchors text on the paper and increases legibility.
Graphs and Tables	Symbols used on graphs need to be highly discriminable. Labels should be placed directly next to plot lines so that information can be found quickly and not require short-term memory.
Illustrations	When used, an illustration should be directly next to the question for which it is needed. Because illustrations create numerous visual and distraction challenges, and may interfere with the use of some accommodations (such as magnifiers), they should be used only when they contain information being assessed.
Response Formats	Response options should include larger circles (for bubble response tests), as well as multiple other forms of response.

Challenges and Opportunities

The application of universal design to assessments is just beginning as test developers and publishers consider how to apply the elements to assessments. There are both challenges and opportunities that arise as this application occurs.

Among the challenges associated with universally designed assessments is the possibility that development costs will increase at a time when the costs of assessments are already seen by some as excessive. Even though the incorporation of universal design should ultimately save time and money in not having to throw out items later in the test development process, the initial incorporation of universal design elements may seem expensive. Another challenge is that the specific criteria for putting all the universal design considerations together have not yet been figured out – we do not know when the right balance has been reached to achieve the best item possible. Item review teams need to be cautious. Implementing the principles of universally designed assessments may prompt some reviewers to throw away items that may be usable with minor changes, or that may not have design problems that actually affect a student's response. The desire for authenticity and whether authenticity is more important than universal design is another challenge that the testing community and standards committees need to address. Perhaps the greatest challenge is the perception that a universally designed assessment is a "cure-all" to the problems of assessment. Just because a test is universally designed does not mean that the test is accessible to all students. Changes that might make a test more accessible to one group of students might actually make it less accessible to another group of students. The principles of universal design can be a useful tool for developing better assessments, but they are not something that can magically make all tests accessible to all students. The challenge of finding the proper balance for universally designed paper and pencil tests translates as well to computer-based assessments. It is difficult to anticipate what accessibility issues will arise when a test is delivered on a variety of different systems with a variety of assistive technologies (e.g., screen readers). Trying to anticipate these issues is important, however, and trying to design computer-based assessments in a more universally accessible manner is an endeavor worth pursuing. Despite the challenges, the potential opportunities to be gained from developing universally designed assessments are numerous. With the emphasis on universally designed assessments, guidance for item development is becoming clearer and more systematic, with specific criteria for test and item developers as well as item reviewers to consider. The criteria that define good items are easier to understand than item difficulty statistics and more engaging for item reviewers, and present an opportunity for bringing more people to the table in the early stages of test design, including those familiar with disability, language acquisition, and technology. Furthermore, the criteria have research-based support in isolation, and now can be subjected to additional research within assessment contexts. In the end, universally designed assessments should open up assessments so that they are more compatible with accommodations, help make assessments more marketable, and truly make the assessments more inclusive of the entire population to be assessed.

Summary

The concept of universally designed assessments is relatively new, and therefore what it actually means is still undergoing clarification. It is likely that the elements of universally designed assessments will be expanded and become more concrete as they are applied to assessment design and development. With the increased emphasis on testing in the nation's schools in response to federal and state mandates, it is essential that this progress occur as rapidly as possible. This will require the consolidation and application of current best practices in assessment, along with research and innovation to expand our knowledge in this area. Universal design opens the door to

ways to rethink assessments to ensure that it is not the assessment itself that produces barriers to improved learning. The concept of universal design helps us to rethink our basic assumptions about how to create national, state, and district assessments that give a more accurate picture of what all students know and can do so that educators can focus on the critical target of providing universally designed standards-based instruction.

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Address correspondence to Sandra Thompson, National Center on Educational Outcomes, University of Minnesota, 350 Elliott Hall, 75 East River Road, Minneapolis, Minnesota 55455, email: thomp178@umn.edu

Author Bios

Sandra Thompson, Ph.D. serves as a Research Associate at the National Center on Educational Outcomes (NCEO) at the University of Minnesota, where she is responsible for a number of research activities that document the participation and performance of students with disabilities in state and district standards and assessments. Dr. Thompson has an extensive background in preparing students with disabilities for successful adult lives, spending 10 years with Minnesota's department of education and 10 years as a special education teacher, working with students with developmental disabilities.

Martha Thurlow, Ph.D. is the Director of the National Center on Educational Outcomes (NCEO) at the University of Minnesota. In this position, she addresses the implications of contemporary U.S. policy and practice for students with disabilities, including national and statewide assessment policies and practices, standards-setting efforts, and graduation requirements. Dr. Thurlow has conducted research involving special education for the past 30 years in a variety of areas, including assessment and decision making, learning disabilities, early childhood education, dropout prevention, effective classroom instruction, and integration of students with disabilities in general education settings.

David Malouf, Ph.D. is a Research Analyst with the Office of Special Education Programs in the U.S. Department of Education. His responsibilities include projects related to large-scale assessment, accountability, accommodations, and alternate assessments. He also works with the technology and media services program for students with disabilities. Before coming to the Department of Education in 1991, Dr. Malouf was a faculty member and researcher at the University of Maryland, and taught school at elementary and secondary levels in Salt Lake City, Utah.

Design of Accessible Online Education

Notes from Georgia Leadership Institute

Prepared by

Carol Price
Director, Alternate Assessments
Data Recognition Corporation

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Abstract

The purpose of this invitation only leadership institute is to provide an opportunity for researchers, administrators, professors, and design technologists from across the country to exchange ideas, discuss new initiatives, and examine central issues in designing accessible online education.

Institute participants examined current topics related to accessible online education. Topics covered included the following:

- research outcomes in accessible distance education,
- implications of research outcomes for higher education,
- model programs and assessment,
- specific technologies and assessment,
- improving practices and influencing policy on accessible distance education,
- solutions to barriers encountered when designing accessible course material, and
- creating accessible courses enhance higher education instruction.

Participants were challenged to assist in the development of effective policies that include students with disabilities in the development and assessment of accessible technology-based programs.

Best Practices - Current Thinking, New Directions

Presenter: Norman Coombs, CEO, Equal Access to Software and Information

Dr. Coombs has taught history at the Rochester Institute of Technology (RIT) for 43 years and for 20 of those years he has taught classes online.

History of E-Learning

- Computers were first operated from a centralized mainframe and modem.
- The New Jersey Information Technology System provided users with keyboard commands.
- Bulletin boards afforded information exchange among users.
- Next came the command-prompt interface.
- FTP and Telnet sites were next on the horizon.
- Only text was transmitted via a computer; early computers could not handle pictures or graphics.
- The first personal computer functioned like dumb terminal and had minimal memory.
- Few online courses were available; Dr. Coombs applied for and was awarded a federal grant to employ online instruction at RIT for one of the classes he taught.
- Dr. Coombs quickly learned that he could engage students in a different way by using the computer to communicate with students and it opened new avenues of communication with students who were disabled.
- The advent of the World Wide Web decentralized computing.
- Hypertext interface allowed for quick transfer of information including: graphics, videos, audio transmissions, text, and various types of mixed media.
- This opened the doors to the information highway.
- As the Web developed it created the need for guidelines and standards to regulate standards for Web design and accessibility.
- Web Accessibility Initiative (WAI) guidelines and Section 508 standards have significantly contributed to the development of Web authoring tools that facilitate the creation of accessible output.

WAI has created a standards checklist and many grant applications demand that software is WAI approved. WAI standards are quite rigorous and are very difficult to meet. On the other hand, Section 508 standards (developed by the government) require meeting minimal standards of compliance. As states become more educated about online instruction, they are requiring that vendors meet 508 standards. One possible reason for the push for compliance is due to federal legislation which began with Section 504, then Section 508, and the passing of the American with Disabilities Act (ADA).

Online education consists of two major components:

- infrastructure – the learning management systems, Web pages, and various types of multimedia
- content – course information that is delivered through the infrastructure

Both the infrastructure and the content must be accessible. Often there is a disconnect between the developers of the architecture of the infrastructure and the developers of the content. It is important for the medium (the infrastructure) and the message (the content) to be accessible because it is the medium that impacts the message.

A comparison between online learning and face-to-face learning was addressed and the results of this comparison are presented in Table 1 below.

Table 1.

	Online Learning	Face-to-Face Learning
Classroom	Virtual	Physical building
Instruction	Increased flexibility	Rigid or controlled
Method	Holistic, multi-directional, interactive	Linear, step-by-step pre-determined by the teacher
Focus	Student centered	Teacher controlled
Schedule	Teacher has control of one schedule and they can still be accessible to the students	Controlled by the system and/or the teacher; limited accessibility to the students
Variety	Increased use of mixed multi-media, PowerPoint presentations, videos, etc.	One way monologue, usually delivered via a lecture
Modality	Highly interactive	Teacher dominated, little student interaction
The Teacher	The guide on the side	The sage on the stage

Universal Content Design of Web Pages

- Modularize content – pages need to be clean and free from extraneous design elements
- Use redundant communication modes
- Use simple, clear language
- Use short sentences and short paragraphs
- Use active verbs
- Provide content previews and content summaries
- Provide frequent opportunities for interaction with the students
- Avoid designs that distract from content
- Create opportunities for students to engage
- Avoid one-way information monologues

Training for content developers has to occur on two levels: some have advanced Web design skills and they understand WAI and 508 standards and require little instruction; others need in-depth instruction about the design of appropriate accessible content.

508 core standards include the design and presentation of:

- Images
- Multimedia
- Color
- Tables
- Text pages
- Skip navigation (skip navigation allows the user to skip over redundant text or images to facilitate quick movement through the website)

Three necessities regarding accessibility of online education materials:

1. Have teachers carefully and thoughtfully plan the content before creating it online.

2. Have teachers focus on simple, clear, focused content design and minimize their use of needless flashy features that distract from the content.
3. Help teachers locate and learn commonly used content authoring applications in ways that result in development of universally designed content without faculty having to become trapped in learning complex technical tools.

Accommodations in the Delivery of Online Education

Panelists: Larry Dickerson (Professor/Program Coordinator, University of Arkansas), Joe Koncelik (Professor Emeritus, Ohio State University), Randall McDaniel (Professor, Auburn University), Sue Byrd Steinweg (Assistant Professor, East Carolina University), Karen Wolfe (Director, Professional Development, American Foundation for the Blind)

Panelists briefly discussed issues critical to their areas of expertise. Highlights of the interactive discussion are cited below.

Problems

- Awareness among teachers and administrators is critical.
- Implementation decisions are not made by teachers who use the technology; decisions are made by administrators whose major concern is cost.

Presentations and Instruction

- Write content in a way that is engaging for the student.
- Write text that is accessible.
- Keep presentation style simple.
- Use an easy-to-read font (e.g., Sans Serif or Arial).
- Avoid bullets and dashes.
- Describe pictures and graphics.
- When creating handouts, determine if the handout has value. Strip out formatting to accommodate text readers.
- For online presentations, use threaded discussions instead of chats.
- Use applied learning activities.
- Allow students to direct their own learning.
- Create lessons that allow for individualized learning.
- Decide what supports need to be in place for successful implementation.
- Provide transcripts of audio presentations.
- Avoid the use of acronyms.

Training

- Diversity training usually involves race and gender equity issues.
- Accessibility issues and concerns need to be included in diversity training classes.
- For accessibility to be perceived important, it needs to be included in promotion and tenure decisions for higher-education faculty members.

Adopting Best Practices for Accessible e-Learning from Corporate and Government

Presenter: Debra M. Ruh, President, TecAccess

Several issues prevent users from fully accessing e-learning opportunities:

- Some require help with installation of software and applications.
- Sometimes the launch works, but the content is not appropriate for web delivery.
- Sometimes the content is solid, but the program will not launch.
- There are often conflicts with assistive technology devices and some may prevent others from operating.

President Bush has eight technology initiatives; one of which is that the government plans to begin testing vendor products for 508 compliance. The most common mistake with 508 compliance is not believing it is a necessity and the most common mistake concerning e-learning is not realizing that content and technology must work together.

Ms. Ruh provided participants with much information and website links to explore. Website links from this and other presentations are included on pages 21-23 of this report.

Accessible Course Design and Course Retro-Fit

Presenters: Curtis Edmonds (Senior Staff Attorney, New Jersey Protection & Advocacy, Inc.), Joe Koncelik (Professor Emeritus, Ohio State University), Robert Todd (Research Scientist, Georgia Tech)

Real-world challenges faced by those who create accessible distance education courses were examined. The GRADE project features three courses that highlight accessibility process and solutions to problems. The challenges, the pitfalls, and the successes of these courses were discussed. When creating e-courses, visual images require alternate texts that explain the purpose of the graphic.

HTML Web classes require:

- logical consistent navigation
- text descriptions for all PowerPoint slides, graphics, charts, and tables
- transcripts for each sound file
- D-Links which are description hyperlinks that provide explanations of pictures and graphics

Problems encountered include:

- allowing sufficient time to develop content and accessible features
- deciding which format to use —HTML or PHP
- completing literature reviews
- testing of template design
- checking accessibility of the template
- checking the accessibility of the content
- ensuring all pages have a consistent look and feel

- ensuring coding is consistent throughout
- ensuring consistency of color schemes (e.g., high contrast for people with low vision)
- including skip navigation links on the top of the application
- testing accessibility
- using active voice
- keeping accessible features visible, thus enabling the tool to become a teaching tool itself
- ensuring that image maps, tables, PowerPoint slides, and Excel charts are accessible
- evaluating each page for accessible errors

Designing for the Life Span is an undergraduate course in human factors design and engineering developed and taught on-site at the Georgia Tech College of Architecture. This course provides an example of a course retrofitted after completion for accessibility. Retrofitting courses is often more challenging than creating an accessible online course from scratch.

Federal Courts Concepts is one of several modules created from scratch using fully accessible software to create a website that is accessible to all. This module on the federal court system is designed for instructors of high school civics and undergraduate political science courses.

Introduction to Fluid Mechanics is an example of a graduate-level course that has been converted to online presentation. Georgia Tech has a state-of-the-art technology in which to create the converted online course and this year the goal is to have all the classes online.

Finding Your Champions – Creating Accessibility Buy-In

Presenter: Kevin Price, Education and IT Specialist, Southeast Disability and Business Technical Assistance Center

Accessibility to online distance education costs in terms of time and money for those who develop course content and for those who are creating the technology infrastructure for the content. This presentation described the key stakeholders that are necessary to create change in information technology accessibility. A discussion of the factors used to motivate stakeholders and how to replicate this motivation revealed that creating “buy-in” requires commitment, time, and information sharing.

Identify “champions” a.k.a. key stakeholders who can:

- provide leadership
- share common values regarding accessibility
- have access to resources to make change happen
- invite new opportunity and enjoy promoting a cause
- have connections with peers and with a network of others

Creating Buy-In − the Process

- gather those who have an interest in accessibility
    - seek people from a variety of backgrounds
    - seek people who have established that they favor accessibility
    - seek administrators that have power to effect change
    - seek those who know information technology
    - seek end users – persons with disabilities
- define the important issues
    - concerns – family and personal
    - relationships - friends and foes
- select a few issues (namely, those that will lead to success)
- package the message
    - determine what consistent themes are to be included in the message
    - identify resources
    - define terms in easy-to-understand language
- determine modes of communication
    - word of mouth
    - advertisement
    - social
    - political
    - determine mechanisms for communication
        - e-mail
        - newsletter
        - blogging
        - discussion lists
        - websites
        - chats
- provide necessary support
    - ensure that resources are adequate
    - identify one point-of-contact
    - provide training
    - schedule ongoing meetings

Voluntary Guidelines for Accessible Distance Education

Presenter: Curtis Edmonds (Senior Staff Attorney, New Jersey Protection & Advocacy, Inc.) and Robert Todd (Research Scientist, Georgia Tech)

Many colleges and universities have adopted either the Section 508 standards as defined by the federal government or the Web Content Accessibility Guideline (WCAG) promulgated by the World Wide Web Consortium (W3C) as part of their Internet accessibility policies on their campuses. Neither Section 508 nor the WCAG cover “second generation” documents produced using non-HTML formats. Online distance education programs use these “second generation” documents, such as Microsoft PowerPoint presentations, Macromedia Flash animations, and Adobe Portable Document Format files, extensively. Those creating such documents need guidance on the appropriate way to offer these documents in an

accessible manner for all students, including students with disabilities. GRADE, in cooperation with MERLOT, has developed a draft set of voluntary standards for "second generation" documents. These voluntary standards can be adopted immediately by colleges and universities who are committed to accessibility in the field of distance education.

What is Section 508?

Section 508 of the Rehabilitation Act requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, they shall ensure that this technology allows:

- Federal employees with disabilities to have access to and use of information and data that is comparable to that by Federal employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency, and
- Individuals with disabilities, who are members of the public seeking information or services from a Federal agency, to have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities.

The Architectural and Transportation Barriers Compliance Board (or Access Board) was charged with developing technical and functional provisions to establish a minimum level of accessibility. These technology-specific provisions address:

- software applications and operating systems,
- web-based information or applications,
- telecommunications products,
- video or multi-media products,
- self contained, closed products such as information kiosks and transaction machines, and
- desktop and portable computers.

These provisions also address compatibility with assistive technologies that some people with disabilities use for information and communication access. It is important to realize that the scope of Section 508 is limited to the Federal sector. It does not apply to the private sector, nor does it generally impose requirements on the recipients of Federal funds.

The law establishes a complaint procedure and reporting requirements that further promote compliance. Section 508 provides that any individual with a disability may file a complaint alleging that a Federal agency fails to comply with Section 508 when procuring EIT.

What is Section 504?

Section 504, and unfunded federal mandate, is a civil rights law that prohibits discrimination against individuals with disabilities. Section 504 ensures that the child

with a disability has equal access to an education. The child may receive accommodations and modifications.

Unlike the Individuals with Disabilities Education Act (IDEA), Section 504 does not require the school to provide an individualized educational program (IEP) that is designed to meet the child's unique needs and provides the child with educational benefit. Fewer procedural safeguards are available for disabled children and their parents under Section 504 than under IDEA.

The State of Accessibility Policy in Distance Education

Presenter: Cyndi Rowland, Technology Director, National Center on Disabilities and Access to Education

The direct accessibility of distance education has improved over the years and at the same time continues as a significant barrier in the education of students with disabilities. All students should have the right of choice in their education, of concern is how is student choice best accomplished. The use of policy can set an environment where access is expected. However, there are many difficulties using policy as the touchstone for accessibility reform. The status of federal and state policy was discussed. In addition, specific policies successfully used in education were mentioned.

Statistics

- 5% of Americans report a disability
- 9% of entering college freshman report a disability
- 8.5% of the general population have a disability that affect computer and Internet use
- 90% of public institutions offer distance education opportunities
- 48% of students at postsecondary institutions request accommodations
- 24% of postsecondary institutions have accessible websites
- 90% of all access errors on the Web regarding accessibility involve graphics and other images

Web accessibility is required by federal statues and many state statutes. When asked why they do not design accessible Web pages, many developers state that:

- they were not aware of the problem;
- accessibility will hinder the look, feel, and functionality of the site;
- they need training
- they don’t know how to do it
- they don’t have the budget to purchase accessibility software

Institutions that have made successful transitions to accessible Websites have instituted policies that are monitored and they provide training and assistance for staff.

The Rehabilitation Act impacts accessibility:

- Section 504

    - impacts all federally funded programs
    - affirmative obligation to plan in advance
    - courts are knocking down past accommodation policies
- Section 508
    - impacts all federally funded programs
    - interpreted not to apply to states with Technical Act monies
    - used to design the baseline for access
    - emerging in federal RFPs and contracts
    - emerging in procurement language
    - voluntary self reporting protocol for assistive technology
    - VPATs continue to be problematic
    - monitoring is poor
    - "access" means different things to different segments of society
- Model for Access
    - reactive – not proactive
    - native access can be achieved, but model reinforces "accommodation"
- Influence Points
    - become involved with reauthorization
    - connect with the Access Board

NIMAS

The federal government has determined that states can write their own plan or they can accept what the vendors voluntarily provide when they adhere to National Instructional Materials Accessibility Standards (NIMAS). Large corporate publishers have been reluctant to comply with NIMAS standards, but small independent publishing companies are complying. This could force larger companies to comply.

Landmark court case: University California at Berkley spent more than $1 million dollars to defend its position that there was no need to put closed captions on video streams. Berkley's position was that they met the letter of the law by providing interpreters and therefore captions were not necessary. The students with disabilities won because the court ruled the Berkley denied the students a choice.

Authoring Tools – Accessibility by Exceptions or Universal Access for All

Presenter: Jon Gunderson, Coordinator of Information Technology Accessibility, University of Illinois at Urbana/Champaign

The key to the future of accessibility of online resources is the ability of authoring tools to support accessibility. Current authoring tools may make it possible for people to create accessible online materials, but it is still up to the author to have the knowledge of accessible design techniques and then be able to translate those techniques into the capabilities, or lack of capabilities, of the authoring tools that are available. This method is defined as "accessibility by exception" and we need to have "accessibility by default." The default process would enable the creation of instructional materials to support accessible design; in other words, by using the tool the accessibility features would be automatically built into the Website. The ultimate goal is to provide all users with more options and flexibility, and not to only improve accessibility for those who are disabled.

In a crowded sports bar the close captions on the television sets provide accessibility to all, not just the disabled. Likewise, the ramps and accessible curbs provide accessibility to people who are pushing baby strollers, pulling suitcases, and rolling wheelchairs. The more we can promote the fact that accessibility touches everyone, not just the disabled, the easier it will be for policy to be enacted.

Problems with Web accessibility:

- teachers are not Web developers
- teachers are not aware of how to make material accessible
- there is an increase of instructional material on the Internet and it is not accessible
- there are lots of teachers who have no knowledge of accessibility
- the major problem is that many teachers do not have an appropriate authoring tool (e.g. Dreamweaver)

At the University of Illinois, a project to create a Web publishing tool (Illinois Accessible Web Publishing Wizard) that makes Websites accessible for instructional material aspired to these goals:

- create accessible HTML by default
- increase knowledge of accessibility on HTML
- create prompts that provide accessibility information for the users
- automatically generate equivalent text into MS Word, MS Excel, and PowerPoint applications
- create a usable publishing tool that offers functionality to all
- create a Web publishing tool that is compatible with programs like *Opera* and *Zoom Text* that allow the user to select the font size, text color, and background color

Next Steps

- Employ best practice
- Improve features to include
    - complex word tables
    - slides with high number of images
    - increased styling options
- Create new features that include
    - organizational charts
    - audio and video
    - scalable Vector Graphics (SVG) output

New Directions: Where do we go from here?

The last session for each day of the Institute consisted of Round Table discussions. Participants selected a group to engage with during the round table discussions. On Saturday morning, Round Table groups reconvened to provide a summary of their thoughts on their assigned topics. Topics included issues of concern for vendors, a discussion about policy, motivating the use of accessible distance education, and technical concerns.

Vendor Issues and Solutions

- Build Relationships
    - with consumers
    - with information technology developers

- Identify Products and Problems
    - limited resources
    - isolation
    - poor use of accessibility reports
    - VPATs are vague or inaccurate
    - third party testing is often incomplete
    - identify the critical mass to determine if there is a product or if one needs to be developed
    - post identified problems (via a list serve) so solutions can be identified and discussed
    - participate in collaboration and testing

- Develop Consortiums
    - write white papers to create awareness
    - collaborate with developers
    - organize beta testing
    - develop design documents
    - identify documentation needs
    - identify developer contracts
    - identify collaboration leadership
    - develop design resources
- White Papers
    - identify accessibility problems
    - identify accessibly enhancements
    - provide user scenarios
    - document issues
    - identify problems with multimedia resources
- Quality Assurance Process
    - complete an internal review of accessible features
    - complete an external review of accessible features

Key Factors that Influence Policy

- Awareness
    - administration
    - academic
    - infrastructure
    - train teachers
    - develop awareness

        - identify problems and obstacles
        - develop action plan

- Policy Creation
    - specificity
    - stakeholders
    - enforceability
    - identify an evangelist/champion
    - involve those who can carry the message forward
    - bring all parties to the table
    - write a draft policy
    - identify change agents
    - secure institutional buy-in
    - benchmark the policy
- Policy Implementation
    - sustainability
        - institutional investment
        - institutional authority
        - ongoing support
    - measurability
        - standards based
        - compliance and evaluation
        - tiered implementation
    - consequences
        - clear and consistent expectations
        - enforcement mechanisms
        - positive supports
        - negative motivators
- Barriers to Effectiveness
    - institutional opposition
        - resource scarcity
        - passive resistance
        - building the business case
    - institutional support
        - impact beyond disability
        - sustainability
        - effective use of resources
- Promising Practices
    - regional standards
    - evaluation and support services
    - cover the break points
        - administrative policy
        - academic policy
        - infrastructure policy
        - purchasing policy

Motivating Teachers and Technical Designers to Create/Retrofit Accessible Distance Education

- Institutional
    - establish policy to include regular monitoring of accessible distance education
    - include accessibility as a component in teacher training and in orientation materials
    - include technical training, pedagogy, and assistive technology access
    - train information technology and technical support staff
    - provide support for accessible design for faculty teaching online courses
- Administrative/Legislative
    - promote universal design to advance accessibility features in online teaching and learning
    - require universal design in procurement
    - require an accessibility impact statement
    - advocate that all sources of funding (including grants) include a requirement stating that all online components developed as a result of the grant be accessible
- Industry/Vendors
    - promote universal design
    - embed accessibility training in all training documents
    - request that development tools have accessibility features be the default and not something one has to turn on
- Accreditation/Licensure
    - incorporate accessibility requirements as a standard for licensure and accreditation
    - encourage use of universal design as a measure for tenure

Techniques for Accessibility

- Accessible Formats
    - include descriptions for case and positioning for diagrams, charts, art, mathematical symbols, equations, and scientific notations
    - create templates and tools that are accessible
    - create a list of basic tags (e.g., paragraph, list, item, link) for inexperienced users, to promote consistency and proper usage of tags
    - employ sufficient resources to support development of Websites

- Accessible Delivery for Hearing Impaired/Deaf
    - identify students' preferred mode of delivery
    - ensure compatibility of tools used by the student with the Web page accessed
    - ensure compatibility of tools used by the student with each other tools
    - explore real-time captioning for instructional purposes
    - encourage captioning of video streams and online lectures
- Accessible Delivery for Visually Impaired/Blind
    - identify students' preferred mode of delivery
    - ensure compatibility of tools used by the student with the Web page accessed
    - ensure compatibility of tools used by the student with each other tools (e.g., A student that requires the use of a text reader and a font enlarger must have applications that work harmoniously with each other.)
- Accessible Assessments
    - accommodations should not be legislated or controlled by administrative decisions; accommodations must be appropriate for individual students
    - accessibility features cannot compromise the integrity and security of the assessment
    - tools and systems must be standardized
- Accessible Course Content

- teachers believe that they have lost control when providing distance education opportunities
- conflict between technology and content [There is a conflict among grammar, visual representation, and accessible features of some applications (e.g., For a Web-based PowerPoint presentation to be accessible for a text reader, it must have stop points. Periods are used to create stop points, so each line must have a period. Grammatically, these lines should not have periods and visually periods on PowerPoint presentations are distracting. This is one example of the conflict between technology and content.)]

Websites and Links to Accessibility Resources

For information technology accessibility, search:

Resource	Website
Accessible Information Technology in Education (Access IT)	http://www.washington.edu/accessit/about.php
Southeast DBTAC EduIT Portal	http://www.sedbtac.org/ed/resources/sources Lev3.cfm?category=19&subcat=1093
Information Technology and Technical Assistance Training Center	http://www.ittatc.org
EvaluTec	http://www.evalutech.sreb.org/accessible/ accessibleresourcelist.asp
Microsoft Windows Accessibility	http://www.microsoft.com/enable/taining
Apple Accessibility	http://www.apple.com/disability

To evaluate Websites or software for accessibility, search:

Resource	Website
W3C Guidelines	http://www.w3c.org/WAI/evalOverview.html
Web Content Accessibility Guidelines	http://nces.ed.gov.pubs2003/secureweb/a_F.asp
IBM Web Accessibility Checklist	http://www.-3.ibm.com/able/guidelines/web /accessweb.html
IMS Guidelines for Developing accessible Learning Applications	http://ncam.wgbh.org/salt/guidelines/sec2.html
Section 508 Checklist	http://www.webaim.org/staqndard/508/checklist
(Making) Adobe PDF Files (Accessible)	http://access.adobe.com/section 508.html
Side-by-Side Comparison of Section 508 and WCAG Guidelines	http://jimthatcher.com/sidebyside.htm#Overview
HTML Commandments (for accessible Web sites)	http://www.utoronto.ca/atrc/rd/html/ commandments.html
Section 508 Checklist: Web Accessibility in Mind	http://www.webaim.org/standards/508/checklist

To evaluate Websites for 508 compliance, search:

Resource	Website
Ask Alice™	http://askalice.ssbtechnologies.com8080 /adob-askalice/faq.html
A-Prompt	http://aprompt.snow.utoronto.ca
Bobby	http://bobby.watchfire.com/bobby.html/en/index.jsp
Cynthia Says Portal	http://www.cynthiasays.com
WAVE	http://www.wave.webaim.org/wave/index.jsp

For information technology accessibility laws, search:

Resource	Website
Electronic and Information Technology Accessibility Standards (Section 508 of the Rehabilitation Act Amendment of 1998)	http://www.accessboard.gov/sec508/508standards.htm
Section 508 Website	http://www.section508.gov/index.cfm?FuseAction =Content&ID=3
Federal and State Legislation Regarding Accessible Instructional Materials	http://www.usability.gov/web_508/tutorial.html
State Laws and Policies	http://www.ataporg.org/summary.htm
508 tutorials	http://www.usability.gov/web_508/tutorial.html
State IT Accessibility Initiatives	http://www. ittatc.org/laws/state_prototype.cfm

For tools to adapt Websites for accessibility, search:

Resource	Website
Designing More Usable Web Sites	http://trace.wisc.edu/world/web/index.html
National Center for Accessible Media	http://ncam.wgbh.org/richmedia/tutorials
How to (make your Web site accessible) and Resources	http://www.webaim.org/howto
SNOW Evaluation & Repair Tools	http://snow.utoronto.ca/access/tools.index. html?showaccess=1
Evaluation and Repair Tools	http://www. webaim.org/products/evalandrepair/
Evaluation, Repair and Transformation Tools for Web Content Accessibility	http://www.w3.org/WAI/ER/existingtools.html
Resource	**Website**
Archimedes Project	http://archimedes.stanford.edu/Ability_mag.pdf
Assistive Technology in K-12 Schools	http://www.ataccess.org/resources/atk12/default.html
Web Toolboxes for Educators: Software & Assistive Technology	http://www.ed.sc.edu./caw/toolboxat.html
Captioned Media Program	http://www.cfv.org/about.asp?secid-2southeast
Southeast DBTAC EduIT Portal	http://www. sedbtac.org/ed/resources/sourcesLev3.cfm?category=19&subcat=1093
Symbols for Accessible Media	http://main.wgbh.org/wgbh/hire/symbols.html

For resources for students, search:

Resource	Website
Just for Kids	http://www.disabilityresources.org
The Blind Readers' Page	http://blindreaders.info/index.html
Adaptive Computing Technology Center	http//iatservices.missouri.edu/adaptive
Evaluation Guideline for Software for the Deaf	http://clerccenter2gallaudet.edu/stg/how-to-evaluate.html
Just for Youth	http://www.familyvillage.wisc.edu/education

For resources for parents, search:

Resource	Website
Assistive Technology	http://www.assistivetech.net
Just for Parents	http://www.disabilityresource.org/PARENTS-OF.html#TOP
Ability Hub	http://www.abilityhub.com
Family guide to Assistive Technology	http://www.pluk.org/AT1.html#1
DisabilityInfo.Gov	http://www.disabilityinfo.gov
Alliance for Technology Access	http://www. ataccess.org/hub

Key Checkpoints for Accessibility

Paper and Pencil Assessments	**Yes**	**No**	**N/A**
Provide text equivalent for every non-text element (e.g. images, graphics, symbols, objects, list bullets, etc.).			
Ensure that all information conveyed with color is also available without color.			
Clearly identify changes in natural language in document text and text equivalents.			
Organize documents so they may be read without style sheets.			
Ensure that text equivalents for dynamic content are updated when dynamic content changes.			
Identify row and column headers on data tables.			
Have two or more logical levels of row or column headers for data cells.			
Use clear, simple, plain language.			
Online Assessments	**Yes**	**No**	**N/A**
Provide redundant text links for each active region of a server-side image map.			
Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape.			
Avoid screen flicker.			
Title each frame to facilitate frame identification and navigation.			
Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported.			
Provide auditory description of important information of the visual track of a multimedia presentation.			

Modifying Items

The most important aspect of the development of any assessment is a clear understanding of the students being assessed and the content that is the basis of the assessment. The first step in the item modification process for an assessment is to fully validate the set of guidelines or framework for this particular type of alternate assessment to gain a thorough understanding of the needs of the targeted population and content (Gong 2007).

The tasks essential in the development of a successful modified assessment include:

- Identifying characteristics of the range of students who would be eligible for the assessment.
- Articulating standard-by-standard the tasks that would best differentiate students in this population who are mastering essential knowledge and skills from those who are not.
- Identifying the cognitive tasks that students in this group are most likely to be successful with and tasks they would be most challenged by.

All the items of an assessment may not have to be modified when using the general assessment as a foundation. There are several questions to guide the review of the items for modification (Perie, 2009). For example:

- What is the focus of the item?
- What is the vocabulary load?
- Do charts and graphs, or other visuals support or detract from understanding?
- What is the closeness of the distractors?
- What is the complexity or abstractness of ideas?
- How many steps are required for mathematics items?

Some modifications should be universal for all subjects. For example, the number of questions on a given page should be minimized with more white space or a larger font size could be used. The number of answer options could be reduced to three, and items should be modified to avoid requiring students selecting the better or best answer. The items and tests should be designed to allow for the same accommodations as in the general education assessment. Outlined below are modifications, revisions, and enhancements that could be used to modify items, including content specific guidelines (Hess, Fincher, McDivitt 2008).

Modifications, Revisions, and Enhancements

Modifications	Revisions	Enhancements
Add white space	Simplify language	Add helpful hints in a "Thought Balloon" with a definition or reminder
Number paragraphs or lines	Simplify graphics	Provide scaffolding
Number lines	Eliminate extraneous information	Use a graphic organizer
Provide work space	Reformat items or passages	Use tables and charts
Call attention to key words	Adjust layouts	Use a sidebar glossary

Content Specific Guidelines

Reading

- Reading passages can be displayed in one-column format.
- Use more familiar and underline words in distractors
- Shorten stems and/or shorten stems and make distractors complete sentences
- Simplify distractors
- Arrange passages into conceptually meaningful parts or segment into smaller portions of equal parts, placing the related questions that pertain to the smaller portion or segment underneath the segment or on a page facing the segment.
- Passages should not be adapted that would make them below grade level. The number of items should not be reduced significantly per passage or a significant number of items be added to fewer passages. Questions should not be revised to change the construct of what is being tested.

Sample Reading Item

BEFORE	AFTER
In line 12 of the poem, what does the word fluttering abandon mean?	What do the words "fluttering abandon" mean?
A. to fly with uncertainty B. to move cautiously away from predators C. to fly unbounded by plan or fear* D. to move methodically from flower to flower	A. to fly with doubt B. to move carefully away from harm C. to fly without a plan or fear*

Mathematics

- Reorganized and simplified text
- Change format
- Simplify reading load
- Underline key words
- Display numbers on all sides of figures
- Answer choices with positive and negative numbers that use the same number should be avoided
- Qualifiers in the stem and the answers choices should be consistent
- Reduce complicated art and graphics

Sample Mathematics Item

BEFORE	AFTER
Tom has three white marbles, four black marbles, and six striped marbles in his marble bag. How many marbles does he have altogether in his marble bag?	Tom has 3 white marbles 4 black marbles 6 striped marbles How many marbles does Tom have altogether?

Science

- Reduce the reading load
- Underline key words or phrases
- Avoid complicated graphics
- Simplify tables and charts by removing irrelevant rows or columns
- Box formulas to make them stand out
- Simplify stems

Sample Science Item

BEFORE
In a forest food chain, plants get their energy from the Sun, and animals get their energy from plants and other animals. Which of the following shows the correct order of an energy flow in a forest?

A. Trees are eaten by caterpillars and caterpillars are eaten by birds. *
B. Trees are eaten by birds and birds are eaten by caterpillars.
C. Birds are eaten by caterpillars and caterpillars are eaten by trees
D. Birds are eaten by trees and trees are eaten by caterpillars.

AFTER
Which diagram correctly shows the flow of energy in a forest food chain?
A. Trees → Caterpillars → Birds *
B. Trees → Birds → Caterpillars
C. Birds → Caterpillars → Trees

Writing Prompts

- Update checklists describing the aspects that will be grades to match the new rubric.
- Simplify rubrics
- Use holistic rubrics

Please see the publication provided with permission of Hess, Fincher, and McDivitt, "Who are the 2% students and how do we design test items and assessments that provide greater access for them?" in section II of the proposal.

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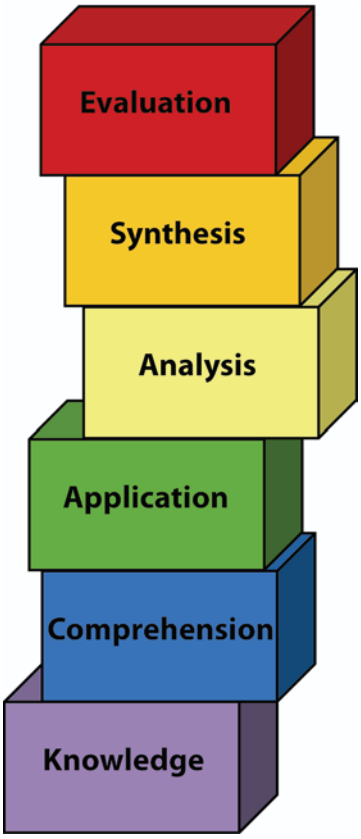
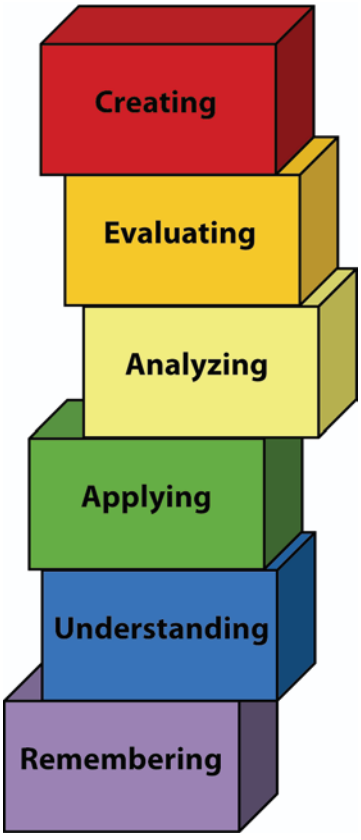
Understanding Depth of Knowledge and Cognitive Complexity
Pennsylvania Review of Items

One of the steps in the item review process involves Pennsylvania educators' review of items for cognitive complexity or the nature of thinking. One model for classifying thinking into cognitive levels of complexity is Bloom's Taxonomy. Bloom's Taxonomy was first presented in 1956 through the publication, *The Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain*. This taxonomy identifies six levels within the cognitive domain, from the simple recall or recognition of facts, at the lowest level, through increasingly more complex levels, to the highest level which is classified as evaluation.

During the late 1990s, the original Bloom's Taxonomy was revised (Anderson and Krathwohl, 2001). In the 2001 version of Bloom's Taxonomy, the names of the six major cognitive process categories or levels were revised to indicate action (verbs) rather than non-action (nouns) as noted in the graphic below.



Bloom's Taxonomy (1956)



Revised Taxonomy (2001)

More recently, Webb's Depth-of- Knowledge Levels have also been used in the review of items for cognitive demand. Webb's Depth of Knowledge was created by Norman Webb from the Wisconsin Center for Education Research. Webb's definition of depth of knowledge is the degree or complexity of knowledge that the content curriculum standards and expectations

require. Therefore, when reviewing items for depth of knowledge, the item is reviewed to determine whether or not it is as demanding cognitively as what the actual content curriculum standard expects. In the case of the Pennsylvania Keystone, PSSA, and CDT items, the item meets the criterion if the depth of knowledge of the item is in alignment with the depth of knowledge of the Assessment Anchor as defined by the Eligible Content.

Webb's Depth of Knowledge includes four levels, from the lowest (basic recall) to the highest (extended thinking). Verb examples that represent each level in Webb's Depth of Knowledge can be found in the information that follows. However, verbs alone do not describe the depth of knowledge. Rather, depth of knowledge also focuses upon how well the students need to know the content before they can respond to a given item.

Because Bloom's Taxonomy (1956) is very familiar to many teachers, information comparing Bloom's Taxonomy and Webb's Depth of Knowledge is provided to Pennsylvania educators during the review of the items. The comparison serves as a "bridge" for teachers to understand Webb's Depth of Knowledge as compared to Bloom's Taxonomy.

Depth of Knowledge Guidelines for Review of Items

Committees of Pennsylvania educators review each item, not only to determine whether or not the item measures what it is intended to measure, but also to determine whether or not the item aligns with the cognitive level or depth of knowledge of the Assessment Anchor as defined by the Eligible Content. The information below provides a definition of the four depth-of-knowledge levels. The charts at the end of the section also provide a comparison between Bloom's Taxonomy and Webb's Depth of Knowledge for mathematics and Algebra I, Algebra II, and Geometry. Included are examples of verbs (i.e., the action). Using this information as well as the charts, Pennsylvania educators are asked to determine the depth of knowledge of each item and to verify that the depth of knowledge of each item is in alignment with the depth of knowledge of the Assessment Anchor as defined by the Eligible Content.

Definitions of Webb's Depth of Knowledge

Level 1 (Recall) requires the recall of information such as a fact, definition, term, or a simple procedure, as well as performing a simple algorithm or applying a formula. That is, in mathematics, a one-step, well-defined, and straight algorithmic procedure should be included at this lowest level. Other key words that signify Level 1 include "identify," "recall," "recognize," "use," and "measure." Verbs such as "describe" and "explain" could be classified at different levels, depending on what is to be described and explained.

Level 2 (Skill/Concept) requires the engagement of some mental processing beyond a habitual response. A Level 2 item requires students to make some decisions as to how to approach the problem or activity, whereas Level 1 requires students to demonstrate a rote response, perform a well-known algorithm, follow a set procedure (like a recipe), or perform a clearly defined series of steps. Keywords that generally distinguish a Level 2 item include "classify," "organize," "estimate," "make observations," "collect and display data," and "compare data." These actions imply more than one step. For example, to compare data requires first identifying characteristics of objects or phenomena and then grouping or ordering the objects. Some action verbs, such as "explain," "describe," or "interpret," could be classified at different levels depending on the object of the action. For example, interpreting information from a simple graph, or reading information from the graph, are also at Level 2. Interpreting information from a complex graph that requires some decisions on what features of the graph need to be considered and how information from the graph can be aggregated is at Level 3. Level 2 activities are not limited only to number skills, but may involve visualization skills and probability skills. Other Level 2 activities include noticing or describing non-trivial patterns; explaining the purpose and use of experimental procedures; carrying out experimental procedures; making observations and collecting data; classifying, organizing, and comparing data; and organizing and displaying data in tables, graphs, and charts.

Level 3 (Strategic Thinking) requires reasoning, planning, using evidence, and a higher level of thinking than the previous two levels. In most instances, requiring students to explain their thinking is at Level 3. Activities that require students to make conjectures are also at this level. The cognitive demands at Level 3 are complex and abstract. The complexity does not result from the fact that there are multiple answers, a possibility for both Levels 1 and 2, but because the task requires more demanding reasoning. An activity, however, that has more than one possible answer and requires students to justify the response they give would most likely be at Level 3.

Other Level 3 activities include drawing conclusions from observations; citing evidence and developing a logical argument for concepts; explaining phenomena in terms of concepts; and deciding which concepts to apply in order to solve a complex problem.

Level 4 (Extended Thinking) requires complex reasoning, planning, developing, and thinking most likely over an extended period of time. The extended time period is not a distinguishing factor if the required work is only repetitive and does not require applying significant conceptual understanding and higher-order thinking. For example, if a student has to take the water temperature from a river each day for a month and then construct a graph, this would be classified as a Level 2. However, if the student is to conduct a river study that requires taking into consideration a number of variables, this would be a Level 4. At Level 4, the cognitive demands of the task should be high and the work should be very complex. Students should be required to make several connections—relate ideas *within* the content area or *among* content areas—and have to select one approach among many alternatives on how the situation should be solved, in order to be at this highest level. Level 4 activities include designing *and* conducting experiments and projects; developing and proving conjectures; making connections between a finding and related concepts and phenomena; combining and synthesizing ideas into new concepts; and critiquing experimental designs.

Note: Multiple-choice and constructed-response items can be written at a depth-of-knowledge Level 4; however, to design an item in this format is difficult, as it would require research, investigation, and application, often over an extended period of time (e.g., performance-based tasks; portfolios; research studies/projects).

(Webb, N. 1997, 1999, 2002, 2005, 2006)

Bloom's Taxonomy—Mathematics

Categories (1956)	Definition	Examples of Action Words*
Knowledge	Student remembers, or recalls appropriate previously learned information.	define; identify; name; select; state; order; (involves a one-step problem)
Comprehension	Student translates, comprehends, or interprets information based on prior learning.	convert; estimate; explain; express; factor; generalize; give example; identify; indicate; locate; picture; (involves two or more steps)
Application	Student selects, transfers, and uses data and principles to complete a task or problem with minimum directions.	apply; choose; compute; employ; interpret; graph; modify; operate; plot; practice; solve; use; (involves three or more steps)
Analysis	Student distinguishes, classifies, and relates assumptions, hypotheses, evidence, or structure of a statement or question.	compare; contrast; correlate; differentiate; discriminate; examine; infer; maximize; minimize; prioritize; subdivide; test
Synthesis	Student originates, integrates, and combines ideas into a product, plan, or proposal that is new to him or her.	arrange; collect; construct; design; develop; formulate; organize; set up; prepare; plan; propose; create experiment and record data
Evaluation	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	appraise; assess; defend estimate; evaluate; judge; predict; rate; validate; verify

Webb's Depth of Knowledge—Mathematics

Categories	Definition	Example of Action Words*
Recall	Student recalls facts, information, procedures, or definitions.	define; identify; name; select; state; order; one step
Basic Application of Skill/Concept	Student uses information, conceptual knowledge, and procedures.	apply; choose; compute; employ; interpret; graph; modify; operate; plot; practice; solve; use; two or more steps
Strategic Thinking	Student uses reasoning and develops a plan or sequence of steps; process has some complexity.	compare; contrast; correlate; differentiate; discriminate; examine; infer; maximize; minimize; prioritize; subdivide; test
Extended Thinking	Student conducts an investigation, needs time to think and process multiple conditions of the problem or task. (The item/task generally requires several days or weeks to complete.)	arrange; collect; construct; design; develop; formulate; organize; set up; prepare; plan; propose; create experiment and record data

*Some action words (verbs) can be classified at different depth-of-knowledge levels depending on the context of the item and the complexity of the action.

Science Depth of Knowledge

Note: "Knowledge" can refer both to content knowledge and knowledge of scientific processes. This meaning of knowledge is consistent with the *National Science Education Standards* (NSES), which terms "Science as Inquiry" as its first Content Standard.

Committees of Pennsylvania educators review each Keystone Exam item, not only to determine whether or not the item measures what it is intended to measure, but also to determine whether or not the item aligns with the cognitive level or depth of knowledge of the Assessment Anchor as defined by the Eligible Content. The information below provides a definition of the four depth-of-knowledge levels. The charts at the end of the section also provide a comparison between Bloom's Taxonomy and Webb's Depth of Knowledge for biology. Included are examples of verbs (i.e., the action). Using this information as well as the charts, Pennsylvania educators are asked to determine the depth of knowledge of each item and to verify that the depth of knowledge of each item is in alignment with the depth of knowledge of the Assessment Anchor as defined by the Eligible Content.

Definitions of Webb's Depth of Knowledge

Level 1 (Recall) requires the recall of information, such as a fact, definition, term, or a simple procedure, as well as performance of a simple science process or procedure. Level 1 only requires students to demonstrate a rote response, use a well-known formula, follow a set procedure (like a recipe), or perform a clearly defined series of steps. A "simple" procedure is well defined and typically involves only one step. Verbs such as "identify," "recall," "recognize," "use," "calculate," and "measure" generally represent cognitive work at the recall level. Simple word problems that can be directly translated into and solved by a formula are considered Level 1. Verbs such as "describe" and "explain" could be classified at different depth-of-knowledge levels, depending on the complexity of what is to be described and explained.

A student answering a Level 1 item either knows the answer or does not: that is, the item does not need to be "figured out" or "solved." In other words, if the knowledge necessary to answer an item automatically provides the answer to it, then the item is at Level 1. If the knowledge needed to answer the item is not automatically provided in the stem, the item is at least at Level 2. Some examples that represent but do not constitute all Level 1 performance are as follows:

- Recall or recognize a fact, term, or property.
- Represent in words or diagrams a scientific concept or relationship.
- Provide or recognize a standard scientific representation for simple phenomenon.
- Perform a routine procedure, such as measuring length.

Level 2 (Skills and Concepts) requires the engagement of some mental processing beyond recalling. The content knowledge or process involved is **more complex** than in Level 1. Items require students to make some decisions as to how to approach the question or problem. Keywords that generally distinguish a Level 2 item include "classify," "organize," "estimate," "make observations," "collect and display data," and "compare data." These actions imply **more than one step**. For example, to compare data requires first identifying characteristics of the objects or phenomena and then grouping or ordering the objects. Level 2 activities include

making observations and collecting data; classifying, organizing, and comparing data; and organizing and displaying data in tables, graphs, and charts. Some action verbs, such as "explain," "describe," or "interpret," could be classified at different depth-of-knowledge levels, depending on the complexity of the action. For example, interpreting information from a simple graph, which requires reading information from the graph, is a Level 2. An item that requires interpretation from a complex graph, such as making decisions regarding features of the graph that need to be considered and how information from the graph can be aggregated, is at Level 3. Some examples that represent but do not constitute all of Level 2 performance are as follows:

- Specify and explain the relationship between facts, terms, properties, or variables.
- Describe and explain examples and non-examples of science concepts.
- Select a procedure according to specified criteria and perform it.
- Formulate a routine problem, given data and conditions.
- Organize, represent, and interpret data.

Level 3 (Strategic Thinking) requires reasoning, planning, using evidence, and a higher level of thinking than the previous two levels. The cognitive demands at Level 3 are complex and abstract. The complexity does not result only from the fact that there could be multiple answers, a possibility for both Levels 1 and 2, but because the multi-step task requires more demanding reasoning. In most instances, requiring students to explain their thinking is at Level 3; requiring a very simple explanation or a word or two should be at Level 2. An activity that has more than one possible answer and requires students to justify the response they give would most likely be a Level 3. Experimental designs in Level 3 typically involve more than one dependent variable. Other Level 3 activities include drawing conclusions from observations; citing evidence and developing a logical argument for concepts; explaining phenomena in terms of concepts; and using concepts to solve non-routine problems. Some examples that represent but do not constitute all Level 3 performance are as follows:

- Identify research questions and design investigations for a scientific problem.
- Solve non-routine problems.
- Develop a scientific model for a complex situation.
- Form conclusions from experimental data.

Level 4 (Extended Thinking) requires high cognitive demands and complexity. Students are required to make several connections—relate ideas within the content area or among content areas—and have to select or devise one approach among many alternatives to solve the problem. Many on-demand assessment instruments will not include any assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated in such a way as to expect students to perform extended thinking. "Develop generalizations of the results obtained and the strategies used and apply them to new problem situations," is an example of a grade 8 objective that is a Level 4. Many, but not all, performance assessments and open-ended assessment activities requiring significant thought will be Level 4.

Level 4 involves complex reasoning, experimental design and planning, and probably will require an extended period of time either for the science investigation required by an objective, or for carrying out the multiple steps of an assessment item. However, the extended time period is not a distinguishing factor if the required work is only repetitive and does not require applying significant conceptual understanding and higher-order thinking. For example, if a student is

asked to take the water temperature from a river each day for a month and then construct a graph, this would be classified as a Level 2 activity. However, if the student conducts a river study that requires taking into consideration a number of variables, this would be a Level 4. Some examples that represent but do not constitute all Level 4 performance are as follows:

- Based on data provided from a complex experiment that is novel to the student, deduct the fundamental relationship between several controlled variables.
- Conduct an investigation, from specifying a problem to designing and carrying out an experiment, to analyzing its data and forming conclusions.

Note: Multiple-choice and constructed-response items can be written at a depth-of-knowledge Level 4; however, to design an item in this format is difficult, as it would require research, investigation, and application, often over an extended period of time (e.g. performance-based tasks, portfolios, research studies/projects).

(Webb, N. 1997, 1999, 2002, 2005, 2006)

Bloom's Taxonomy—Science

Categories (1956)	Definition	Examples of Action Words*
Knowledge	Student remembers, or recalls appropriate previously learned information.	identify; recall; observe; recognize; use; calculate; measure; order
Comprehension	Student translates, comprehends, or interprets information based on prior learning.	explain; interpret; describe; classify; identify; recognize; predict
Application	Student selects, transfers, and uses data and principles to complete a task or problem with minimum directions.	apply; classify; experiment; interpret; use; order; calculate
Analysis	Student distinguishes, classifies, and relates assumptions, hypotheses, evidence, or structure of a statement or question.	analyze; order; explain; classify; arrange; compare; contrast; infer; calculate; categorize; examine; experiment; question; test
Synthesis	Student originates, integrates, and combines ideas into a product, plan, or proposal that is new to him or her.	combine; arrange; rearrange; modify; invent; design; construct; organize; predict; infer; conclude; create; experiment and record data
Evaluation	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	evaluate; measure; explain; compare; summarize; predict; test decide; rate; conclude

Webb's Depth of Knowledge—Science

Categories	Definition	Examples of Action Words*
Recall	Student recalls facts, information, procedures, or definitions.	identify; recall; observe; recognize; use; calculate; measure; order
Basic Application of Skill/Concept	Student uses information, conceptual knowledge, and procedures.	explain; interpret; describe; classify; identify; order; recognize; predict; apply; use; calculate; organize; estimate; observe; collect; and display data
Strategic Thinking	Student uses reasoning and develops a plan or sequence of steps; process has some complexity.	analyze; order; explain; classify; arrange; compare; contrast; infer; interpret; calculate; categorize; examine; experiment; question; predict; evaluate; test
Extended Thinking	Student conducts an investigation, needs time to think and process multiple conditions of the problem or task. (The item/task generally requires several days or weeks to complete.)	combine; arrange; rearrange; propose; evaluate; modify; invent; design; construct; organize; predict; infer; conclude; evaluate; create; experiment and record data

*Some action words (verbs) can be classified at different depth-of-knowledge levels depending on the context of the item and the complexity of the action.

Reading (Literature and Non-Fiction) Depth of Knowledge

Note: The levels are based on Valencia and Wixson (2000, pp. 909–935).

Committees of Pennsylvania educators review each Keystone Exam item, not only to determine whether or not the item measures what it is intended to measure, but also to determine whether or not the item aligns with the cognitive level or depth of knowledge of the Assessment Anchor as defined by the Eligible Content. The information below provides a definition of the four depth-of-knowledge levels. The charts at the end of the section also provide a comparison between Bloom's Taxonomy and Webb's Depth of Knowledge for literature. Included are examples of verbs (i.e., the action). Using this information as well as the charts, Pennsylvania educators are asked to determine the depth of knowledge of each item and to verify that the depth of knowledge of each item is in alignment with the depth of knowledge of the Assessment Anchor as defined by the Eligible Content.

Definitions of Webb's Depth of Knowledge

Level 1 requires students to receive or recite facts or to use simple skills or abilities. Oral reading that does not include analysis of the text, as well as basic comprehension of a text, is included. Items require only a shallow understanding of the text presented and often consist of verbatim recall from text, slight paraphrasing of specific details from the text, or simple understanding of a single word or phrase. Some examples that represent but do not constitute all Level 1 performance are as follows:

- Support ideas by reference to verbatim or only slightly paraphrased details from the text.
- Use a dictionary to find the meanings of words.
- Recognize figurative language in a reading passage.

Level 2 requires the engagement of some mental processing beyond recalling or reproducing a response; it requires both comprehension and subsequent processing of text or portions of text. Inter-sentence analysis of inference is required. Some important concepts are covered, but not in a complex way. Content curriculum standards and items at this level may include words such as summarize, interpret, infer, classify, organize, collect, display, compare, and determine whether fact or opinion. Literal main ideas are stressed. A Level 2 item may require students to apply skills and concepts that are covered in Level 1. However, items require closer understanding of text, possibly through the item's paraphrasing of both the question and the answer. Some examples that represent but do not constitute all Level 2 performance are as follows:

- Use context cues to identify the meaning of unfamiliar words, phrases, and expressions that could otherwise have multiple meanings.
- Predict a logical outcome based on information in a selection.
- Identify and summarize the major events in a narrative.

Level 3 requires deeper knowledge. Students are encouraged to go beyond the text; however, they are still required to show understanding of the ideas in the text. Students may be encouraged to explain, generalize, or connect ideas. Content curriculum standards and items (Assessment Anchors as defined by the Eligible Content) at Level 3 involve reasoning and planning. Students

must be able to support their thinking. Items may involve abstract theme identification, inference across an entire passage, or students' application of prior knowledge. Items may also involve more superficial connections between texts. Some examples that represent but do not constitute all Level 3 performance are as follows:

- Explain or recognize how the author's purpose affects the interpretation of a selection.
- Summarize information from multiple sources to address a specific topic.
- Analyze and describe the characteristics of various types of literature.

Level 4 requires higher-order thinking and deep knowledge. The content curriculum standard or item at this level will probably require an extended activity, with extended time provided for completing it. The extended time period is not a distinguishing factor if the required work is only repetitive and does not require the application of significant conceptual understanding and higher-order thinking. Students take information from at least one passage of a text and are asked to apply this information to a new task. They may also be asked to develop hypotheses and perform complex analyses of the connections among texts. Some examples that represent but do not constitute all Level 4 performance are as follows:

- Analyze and synthesize information from more than one source.
- Examine and explain alternative perspectives across a variety of sources.
- Describe and illustrate how common themes are found across texts from different cultures.

Note: Multiple-choice and constructed-response items can be written at a depth-of-knowledge Level 4; however, to design an item in this format is difficult, as it would require research, investigation, and application, often over an extended period of time (e.g. performance-based tasks, portfolios, research studies/projects).

(Webb, N. 2005; Valencia and Wixson, 2000)

Bloom's Taxonomy—Reading

Categories (1956)	Definition	Examples of Action Words*
Knowledge	Student remembers, or recalls appropriate previously learned information.	define; identify; name; recall; recognize; select; tell
Comprehension	Student translates, comprehends, or interprets information based on prior learning.	describe; distinguish; explain; identify; indicate; interpret; locate; recognize; restate; summarize
Application	Student selects, transfers, and uses data and principles to complete a task or problem with minimum directions.	apply; choose; demonstrate; determine; interpret; inform; select; show; use
Analysis	Student distinguishes, classifies, and relates assumptions, hypotheses, evidence, or structure of a statement or question.	analyze; characterize; compare; contrast; discriminate; distinguish; explain; infer
Synthesis	Student originates, integrates, and combines ideas into a product, plan, or proposal that is new to him or her.	compose; create; develop; formulate; generalize; organize
Evaluation	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	assess; conclude; convince; defend; evaluate; explain; justify; predict; prove; support

Webb's Depth of Knowledge—Reading

Categories	Definition	Examples of Action Words*
Recall	Student recalls facts, information, procedures, or definitions.	define; identify; locate; name; recall; recognize; sequence; tell
Basic Application of Skill/Concept	Student uses information, conceptual knowledge, and procedures.	apply; compare; comprehend; identify; describe; determine; infer; interpret; predict; summarize; use
Strategic Thinking	Student uses reasoning and develops a plan or sequence of steps; process has some complexity.	analyze; cite evidence; compare; contrast; draw conclusions; explain; generalize; infer; interpret; evaluate; recognize; summarize; support
Extended Thinking	Student conducts an investigation, needs time to think and process multiple conditions of the problem or task. (The item/task generally requires several days or weeks to complete.)	describe and illustrate; evaluate; examine and explain; analyze; synthesize

*Some action words (verbs) can be classified at different depth-of-knowledge levels depending on the context of the item and the complexity of the action.

English Composition

Note: The levels are based on Valencia and Wixson (2000, pp. 909–935).

Committees of Pennsylvania educators review each Keystone Exam item and/or prompt, not only to determine whether or not the item and/or prompt measures what it is intended to measure, but also to determine whether or not the item and/or prompt aligns with the cognitive level or depth of knowledge of the Assessment Anchor as defined by the Eligible Content. The information below provides a definition of the four depth-of-knowledge levels. The charts at the end of the section also provide a comparison between Bloom's Taxonomy and Webb's Depth of Knowledge for English composition. Included are examples of verbs (i.e., the action). Using this information as well as the charts, Pennsylvania educators are asked to determine the depth of knowledge of each item and/or prompt and to verify that the depth of knowledge of each item and/or prompt is in alignment with the depth of knowledge of the Assessment Anchor as defined by the Eligible Content.

Definitions of Webb's Depth of Knowledge

Level 1 requires the student to write or recall simple facts. This writing or recalling does not include complex synthesis or analysis but basic ideas. For example, the students are engaged in listing ideas or words as in a brainstorming activity prior to written composition, are engaged in a simple spelling or vocabulary assessment or are asked to write simple sentences or to identify simple sentences. Students are expected to write using Standard English conventions and to identify Standard English conventions in writing. This includes using and/or recognizing appropriate grammar, punctuation, capitalization, and spelling. Some examples that represent but do not constitute all of Level 1 performance are as follows:

- Use and/or identify correct punctuation marks and capitalization in writing and editing.
- Identify Standard English grammatical structures and identify resources for correction.
- Write and/or identify simple sentences.

Level 2 requires some mental processing. At this level students are engaged in first draft writing for a limited number of purposes and audiences. Students are beginning to connect ideas using a simple organizational structure. For example, students may be engaged in note-taking, outlining, or simple summaries. Text may be limited to one paragraph. Students demonstrate a basic understanding and appropriate use of such reference materials as a dictionary, thesaurus, or web site. Some examples that represent but do not constitute all Level 2 performance are as follows:

- Construct compound sentences.
- Use simple organizational strategies to structure written work.
- Write summaries.
- Edit final drafts of compositions for mechanics and conventions.

Level 3 requires higher level of thinking or mental processing. Students are engaged in developing compositions that include multiple paragraphs. These compositions may include

complex sentence structure and may demonstrate some synthesis and analysis. Students show awareness of their audience and purpose through focus, organization, and the use of appropriate compositional elements. The use of appropriate compositional elements includes, for example, addressing chronological order in a narrative or including supporting facts and details in an informational composition. At this stage students are engaged in editing and revising to improve the quality of the composition. Some examples that represent but do not constitute all Level 3 performance are as follows:

- Support ideas with details and examples.
- Use complex or varied sentence structures in written work.
- Use voice appropriate to the purpose and audience.
- Edit writing to produce a logical progression of ideas.
- Revise to improve the quality of writing.

Level 4 requires the highest level of thinking or mental processing. Level 4 may be represented by a multi-paragraph composition that demonstrates synthesis and analysis of complex ideas or themes. There is evidence of a deep awareness of purpose and audience. For example, informational papers include hypotheses and supporting evidence. Students are expected to create compositions demonstrating a distinct voice that stimulates the reader to consider new perspectives on the addressed ideas and themes. Some examples that represents but do not constitute all Level 4 performance are as follows:

- Write an analysis of two selections, identifying the common theme and generating a purpose that is appropriate for both.
- Demonstrate evidence of a deep awareness of purpose and audience.

Note: Multiple-choice items can be written at a depth-of-knowledge Level 4; however, to design a multiple-choice item in this format is difficult, as it would require research, investigation, and application, often over an extended period of time (e.g. writing prompts, performance-based tasks, portfolios, research papers/projects).

(Webb, N. 2005; Valencia and Wixson, 2000)

Bloom's Taxonomy—English Composition

Categories (1956)	Definition	Examples of Action Words*
Knowledge	Student remembers, or recalls appropriate previously learned information.	define; identify; list; sequence; tell
Comprehension	Student translates, comprehends, or interprets information based on prior learning.	describe; discuss; explain; summarize
Application	Student selects, transfers, and uses data and principles to complete a task or problem with minimum directions.	apply; construct; choose; complete; determine; edit; provide; relate; use; write
Analysis	Student distinguishes, classifies, and relates assumptions, hypotheses, evidence, or structure of a statement or question.	analyze; compare; contrast; characterize; distinguish; examine; explain; interpret outline; support
Synthesis	Student originates, integrates, and combines ideas into a product, plan, or proposal that is new to him or her.	communicate; compose; create; develop; express; plan; revise; rewrite
Evaluating	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	argue; convince; conclude; criticize; defend; evaluate; justify

Webb's Depth of Knowledge—English Composition

Categories	Definition	Examples of Action Words*
Recall	Student recalls facts, information, procedures, or definitions.	define; identify; list; sequence; tell; use; write
Basic Application of Skill/Concept	Student uses information, conceptual knowledge, and procedures.	apply; choose; complete; construct; describe; discuss; edit; explain; explore; sequence; state; summarize; use; write
Strategic Thinking	Student uses reasoning and develops a plan or sequence of steps; process has some complexity.	acknowledge; analyze; characterize; compare; compose; consider; contrast; convince; defend; demonstrate; determine; develop; display; distinguish; edit; elaborate; evaluate; examine; justify; organize; present; revise; rewrite; support; synthesize
Extended Thinking	Student conducts an investigation, needs time to think and process multiple conditions of the problem or task. (The item/task generally requires several days or weeks to complete.)	analyze; compose; create; design; hypothesize; support; synthesize

*Some action words (verbs) can be classified at different depth-of-knowledge levels depending on the context of the item and the complexity of the action.

Civics and Government

Note: The levels are based on Webb, Technical Issues in Large-Scale Assessment, report published by CCSSO, December 2002.

Committees of Pennsylvania educators will be asked to review each Keystone Exam item and/or prompt, not only to determine whether or not the item and/or prompt measures what it is intended to measure, but also to determine whether or not the item and/or prompt aligns with the cognitive level or depth of knowledge of the Assessment Anchor as defined by the Eligible Content. The information below provides a definition of the four depth-of-knowledge levels. The charts at the end of the section also provide a comparison between Bloom's Taxonomy and Webb's Depth of Knowledge for English composition. Included are examples of verbs (i.e., the action). Using this information as well as the charts, Pennsylvania educators are asked to determine the depth of knowledge of each item and/or prompt and to verify that the depth of knowledge of each item and/or prompt is in alignment with the depth of knowledge of the Assessment Anchor as defined by the Eligible Content.

Level 1 (Recall) requires the student to recall facts, terms, concepts, trends, generalizations and theories or to recognize or identify specific information contained in graphics. This level generally requires students to identify, list, or define. The items at this level usually ask the student to recall who, what, when and where. Items that require students to "describe" and "explain" could be classified at Level 1 or 2 depending on the complexity of what is to be described and explained. At Level 1 "describe or explain" would require a student to recall, recite or reproduce information. Items that require students to recognize or identify specific information contained in maps, charts, tables, graphs or drawings are generally Level 1.

A student answering a Level 1 item either knows the answer or does not: that is, the answer does not need to be "figured out" or "solved."

Level 2 (Skills and Concepts) requires a student to engage in some form of mental processing beyond recalling or reproducing a response. This level generally requires students to contrast or compare people, places, events and concepts; convert information from one form to another; give an example; classify or sort items into meaningful categories; describe, interpret or explain issues and problems, patterns, reasons, cause and effect, significance or impact, relationships, points of view or processes. A Level 2 "describe or explain" would require students to go beyond a description or explanation of recalled information to describe or explain a result or "how" or "why."

Level 3 (*Strategic Thinking*) requires a student to reason, using evidence, and a higher level of thinking than the previous two levels. Students would go beyond explaining or describing "how and why" to justifying the "how and why" through application and evidence. The cognitive demands at Level 3 are more complex and more abstract than Levels 1 or 2. Items at Level 3 include drawing conclusions; citing evidence; applying concepts to new situations; using concepts to solve problems; analyzing similarities and differences in issues and problems; proposing and evaluating solutions to problems; recognizing and explaining misconceptions or making connections across time and place to explain a concept or big idea.

Level 4 (Extended Thinking) requires the student to use complex reasoning with the addition of planning, investigating, or developing that will most likely require an extended period of time. The extended time period is not a distinguishing factor if the required work is only repetitive and does not require applying significant conceptual understanding and higher-order thinking. At this level the cognitive demands should be high, and the work should be very complex. Students should be required to connect and relate ideas and concepts *within* the content area or *among* content areas in order to be at this highest level. The distinguishing factor for Level 4 would be evidence through a task or product that the cognitive demands have been met. A Level 4 performance will require students to analyze and synthesize information from multiple sources examine and explain alternative perspectives across a variety of sources and/or describe and illustrate how common themes and concepts are found across time and place. In some Level 4 performance students will make predictions with evidence as support, develop a logical argument, or plan and develop solutions to problems. Many on-demand assessment instruments will not include assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated so as to expect students to perform thinking at this level. On-demand assessments that do include tasks, products, or extended responses would be classified as Level 4 when the task or response requires evidence that the cognitive requirements have been met.

Note: Multiple-choice items can be written at a depth-of-knowledge Level 4; however, to design a multiple-choice item in this format is difficult, as it would require research, investigation, and application, often over an extended period of time (e.g. writing prompts, performance-based tasks, portfolios, research papers/projects).

(Webb, N. 2002)

Bloom's Taxonomy—Civics and Government

Categories (1956)	Definition	Examples of Action Words*
Knowledge	Student remembers, or recalls appropriate previously learned information.	define; identify; list; sequence; tell
Comprehension	Student translates, comprehends, or interprets information based on prior learning.	describe; discuss; explain; summarize
Application	Student selects, transfers, and uses data and principles to complete a task or problem with minimum directions.	apply; construct; choose; complete; determine; edit; provide; relate; use; write
Analysis	Student distinguishes, classifies, and relates assumptions, hypotheses, evidence, or structure of a statement or question.	analyze; compare; contrast; characterize; distinguish; examine; explain; interpret outline; support
Synthesis	Student originates, integrates, and combines ideas into a product, plan, or proposal that is new to him or her.	communicate; compose; create; develop; express; plan; revise; rewrite
Evaluating	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	argue; convince; conclude; criticize; defend; evaluate; justify

Webb's Depth of Knowledge—Civics and Government

(Based on Webb, Karin Hess, Center for Assessment/NCIEA, 2005)

Categories	Definition	Examples of Action Words*
Recall	Student recalls facts, terms, concepts, trends, generalizations, events, or documents; identifies key figures in a particular context; describes or explains who, what where, and when; identifies specific information contained in maps, charts, tables, graphs, etc.	recall, label, define; identify; list; sequence; tell; use
Basic Application of Skill/Concept	Student describes cause-effect of events; describes/explains how, why, points of view, processes, significance, or impact; identifies patterns in events; categorizes events or figures in history into groups; summarizes events, problem/solution, conflicts; distinguishes between fact an opinion; organizes information to show relationships; compares and contrasts people, events, places, and concepts; provides examples to illustrate an idea/concept; uses information, conceptual knowledge, and procedures.	describe, explain, apply; categorize, choose; organize, illustrate, complete; construct; discuss; explore; state; summarize; use
Strategic Thinking	Student uses reasoning to explain, generalize, or connect ideas; uses supporting evidence; makes and supports inferences about implied causes and effects; draws conclusions or forms alternative conclusions; analyzes how changes have affected people or places; uses concepts to solve problems; analyzes similarities and differences in issues or problems; proposes and evaluates solutions; recognizes and explains misconceptions related to concepts; develops a plan or sequence of steps.	generalize; connect; analyze; draw conclusions; characterize; compare; compose; consider; contrast; convince; defend; demonstrate; determine; develop; display; distinguish; elaborate; evaluate; examine; justify; synthesize
Extended Thinking	Student analyzes and explains multiple perspectives or issues within or across time periods, events, or cultures; gathers, analyzes, organizes, and synthesizes information from multiple sources; makes predictions with evidence as support; plans and develops solutions to a problems; researches, defines, and describes the situation/problem; provides alternative solutions; conducts an investigation over time. (The item/task generally requires several days or weeks to complete.)	analyze; compose; create; design; hypothesize; support; synthesize

*Some action words (verbs) can be classified at different depth-of-knowledge levels depending on the context of the item and the complexity of the action.

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Webb, N. (1997; 2006). *Research monograph number 6: Criteria for alignment of expectations and assessments on mathematics and science education*. Washington, D.C.: CCSSO.

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Online Form Checklist				
Client:				
Content/Grade Level or Course:				
Admin:				
Project Code:		PL	C	TT
Form Set Properties				
1	Named according to Form Set naming conventions	●		✦
2	Marked as Test Booklet for Online		✦	●
3	Material ID Required; (for scored forms only)			✦
4	Help Files (see Help Files list)	●		✦
Form Properties				
5	Forms named according to Client form naming conventions	●		✦
6	Material ID correctly entered	●		✦
7	Form Type set to "Live" or "OTT"			✦
8	Spiral/Breach checked (where needed)	●		✦
9	Visual Indicator selected	●		✦
10	Audio/Visual checked (where needed)	●		✦
Session Properties				
11	Number of Items match number of items in session		✦	●
12	Shows Sticky Notes set	●		✦
13	Shows Rulers set		●	✦
14	Protractors set		●	✦
15	Calculators set		●	✦
16	Session named according to Client session naming conventions	●	●	✦
17	Item sequencing (continue from last or restart numbering for each session)	●	●	✦
Form Details				
18	Glossary of Terms component and parameters entered and selected		●	✦
19	Formula Sheets component and parameters entered and selected (check for multiple sessions)		●	✦
20	Periodic Table component entered (check for multiple sessions)		●	✦
21	Sections within a Session (see Section list)	●	●	✦
22	Scramble plan followed (non-content clients only)		✦	
Section Details				
23	Section component entered		●	✦
24	Section Type set			✦
25	Can student re-enter? (Yes/No)		●	✦
26	Section numbering set correctly		●	✦
27	Directions file selected	●		✦
28	Survey present (Yes/No)	●		✦
Survey Section				
29	Correct survey questions entered	●		✦
30	Reporting flag set as SV			✦
31	Use Function set as FT			✦

Test Directions				
32	Correct Content directions entered	●		✦
33	Directions set up as scrolling or page-turning	●		✦
34	"Three circles" page present	●		✦
Scrolling Passage / Scenario				
35	Working title entered for each passage/scenario		✦	●
36	No horizontal scrolling present		✦	
37	Passage directions entered correctly		✦	
38	Title/byline formatted according to client style		✦	
39	Paragraph/line numbers entered according to client style		✦	
40	Paragraph indents correctly according to client style		✦	
41	Graphics transparent			✦
42	Paired passage instructions entered correctly	●	✦	
43	Acknowledgements included as required	●	✦	
Page-Turning Passage / Scenario				
44	Working title entered for each passage/scenario		✦	●
45	No horizontal or vertical scrolling present		✦	
46	No page/page indicator present for single-page passages		✦	
Items				
47	Divider line on for side-by-side layouts		✦	
48	Measurement tools available as required by item or client		✦	●
49	Calculators available as required by item and client		✦	●
50	Graphing tool available as required by item and client		✦	●
51	Reverse-N or Z format used as required by client		✦	
52	Equation Builder available as required by response type and client		✦	●
53	Graphics transparent		✦	✦
54	Character count set according to client specifications		✦	●
55	Maximum number of line returns set according to client		✦	●
56	Scroll bar deactivated where required by client		✦	●
57	EBSR maximum selections set for all parts		✦	●
58	Help feature present for every contextual help button			✦
59	Stand-alone items labeled accordingly		✦	●
Technology Enhanced Items				
60	TE response areas aligned (left-justified or centered) according to client style		✦	●
61	Help file is available for each TE response type on form			✦
62	Drag and Drop: -Directions are precise -Drag entities set for single or multiple use according to item need -Drop regions set to snap or for absolute placement -Drag entities fit the drop area		✦	●

63	Hot Spot: - Directions are precise - Hot spot areas correctly aligned with graphic - Hot spot selection indicator functioning correctly (graphicmod, textmod, partitionmod, regular hotspot) - Maximum number of selections set correctly		✦	●
64	Graphing Input: - Scale is correct - Titles and labels are correct - Student text entry fields set correctly - Pre-plotted points, lines, shading, etc. correct		✦	●
65	Line Input: - Scale is correct - Titles and labels are correct - Student text entry fields set correctly - Pre-plotted points, lines, shading, etc. correct		✦	●
66	Bar Graph: -Title included - Axis labels for student input		✦	●
67	Table Builder: - Header row present - Number of columns - Number of rows - Each cell allows for input		✦	●
	Help			
68	Correct tabs available (Using Help, Test Directions, Tools, How To, Hints, Scoring, Audio, Scoring Guidelines, Acknowledgements)	●		✦
69	Correct Test Directions for client, content, and grade	●		✦
70	Updated with new functionality	●		✦
71	Contains a file for each tool	●		✦
72	Contains a file for each item type		●	✦
73	Contains a content appropriate Quick Nav file		●	✦
74	Contains correct Equation Builder file		●	✦
75	Contains a content appropriate Passage/Scenario file		●	✦
76	Audio help included where applicable	●		✦
77	Video help included where applicable	●		✦
78	Correct acknowledgement file		●	✦

Primary Responsibility	✦
Secondary Responsibility	●
Project Lead	PL
Content	C
Test Development Technologies	TT

Appendix C: Sample Student Materials

APPENDIX C. SAMPLE STUDENT MATERIALS (CONFIDENTIAL)

The materials in this appendix have been redacted because they contain secure test items.


DATA RECOGNITION
DRC
CORPORATION

Appendix D: Sample Teacher and Administrator Materials

pennsylvania
DEPARTMENT OF EDUCATION

Assessment Update

February 2015

Testing available on iPads/Chromebooks

On November 17, 2014, DRC released new INSIGHT software that makes it possible for students to use iPads and Chromebooks for the Classroom Diagnostic Tools (CDT), the Keystone Exams, and the PSSAs.

All of the iPad/Chromebook instructional and reference materials are readily available in eDIRECT, including recordings of the Technology Coordinator training sessions that took place on November 19 and 20, 2014.

Testing on an iPad requires the iOS7 or newer operating system so that the "guided access" feature can lock-down the iPad during testing. Districts/schools using iPads will access the software via an application in eDIRECT.

External keyboards will not be required for the CDT since the diagnostic tool consists entirely of multiple-choice items. External keyboards will be required for all Keystone and PSSA testing since those assessments include open-ended items.

Testing on a Chromebook requires Chrome OS 33 or newer to support the required Single App Kiosk Mode that locks-down the Chromebook during testing. Districts/schools using Chromebooks will access the software via an application in eDIRECT.

Continued on page 3

In This Issue

DATA RECOGNITION DRC CORPORATION

PSSAs separate ELA and Math booklets

Students in grades 3–8 must participate in the PSSAs applicable to each grade. Results from the English Language Arts, Mathematics, and Science assessments will be used for accountability reporting.

New this year, the Mathematics assessment will be in a separate booklet from the new English Language Arts assessment. Each assessment—English Language Arts, Mathematics, and Science—has its own separate testing window.

The 2015 PSSAs are available online and paper/pencil. If interested in taking the exams online, Online Tools Trainings (OTTs) and Tutorials will be available in February. OTTs and Tutorials provide a hands-on experience in online testing.

Student Precode Labels will be produced for all valid student records provided to DRC from the November PIMS Internal Snapshot.

Continued on page 2

Contact DRC PA Customer Service 1-800-451-7849
Email: PAcustomerservice@datarecognitioncorp.com
eDIRECT website: https://pa.drcedirect.com

CDT Continues to Grow

CDT Content	2012–13	2013–14	2014–15 (as of Jan. 30)
Math	330,868	305,332	340,618
Reading/Literature	267,794	292,493	351,163
Science	165,603	185,219	165,451
Writing/English Composition	21,928	26,949	44,712
Total	**786,193**	**809,993**	**901,944**

The online Classroom Diagnostic Tools (CDTs) are designed to provide diagnostic information to guide instruction and intervention for students in grades 3 through high school. The CDTs are based on content covered by the PSSA and Keystone Exams and include an interactive reporting suite that is fully integrated with the Standards Aligned System (SAS) and fully aligned to the Pennsylvania Core Standards. All District Assessment Coordinators have access to the CDTs and additional information about the online tool is readily available on DRC's eDIRECT website.

PSSA testing

(continued from page 1)

Schools do not have to establish paper test sessions in eDIRECT to receive precode labels. Schools testing online must establish online test sessions in eDIRECT to receive test tickets. All additional materials requests for the PSSA must be placed through eDIRECT.

Sites receiving secure paper/pencil materials must report the date of materials receipt and the number of materials returned. The Materials Receipt Notice and Materials Accountability Form are found in eDIRECT. Permissions have been granted to the District Assessment Coordinator.

PSSA Training Opportunities

Live Location	Date	Time	Videoconference Sites	Phone Number
Pittsburgh PaTTAN 3190 William Pitt Way Pittsburgh, PA 15238	March 10	9 am – 11 am & 1 pm – 3 pm	PaTTAN Harrisburg PaTTAN King of Prussia Intermediate Unit Sites	(412) 826-2336
Harrisburg PaTTAN 6340 Flank Drive Harrisburg, PA 17112	March 12	9 am – 11 am & 1 pm – 3 pm	Intermediate Unit Sites	(717) 541-4960
King of Prussia PaTTAN 200 Anderson Rd King of Prussia, PA 19406	March 13	9 am – 11 am & 1 pm – 3 pm	PaTTAN Harrisburg PaTTAN Pittsburgh Intermediate Unit Sites	(610) 265-7321

The 2015 PSSA administration training sessions will be held at the Harrisburg, King of Prussia, and Pittsburgh PaTTAN office locations. **The information being presented is critical to the administration of these assessments; therefore, it is required that every LEA send at least one representative to a training session.** These are train-the-trainer sessions. It is expected that the representative deliver the information to his/her coordinators and test administrators.

The training sessions will be presented live at each of the PaTTAN sites listed above and broadcast via video-conference to the other PaTTAN locations, along with additional Intermediate Unit sites. For a list of available down link sites and to register for this event, please visit PaTTAN's website at www.pattan.net. Online registration enables you to receive registration confirmation via email, keep track of professional development activities with the transcript feature, and view other available activities.

Spring Keystone Exams

The Spring Keystone Exams testing window is May 13–27, 2015. The Spring Keystone Exams are available for Algebra I, Literature, and Biology. These exams should be administered to any students who have finished the corresponding course work. Additionally, students who will be in grade 11 in spring 2015 and have not yet taken an exam should be administered the exams for inclusion in 2015 accountability and School Performance Profile calculations. Grade 11 students who haven't passed may take the exams again in order to be proficient for the 2015 reporting. Ordering materials for the Spring Keystone Exams occurred October 27–31, 2014.

Test Setup for the production of precode labels for the Spring Keystone Exams will be available March 16–20, 2015. In order to receive precode labels for the Spring Keystone Exams, paper test sessions must be created in eDIRECT during this window. Student records provided to DRC from PIMS will be available in eDIRECT to assist with the test setup process.

The 2015 Spring Keystone Exam Administration Training Sessions will occur on April 28, 2015, for those districts that did not administer the Winter Keystone Exams. Please see the PaTTAN training calendar for more details.

Secure materials for the Spring Keystone Exams will arrive by April 29, 2015. Schools should be prepared to handle both outgoing PSSA materials and incoming Keystone materials at this time.

iPads/Chromebooks (continued from page 1)

DRC's Device Toolkit software allows sites to configure and install the Chromebooks and includes functionality to help organize and manage Chromebook devices.

DRC INSIGHT is not supported on touch-enabled Chromebooks.

Districts should carefully consider all technological, logistical, and security issues as the use of these devices continues to expand. Both DRC and PDE are available as a resource for any questions the districts have regarding iPad and Chromebook usage.

Winter Keystone Exams and Reporting

The Online Corrections System for the 2014/2015 Winter Keystone Exams was available Feb. 11–18, 2015. During this window, every LEA had the opportunity to match student records to PIMS, update Enrolled in Course data, and link student records from the 2014/2015 Winter Keystone Exams to past Keystone Exams test events.

The student data updated in the corrections system will be applied to the Winter Keystone results (District Student Data Files) that will be available on March 2 and the Summary Reports that will be available on March 27 via eDIRECT. Access to student results in eDIRECT is limited to the Reporting Contact (typically a superintendent) on file with DRC. Please work with your district's superintendent for access to or information regarding the Winter Keystone results.

The Individual Student Reports (ISRs) will be delivered to Districts/Schools by April 13.

Summer Enrollment System

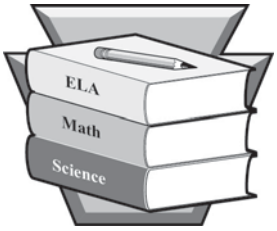
The Summer Keystone Exams Enrollment System will be available April 6–10, 2015, in eDIRECT.

During this enrollment window, LEA's have the ability to update contact information and provide projected school-level testing counts. The information collected in this system will be used to determine material counts and the delivery locations. Counts must be provided during this window to receive testing materials for the 2015 Summer Keystone Exams.

The testing window for the Summer Keystone Exams is July 27–31, 2015.

Key Dates	
Spring Keystone	
Test Setup Window to Receive Precode Labels	**March 16–20, 2015**
Non-secure Test Materials Arrive at Districts/Schools	**April 15, 2015**
Secure Test Materials Arrive at Districts/Schools	**April 29, 2015**
Testing Window	**May 13–27, 2015**
PSSA	
Online Test Setup Open	**February 23, 2015**
Test Administrator Training	**March 9–13, 2015**
Non-secure Test Materials Arrive at Districts/Schools	**March 16, 2015**
Secure Test Materials Arrive at Districts/Schools	**March 30, 2015**
English Language Arts Test Window	**April 13–17, 2015**
Mathematics Test Window	**April 20–24, 2015**
Science Test Window	**April 27–May 1, 2015**
ELA, Math, Science Make-up Test Window	**May 4–8, 2015**
Deadline for Districts to return materials to DRC for processing	**May 8, 2015**
Winter Keystone	
Corrections/Match-to-Master Window	**February 11–18, 2015**
District Student Data Files Available	**March 2, 2015**
School and District Summary Reports Available	**March 27, 2015**
Individual Student Reports (ISRs) Available in the Field	**April 13, 2015**

CLASSROOM DIAGNOSTIC TOOLS



PENNSYLVANIA KEYSTONE EXAMS

pennsylvania
DEPARTMENT OF EDUCATION

The Pennsylvania System of School Assessment

English Language Arts Preliminary Item and Scoring Sampler

Grade 5

Pennsylvania Department of Education Bureau of Assessment and Accountability—January 2015

TABLE OF CONTENTS

INTRODUCTION

General Introduction

The Pennsylvania Department of Education provides districts and schools with tools to assist in delivering focused instructional programs aligned with the Pennsylvania Core Standards Assessment Anchors. These tools include assessment anchor documents, assessment handbooks, and content-based item and scoring samplers. This Item and Scoring Sampler is a useful tool for Pennsylvania educators to use in preparing local instructional programs. It can also be useful in preparing students for the statewide assessment.

Pennsylvania Core Standards (PCS)

This sampler contains examples of test questions and stimulus passages that are aligned to the new Pennsylvania Core Standards-based 2013 PSSA Assessment Anchors and Eligible Content. The Mathematics, Reading, and Writing PSSA will transition to PCS-based operational Mathematics and English Language Arts assessments starting with the spring 2015 PSSA administration; however, stimulus passages and multiple-choice, short answer, and writing prompt test questions appearing on the operational portions of the 2014 PSSA will align to both the current Pennsylvania Academic Standards and the new PCS.

Operational Assessment	**Content Area (Test)**		
Pennsylvania Academic Standards	**Mathematics**	**Reading**	**Writing**
Spring 2013	PCS Field Test in grades 3 through 5	PCS Field Test in grades 3 through 5	PCS Field Test in grades 3 through 5
Spring 2014	PCS Field Test in grades 3 through 8	PCS Field Test in grades 3 through 8	PCS Field Test in grades 6 through 8
Pennsylvania Core Standards	**Mathematics**	**English Language Arts**	
Spring 2015	PCS-based Operational Assessment in grades 3 through 8	PCS-based Operational Assessment in grades 3 through 8	

The 2013 PCS-aligned Assessment Anchor and Eligible Content documents are posted on this portal:

- *www.education.state.pa.us* [Click on the green check mark and select "PSSA."]

What Is Included

This sampler contains stimulus reading passages with test questions, standalone questions, and mode-specific prompts that have been written to align to the Assessment Anchors that are based on the Pennsylvania Core Standards (PCS). The passages represent some of the genres approved by PDE to appear on an operational, PCS-based PSSA. The test questions provide an idea of the types of items that may appear on an operational, PCS-based PSSA. Each sample test question has been through a rigorous review process to ensure alignment with the Assessment Anchors.

Purpose and Uses

The passages with test questions, non-passage based standalone questions, and mode-specific prompts in this sampler may be used as examples for creating assessment items at the classroom level, and it may also be copied and used as part of a local instructional program.[1] In addition, classroom teachers may find it beneficial to have students respond to the test questions in this sampler. Educators can use the sampler as a guide to score the responses independently or together with colleagues within a school or district.

Item Format and Scoring Guidelines

The PCS-based PSSA has multiple types of test questions. For grade 5, the types of test questions are Multiple-Choice questions (MC), Selected-Response questions (SR), Text-Dependent Analysis Questions, and mode-specific Prompts (P).

Multiple Choice: Each of this type of test question has four answer choices. Some MC test questions are based on a stimulus reading passage, while other MC test questions are independent of a passage. Each correct response to an MC test question is worth one point.

Selected Response: Each two-part SR question is designed to elicit an evidence-based response from a student who has read either a Literature or Informational Text passage. In Part One, which is similar to a multiple-choice question, the student analyzes a passage and chooses the best answer from four answer choices. In Part Two, the student elicits evidence from the passage to select one or more answers based on his/her response to Part One. Part Two is different from a multiple-choice question in that there may be more than four answer options and more than one correct answer. Each SR test question is worth either two or three points.

Text-Dependent Analysis Question: Unlike a prompt, the TDA question is a text-dependent analysis, based on a passage or passage set that each student has read during the test event. There are three response pages in the paper-and-pencil format and up to 5000 characters in the online format. Both Literature and Informational Texts are addressed through this item type. Students must draw on basic writing skills while inferring and synthesizing information from the passage in order to develop a comprehensive, holistic essay response. The demand required of a student's reading and writing skills in response to a TDA coincides with the similar demands required for a student to be college and career ready. The TDA is scored using a holistic scoring guideline on a 1–4-point scale.

Prompt: Each of this type of test question includes an extended response space in which the student composes an answer based on a provided prompt. There are two response pages in the paper-and-pencil format and up to 3000 characters in the online format. A prompt is based on a specific mode of writing and may ask the student to write an opinion essay, an informative essay, or a narrative essay. Each prompt is scored on a 1–4-point scale using a holistic, mode-specific scoring guideline. In this sampler, examples of student responses representing each score point can be combined with the mode-specific scoring guideline to form a practical scoring guide.

Testing Time and Mode of Testing Delivery for the PCS-Based PSSA

The PSSA is delivered in traditional paper-and-pencil format as well as in an online format. The estimated time to respond to a test question is the same for both methods of test delivery. The following table shows the estimated response time for each item type.

During an official test administration, students are given additional time as necessary to complete the test questions.

Item Type	MC	SR	TDA	P
Estimated Response Time (in minutes)	1.5	3 to 5	30	30

[1] The permission to copy and/or use these materials does not extend to commercial purposes.

English Language Arts Grade 5

This English Language Arts Sampler is composed of 3 passages, 23 multiple-choice questions, 4 selected-response questions, 2 text-dependent analysis questions, 12 standalone multiple-choice questions, and 3 mode-specific prompts.

In this sampler, the first passage is followed by a set of multiple-choice questions and a selected-response question. The second passage is followed by a set of multiple-choice questions, selected-response questions, and a text-dependent analysis question. The third passage is followed by a set of multiple-choice questions, a selected-response question and a text-dependent analysis question.

Each question is preceded by the Assessment Anchor and Eligible Content coding. The correct answer is indicated by an asterisk (*). Each question is followed by a brief analysis or rationale. Each text-dependent analysis question is displayed with an item-specific scoring guideline and examples of student responses with scores and annotations. Sample student responses for each of the scoring levels are also included for the prompts.

The PCS-Based PSSA may be administered in paper-and-pencil format or online. As a result, this sampler includes samples of text-dependent analysis question responses and mode-specific prompt responses in both formats. A sample online response is noted by the symbol,  .

Section 1

Directions: On the following pages are Reading passages and questions.

Directions for Multiple-Choice Questions:

Some questions will ask you to select an answer from among four choices.

For the multiple-choice questions:

- First, read the passage carefully.
- Read each question and choose the best answer.
- Only one of the answers provided is correct.
- You may look back at the passage to help you answer the question.
- Record your choice in the answer booklet.

Directions for Selected-Response Questions:

Some questions will have two parts and will ask you to select one or more answers in each part.

For the selected-response questions:

- Read Part One of the question and choose the best answer.
- You may look back at the passage to help you answer Part One of the question.
- Record your choice to Part One in the answer booklet.
- Only one of the answers provided in Part One is correct.
- Then, read Part Two of the question and choose the best answer or answers based on your answer to Part One. If Part Two tells you to select two answers, be sure to select two answers.
- You may look back at the passage to help you answer Part Two of the question.
- Record your answer or answers to Part Two in the answer booklet.

Directions for Text-Dependent Analysis Questions:

The English Language Arts TDA question will ask you to analyze the passage and use evidence from the passage to write an essay.

For the TDA Essay:

- Be sure to read the passage and TDA question carefully.
- Review the Writer's Checklist to help you plan and organize your response.
- You may look back at the passage to help you write your essay.
- Write your essay in the appropriate space in the answer booklet. If you use scratch paper to write a rough-draft essay, be sure to transfer your final essay to the answer booklet.
- Be sure to check that your essay contains evidence from the passage to support your response.
- Be sure to check your essay for errors in capitalization, spelling, sentence formation, punctuation, and word choice.

PASSAGE 1

Read the following poem about the first humans to land on the moon. Then answer questions 1–7.

First Men on the Moon

by J. Patrick Lewis

"The Eagle has landed!"
Apollo 11 Commander Neil A. Armstrong

"A magnificent desolation!"
Air Force Colonel Edwin E. "Buzz" Aldrin, Jr.

July 20, 1969

That afternoon in mid-July,
Two pilgrims watched from distant space
The Moon ballooning in the sky,
They rose to meet it face-to-face.

Their spidery spaceship *Eagle* dropped
Down gently on the lunar sand.
And when the module's engines stopped,
Cold silence fell across the land.

The first man down the ladder, Neil,
Spoke words that we remember now—
"Small step for man . . ." It made us feel
As if we too were there somehow.

Then Neil planted the flag and Buzz
Collected lunar rocks and dust.
They hopped like kangaroos because
Of gravity. Or wanderlust.

A quarter million miles away,
One small blue planet watched in awe.
And no one who was there that day
Will soon forget the Moon they saw.

MULTIPLE-CHOICE QUESTIONS

E05.A-V.4.1.2

1. Read the line from the poem.

"The Moon ballooning in the sky,"

What does the metaphor in the line suggest?

* A. The Moon appears to grow in size.

B. The Moon appears to move swiftly.

C. The Moon is brightly colored.

D. The Moon has a perfect shape.

The student is asked to infer the meaning of a given metaphor. Option A is the correct answer since the word "ballooning" suggests that the Moon becomes larger. As the spacecraft gets closer to the Moon, it does appear to get larger. Options B, C, and D are not supported by the poem.

E05.A-K.1.1.1

2. Read the line from the poem.

"They rose to meet it face-to-face."

What is the meaning of the line?

A. They were able to climb up onto the surface of the Moon from the spaceship.

B. There were many people traveling together to the Moon.

* C. They were close enough to see the surface of the Moon from the spaceship.

D. There were people waiting to meet them on the Moon.

The student is asked to interpret the meaning of a given idiom. Option C is the correct answer since "face-to-face" indicates that the spacecraft was directly in front of the Moon. Options B and D are not supported by information in the passage. Option A is not correct since the astronauts had to land the spacecraft and then descend down a ladder onto the surface of the Moon.

E05.A-V.4.1.1

3. The meaning of the Latin root "luna" helps the reader know that the word "lunar" refers to

* A. the Moon.

B. space.

C. planets.

D. the Earth.

The student is asked to use the Latin root to identify the meaning of the word "lunar." Option A is the correct answer since "luna" is the Latin name for the Moon. Options B, C, and D are not related to the given Latin root.

E05.A-V.4.1.2

4. Read the line from the poem.

"Cold silence fell across the land."

What does the line most likely mean?

A. The temperature dropped on the Moon.

* B. It became suddenly very quiet on the Moon.

C. It was cold on the spaceship going to the Moon.

D. The men talked quietly on the spaceship to the Moon.

The student is asked to interpret the meaning of a line from the poem that contains figurative language. Option B is the correct answer since the verb "fell" indicates that it was suddenly quiet on the Moon. Options A and C refer to temperature and not to sound. Option D is not supported by information in the poem.

E05.A-K.1.1.1

5. Which line from the poem **best** supports the inference that the first humans on the Moon were explorers approaching a new frontier?

A. "That afternoon in mid-July,"

* B. "Two pilgrims watched from distant space"

C. "The first man down the ladder, Neil,"

D. "Spoke words that we remember now—"

The student is asked to identify lines from the poem that support the given inference. Option B is the correct answer since the word "pilgrims" means people who journey long distances. Options A and D do not relate to the journey. Option C refers to Neil Armstrong being literally the first person to go down the ladder from the spacecraft.

E05.A-C.2.1.1

6. How does the point of view in the poem influence how the landing on the Moon is described?

A. It reveals to the reader what viewers from home said about the landing.

* B. It indicates to the reader the speaker's thoughts about the landing.

C. It tells the reader what the speaker said to the men about the landing.

D. It informs the reader of one reporter's opinions about the landing.

The student is asked to determine how the point of view in the poem influences how the landing on the Moon is described. Option B is the correct answer since the speaker reveals his or her thoughts and feelings about that day. The speaker says that "It made us feel/As if we too were there somehow." Options A, C, and D are not supported by information in the poem.

SELECTED-RESPONSE QUESTION

E05.A-K.1.1.2

7. This question has two parts. Answer Part One and then answer Part Two.

Part One

Which theme is **best** supported by the speaker's description of the first landing on the Moon?

A. Teamwork makes difficult tasks possible.

B. Travel can be dangerous but also rewarding.

C. Scientific discovery is not valued enough.

* D. Adventure brings about excitement and wonder.

Part Two

Which line from the poem **best** supports the answer in Part One? Choose **one** answer.

A. "A quarter million miles away,"

B. "They hopped like kangaroos . . ."

C. "Then Neil planted the flag . . ."

* D. "One small blue planet watched in awe."

The student is asked to identify the theme of the poem and to select details from the poem that support the theme.

Part One: *Option D is the correct answer since the speaker indicates that people who saw the landing on the Moon were filled with wonder. The speaker says that "A quarter million miles away,/One small blue planet watched in awe." In addition, the quotes from the astronauts express excitement about their trip to the Moon. Option A is not supported by the poem, since there is no direct evidence that the trip was difficult. Option B is not supported by the poem, since there is no evidence that the trip was dangerous. Option C is not supported by evidence in the poem. In fact, the speaker communicates to the reader that the scientific exploration of the Moon was highly respected.*

Part Two: *Option D is the correct answer since this line expresses the theme that adventure brings about a feeling of wonder. Option A only shows that the trip to the Moon was a distant one. Options B and C show what the public saw the astronauts do while on the Moon.*

PASSAGE 2

The next three passages are about bald eagles. Read the first passage and answer questions 8–11. Then, read the second passage and answer questions 12–13. Then, read the third passage and answer questions 14–19.

The Eagles Are Back!

by Dorothy Hinshaw Patent

In his 1999 Fourth of July celebration speech, President Bill Clinton declared that our national symbol, the bald eagle, was no longer endangered. This welcome news for wildlife wasn't just the result of good luck. For more than twenty years, scientists and volunteers across the country have worked to help the bald eagle come back. And come back it did.

Once bald eagles spread their wings over every state except Hawaii. Before European settlement, between 25,000 and 75,000 bald eagles lived in the lower forty-eight states, with thousands more in Alaska. But as settlers cut down trees and turned wilderness into towns and cities, the number of eagles began to decline.

At first the number of eagles dwindled slowly. Then during the late 1940s, bald eagle populations began to plummet. And where eagles did survive, few raised chicks. By the mid-1960s many biologists feared our national bird would disappear forever. Fewer than five hundred breeding pairs of bald eagles were left in the lower forty-eight states.

Luckily, scientists soon discovered the major cause of the bald eagle's decline—the pesticide DDT. Starting in the late 1940s, DDT was widely used to control insects such as mosquitoes and crop pests. But while it did kill pests, DDT also got into the food chain, and eagles ate contaminated fish and other prey. The DDT didn't kill eagles, but it did weaken the shells of their eggs. When a parent nestled up to its eggs to warm them, the shells would break, killing the developing birds inside. Other birds, such as pelicans and ospreys, were having the same problem.

Something had to be done. In 1972 the U.S. government banned DDT. Then in 1973 the all-important Endangered Species Act was passed by Congress. The Endangered Species Act protects plants and animals whose populations are so small that they might disappear forever. If a species is in danger of becoming extinct, it is listed as endangered. A species at risk of becoming endangered is called threatened. The bald eagle was listed as endangered in forty-three states and threatened in five. Only in Alaska was the bald eagle holding its own.

Eagles started to recover in 1974 when the effects of leftover DDT began to wear off. But the government didn't stop there. Places where bald eagles lived were protected. Eagles require gigantic trees to build their huge nests. They feed largely on fish and water birds, so they need to live near undisturbed lakes, ponds, and rivers. When bald eagles nested on public land, people were kept away so the birds wouldn't be bothered. And anyone who killed a bald eagle had to pay a large fine.

Because a pair of eagles normally produces just two eggs each year, scientists searched for ways to increase the number of eagles faster. One way to do this was to raise eagle chicks in captivity. Bald eagles were brought to the Patuxent Wildlife Research Center in Maryland and bred there. As soon as a female eagle laid a clutch of eggs, they were removed and kept warm so that they would hatch. Most birds then laid two more eggs, which they were allowed to care for. The extra eggs could be placed in the nest of a pair of eagles whose eggs didn't hatch. The foster parents would then raise the chick or chicks as their own. In this way, four eaglets instead of two could be raised from each mated pair. By the time the program ended in 1988, 124 bald eagles had been hatched there for release into the wild.

Young eagles can learn to live on their own through a method called hacking. When captive eaglets are eight weeks old, they are given a new home high on a tower or in an abandoned eagle nest in a good eagle habitat. Humans who stay out of sight bring food for the young birds until they can fly and hunt well enough to feed themselves.

All the work to save bald eagles paid off. The number of bald eagles in the lower forty-eight states has increased steadily since 1975.

MULTIPLE-CHOICE QUESTIONS

E05.B-K.1.1.2

8. Read the details from "The Eagles Are Back!"

"But while it did kill pests, DDT also got into the food chain, and eagles ate contaminated fish and other prey."

"The extra eggs could be placed in the nest of a pair of eagles whose eggs didn't hatch."

Which main ideas of the passage are supported by the details?

A. The bald eagle has been endangered in the past, and the bald eagle is now near extinction.

* B. People were responsible for the bald eagle's decline, and people have helped the bald eagle return.

C. The bald eagle has lived in many states, and the bald eagle needs to live near lakes and rivers.

D. People were celebrating the bald eagle's return, and people have cut down trees where bald eagles lived.

The student is asked to identify the main ideas of the passage from given details. Option B is the correct answer since the two given details show how humans have affected the bald eagle population in both negative, and later, positive ways. Option A is erroneous information and not based on the passage. Options C and D are both details from the passage, but they are not main ideas supported by the given sentences.

E05.B-V.4.1.1

9. What does the word contaminated mean as it is used in the passage?

* A. poisoned

B. furious

C. astonished

D. worthless

The student is asked to identify the meaning of the word "contaminated" using context clues. Option A is the correct answer. In the passage, the words "kill" and "weaken" suggest that "contaminated" relates to poison. Options B, C, and D are not supported by context clues in the passage.

E05.B-V.4.1.2

10. In "The Eagles Are Back!" which word is an antonym for gigantic?

A. peaceful

B. steady

C. bare

* D. small

The student is asked to identify an antonym for the word "gigantic." Option D is the correct answer since "small" has the opposite meaning of "gigantic." The meaning is clued by the words "huge nests," which are in the same sentence. Options A, B, and C are not antonyms for the given word and are not supported by the context of the passage.

E05.B-C.3.1.1

11. How does the author of "The Eagles Are Back!" support the point "by the mid-1960s many biologists feared our national bird would disappear forever"?

A. by stating the opinion, "this welcome news for wildlife wasn't just the result of good luck"

* B. by providing the statistic, "fewer than five hundred breeding pairs of bald eagles were left in the lower forty-eight states"

C. by including the detail, "eagles started to recover in 1974 when the effects of leftover DDT began to wear off"

D. by stating the fact, "by the time the program ended in 1988, 124 bald eagles had been hatched there for release into the wild"

The student is asked to determine how the author supports the point that scientists feared the bald eagle would disappear forever. Option B is the correct answer since it shows how the bald eagle population had dwindled to a low number. Options A, C, and D relate to the increase in the bald eagle population.

Read the second passage and answer questions 12–13.

Bald eagles make a comeback in Chicago

The following passage is from a television news report that was broadcasted on April 16, 2012. Brian Williams and Kevin Tibbles are television news reporters.

Brian Williams (anchor)**:** Finally tonight, bald eagles, the symbol of America, came close to being totally wiped out in America. But they've made a remarkable comeback, as you may know, in recent years. So much so, they're not just showing up in the wilds of Maine and Montana. They may live a lot closer to you than you think. Our report from NBC's Kevin Tibbles.

Kevin Tibbles (reporting)**:** Some new neighbors are raising a family in St. Paul, Minnesota. In the 50 years Stan Wandersee's lived in this house, he's seen many come and go, but never any like these.

Mr. Stan Wandersee: This is a—this is a gift of nature.

Tibbles: The bald eagle is returning to areas [of] urban sprawl [that] pollution forced it to abandon decades ago.

Ms. Megan Ross (Lincoln Park Zoo, Chicago, Illinois)**:** DDT was a really big problem for the bald eagles. Bald eagles in particular were not able to form appropriate shells, and so, since they weren't able to reproduce, their numbers really plummeted.

Tibbles: Once on the endangered species list, this majestic symbol of American pride is spreading its wings. And many can now see them in a setting that doesn't involve a trip to the zoo.

Ms. Ross: I think bald eagles are just such majestic creatures. It'll be really nice and exciting to see them right in our backyard.

Tibbles: When this pair nested at the Alcoa plant in Davenport, Iowa, employees set up a webcam to share these intimate pictures of the eaglets with the world. It's had five million views this year alone.

This secluded forest preserve sits hidden from the roughly 10 million people who call Chicago home. Yet here, just a few miles from the skyscrapers, is something that hasn't been seen in 100 years: an eagle's nest. The fact that they've come back, does that tell us anything?

Mr. Chris Merenowicz (Forest Preserve District of Cook County, Illinois)**:** I think it tells us a lot. It tells us that we're doing the right thing.

Tibbles: And it was a close call. By the 1960s, just 450 pairs of eagles remained in the lower 48 states. Today those numbers have soared to more than 9,000, giving hope these treasured icons can once again live side by side with the humans who cherish them. Kevin Tibbles, NBC News, Chicago.

MULTIPLE-CHOICE QUESTION

E05.B-V.4.1.1

12. Read the sentences from "Bald eagles make a comeback in Chicago."

"By the 1960s, just 450 pairs of eagles remained in the lower 48 states. Today those numbers have soared to more than 9,000 . . ."

What does the word soared mean as it is used in the sentences?

* A. risen

B. surprised

C. mistaken

D. found

The student is asked to determine the meaning of the word "soared." Option A is the correct answer since one meaning of "soared" is "risen." Options B, C, and D are not supported by the context of the given sentences.

SELECTED-RESPONSE QUESTION

E05.B-K.1.1.1

13. This question has two parts. Answer Part One and then answer Part Two.

Part One

What is an inference that can be drawn from "Bald eagles make a comeback in Chicago"?

* A. People are very interested in seeing bald eagles in the wild.

B. Bald eagles only live in urban areas.

C. Media coverage has had a negative impact on the eagles.

D. In the future the eagle population will decrease.

Part Two

Which sentence from the passage **best** supports the inference in Part One?
Choose **one** answer.

A. "DDT was a really big problem for the bald eagles."

B. "Some new neighbors are raising a family in St. Paul, Minnesota."

* C. "It's had five million views this year alone."

D. "It tells us that we're doing the right thing."

The student is asked to select an inference based on information in the passage and then to select a sentence from the passage that best supports the inference.

Part One: *Option A is the correct answer since the passage states that Stan Wandersee feels that eagles in his backyard are "a gift." Also, the webcam set up at the Alcoa plant in Iowa was very popular. Options B and C contain erroneous information. Option D is not supported by information in the passage.*

Part Two: *Option C is the correct answer since it refers to the popularity of a webcam that shows video of bald eagles. Options A, B, and D do not relate to the correct inference in Part One.*

Read the third passage and answer questions 14–19.

Bald eagle deaths raising concerns

By Matthew Tresaugue
San Antonio Express-News

Saturday, April 7, 2012 — At least seven bald eagles have died in eastern Texas in the past year because of unintended encounters with power lines, an alarming rate of death at a time when the once-endangered species is rebounding, federal wildlife officials said.

Jim Stinebaugh, a U.S. Fish and Wildlife Service special agent based in Houston, said the raptors died from electrocutions or impacts involving power lines and poles in six counties, including Harris.

"It is happening more often, and because of the eagles' resurgence, it is going to increase," he said.

The bald eagle, a national symbol almost wiped out by pesticide, pollution and hunters in the 1960s, is flourishing again in Texas and across the country. The Interior Department removed the large and charismatic bird from the protection of the Endangered Species Act five years ago, with about 10,000 mating pairs nationwide.

At the time the species' status changed, Texas had 156 breeding pairs, up from a historic low of five in 1970, according to the Texas Department of Parks and Wildlife.

Since then, the state agency has not conducted annual population surveys of bald eagles because of the financial cost, said Brent Ortego, a state biologist.

Ortego said he thinks the eagle population has continued to grow at a rate of about 10 percent a year.

"We think they are doing OK," he said, "but we do not have the data."

Still, Ortego said the number of deaths in the past year is high and "those are just the ones they found."

As the population grows, the birds have had to adapt to the hubbub of humanity. They prefer forested areas near rivers and lakes, the same kind of places that also are drawing more people, more buildings and more energy needs.

Power poles and lines are particularly attractive to birds, especially eagles, hawks and falcons, which use them to spot prey. The problem arises when electricity transmission wires are within the distance of an eagle's wingspan, which ranges from 6 feet to 8 feet.

"The danger comes from the potential to touch two lines," said Jeff DallaRosa, ecological programs manager for CenterPoint Energy Inc., which delivers power to Houston. "The eagle is such a large bird that a lot of poles do not have that kind of spacing."

In January, an eagle carrying prey struck CenterPoint lines near the San Jacinto River in east Harris County. Crews found the dead bird while working to restore power in the area after the incident.

CenterPoint responded by providing a plan to prevent electrocutions to federal authorities. The strategies include installing “raptor guards” that prevent eagles from roosting on wires and poles and working with Houston Audubon and other bird enthusiasts to identify lines near nests for extra precautions.

“The young ones can be awkward and do not make the best decisions,” DallaRosa said.

Authorities can seek criminal prosecution of companies and others for the bird deaths under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty. Stinebaugh, however, said companies such as CenterPoint Energy recognize the problem and have done a good job taking corrective actions.

MULTIPLE-CHOICE QUESTIONS

E05.B-V.4.1.1

14. In "Bald eagle deaths raising concerns," the meaning of the Latin prefix "trans-" helps the reader know that "transmission" means

A. communication above.

B. communication beneath.

C. communication before.

* D. communication across.

The student is asked to use the Latin prefix "trans-" to determine the meaning of the word "transmission." Option D is the correct answer since "trans-" means "across." Options A, B, and C do not contain the correct meaning of the given prefix.

E05.B-V.4.1.2

15. In "Bald eagle deaths raising concerns," which word is a synonym for restore?

A. react

B. reflect

C. relate

* D. repair

The student is asked to identify a synonym for the word "restore." Option D is the correct answer. The power company's efforts to "restore" power indicate that power was off, and they were attempting to repair the problem. Options A, B, and C are not synonyms for the given word and do not make sense in context.

SELECTED-RESPONSE QUESTION

E05.B-K.1.1.3

16. The following question has two parts. Answer Part One and then answer Part Two.

Part One

Based on "Bald eagle deaths raising concerns," what is the relationship between the existence of power lines and the rate of bald eagle deaths?

A. The materials that are used to build power lines affect the rate of bald eagle deaths.

B. The pesticides used near power lines affect the rate of bald eagle deaths.

* C. The distance power lines are from each other affects the rate of bald eagle deaths.

D. The pollution created by power lines affects the rate of bald eagle deaths.

Part Two

What evidence from the passage supports your answer above? Choose **two** answers.

* A. ". . . electricity transmission wires are within the distance of an eagle's wingspan, . . ."

* B. " 'The danger comes from the potential to touch two lines,' . . ."

C. "Power poles and lines are particularly attractive to birds, . . ."

D. "Crews found the dead bird while working to restore power in the area . . ."

The student is asked to determine the relationship between the existence of power lines and the rate of bald eagle deaths and then to identify evidence from the passage to support this relationship.

Part One: *Option C is the correct answer since it is a fact that some power lines are too close together. Options A, B, and D are not supported by information in the passage.*

Part Two: *Options A and B are the correct answers since they support the fact that the small distance between the power lines affects the rate of bald eagle deaths. Option C states that eagles find the power poles attractive but does not relate to the rate of bald eagle deaths. Option D relates to bald eagle deaths but not to the distance of the power lines.*

Questions 17–19 refer to more than one passage. Be sure to read each question carefully.

MULTIPLE-CHOICE QUESTIONS

E05.B-C.2.1.1

17. Which statement **best** describes the difference in the point of view of "The Eagles Are Back!" from the other two passages?

A. "The Eagles Are Back!" is written from the point of view of a scientist interested in explaining the problems faced by bald eagles, while the other two passages are written from the point of view of biologists and politicians studying the effects of pesticides on bald eagles.

B. "The Eagles Are Back!" is written from the point of view of a student researching bald eagles, while the other two passages are written from the point of view of park rangers who discuss how parks have brought back bald eagles.

* C. "The Eagles Are Back!" is written from the point of view of an individual providing a general history of bald eagles throughout the country, while the other two passages are written from the point of view of reporters who discuss sightings of bald eagles in particular areas of the country.

D. "The Eagles Are Back!" is written from the point of view of a resident who has sighted bald eagles, while the other two passages are written from the point of view of historians who describe where bald eagles used to live.

The student is asked to identify the difference in the points of view of the three passages. Option C is the correct answer. "The Eagles Are Back!" is written by someone who is giving information about the population of bald eagles at different points in time. "Bald eagles make a comeback in Chicago" was written by two television news reporters. "Bald eagle deaths raising concerns" was written by a newspaper reporter. Options A, B, and D are not supported by information in the passages.

E05.B-C.2.1.2

18. What is the overall structure of **all** three passages?

A. All three passages compare different ways that have been used to increase the number of bald eagles.

* B. All three passages discuss the cause and effect of the bald eagle decreasing and then increasing in number.

C. All three passages ask a question about how the bald eagle has increased in number and then answer it.

D. All three passages discuss the issue of the decreasing number of bald eagles with details in order of importance.

The student is asked to identify the overall structure of the three passages. Option B is the correct answer since all three passages discuss how people have affected the number of bald eagles in negative and then in positive ways. Options A, C, and D are not supported by information in the passages.

TEXT-DEPENDENT ANALYSIS QUESTION

E05.E.1.1

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

Writer's Checklist for the Text-Dependent Analysis Question

PLAN before you write

- Make sure you read the question carefully.
- Make sure you have read the entire passage carefully.
- Think about how the question relates to the passage.
- Organize your ideas on scratch paper. Use a thought map, outline, or other graphic organizer to plan your essay.

FOCUS while you write

- Analyze the information from the passage as you write your essay.
- Make sure you use evidence from the passage to support your response.
- Use precise language, a variety of sentence types, and transitions in your essay.
- Organize your paper with an introduction, body, and conclusion.

PROOFREAD after you write

☐ I wrote my final essay in the answer booklet.

☐ I stayed focused on answering the question.

☐ I used evidence from the passage to support my response.

☐ I corrected errors in capitalization, spelling, sentence formation, punctuation, and word choice.

GO ON

GO ON

GO ON

AFTER YOU HAVE CHECKED YOUR WORK, CLOSE YOUR ANSWER BOOKLET AND TEST BOOKLET SO YOUR TEACHER WILL KNOW YOU ARE FINISHED.

TEXT-DEPENDENT ANALYSIS QUESTION SCORING GUIDELINE

Item #19

Assessment Anchor:

E05.E.1–Evidence-Based Analysis of Text

Specific Assessment Anchor Descriptor addressed by this item:

E05.E.1.1–Draw evidence from literary or informational texts to support analysis, reflection, and research.

Score Point	Description
4	• Effectively addresses all parts of the task demonstrating in-depth analytic understanding of the text(s) • Effective introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Strong organizational structure that effectively supports the focus and ideas • Thorough analysis of explicit and implicit meanings from text(s) to effectively support claims, opinions, ideas, and inferences • Substantial, accurate, and direct reference to the text(s) using relevant key details, examples, quotes, facts, and/or definitions • Substantial reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Skillful use of transitions to link ideas • Effective use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Few errors, if any, are present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present do not interfere with meaning
3	• Adequately addresses all parts of the task demonstrating sufficient understanding of the text(s) • Clear introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Appropriate organizational structure that adequately supports the focus and ideas • Clear analysis of explicit and implicit meanings from text(s) to support claims, opinions, ideas, and inferences • Sufficient, accurate, and direct reference to the text(s) using relevant details, examples, quotes, facts, and/or definitions • Sufficient reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Appropriate use of transitions to link ideas • Appropriate use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Some errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present seldom interfere with meaning

Score Point	Description
2	• Inconsistently addresses some parts of the task demonstrating partial understanding of the text(s) • Weak introduction, development, and/or conclusion identifying an opinion, topic, or controlling idea somewhat related to the text(s) • Weak organizational structure that inconsistently supports the focus and ideas • Weak or inconsistent analysis of explicit and/or implicit meanings from text(s) that somewhat supports claims, opinions, ideas, and inferences • Vague reference to the text(s) using some details, examples, quotes, facts, and/or definitions • Weak reference to the main idea(s) and relevant details of the text(s) to support the writer's purpose • Inconsistent use of transitions to link ideas • Inconsistent use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present may interfere with meaning
1	• Minimally addresses part(s) of the task demonstrating inadequate understanding of the text(s) • Minimal evidence of an introduction, development, and/or conclusion • Minimal evidence of an organizational structure • Insufficient or no analysis of the text(s); may or may not support claims, opinions, ideas, and inferences • Insufficient reference to the text(s) using few details, examples, quotes, facts, and/or definitions • Minimal reference to the main idea(s) and/or relevant details of the text(s) • Few, if any, transitions to link ideas • Little or no use of precise language or domain-specific vocabulary drawn from the text(s) • Many errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present often interfere with meaning
Non-scorables	BLK (blank) .....No response or written refusal to respond or too brief to determine response OT.....Off task/topic LOE.....Response in a language other than English IL.....Illegible

TEXT-DEPENDENT ANALYSIS QUESTION STUDENT RESPONSES

E05.E.1.1 Response Score: 4 

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

Since the 1960s people have been concerned about the numbers of bald eagles. Many different people have taken action to help the bald eagle increase in numbers.

When people realized that a pesticide (DDT) was contaminating the eagles' food supply and making their eggs weak, the government banned DDT and that helped eagles when the poison wore off. They were able to have strong eggs again, so the babies had a better chance to survive. The government also put the eagle on the Endangered Species List because "fewer than five hundred breeding pairs of bald eagles were left in the lower forty-eight states." The government also protected their habitat and kept people away because eagles like peaceful spots near lakes and rivers.

At the Patuxent Wildlife Research Center in Maryland, people raised eagle chicks to be set free in the wild, and they also helped by taking two eggs from one pair of eagles and giving them to another pair of eagles to raise. The first pair usually had another set of eggs, so then two pairs of eagles were each able to raise 2 babies each. "By the time the program ended in 1988, 124 bald eagles had been hatched there for release into the wild."

According to the passage from the television news report, employees at a Iowa Alcoa plant set up a webcam so people could watch a pair of eagles raise their eaglets. Also, for the first time in 100 years, there is an eagle nest in Chicago.

Unfortunately, as eagles increase there is increased danger for them. The newspaper article from the San Antonio Express-News says that as eagle numbers increase, the number of deaths increase too because there are so many eagles and some of them are dying by electrocuting on power lines or crashing into the poles. CenterPoint Energy and the Houston Audobon are developing ways to put "raptor guards" on the power lines so eagles won't die on them where there are many eagles like around lakes and where there is a nest.

Because of all these people bald eagles "have soared to more than 9,000".

The response effectively addresses all parts of the task, demonstrating an in-depth understanding of the texts. The student analyzes explicit and implicit meanings (*"The government also put the eagle on the Endangered Species List"* and *"the Patuxent Wildlife Research Center in Maryland, people raised eagle chicks to be set free"*) from the texts, effectively supporting the main idea (*"Many different people have taken action to help the bald eagle increase in numbers"*). Substantial, accurate, and direct reference to the texts (*" 'fewer than five hundred breeding pairs of bald eagles were left in the lower forty-eight states,' " "a Iowa Alcoa plant set up a webcam,"* and *"CenterPoint Energy and the Houston Audobon are developing ways to put 'raptor guards' on the power lines"*) using relevant key details and facts supports the main idea. The student has a clear organizational structure that effectively supports the focus and ideas, including an effective introduction, transitions to link ideas, ideas grouped in a logical order, and a conclusion related to the main idea and purpose. Precise language drawn from the texts (*"a pesticide (DDT)," "124 bald eagles had been hatched there for release into the wild," "for the first time in 100 years,"* and *" 'raptor guards' "*) is effectively used to explain the topic. The response is free of convention errors.

E05.E.1.1 Response Score: 4

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

Many different people have done many different things to help the bald eagle increase in numbers. Scientists learned that the pesticide DDT was in the food chain and harming eagle's eggs, the government banned it. This helped eagles because the poison eventually went away and the eggs got stronger. The government also put the eagle on the Endangered Species List because it was like the eagle was going to be extinct. The government where they nest and kept people away because eagles like peaceful spots without people around. People raised eagle chicks to be let go in the wild in Maryland. They also helped eagles by taking the eggs from one pair of eagles and giving them to eagles who had their baby's die. This way they could help even more eagles get born. The passage says they let 124 of the eagles go in the wild. There is proof that eagle numbers are increasing. Around the U.S. eagles are not rare any more. There are eagles in Chicago for the first time in 100 years and someone in Minnesota has eagles living in his backyard. But, Because there are so many eagles now, more of them get killed.

Eagles are getting killed when they hit electrical wires, so people are putting up "raptor guards" so the eagles don't get killed by the wires. I'm sure there are alot more people helping eagles too because there are many many more eagles now than 50 years ago. I wish I could thank them all.

GO ON

The response effectively addresses all parts of the task, demonstrating an in-depth, analytic understanding of the texts. The student analyzes explicit and implicit meanings (*"the pesticide DDT was in the food chain and harming eagle's eggs, the government banned it," "Around the U.S. eagles are not rare any more,"* and *"I'm sure there are alot more people helping eagles too because there are many many more eagles now"*) from the texts, effectively supporting the main idea (*"Many different people have done many different things to help the bald eagle increase in numbers"*). Substantial, accurate, and direct reference to the texts (*"where they nest and kept people away," "People raised eagle chicks to be let go in the wild in Maryland," "eagles in Chicago for the first time in 100 years,"* and *"people are putting up 'raptor guards' "*) supports the main idea. The student employs a strong organizational structure that effectively supports the writer's ideas, including an effective introduction, transitions, ideas grouped in a logical order, and a conclusion related to the main idea and purpose. Precise language drawn from the texts (*"DDT was in the food chain," "they let 124 of the eagles go in the wild,"* and *" 'raptor guards' "*) is effectively used to explain the topic and convey events. There are errors in spelling (*"evenchualy," "baby's"* for babies, and *"alot"*), usage (*"eagles who"* instead of eagles that), and capitalization (*"Because"*); however, these errors do not interfere with meaning.

E05.E.1.1 Response Score: 3

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

People are helping the bald eagle increase in numbers by protecting it, helping them have baby eagles and giving them a place to live.

Once in America people were scared eagles would die out or become extinct but they didn't know why until someone figured out it was DDT that was killing them because it made their egg shells too fragile to live. The government banned DDT in 1972. A year later the government made the eagle "endangered" and protected it and other rare animals with the Endangered Species act. Now people would get in trouble if they bothered eagles or if they killed them.

In Maryland, bald eagles are brought to a center for birds and they raise eagle chicks. Eggs from a pair of eagles are taken from them and given to a different pair of eagles

GO ON

who don't have babies so they could raise them. Don't worry though, the other pair of eagles usually laid another pair of eggs for themselves.

According to the passage about the TV news, there is a "secluded forest preserve sits hidden" and there is a eagle's nest there for the first time in a hundred years!

Because there's so many eagles now, some of them are dying because they hit power lines when they fly or get lectracuted when they land on wires. So people in Texas are installing "raptor gaurds" to protect the eagles from the power lines and working with bird lovers to work on areas, especially where there are nests nearby.

Because of all these things, President Bill Clinton said the eagle wasn't endangered anymore in 1999.

AFTER YOU HAVE CHECKED YOUR WORK, CLOSE YOUR ANSWER BOOKLET AND TEST BOOKLET SO YOUR TEACHER WILL KNOW YOU ARE FINISHED.

The response adequately analyzes how people are helping the bald eagle increase in numbers, demonstrating sufficient understanding of the texts. The student analyzes both explicit and implicit meanings from the texts to support the main idea (*"People are helping the bald eagle increase in numbers by protecting it, helping them have baby eagles and giving them a place to live"*). Direct reference to the texts (*"someone figured out it was DDT that was killing them," "The government banned DDT in 1972," "government made the eagle 'endangered' and protected it and other rare animals with the Endangered Species act," "In Maryland, bald eagles are b[r]ought to a center for birds and they raise eagle chicks,"* and *"people in Texas are installing 'raptor gaurds' to protect the eagles [from electrocution]"*), using relevant details, examples, and facts, is provided to support the main idea. Clearer references to the main idea would strengthen the analysis. The student employs an appropriate organizational structure consisting of a logical, chronological order of events from the texts, surrounded by a clear introduction and conclusion. There is an appropriate use of transitions to link ideas in this response (*"A year later," "Now people would,"* and *"Don't worry though"*). An error in grammar (*"there's"* for there are) and two spelling errors (*"lectrocuted"* and *"gaurds"*) are present; however, these do not interfere with meaning.

E05.E.1.1 Response Score: 3 

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

People help the bald eagles increase in numbers by trying to protect them and protect where they live.

There were hardly eagles left in America and people thought they would be extinct but noody knew why. Eventually they found out that DDT was killing baby eagles because the shells weren't hard enough so the government banned it and made the eagle protected on the Endangered Species act. This meant that nobody could do anyting to eagles.

Some people at a research center are helping to raise eagle chicks. Eggs are taken from parents of one eagle and given to different parents to raise. When they growed up, they let them go into the wild. That helped the eagles.

In the second passage, it says that there is a wilderness preserve near a big city and there is an eagle's nest there for the first time in over one hundred years! So that shows that the eagles are increase in numbers.

Now that there are lots of eagles again, there's new problems like sometimes they land on electrical power lines. People decided to put up guards to protect the eagles from getting electrocuted. Other people are helping out where there are many eagles like around lakes and where they have nests.

Now eagles are not that endangered. They aren't even on the endangered species list anymore.That is how people have helped the bald eagles increase in numbers.

The response adequately analyzes how people are helping the bald eagle increase in numbers, demonstrating sufficient understanding of the texts. The student analyzes explicit and implicit meanings from the texts to support the main idea (*"People help the bald eagles increase in numbers by trying to protect them and protect where they live"*). Direct reference to the texts (*"DDT was killing baby eagles because the shells weren't hard enough so the government banned it," "made the eagle protected on the Endangered Species act," "there is a wilderness preserve near a big city and there is an eagle's nest there for the first time in over one hundred years"*) is provided in support of the main idea. Additional and/or more specific, relevant details, examples, or quotes from the texts would strengthen the analysis. The student employs an appropriate organizational structure consisting of a logical, chronological order of events from the texts with a clear introductory statement and conclusion. The response features errors in grammar (*"growed"* and *"there's"*); however, the errors present do not interfere with meaning.

E05.E.1.1 Response Score: 2

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

Have you ever wondered how people help the bald eagle increase in numbers? If people didn't there might not be any eagles left except in a zoo.

A long time ago, eagles were getting sick from poison and there weren't very many left, so the government protected them from being extinct. The government outlowed poisin and made the eagle "endangered. Some people in Maryland raise baby eagles and release them into the wild and that helps eagles increase in numbers. In Chicago they maid a secluded forest for eagles and now they are there and they haven't been for like a 100 years. If they didn't do that, there might not be any eagles there. In Texas eagles were dying by electricity, so the company put up buryers to keep the eagles away so they won't get hurt.

So now you know how people help the bald eagle increase in numbers.

GO ON

The response inconsistently addresses the task, demonstrating partial understanding of the texts. There is weak analysis of the explicit meanings from the texts (*"If people didn't [help] there might not be any eagles left except in a zoo"*). There is weak reference to specific, relevant details from the texts (*"eagles were getting sick from poison and there were'nt very many left, so the government protected them from being extinct"*). The response also has a weak organizational structure including a simple introduction and an equally simple conclusion. Transitions are used inconsistently (*"If they did'nt do that"*). There is little use of precise language and vocabulary drawn from the texts to explain the topic (*"Some people in Maryland"*). The response contains errors in punctuation (*"were'nt," "have'nt," "did'nt,"* and *"wo'nt"*), usage (*"maid"* for *made* and *"buryers"* for *barriers*), and spelling (*"outlowed"* and *"poisin"*) that sometimes interfere with meaning.

E05.E.1.1 Response Score: 2 

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

There were almost no eagles left until people helped bald eagles increase in numbers. One way people helped was by banning DDT. DDT is a poison that makes eagles lose their babies. After the DDT wore off, eagles began to increase in numbers.

Another way people helped was that in Maryland people would raise baby eagles and release them into the wild and they would give chicks from other eagles to eagles that didn't have any so they could raise a family too. This also helped the bald eagle increase in numbers. In other places eagles are dying because they hit electric wires so companys are putting up guards to keep the eagles safe in increase in numbers.

Now, eagles are back and people have helped the bald eagle increase in numbers.

The response inconsistently addresses the task, demonstrating partial understanding of the texts. There is weak analysis of explicit meanings from the texts (*"There were almost no eagles left until people helped bald eagles increase in numbers"*). The response lacks specific, relevant details from the texts. There is weak reference to the main ideas and relevant details (*"DDT is a poison that makes eagles lose their babies"* and *"in Maryland people would raise baby eagles"*). The response has a weak organizational structure with a simple introduction and a simplistic conclusion. The response does feature transitions (*"After the DDT wore off," "Another way,"* and *"This also helped"*); however, there is little use of precise language and vocabulary drawn from the texts to explain the topic. The response contains an error in spelling (*"companys"* for *companies*).

E05.E.1.1 Response Score: 1 

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

Here are some ways that people are helping the bald eagle increase in numbers. The bald eagle prefer frosted areas like rivers and lakes. At the Chicago Zoo DDT was a really big problem for bald eagles. Houston audobon and other bird entusiasts identify lines near nests for extera precautions. Young ones can be awkward. Authorites can seek criminal prosecution under the law if someone hurts an eagle. Those are ways that people are helping the bald eagle increase in numbers.

The response minimally addresses the task of explaining how people are helping the bald eagle increase in numbers, demonstrating inadequate understanding of the texts. Minimal reference to the main idea is evident. The response fails to demonstrate a true analysis of the texts. References to the texts are insufficient and often inaccurate (*"At the Chicago Zoo DDT was a really big problem for bald eagles"*). Much of the response is composed of inaccurate fragments of ideas from various portions of the passages. There is a minimal introduction (*"Here are some ways"*), and the conclusion is simplistic (*"Those are ways that people are helping"*). Minimal evidence of an organizational structure is present, including a lack of transitions to connect ideas. Although there is some precise language drawn from the texts, it is employed haphazardly (*"Young ones can be awkward"*). Errors present in spelling (*"entusiasts"* and *"Authorites"*), and capitalization (*"audobon"*) interfere with meaning.

E05.E.1.1 Response Score: 1

19. The passages discuss the impact that people have had on the bald eagle. Write an essay analyzing how people are helping the bald eagle increase in numbers. Use information from **all** three passages to support your response.

One way people are helping bald eagles is the government stopped making the poison that was killing the baby eagles. Then the government made the eagle endangered so people couldn't hurt eagles anymore and now there are a lot of eagles thanks to people helping bald eagles increase in numbers.

The response minimally addresses the task of explaining how people are helping the bald eagle increase in numbers. Minimal reference to the main idea is evident, and the response does not demonstrate a true analysis of the texts. There is no introductory statement, and the conclusion is simplistic (*"now there are a lot of eagles thanks to people"*). References to the texts are insufficient and/or confused (*"the government stopped making the poison"* and *"the government made the eagle endangered"*). Minimal evidence of an organizational structure is present. The response is free of convention errors.

GO ON

PASSAGE 3

Read the following passage about Anita Roddick. Then answer questions 20–29.

Anita Roddick
Founder of The Body Shop

by Krista McLuskey

Early Years

Anita was born in Littlehampton, England, where her parents owned the Clifton Café. Anita's father, Henry, turned the Clifton Café into an American-style diner like the ones he had seen while living in the United States. It was complete with pinball machines, a jukebox, and Coca-Cola, which was not well known in England at that time. Suddenly, the café became very popular. Anita realized that the atmosphere in a business can make it successful.

When Anita was about ten years old, her mother took over the café. All the children were expected to work there after school and on weekends to help support the family. Meanwhile, Anita was completing her education. After finishing secondary school, she attended a teacher training college in the city of Bath.

Developing Skills

After graduating, Anita decided she wanted some adventure in her life. She traveled to Tahiti, New Hebrides, Australia, Madagascar, New Caledonia, and South Africa. In these places, Anita watched the local women use natural products to clean their skin and hair. She tried them and found they worked better than the products she used back in England.

After Anita returned to England, she met and married Gordon Roddick, with whom she had two daughters. Anita and Gordon worked hard running a hotel and restaurant. One day, Gordon announced that he wanted to take two years off to ride on horseback from Buenos Aires, Argentina, to New York City. Although Anita was not thrilled at this prospect, she knew that it was his dream. She had to plan how to support herself and the children while Gordon was away. She decided to run a little shop that would be open only from 9 A.M. to 5 P.M. so that she could spend time with her daughters.

Anita decided that it would be a cosmetics shop selling products made from only natural ingredients. During her travels, she had seen how effective natural products were. She had noticed that women in those hot countries had silky smooth skin even though they were in the sun all the time.

After getting a £[1]4,000 bank loan, Anita hired a chemist to develop the cosmetics. She told the chemist not to test the products on animals, even though that is normal practice in the cosmetics industry. Anita rented a store in Brighton, 20 miles (33 kilometers) from Littlehampton. She painted the inside dark green to hide stains on the walls. In March 1976, the first Body Shop opened, and it made £130 the first day.

Anita had only twenty-five products to sell. To fill the space in the shop, she packaged each product in five different sizes. She bought the cheapest containers she could find. Since she could not afford very many bottles, she asked customers to bring in their own to fill them in the store. In this way, Anita began recycling before it was commonly done.

Anita used unusual marketing tactics. To get customers into The Body Shop, she sprayed a trail of perfume down the street leading to the store to tempt people to come inside. She hung dried flowers from the ceiling and put bowls of scented potpourri on the counters.

Accomplishments

Within a year, Anita decided to open a second Body Shop in a nearby town. The bank refused to lend her any more money, so she teamed up with a partner who paid to set up the shop in return for half of the business. Gordon, her husband, returned from his travels and began to help by bottling the products and taking care of the finances.

Soon, people came to Anita wanting to open their own Body Shop stores with products supplied by her. Anita and Gordon agreed because this was a way of expanding the business. The first Body Shop franchises opened in 1978, one in England and one in Brussels, Belgium. Anita and Gordon always trained the new Body Shop owners, teaching them about skin and hair care, and about all the ingredients in the products.

During the next few years, the number of stores and franchises increased. Meanwhile, Anita invented new products whenever she saw a need. She created a peppermint lotion to soothe sore feet after several people, who had run a race, came into the store asking for foot lotion.

In 1984, Anita and Gordon decided to sell Body Shop shares on the stock market. By this time, they had thirty-eight shops in England and fifty-two shops in other countries. So many shares sold the first day on the stock market that overnight Anita and Gordon were millionaires.

Stock Market

Stock is the financial worth of a company divided into equal sections, called shares. One person can own all the stock in a company. If a company needs extra money to expand its business, it sometimes sells its stock to the public. Shares are sold to the public on the stock market, which is the place where people buy and sell shares in companies. When stock in a company is sold like this, many people own small parts of the company, and the profits are divided among the owners of these shares. The original owners lose some control because they have to answer to their shareholders if the company does not make a profit.

[1]£—symbol for the pound sterling, the official currency of the United Kingdom, which includes England

Anita began thinking about the social responsibility that the business had. She wanted to help her community and the environment. She began by sponsoring posters for Greenpeace, which was trying to prevent hazardous waste from being dumped in the ocean. Next, she campaigned against the overhunting of whales. She put up posters in her shops and stickers on her bottles saying "Save the whales." She also supported recycling and efforts to preserve the rain forest. Body Shop delivery trucks became billboards for Anita's various causes. Her campaigns focused on human rights and environmental issues, such as protecting endangered species.

Anita's business continues to grow. Today, The Body Shop has approximately 1,500 stores in forty-six countries.

Key Events

1976 Roddick opens the first Body Shop in Brighton, England, and a second one in Chichester.

1978 The first franchise of The Body Shop opens.

1984 The Body Shop goes public, selling shares on the stock market.

1986 Roddick establishes an Environmental Projects' Department of The Body Shop; Roddick is named London's Businesswoman of the Year.

1987 The Body Shop is named Company of the Year by the Confederation of British Industries.

1988 The first Body Shop in the United States opens.

MULTIPLE-CHOICE QUESTIONS

E05.B-C.3.1.1

20. Read the sentence from the passage.

"During her travels, she had seen how effective natural products were."

Which evidence from the passage **best** supports the author's point in the sentence?

A. Roddick trained new store owners about the ingredients in her products.

* B. The women in hot countries had beautiful skin even though they were often in the sun.

C. Roddick used a bank loan to hire a chemist to develop her cosmetics.

D. Local women used natural products on their skin and hair.

The student is asked to determine evidence from the passage that best supports the author's point given in a sentence from the passage. Option B is the correct answer. The natural products that the women used protected their skin from the harsh effects of the sun. Options A and C do not relate to the author's point. Option D is a detail that relates to the topic of the author's point but does not directly support it.

E05.B-V.4.1.1

21. Read the sentences from the passage.

"Anita used unusual marketing tactics. To get customers into The Body Shop, she sprayed a trail of perfume down the street leading to the store to tempt people to come inside."

What does tactics mean?

A. adventures

B. rules

C. slogans

* D. ideas

The student is asked to determine the meaning of the word "tactics." Option D is the correct answer. The sentence that gives an example of how Anita sprayed perfume to get people to come inside her store clues the reader that "ideas" is the meaning of "tactics." Options A, B, and C do not make sense in the context of the sentences.

E05.B-C.3.1.3

22. Why is the information in the text box "Stock Market" included in the passage?

A. to show how owning a high number of Body Shops relates to the stock market

B. to explain why so many Body Shop shares sold the first day on the stock market

C. to show why selling shares on the stock market was profitable for the Roddicks

* D. to explain what it means that the Roddicks sold Body Shop shares on the stock market

The student is asked to determine why the information in the text box "Stock Market" is included in the passage. Option D is the correct answer. The text box explains what shares are so that the reader can understand the meaning of the Roddicks selling shares of their company on the stock market. Options A, B, and C are not supported by information in the text box.

E05.B-V.4.1.2

23. Which word is a synonym for expanding?

* A. growing

B. observing

C. planning

D. searching

The student is asked to identify the synonym for the word "expanding." Option A is the correct answer since "growing" means the same as "expanding" and makes sense in the context of the passage. Options B, C, and D are not supported by the context.

E05.B-V.4.1.2

24. Which word is an antonym for soothe?

A. relax

B. imitate

* C. agitate

D. transform

The student is asked to identify the antonym for the word "soothe." Option C is the correct answer since "agitate" means the opposite of "soothe." Option A is a synonym for "soothe." Options B and D are not supported by the context of the passage.

E05.B-C.3.1.1

25. Which sentence from the passage **best** shows a reason for Roddick's decision to try to preserve the rain forest?

A. "Anita invented new products whenever she saw a need."

* B. "Anita began thinking about the social responsibility that the business had."

C. "Next, she campaigned against the overhunting of whales."

D. "Body Shop delivery trucks became billboards for Anita's various causes."

The student is asked to determine the reason for Roddick's decision to try to preserve the rain forest. Option B is the correct answer since it was Roddick's belief that business has a social responsibility that led her to support different causes, such as preserving the rain forest. Option A does not relate to the social responsibility of business. Option C is an example of how Roddick implemented her belief in the social responsibility of business. Option D is a detail that supports how Roddick used her business to showcase the causes she supported.

E05.B-K.1.1.1

26. Which sentence about Gordon **best** shows that he supported Anita's business endeavor?

* A. ". . . began to help by bottling the products and taking care of the finances."

B. ". . . she teamed up with a partner who paid to set up the shop in return for half of the business."

C. ". . . Anita and Gordon decided to sell Body Shop shares on the stock market."

D. ". . . overnight Anita and Gordon were millionaires."

The student is asked to identify the sentence from the passage that best supports the given inference that Gordon supported Anita's business endeavor. Option A is the correct answer since this sentence shows how Gordon helped Anita with her business. Option B does not relate to Gordon at all. Options C and D relate to Gordon, but they do not explain how Gordon supported Anita's business.

E05.B-C.3.1.3

27. What connection do the details in the text box "Key Events" have with the information in the passage?

* A. They provide further information about Anita's career.

B. They offer information about Anita's family life.

C. They summarize the facts given in the passage.

D. They give a detailed explanation for the events in the passage.

The student is asked to make a connection between the information in the text box and the passage. Option A is the correct answer since the information in the text box does have some events that are not listed in the passage. Option B is not correct since the events listed are not associated with Anita's personal life. Option C is not correct since some of the facts given are in addition to the facts provided in the passage. Option D is not correct since no detailed explanation is given with the events listed in the text box.

SELECTED-RESPONSE QUESTION

E05.B-K.1.1.2

28. This question has two parts. Answer Part One and then answer Part Two.

Part One

Which sentence contains two main ideas of the passage?

A. Roddick traveled around the world, and she observed women using natural products on their skin and hair.

B. Roddick married Gordon, and they ran a hotel and restaurant.

* C. Roddick used her knowledge to create a product line, and she used marketing strategies to develop a business.

D. Roddick supported herself and her children, and she opened a small shop in Brighton.

Part Two

What **two** details from the passage support the answer in Part One? Choose **two** answers.

* A. "Anita decided that it would be a cosmetics shop selling products made from only natural ingredients."

B. "She had to plan how to support herself and the children while Gordon was away."

C. "She told the chemist not to test the products on animals . . ."

* D. "To get customers into The Body Shop, she sprayed a trail of perfume down the street leading to the store to tempt people to come inside."

E. ". . . Anita watched the local women use natural products to clean their skin and hair."

The student is asked to determine the two main ideas of the passage and to select details from the passage that support those ideas.

Part One: *Option C is the correct answer since the passage discusses how Roddick came up with the idea for her business and how she made it a success. Options A, B, and D are details from the passage and not the main ideas.*

Part Two: *Options A and D are the correct answers since they support the main ideas from Part One. Option B relates to why Roddick had to create a business. Option C is a detail that supports her belief in helping the environment. Option E is a detail that supports the idea that Roddick learned much during her travels.*

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TEXT-DEPENDENT ANALYSIS QUESTION

E05.E.1.1

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Writer's Checklist for the Text-Dependent Analysis Question

PLAN before you write

- Make sure you read the question carefully.
- Make sure you have read the entire passage carefully.
- Think about how the question relates to the passage.
- Organize your ideas on scratch paper. Use a thought map, outline, or other graphic organizer to plan your essay.

FOCUS while you write

- Analyze the information from the passage as you write your essay.
- Make sure you use evidence from the passage to support your response.
- Use precise language, a variety of sentence types, and transitions in your essay.
- Organize your paper with an introduction, body, and conclusion.

PROOFREAD after you write

- ☐ I wrote my final essay in the answer booklet.
- ☐ I stayed focused on answering the question.
- ☐ I used evidence from the passage to support my response.
- ☐ I corrected errors in capitalization, spelling, sentence formation, punctuation, and word choice.

GO ON

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GO ON

AFTER YOU HAVE CHECKED YOUR WORK, CLOSE YOUR ANSWER BOOKLET AND TEST BOOKLET SO YOUR TEACHER WILL KNOW YOU ARE FINISHED.

TEXT-DEPENDENT ANALYSIS QUESTION SCORING GUIDELINE

Question #29

Assessment Anchor:

E05.E.1–Evidence-Based Analysis of Text

Specific Assessment Anchor Descriptor addressed by this item:

E05.E.1.1–Draw evidence from literary or informational texts to support analysis, reflection, and research.

Score Point	Description
4	• Effectively addresses all parts of the task demonstrating in-depth analytic understanding of the text(s) • Effective introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Strong organizational structure that effectively supports the focus and ideas • Thorough analysis of explicit and implicit meanings from text(s) to effectively support claims, opinions, ideas, and inferences • Substantial, accurate, and direct reference to the text(s) using relevant key details, examples, quotes, facts, and/or definitions • Substantial reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Skillful use of transitions to link ideas • Effective use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Few errors, if any, are present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present do not interfere with meaning
3	• Adequately addresses all parts of the task demonstrating sufficient understanding of the text(s) • Clear introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Appropriate organizational structure that adequately supports the focus and ideas • Clear analysis of explicit and implicit meanings from text(s) to support claims, opinions, ideas, and inferences • Sufficient, accurate, and direct reference to the text(s) using relevant details, examples, quotes, facts, and/or definitions • Sufficient reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Appropriate use of transitions to link ideas • Appropriate use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Some errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present seldom interfere with meaning

Score Point	Description
2	• Inconsistently addresses some parts of the task demonstrating partial understanding of the text(s) • Weak introduction, development, and/or conclusion identifying an opinion, topic, or controlling idea somewhat related to the text(s) • Weak organizational structure that inconsistently supports the focus and ideas • Weak or inconsistent analysis of explicit and/or implicit meanings from text(s) that somewhat supports claims, opinions, ideas, and inferences • Vague reference to the text(s) using some details, examples, quotes, facts, and/or definitions • Weak reference to the main idea(s) and relevant details of the text(s) to support the writer's purpose • Inconsistent use of transitions to link ideas • Inconsistent use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present may interfere with meaning
1	• Minimally addresses part(s) of the task demonstrating inadequate understanding of the text(s) • Minimal evidence of an introduction, development, and/or conclusion • Minimal evidence of an organizational structure • Insufficient or no analysis of the text(s); may or may not support claims, opinions, ideas, and inferences • Insufficient reference to the text(s) using few details, examples, quotes, facts, and/or definitions • Minimal reference to the main idea(s) and/or relevant details of the text(s) • Few, if any, transitions to link ideas • Little or no use of precise language or domain-specific vocabulary drawn from the text(s) • Many errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present often interfere with meaning
Non-scorables	BLK (blank) .....No response or written refusal to respond or too brief to determine response OT.....Off task/topic LOE.....Response in a language other than English IL.....Illegible

TEXT-DEPENDENT ANALYSIS QUESTION STUDENT RESPONSES

E05.E.1.1 Response Score: 4

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Anita Roddick's family was important to her success because they served as role models and as support for her in later business dealings.

When she was young, Anita and her family all worked at her father's café. That is where Anita learned about pitching in and that the atmosphere of a business is very important to helping it be a success. Her father's American-style diner proved that to her. She also saw her mom was able to run the café by herself. Later Anita had to run the Body Shop by herself.

She and her husband Gordon worked together and ran a hotel and a restaurant. Because Gordon wanted to go on a long trip, Anita had to find a way to feed her

GO ON

Kids, so she decided to open a cosmetic shop and only had it open when her daughters were in school so she could be with them when they got home. So she had to work hard to make money while it was open.

Anita had learned from her father about unusual marketing and to lure customers to her store she would spray a trail of perfume for customers to follow. Within a year, she opened another shop and husband returned from his travels to help her bottle her products and run the finances of their business.

The hard work she had learned as a child and when she had to feed her family alone helped to make her so successful that when they sold stock for her company.

AFTER YOU HAVE CHECKED YOUR WORK, CLOSE YOUR ANSWER BOOKLET AND TEST BOOKLET SO YOUR TEACHER WILL KNOW YOU ARE FINISHED.

The response effectively addresses all parts of the task, demonstrating an in-depth understanding of the text. The student analyzes both explicit and implicit meanings (*"Anita had learned from her father about unusual marketing"* and *"at her father's café . . . Anita learned about pitching in"*) from the text, effectively supporting the main idea (*"they served as role models and as support for her in later business dealings"*). Substantial, accurate, and direct reference to the text (*"the atmosphere of a business is very important to helping it be a success. Her father's American-style diner proved that to her"*; *"She and her husband Gordon worked together and ran a hotel and a restaurant"*; and *"Within a year, she opened another shop and husband returned from his travels to help her bottle her products and run the finances of their business"*) supports the main idea. The student has a strong organizational structure that effectively supports the focus, including an effective introduction, ideas grouped in a logical order, and a conclusion related to the main idea and purpose. Precise language (*"American-style diner"* and *"a trail of perfume"*) is effectively used to explain the topic. There is a punctuation error (missing comma following the word *"Later"* at the end of the second paragraph) and an error in sentence formation (an overly coordinated sentence in the middle of the response); however, these errors do not interfere with meaning.

E05.E.1.1 Response Score: 4 

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Anita Roddick's family was important to her success because they taught her things and supported her decisions.

Anita worked at her father's café when she was young. The café was successful and "Anita realized that the atmosphere in a business is very important to helping it be a success." She also worked there when her mother took over the café.

After she graduated and went around the world, Anita saw woman using natural products on their skin and noticed they looked good even in hot, sunny places. She wanted to use them also because she thought these women looked better than women in England. Because her husband wanted to go on a long trip, Anita had to make money by herself, so she opened a store to sell the types of products she had learned about while travelling. She painted the store green to give it "atmosphere" like her dad's café, but it was really to hide stains on the wall.

In order to attract customers she would spray a trail of perfume to follow to her store because she knew about "unusual marketing tactics." Soon she was so successful that she opened another shop. Soon more and more stores were opening because the products were so good. When her husband returned from his travels he helped her run the business and handled the finances of their business.

Because of her family, Anita's business grew and grew until they sold it on the stock market and became millionaires overnight.

This response effectively addresses all parts of the task, demonstrating an in-depth understanding of the text. The student analyzes explicit and implicit meanings from the text (*" 'Anita realized that the atmosphere in a business is very important to helping it be a success' "* and *"they taught her things and supported her decisions"*), effectively supporting the main idea (that her family members were sources of information as well as helpers). Substantial, accurate, and direct reference to the text (*"Anita saw woman using natural products on their skin and noticed they looked good even in hot, sunny places," "She painted the store green to give it 'atmosphere' like her dad's café,"* and *"she would spray a trail of perfume to follow to her store because she knew about 'unusual marketing tactics' "*) is evident. The response employs a strong organizational structure that effectively supports the focus. The introduction, development, and conclusion effectively support the topic. Precise language drawn from the text (*" 'atmosphere in a business,' " "hot, sunny places"* and *" 'unusual marketing tactics' "*) is effectively used to explain the topic. There are no errors in sentence formation, grammar, usage, spelling, capitalization, or punctuation that interfere with meaning.

E05.E.1.1 Response Score: 3 

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Anita's family was very important to her success. It is important because she learned how to run a business when her father had a café when she was young. And he taught her that a good "atmosphere" can make a business successful. In the passage it says that she and her husband worked hard running a hotel and restaurant. This tells me her family (husband) helped her with the business. But he left for two years which is why she opened the Body Shop, and why she had to work hard to support her kids. After her store was successful, Anita and Gordon sold shares in their store and got rich. That's how Anita's family was important to her success.

The response adequately analyzes how Anita Roddick's family was important to her success, demonstrating sufficient understanding of the text. The student analyzes both explicit and implicit meanings from the text (*"she learned how to run a business when her father had a cafe"*) to support the main idea. Direct reference to the text (*"he taught her that a good 'atmosphere' can make a business successful"* and *"it says that she and her husband worked hard running a hotel and restaurant"*) is provided to support the analysis. Additional relevant details, examples, or quotes would strengthen the analysis. The student employs an appropriate organizational structure consisting of a logical, chronological order of events from the passage. There is an appropriate use of transitions to link ideas in this response (*"This tells me," "But he left for two years,"* and *"After her store was successful"*). An error is present in sentence formation (an overly coordinated sentence in the middle of the response); however, it does not interfere with meaning.

E05.E.1.1 Response Score: 3

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Anita Roddick's father owned a very popular cafe'. Working there with her family, Anita learned how to work hard and that "the atmosphere in a business can make it successful." Also working at the cafe' she learned that you have to work hard to support a family, so when Anita had to run a business by herself, she only was open during the day so she could spend time with her children who weren't old enough to work at the store yet. Anita's husband was also a big help to her. He took care of the money and they expanded the business meaning it was even more successful. How Anita's family was important to her success is that they taught her about hard work and good ideas and now she

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is a millionaire.

This response adequately analyzes how Anita Roddick's family was important to her success, demonstrating sufficient understanding of the text. The student analyzes both explicit and implicit meanings from the text (*"How Anita's family was important to her success is that they taught her about hard work and good ideas"*) to support the main idea. Direct reference to the text (*" 'the atmosphere in a business can make it successful' "* and *"when Anita had to run a business by herself, she only was open during the day so she could spend time with her children"*) supports the analysis; however, additional relevant details, examples, or quotes would further strengthen the analysis. The student employs an appropriate organizational structure consisting of a logical, chronological order of events from the passage. There is appropriate use of transitions to connect ideas (*"Also working at the café"*). Minor errors, such as missing commas, do not interfere with meaning.

AFTER YOU HAVE CHECKED YOUR WORK, CLOSE YOUR ANSWER BOOKLET AND TEST BOOKLET SO YOUR TEACHER WILL KNOW YOU ARE FINISHED.

E05.E.1.1 Response Score: 2

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Anita's family was important to her in many ways. Iter dad taught her how to run a restaurant and her mom did too after she took over the cafe. When she got married to Gordon Roddick they opened the Body Shop Selling Cozmedics. Gordon did the money part and Anita made the stuff they sold. Because they were so good at it they got more stores and evenchully became rich and successful.

The response inconsistently addresses the task, demonstrating partial understanding of the text. There is weak analysis of explicit meanings from the text (*"dad taught her how to run a restaurant and her mom did too after she took over the café"* and *"Gordon did the money part"*) that somewhat supports ideas and inferences. The response lacks relevant, key details from the text. There is weak reference to the main ideas (*"they got more stores and evenchully became rich"*). The response, overall, has a weak organizational structure with a simple introduction and an only somewhat effective conclusion. Transitions are used inconsistently (*"When she got married"* and *"Because they were so good at it"*). There is little use of precise language and vocabulary drawn from the text to explain the topic. The response contains some errors in spelling (*"cozmedics"* and *"evenchully"*) that sometimes interfere with meaning.

GO ON

E05.E.1.1 Response Score: 2 

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Have you ever had a family member help you be successful? Anita Roddick did. First, her mom and dad let her work in their successful café, she learned a lot there. Next, she and her husband also had a café. So she was working with her family again. Then, when Anita wanted to make The Body Shop, her husband helped her with the money. The business grew and had 1,500 stores in 46 countries and when it was sold on the stock market, it was worth a million dollars. Without her family to help her, Anita might not have been successful.

This response inconsistently addresses the task, demonstrating partial understanding of the text. There is weak analysis of explicit meanings from the text (*"her mom and dad let her work in their successful café, she learned a lot there"*) that somewhat supports ideas and inferences. There is weak reference to the main ideas and relevant details (*"business grew and had 1,500 stores in 46 countries"* and *"when it was sold on the stock market, it was worth a million dollars"*) to support the writer's purpose. The response has a weak organizational structure incorporating a simple introduction and a somewhat effective conclusion. The organizational structure inconsistently supports the focus. Transitions used are simplistic (*"First," "Next,"* and *"Then"*). There is some use of precise language and vocabulary drawn from the text (*"The Body Shop"* and *"1,500 stores in 46 countries"*). The response is free of convention errors that could impede meaning.

E05.E.1.1 Response Score: 1

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

First, her parents owned a cafe. Next the cafe became very popular. Her dad taut her why it was succesful. Then, Anita made her own body shop company and her husband helped her with it. Last, when they sold it, they got rich and Anita was sucessful. That's how her family helped her.

The response minimally addresses the task of analyzing how Anita's family was important to her success (the vague notion that Anita's Body Shop in some way emulated her parents' café). Minimal reference to the main idea is evident, and the response does not demonstrate any analysis of the text. There is minimal evidence of an introduction or development, and the conclusion is simplistic. References to the text are insufficient. Minimal evidence of an organizational structure is present. Although the response employs some simplistic transitions (*"First," "Next," "Then,"* and *"Last"*), they do not clearly link ideas. There is little use of precise language drawn from the text.

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E05.E.1.1 Response Score: 1

29. Anita Roddick had many achievements throughout her life. Write an essay analyzing how Anita's family was important to her success. Use information from the passage to support your response.

Anita grew up working at her family restraunt and it was very popular. All the children work there. When she older her husband helped her when Anita opened a store of her own. They made her store very successfull and opened up alot more and they were MILLIONAIRES!

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The response minimally addresses the task of analyzing how Anita's family was important to her success (the vague notion that the success of The Body Shop was, in some ways, a reflection on the success of her parents' café). Minimal reference to the main idea is evident, and the response does not demonstrate analysis. There is minimal evidence of an introduction or conclusion, and the overall organizational structure is simplistic. Development is minimal at best. References to the text are insufficient, and there is little vocabulary drawn from the text. There are errors in sentence formation (first and last sentences are overly long/confusing) and usage (*"All the children work there"* and *"When she older"*) that interfere with meaning.

Acknowledgements

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Section 2

Directions:

On the following pages are the Language questions and the writing prompts.

Directions for Multiple-Choice Questions:

Each question will ask you to select an answer from among four choices.

For the multiple-choice questions:

- Read each question and choose the best answer.
- Only one of the answers provided is correct.
- Record your choice in the answer booklet.

Directions for the Writing Prompt:

- Review the Writer's Checklist to help you plan and organize your response.
- Read the writing prompt carefully.
- Write your response in the appropriate space in the answer booklet.

STANDALONE MULTIPLE-CHOICE QUESTIONS

E05.D.1.1.1

30. Read the sentence.

After we sat down for dinner, we then passed the dishes of food around the table before eating.

Which underlined word functions as a conjunction in the sentence?

* A. After

B. for

C. then

D. before

The student is asked to analyze the underlined words to determine which word functions as a conjunction in the sentence. Option A is the correct answer since "After" functions as a subordinating conjunction in the sentence. Option B, "for," and option D, "before," function as prepositions in the sentence. Option C, "then," functions as an adverb.

E05.D.1.1.2

31. Which underlined verb or verb phrase is **not** used correctly?

A. Mark completed his chores before the basketball game.

* B. Hannah had pedaled her bike faster as she rides down the hill.

C. I will have made seven hats for my friends by the end of the month.

D. He has improved at playing soccer because he practices every morning.

The student is asked to analyze each sentence to determine which underlined verb or verb phrase is not used correctly. Option B is the correct answer since the verb phrase "had pedaled" does not match the tense of the rest of the sentence ("as she rides down the hill"). In option A, the verb "completed" correctly reflects the tense of the sentence. Likewise, the verb phrase in option C reflects the correct perfect tense in the sentence. In option D, the verb phrase "has improved" is used correctly.

E05.D.1.1.3

32. Read the paragraph.

> (1) The Commonwealth of Pennsylvania encourages citizens to plant rain gardens. (2) Rain gardens capture storm water so that the water does not flow into storm drains. (3) Existing low spots or shallow pits lined with gravel make ideal locations for rain gardens. (4) If you use native plants in your rain garden, it will be easy to take care of and might even have attracted birds and butterflies.

Which sentence in the paragraph has an error?

A. sentence 1

B. sentence 2

C. sentence 3

* D. sentence 4

The student is asked to analyze the paragraph to determine which sentence has an error. The error could be a mistake in spelling, capitalization, punctuation, grammar, or usage. Option D is the correct answer since there is a verb tense error in sentence 4 ("have attracted" should be "attract"). In order to determine that sentence 1 is written correctly, the student needs to apply capitalization rules and evaluate the tense and agreement of the verb. Likewise, the student needs to apply knowledge about verbs and commas to determine that sentence 2 is also written correctly. The student needs to review sentence 3 for subject-verb agreement and spelling ("Existing," "shallow," "gravel," and "ideal") to determine that it is written correctly.

E05.D.1.1.4

33. Read the sentence.

When Alex arrived at the theater and entered the building, he remembered that he left his ticket at home.

Which part of the sentence has an error in verb tense?

A. When Alex arrived at the theater

B. and entered the building,

C. he remembered that

* D. he left his ticket at home.

The student is asked to analyze the sentence to determine which part of the sentence has an error in verb tense. Option D is the correct answer since "left" should be "had left" (leaving the ticket at home occurred before Alex arrived at the theater). The verb tenses in options A ("arrived"), B ("entered"), and C ("remembered") are used correctly.

E05.D.1.1.5

34. Read the sentence.

When I entered the fifth grade, I concluded that I would not only have to spend more time on my homework _____ plan my study time better.

Which word or words correctly complete the sentence?

A. or

B. nor

* C. but also

D. and also

Students are asked to review each answer option to determine which word or words correctly complete the sentence. Students may think that options A, B, and D are correct answers because each of them is a conjunction that may seem to complete the sentence; however, they are incorrect because they are not part of the correlative conjunction "not only." Option C is the correct answer because "but also" is part of the correlative conjunction "not only."

E05.D.1.1.8

35. Read the paragraph.

(1) Mark loves music, so they want to join the school band next year. (2) Mark wants to play the trombone because he has a cousin who played it last year. (3) Mark's friend Jill is thinking about joining the band, too, and playing the trumpet because it is her favorite instrument. (4) The band teacher is happy that Mark and Jill want to join because she likes teaching new students.

Which sentence has a pronoun-antecedent agreement error?

* A. sentence 1

B. sentence 2

C. sentence 3

D. sentence 4

The student is asked to analyze the paragraph to determine which sentence has a pronoun-antecedent agreement error. Option A is the correct answer since it contains a pronoun-antecedent error ("they" should be "he" since the subject is "Mark"). In option B, the student has to check that the pronoun "he" matches the subject "Mark." In option C, the student needs to check that the pronoun "her" matches the subject "Jill." In option D, the student needs to check that the pronoun "she" matches the subject "the band teacher."

E05.D.1.2.2

36. Read the sentence.

Since Erica wanted to go with us she had to get ready in a hurry.

Where should a comma be added to correct the error?

A. after Since

B. after wanted

* C. after us

D. after ready

The student is asked to evaluate the sentence to determine where a comma should be added to correct the error. Option C is the correct answer since a comma should be placed after "us" to separate the introductory phrase from the rest of the sentence. The student may want to add a comma after "Since" in option A because it is a transition word. The student may want to add a comma after "wanted" in option B or "ready" in option D to add an extra pause for emphasis.

E05.D.1.2.3

37. Which sentence is punctuated correctly?

A. Ms. Johnson you are the person in charge of next month's meeting, aren't you?

* B. Ms. Johnson, you are the person in charge of next month's meeting, aren't you?

C. Ms. Johnson you are the person in charge of next month's meeting aren't you?

D. Ms. Johnson, you are the person in charge of next month's meeting aren't you?

The student is asked to evaluate each option to determine which sentence is punctuated correctly. Option B is the correct answer since it is punctuated correctly. Option A is incorrect because there should be a comma after "Ms. Johnson." Option C is incorrect because it is missing commas after "Ms. Johnson" and "meeting." Option D is incorrect because it is missing a comma after "meeting."

E05.D.1.2.1

38. Read the sentence.

> Three statistics that all good baseball managers look at closely are batting average runs batted in, and runs scored.

After which word should a comma be added?

A. statistics

B. closely

C. are

* D. average

Students are asked to review the answer options to determine where a comma should be added. Students need to know how to use commas to separate items in a series. Option A, "statistics," is the subject of the sentence followed by a restrictive relative clause, and no comma is necessary. Option B, "closely," is an adverb that ends the restrictive relative clause, and no comma is necessary. Option C, "are," is the verb of the sentence followed by nouns that function as predicate nouns, and no comma is necessary. Option D, "average," is a predicate noun that is an item in a series of three or more nouns, and a comma is necessary to separate it from the other items in the series.

E05.D.2.1.1

39. Read the sentences.

Carly used to be uninterested in sports.

She now plays on a volleyball team.

Choose the **best** way to combine the two sentences.

* A. Carly, who used to be uninterested in sports, now plays on a volleyball team.

B. Carly used to be uninterested in sports, so now she plays on a volleyball team.

C. Now that she plays on a volleyball team, Carly used to be uninterested in sports.

D. She now plays on a volleyball team, and Carly used to be uninterested in sports.

The student is asked to assess the two sentences to determine the best way to combine them. Option A is the correct answer since it combines the sentences in a way that is the clearest and most concise. The ways the sentences are combined in options B, C, and D are not as logical as the way the sentences are combined in option A.

E05.D.2.1.2

40. Read the sentence.

After digging in the garden, Ben went inside to _____.

Choose the **most** specific words to complete the sentence.

A. tidy himself up a bit

* B. scrub his hands with soap and water

C. clean up a huge mess

D. wash a couple of things in the sink

The student is asked to evaluate the options to determine the most specific words to complete the sentence. Option B is the correct answer since it specifies exactly what Ben will do when he goes inside. Option A does not list specific actions Ben will take to tidy himself up a bit. Option C does not specify what mess he is going to clean up. Option D does not specify what Ben will wash in the sink.

E05.D.1.2.4

41. Which title should have quotation marks?

* A. We read the poem Paul Revere's Ride by Henry Wadsworth Longfellow in our history class.

B. DynaMath magazine makes mathematics meaningful by connecting math concepts to real-world subjects.

C. The Phantom Tollbooth by Norton Jester is described by many children as "the best book ever."

D. In E. L. Konigsburg's book The View from Saturday, four students use their brains to succeed in an academic contest.

Students are asked to analyze each option to identify which one contains a title that should be punctuated with quotation marks. Students need to know how to use underlining, quotation marks, or italics to indicate titles of works. For option B, students need to know that underlining is used to indicate the title of a magazine. For options C and D, students need to know that underlining is used to indicate the title of a book. For the correct answer, option A, students need to know quotation marks are used to indicate the title of a poem.

Section 3

Directions: On the following pages are the Opinion, Informative, and Narrative Prompts.

Writer's Checklist for the Opinion Writing Prompt

PLAN before you write

- Make sure you understand what the prompt is asking you to do.
- Think about your task and your audience.
- Think about the topic, your opinion on that topic, and what you want to write.
- Organize your ideas on scratch paper. Use a thought map, outline, or other graphic organizer to plan your essay.

FOCUS while you write

- State your opinion on the topic.
- Support your opinion with details, examples, and reasons.
- Use a variety of sentence types.
- Organize your paper with an introduction, body, and conclusion.
- Use transitions to connect your ideas.

PROOFREAD after you write

☐ I stayed focused on the topic.

☐ I used reasons and examples to support my opinion.

☐ I corrected any errors in capitalization, spelling, sentence formation, punctuation, and word choice.

Opinion Writing Prompt

You will have at least 30 minutes to plan, write, and proofread your response to this prompt:

> A group is starting a program that would allow students to travel to space. Some people think this is a good idea because it would be a hands-on learning experience. Others think that the educational opportunity is not worth the cost. Should students be allowed to travel to space?
>
> Write an essay for your teacher that states your opinion about whether students should be allowed to travel to space and explains why. Be sure to use details and reasons to support your opinion.

Turn the page to begin writing your response.

Opinion Writing Prompt
Final Copy

If you need additional space, please continue on the next page.

GO ON

Opinion Writing Prompt (continued)
Final Copy

After you have checked your work, close this test booklet so your teacher will know you are finished.

OPINION WRITING PROMPT—4-POINT MODE-SPECIFIC SCORING GUIDELINE

Assessment Anchor:

E05.C.1 Text Types and Purposes

Specific Eligible Content addressed by this prompt:

E05.C.1.1–Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

Opinion Scoring Guidelines:

Score Point	Description
4	• Sharp, distinct opinion introduced, developed, and concluded with evident awareness of task, purpose, and audience • Effective order and organizational structure that support reasons and evidence • Substantial and relevant content that demonstrates a clear understanding of the purpose • Thorough elaboration with clearly presented reasons that are consistently supported with facts and details • Effective transitions that connect opinions and reasons • Established and consistently maintained formal style with effective control of language, domain-specific vocabulary, stylistic techniques, and sentence variety • Consistent control of sentence formation • Few errors may be present in grammar, usage, spelling, and punctuation; errors present do not interfere with meaning
3	• Clear opinion introduced, developed, and concluded with general awareness of task, purpose, and audience • Logical order and organizational structure that support reasons and evidence • Adequate and relevant content that demonstrates an understanding of the purpose • Sufficient elaboration with clearly presented reasons that are supported with facts and details • Clear transitions that connect opinions and reasons • Established and maintained formal style with appropriate control of language, domain-specific vocabulary, stylistic techniques, and sentence variety • Adequate control of sentence formation • Some errors may be present in grammar, usage, spelling, and punctuation; errors present seldom interfere with meaning

Score Point	Description
2	• Vague opinion introduced, developed, and concluded with limited awareness of task, purpose, and audience • Inconsistent order and organizational structure that somewhat support reasons and evidence • Inadequate, vague content that demonstrates a weak understanding of the purpose • Underdeveloped and/or repetitive elaboration that is inconsistently supported with facts and details • Inconsistent/limited transitions that somewhat connect opinions and reasons • Inconsistently maintained formal style with limited control of language, domain-specific vocabulary, stylistic techniques, and sentence variety • Inconsistent control of sentence formation • Errors may be present in grammar, usage, spelling, and punctuation; errors present may interfere with meaning
1	• Minimal evidence of an opinion introduced, developed, and concluded with little awareness of task, purpose, and audience • Minimal order and organizational structure • Minimal content that demonstrates little or no understanding of the purpose • Undeveloped opinion with little support; may be a bare list • Minimal transitions that may or may not connect opinions and reasons • Ineffective formal style with little control of language • Minimal control of sentence formation • Many errors may be present in grammar, usage, spelling, and punctuation; errors present often interfere with meaning
Non-scorables	BLK (blank) .....No response or written refusal to respond or too brief to determine response OT.....Off task/topic LOE .....Response in a language other than English IL.....Illegible

OPINION WRITING PROMPT STUDENT RESPONSES

USE NO. 2 PENCIL ONLY

Opinion Writing Prompt
Final Copy

Traveling to space sounds very educational, but not very realistic. If we send students to space we would waste a lot of money, we could use that money to have a better sciene program, and we could send our kids to space camp instead.

If we sent students to space it would cost millions of dollars. What school has that much money? If we send 100 students and the cost for each kid is fifty thousand dollars, then we sould spend 5,000,000 dollars for just 100 students. I don't think amy school can afford that and I don't know any parent who could pay that.

We could use money for schools more effectively because right now we don't even have enough textbooks in science class. We could buy a science book for every kid. No more sharing! We could also buy more science materials to do more Activities. We all like to do science labs but we never have enough supplies. My teacher always asks us to send stuff in from home so we can do labs. Let's use our money to make science class better.

Instead of going to space, just send us to space camp. It will be so much less money. If we go we will still learn the same things. They can put us in a simulator, and we can see what it's like to go to space. We will have great learning experiences and only spend a little money. I know my parents would even help pay for that.

Parents can help pay for space camp, but space travel is just too much to ask. Money should be for books and supplies,

If you need additional space, please continue on the next page.

GO ON

USE NO. 2 PENCIL ONLY

Opinion Writing Prompt (continued)
Final Copy

and maybe even space camp. So I think we should save our money and not go to space.

Response Score: 4

A sharp, distinct opinion is introduced (*"Traveling to space sounds very educational, but not very realistic."*). The writer employs an effective order as well as an organizational structure (*"waste a lot of money, we could use that money to have a better sciene program, and we could send our kids to space camp"*). Each of the reasons is thoroughly elaborated and consistently supported with facts and details (*"If we send 100 students . . . each kid is fifty thousand . . . spend 5,000,000," "science book for every kid," "more science materials," "put us in a simulator"*). Stylistic techniques (*"What school has that much money?"*) and audience awareness (*"Let's use our money to make science class better."*) are strong. Consistent control of sentence formation is demonstrated, and there are few errors in grammar, usage, spelling, and punctuation.

After you have checked your work, close this test booklet so your teacher will know you are finished.

STOP

USE NO. 2 PENCIL ONLY

Opinion Writing Prompt
Final Copy

I think that space travel for students is a great idea. The cost will be big, but totally worth it. Students will be able to do hands-on experiments and be motivated to be healthy.

First, a person traveling to space must be healthy. They have to be in good shape. They eat dried food in space and don't get much sleep or exercise. To go to space you have to be healthy so I think it will motivate kids to be healthy.

Second there will be hands-on science experiments. Kids will be able to make up experiments and try them up in space. Does music sound the same in space? Do plants grow in space? For example we could take 10 pots of flowers and leave 5 on earth and take 5 to space. We could do matching amounts of water to one on earth and one in space. That is just one of many hands-on experiments we could do.

Last is the big cost. It will be worth it because kids will learn more doing hands-on than they will on earth reading science books. Also, they will be getting healthy. That is why it is a great idea.

If you need additional space, please continue on the next page.

GO ON

Response Score: 3

A clear opinion is introduced, developed, and concluded (*"It will be worth it"*). There is a logical order, and an organizational structure is established with clear transitions that connect opinions and reasons (*"First, a person . . . must be healthy," "Second there will be hands-on science experiements"*). Adequate relevant content for both reasons is supported with facts and details, which demonstrate an understanding of the purpose (*"eat dried food," "don't get much sleep or exercise," "For example we could take 10 pots of flowers and leave 5 on earth"*). The response demonstrates sentence variety, appropriate control of language, and stylistic techniques. Adequate control of sentence formation is also demonstrated. Some errors are present in grammar, usage, spelling, and punctuation (*"earth," "experiements," "becuase"*).

USE NO. 2 PENCIL ONLY

Opinion Writing Prompt
Final Copy

I think that students shald not be allowed to space. It costs too much. It costed milluns of dollers to send the shuttle into space. The astronauts train for many many years to lern how to travel to space. They have to be really smart. they practise going by getting in a machine that lets them float. they eat weird food and I wald not like that. So no I do not think that students shald be allowed to travel to spece because it too much cost.

Response Score: 2

An opinion is introduced (*"students shald not be allowed to [travel to] space"*), developed, and concluded with little awareness of task, purpose, and audience. While there is an introduction and a conclusion (*"So no I do not think that students shald be allowed to travel to space"*), the response lacks adequate development to support the opinion. The student begins to write about the cost, but support is limited (*"milluns . . . to send the shuttle into space"*). The writer then shifts, without transition, to elaboration on the astronauts. The content presented is vague and demonstrates a weak understanding of the purpose, focusing on the qualifications of astronauts rather than on whether students should be allowed to travel to space. Errors are present in grammar, usage, spelling, and punctuation (*"shald," "costed milluns," "dollers," "practise," "it too much cost"*).

If you need additional space, please continue on the next page.

GO ON

Opinion Writing Prompt
Online Final Copy

A group is starting a program that would allow students to travel to space. Some people think this is a good idea because it would be a hands-on learning experience. Others think that the educational opportunity is not worth the cost. Should students be allowed to travel to space?

Write an essay for your teacher that states your opinion about whether students should be allowed to travel to space and explains why. Be sure to use details and reasons to support your opinion.

Students should be alloud to travl to space. I want to go to space. It would be fun to float. I want to walk on the moon an drive a buggy on the moon like Armstrong.

Response Score: 1

Minimal evidence of an opinion is introduced, developed, and concluded with little awareness of task, purpose, and audience. The writer states an opinion (*"Students should be alloud to travl to space"*) and then provides a list of three reasons why he or she wants to go to space: *"fun to float," "walk on the moon,"* and *"drive a buggy."* Only one of those ideas is developed (*"like Armstrong"*). There are no transitions and no organizational structure. Errors are present in spelling (*"alloud," "travl"*).

Writer's Checklist for the Informative/Explanatory Writing Prompt

PLAN before you write

- Make sure you understand what the prompt is asking you to do.
- Think about your task and your audience.
- Think about the topic and what you want to write about it.
- Organize your ideas on scratch paper. Use a thought map, outline, or other graphic organizer to plan your essay.

FOCUS while you write

- Stay focused on the topic.
- Support your ideas with specific details and examples.
- Use a variety of sentence types.
- Organize your paper with an introduction, body, and conclusion.
- Use transitions to connect your ideas.

PROOFREAD after you write

☐ I stayed focused on the topic.

☐ I used specific details to support my ideas.

☐ I corrected any errors in capitalization, spelling, sentence formation, punctuation, and word choice.

Informative/Explanatory Writing Prompt

You will have at least 30 minutes to plan, write, and proofread your response to this prompt:

> Think about the activities you could do on a rainy day. These could be inside or even outside in the rain. They can be something you do on your own or with others. What is one activity that you could do on a rainy day?
>
> Write an essay for your teacher that describes one activity you could do on a rainy day. Be sure to use details and examples to explain your idea.

Turn the page to begin writing your response.

Informative/Explanatory Writing Prompt
Final Copy

If you need additional space, please continue on the next page.

GO ON

Informative/Explanatory Writing Prompt (continued)
Final Copy

After you have checked your work, close this test booklet so your teacher will know you are finished.

INFORMATIVE/EXPLANATORY WRITING PROMPT—4-POINT MODE-SPECIFIC SCORING GUIDELINE

Assessment Anchor:

E05.C.1 Text Types and Purposes

Specific Eligible Content addressed by this prompt:

E05.C.1.2–Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

Informative/Explanatory Scoring Guidelines:

Score Point	Description
4	• Sharp, distinct topic introduced, developed, and concluded with evident awareness of task, purpose, and audience • Effective order and organizational structure that develop a topic • Substantial and relevant content that demonstrates an understanding of the purpose • Thorough elaboration with clearly presented information that is consistently supported with facts, examples, and concrete details • Effective transitions that connect ideas and concepts • Established and consistently maintained formal style with effective control of language, domain-specific vocabulary, stylistic techniques, and sentence variety • Consistent control of sentence formation • Few errors may be present in grammar, usage, spelling, and punctuation; errors present do not interfere with meaning
3	• Clear topic introduced, developed, and concluded with general awareness of task, purpose, and audience • Adequate order and organizational structure that develop a topic • Adequate and relevant content that demonstrates an understanding of the purpose • Sufficient elaboration with clearly presented information that is supported with facts, examples, and concrete details • Clear transitions that connect ideas and concepts • Established and maintained formal style with appropriate control of language, domain-specific vocabulary, stylistic techniques, and sentence variety • Adequate control of sentence formation • Some errors may be present in grammar, usage, spelling, and punctuation; errors present seldom interfere with meaning

Score Point	Description
2	• Vague topic introduced, developed, and concluded with limited awareness of task, purpose, and audience • Inconsistent order and organizational structure that somewhat develop a topic • Inadequate, vague content that demonstrates a weak understanding of the purpose • Underdeveloped and/or repetitive elaboration that is inconsistently supported with facts, examples, and details • Inconsistent/limited transitions that somewhat connect ideas and concepts • Inconsistently maintained formal style with limited control of language, domain-specific vocabulary, stylistic techniques, and sentence variety • Inconsistent control of sentence formation • Errors may be present in grammar, usage, spelling, and punctuation; errors present may interfere with meaning
1	• Minimal topic introduced, developed, and concluded with little awareness of task, purpose, and audience • Minimal order and organizational structure • Minimal content that demonstrates little or no understanding of the purpose • Undeveloped writing with little support; may be a bare list • Minimal transitions that may or may not connect ideas and concepts • Ineffective formal style with little control of language • Minimal control of sentence formation • Many errors may be present in grammar, usage, spelling, and punctuation; errors present often interfere with meaning
Non-scorables	BLK (blank) .....No response or written refusal to respond or too brief to determine response OT.....Off task/topic LOE .....Response in a language other than English IL.....Illegible

INFORMATIVE/EXPLANATORY WRITING PROMPT STUDENT RESPONSES

USE NO. 2 PENCIL ONLY

Informative/Explanatory Writing Prompt
Final Copy

Have you ever been so scared that someone had to hold your hand? Have you ever been on the edge of your seat waiting to see what happens next? If you answered yes, then you like movies just like me! If it was a rainy day then I would go to the movies.

First, I like going to the theater because of getting to spend quality time with my Nutty family. I add the spending family time at a theater is because of getting to laugh with each other and have an entertaining time. When we went to see Puss N Boots it was hilarious and we couldnt stop laughing all the way home. My brother kept repeating funny lines from the movie and we would all laugh over and over until our stomachs hurt and we had tears in our eyes.

My absolutely favorite reason that I love going to the movies is because of the delicious food. You can smell the buttery popcorn before you even walk in the theater. That tasty popcorn is amazing. Once we get our tickets

If you need additional space, please continue on the next page.

GO ON

USE NO. 2 PENCIL ONLY

Informative/Explanatory Writing Prompt (continued)
Final Copy

we run as fast as cheetas to get in line for a great big tub of buttery popcorn. My dad always misses some of the movie going to fill it up again. We really stuff ourselfes with it. My brother wipes his hands on his pants and makes them all greesy and my mom gets upset about that. There is also huge boxes of candy. My mom loves Junior Mints and gets a ginormous box to share. One time I got Milk Duds but they stick to my teeth like glue so I just eat Mom's candy.

Now you know what a perfect time my fantastic family has on a wet and drippy rainy day.

Response Score: 4

A sharp, distinct topic is introduced (*"If it was a rainy day then I would go to the movies"*). The topic is developed through the use of an effective organizational structure (*"First . . . spend quality time with my . . . family," "My absolutely favorite . . . food"*). Substantial, relevant content demonstrates an understanding of the purpose (*"My brother kept repeating funny lines from the movie and we would all laugh," "I got Milk Duds but they stick to my teeth like glue"*). Thorough elaboration with clearly presented information is consistently supported with facts, examples, and concrete details (*"My mom loves Junior Mints," "big tub of buttery popcorn"*). Transitions connect ideas and concepts (*"When," "Once we get," "One time," "Now you know"*). Effective control of language, domain-specific vocabulary, stylistic techniques, and sentence variety is demonstrated (*"as fast as cheetas," "Have you ever"*). Consistent control of sentence formation is demonstrated, and few errors may be present in grammar, usage, spelling, and punctuation; errors present do not interfere with meaning.

After you have checked your work, close this test booklet so your teacher will know you are finished.

STOP

USE NO. 2 PENCIL ONLY

Informative/Explanatory Writing Prompt
Final Copy

"Wahoooo" I imagined I was ridding a quad on a super rainy, muddy day. That is what I would do on a rainy day.

The reason why I want to go quadding is I can go up the giant hill, do jumps and do drag races.

The first reason why is "go up the giant hill" so I can slip and slide my way to the top in the mud. It is more fun in the muddy and rainy slop. I can go fast like sonic. One time I went up and did a wheelie. At the top you can seen miles of trees it is beautifull.

The second reason is to "do jumps!" You can get alot of air. One time in the show I did big jumps. I want to do triks like back flips and 360. Jumping is fun and if I get good at jumping I can enter into competitions like Quadarama.

My last but not least reason is "do drag races." I want to drag race so we can bet on who will win. If you win you get all the money.

If you need additional space, please continue on the next page.

GO ON

USE NO. 2 PENCIL ONLY

Informative/Explanatory Writing Prompt (continued)
Final Copy

You can go really fast. In the rain there are more spinouts so it is more fun. I love to get muddy. I usually win too! Last time I won $10.

Hopefully my parents let us go quadding on the rainy day.

Response Score: 3

A clear topic is introduced with evident awareness of task, purpose, and audience (*" 'Wahoooo' I imagined I was ridding a quad on a super rainy, muddy day"*). Clear transitions connect ideas and concepts (*"The reason why I want to," "so I can," "One time," "last but not least"*) and there is an adequate organizational structure (*"I can go up the giant hill, do jumps and do drag races"*). Adequate, relevant content demonstrates an understanding of the purpose (*"slip and slide my way to the top in the mud," "do triks like back flips and 360"*). Appropriate control of language, vocabulary, stylistic techniques, and sentence variety is demonstrated (*"fast like sonic," "spin outs," "At the top you can seen miles of trees"*). Adequate control of sentence formation is demonstrated. Some errors are present in grammar, usage, spelling, and punctuation (*"ridding," "beautifull," "triks"*); however, these seldom interfere with meaning.

After you have checked your work, close this test booklet so your teacher will know you are finished.

STOP

Informative/Explanatory Writing Prompt
Online Final Copy

Think about the activities you could do on a rainy day. These could be inside or even outside in the rain. They can be something you do on your own or with others. What is one activity that you could do on a rainy day?

Write an essay for your teacher that describes one activity you could do on a rainy day. Be sure to use details and examples to explain your idea.

On a rainy day I would like to go roller skating with my friends at Southtown roller rink, I would go with Kelsey, Kylie and Kim.

Roller skating is one of my favorite things to do! I like roller skating with all the flashing light and music. Some times there are races that I do and is super fun! I have my won pair of white roller skates that I got at a garage sale.

Roller skating is also fun because there are video games like Mrs. Pac-Man. Southtown has a food stand where you can get yummy food like pizza, nachos, an pretzels.

In conclusion, that is what I would like to do on a rainy day.

Response Score: 2

There is a clear topic introduced (*"I would like to go roller skating"*); however, the inadequate content contributes to an underdeveloped response. While there are some facts, examples, and details (*"Southtown," "white roller skates that I got at a garage sale"*), much of the content is without elaboration and/or presented as a list (*"pizza, nachos, an[d] pretzels"*). Other than the introductory and concluding statements, there is not an organizational structure that develops the topic. The use of transitions is limited (*"In conclusion"*). The opening sentence has a formation issue (comma splice), and there are some errors in grammar, usage, spelling, and punctuation (*"Some times there are races . . . is super fun!"*).

USE NO. 2 PENCIL ONLY

Informative/Explanatory Writing Prompt
Final Copy

I would like to go bowling and this is why. I want to beat my brother. When you step over the line it is a fowl.

Response Score: 1

A topic is introduced (*"bowling"*); however, there is limited awareness of task, purpose, and audience in this brief response. The writer provides minimal content that does not appear to have any order or organizational structure. Minimal transitions are present, but they do not function to connect ideas (*"When"*). Errors are present in grammar, usage, spelling, and punctuation (*"fowl"*).

If you need additional space, please continue on the next page.

GO ON

Writer's Checklist for the Narrative Writing Prompt

PLAN before you write

- Make sure you understand what the prompt is asking you to do.
- Think about your task and your audience.
- Think about the subject and the story you want to write.
- Organize your ideas on scratch paper. Use a thought map, outline, or other graphic organizer to plan your story.

FOCUS while you write

- Stay with the same point of view.
- Use descriptive details in your story. Include dialogue, if appropriate.
- Use a variety of sentence types.
- Tell your story so it has a clear beginning, middle, and end.

PROOFREAD after you write

☐ I stayed with the same tone and point of view.

☐ I used descriptive details in my story.

☐ I corrected any errors in capitalization, spelling, sentence formation, punctuation, and word choice.

Narrative Writing Prompt

You will have at least 30 minutes to plan, write, and proofread your response to this prompt:

> Imagine that something exciting happened at school. It could be something that really has happened or something you make up.
>
> Write a story for your teacher that tells about something exciting that happened at school. Make sure your story has a beginning, middle, and end.

Turn the page to begin writing your response.

Narrative Writing Prompt
Final Copy

If you need additional space, please continue on the next page.

GO ON

Narrative Writing Prompt (continued)
Final Copy

After you have checked your work, close this test booklet so your teacher will know you are finished.

NARRATIVE WRITING PROMPT—4-POINT MODE-SPECIFIC SCORING GUIDELINE

Assessment Anchor:

E05.C.1 Text Types and Purposes

Specific Eligible Content addressed by this prompt:

E05.C.1.3–Write narratives to develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences.

Narrative Scoring Guidelines:

Score Point	Description
4	• Distinctly established situation/theme that orients the reader and introduces the narrator and/or characters • Effective narrative pattern that sequences events and provides a conclusion • Thorough elaboration that effectively supports the storyline • Effective use of narrative techniques to develop experiences and events • Effective use of transitions • Precise control of language that conveys experiences and events using concrete words, phrases, and sensory details • Consistent control of sentence formation • Few errors may be present in grammar, usage, spelling, and punctuation; errors present do not interfere with meaning
3	• Clearly established situation/theme that orients the reader and introduces the narrator and/or characters • Narrative pattern that generally sequences events and provides a conclusion; interruptions to the sequence may occur • Sufficient elaboration that supports the storyline • Adequate use of narrative techniques to develop experiences and events • Clear use of transitions • Adequate control of language that conveys experiences and events using concrete words, phrases, and sensory details • Adequate control of sentence formation • Some errors may be present in grammar, usage, spelling, and punctuation; errors present seldom interfere with meaning

Score Point	Description
2	• Vague situation/theme that inconsistently orients the reader and introduces the narrator and/or characters • Weak narrative pattern that inconsistently sequences events and may or may not provide a conclusion • Weak elaboration that somewhat supports the storyline • Limited use of narrative techniques to somewhat develop experiences and events • Inconsistent/limited use of transitions • Limited control of language that conveys experiences and events using limited concrete words, phrases, and sensory details • Inconsistent control of sentence formation • Errors may be present in grammar, usage, spelling, and punctuation; errors present may interfere with meaning
1	• Minimal evidence of a situation/theme • Minimal sequencing of events that may or may not establish a narrative pattern • Minimal elaboration that may or may not support the storyline • Minimal use of narrative techniques • Minimal use of transitions • Insufficient control of language (words, phrases, and sensory details) • Minimal control of sentence formation • Many errors may be present in grammar, usage, spelling, and punctuation; errors present often interfere with meaning
Non-scorables	BLK (blank) .....No response or written refusal to respond or too brief to determine response OT.....Off task/topic LOE .....Response in a language other than English IL.....Illegible

NARRATIVE WRITING PROMPT STUDENT RESPONSES

USE NO. 2 PENCIL ONLY

Narrative Writing Prompt
Final Copy

It was a normal, quiet day at Franklin Elementary. It started at 1:45pm when the class came back from the art room. The third grade class had walked in quietly and taken their seats, but there was no teacher in the room. Where could she be?
"Yowza! Is that our teacher?" cried a student. "No way," called another student. The whole class looked out the windows in amazement. The teacher was outside on the lawn soaking wet and walking towards the classroom. The kids started to all talk at once and the room got very noisy.
Just then the principal walked in. "Take your seats please kids," he yelled loudly.
They all scrambled back to their desks. "Your teacher will be back inside in a moment."
The teacher walked in dripping wet and smiling. "I have a surprise for all of you," she stated loudly. "I found an invisible water park behind the school. It was a blast. There are all sorts of slides, a wave pool and a splash pad. Tomorrow we will have a field trip to the water park." The class cheered happily. "We can't wait to go to the water park!" they all exclaimed excitedly. The teacher passed out permission slips. "Don't forget a swimsuit and towel!" the kids reminded each other. Then they got on the buses at the end of the school day.
The next day the students all had fun going down the invisible slides and playing in the water. They all begged to go again the next day, but the teacher reminded them that they all needed to do some school work. This made the kids sad. On the third day,

If you need additional space, please continue on the next page.

GO ON

USE NO. 2 PENCIL ONLY

Narrative Writing Prompt (continued)
Final Copy

the water park wasn't there anymore. Nobody knows what happened to the water park or if it will ever come back again to Franklin Elementary.

Response Score: 4

There is a distinctly established situation (an invisible water park) that orients the reader and introduces the characters (students, teacher, principal). There is an effective narrative pattern that sequences events and uses transitions effectively (*"It started at 1:45pm," "Just then the principal," "The next day," "On the third day"*). Thorough elaboration effectively supports the storyline (*"slides, a wave pool and a splash pad," "cheered happily," "exclaimed excitedly"*). Consistent control of sentence formation, grammar, usage, spelling, and punctuation is demonstrated.

After you have checked your work, close this test booklet so your teacher will know you are finished.

STOP

USE NO. 2 PENCIL ONLY

Narrative Writing Prompt
Final Copy

I was chosen to be a Helping Hand at school. I get to go to the Just Right Room a help someone every Mondays, Wednesday, and Fridays. His name is Erick and he is sometimes very shy. I go to his classroom and help him with the alphabet, sight words and a whole bunch of other things.

Erick and I also play games with what he learned. For example: we play a game called alphabet baseball, it's when you match up a lower case letter (a) with and uper case letter (A). It is fun to see Erick smile when he gets it right and see him having a blast. He loves when I come to his room. Sometimes I even learn a little something when really it's Erick who's suppose to be learning. Erick is sometimes a little tired so it isn't really a lot of fun to teach him, but still a little fun anyways.

It is sad to leave when I know Erick had fun being with me. I love being a Helping Hand and I'm glad I got chosen.

Response Score: 3

A clear situation (*"I was chosen to be a Helping Hand"*) orients the reader and introduces the narrator and character (*"Erick"*). A narrative pattern generally sequences the events and provides a conclusion (*"It is sad to leave . . . I'm glad I got chosen"*). Sufficient elaboration supports the storyline (*"we play a game called alphabet baseball,"* "*I even learn a little something*"). Adequate control of language, sentence formation, grammar, usage, spelling, and punctuation is present.

Narrative Writing Prompt
Online Final Copy

Imagine that something exciting happened at school. It could be something that really has happened or something you make up.

Write a story for your teacher that tells about something exciting that happened at school. Make sure your story has a beginning, middle, and end.

A new girl came to our school. It was near spring. Her parents brought her in the class room she looked sad. My teacher picked me to give her a little tour of the school.

The next day I say down and was talking to her. When we went to lunch I asked her to sit next to me. We were playing and talking. I made her feel welcomed to her new school. Her parents were happy she found a friend like me. My teacher was happy. She said I would be a great friend. My parents were proud because I showed kindness to my new friend. I was excited because I got a new friend at school.

Response Score: 2

There is a vague situation/theme that orients the reader and introduces the narrator and character (*"new girl"*). There is a brief narrative pattern that sequences events and provides a long, listed conclusion (*"Her parents were happy," "My teacher was happy," "My parents were proud," "I was excited"*). There is limited use of concrete words, phrases, and sensory details; no specific names of people, no specific grade, no school name, no details about what they ate for lunch or what game they played. Adequate control of sentence formation is demonstrated, and few errors are present in grammar, usage, spelling, and punctuation; however, this alone is not enough to move the response to a higher score.

USE NO. 2 PENCIL ONLY

Narrative Writing Prompt
Final Copy

At Recess, I played Basketball, Football and also soccer, but I don't like the play groud Because one time I fell in the monkeybour and I got hurt. And the another day I slid and I Fell in the side and I got hurt. And the next day my friend push me so hard I fell and got hurt!

Response Score: 1

There is minimal evidence of a situation/theme beyond the topic of recess. There is minimal sequencing of events and use of transitions (*"one time I fell," "another day I slid," "the next day"*); however, they do not establish a narrative pattern. The response lacks sensory details and narrative techniques. Many errors are present in grammar, usage, spelling, and punctuation (*"Basketball," "play groud," "monkeybour," "the another day," "friend push me"*).

If you need additional space, please continue on the next page.

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PSSA Grade 5 English Language Arts
Preliminary Item and Scoring Sampler

pennsylvania
DEPARTMENT OF EDUCATION

PENNSYLVANIA KEYSTONE EXAMS

ALGEBRA I

ITEM AND SCORING SAMPLER

2011

April 2011

KEYSTONE ALGEBRA I SAMPLER

Table of Contents

Information About Algebra I

Introduction

The Pennsylvania Department of Education (PDE) provides districts and schools with tools to assist in delivering focused instructional programs aligned to the state assessment system. These tools include assessment anchor documents, assessment handbooks, and content-based item and scoring samplers. This 2011 Algebra I Item and Scoring Sampler is a useful tool for Pennsylvania educators in the preparation of local instructional programs and in preparing students for the Keystone Exams.

This Item and Scoring Sampler contains multiple-choice questions and constructed-response questions that are aligned to the Keystone Assessment Anchors and Eligible Content. They provide examples of the types of questions that will appear on the operational Spring 2011 Keystone Exams. Each question has been through a rigorous review process to ensure alignment with the Assessment Anchors and Eligible Content.

The questions in this sampler may be used as examples for creating assessment questions at the classroom level, and they may also be copied and used as part of a local instructional program.[1] Classroom teachers may find it beneficial to have students respond to the constructed-response questions in this sampler. Educators can then use the sampler as a guide to score the responses either independently or together with colleagues within a school or district.

About the Keystone Exams

The Keystone Exams are end-of-course assessments designed to assess proficiency in various subject areas, including Algebra I, Algebra II, Biology, Chemistry, Civics and Government, English Composition, Geometry, Literature, U.S. History, and World History. The Keystone Exams are just one component of Pennsylvania's high school graduation requirements. Students must also earn state-specified credits, fulfill the state's service-learning and attendance requirements, and complete any additional local school system requirements to receive a Pennsylvania high school diploma.

For detailed information about how the Keystone Exams are being integrated into the Pennsylvania graduation requirements, please contact the Pennsylvania Department of Education or visit the PDE Web site at **www.pdesas.org**.

Alignment

The Algebra I Keystone Exam consists of exam questions arranged into **two modules**: Operations and Linear Equations & Inequalities and Linear Functions and Data Organizations. Each module corresponds to specific content aligned to statements and specifications included in the course-specific assessment anchor documents. The Algebra I content included in the Keystone Algebra I multiple-choice questions will align with the Assessment Anchors as defined by the Eligible Content statements. The process skills, directives, and action statements will also specifically align with the Assessment Anchors as defined by the Eligible Content statements.

The content included in Algebra I constructed-response questions aligns with content included in the Eligible Content statements. The process skills, directives, and action statements included in the performance demands of the Algebra I constructed-response questions align with specifications included in the Assessment Anchor statements, the Anchor Descriptor statements, and/or the Eligible Content statements. In other words, the verbs or action statements used in the constructed-response questions or stems can come from the Eligible Content, Anchor Descriptor, or Assessment Anchor statements.

[1] The permission to copy and/or use these materials does not extend to commercial purposes.

KEYSTONE EXAM FORMAT

The Algebra I Keystone Exam includes questions that require students to select the best answer from four possible answer options. Students read each question and record their answers in the space provided. The correct answer for each multiple-choice question is worth one point.

The Algebra I Keystone Exam also includes questions that require students to write responses. Students read the question and write their responses in the spaces provided. Each constructed-response question is designed to take about ten minutes to complete. During an actual exam administration, students are given additional time as necessary to complete the exam. Each constructed-response question in Algebra I is scored using an item-specific scoring guideline based on a 0–4 point scale. In this sampler, each item-specific scoring guideline is combined with sample student responses representing each score point to form a practical, item-specific scoring guide.

The sampler also includes the General Description of Scoring Guidelines for Algebra I used to develop the item-specific scoring guidelines. These general guidelines should be used if any additional item-specific scoring guidelines are created for use within local instructional programs.

General Description of Scoring Guidelines for Algebra I

4 Points

- The response demonstrates a *thorough* understanding of the mathematical concepts and procedures required by the task.
- The response provides correct answer(s) with clear and complete mathematical procedures shown and a correct explanation, as required by the task. Response may contain a minor "blemish" or omission in work or explanation that does not detract from demonstrating a *thorough* understanding.

3 Points

- The response demonstrates a *general* understanding of the mathematical concepts and procedures required by the task.
- The response and explanation (as required by the task) are mostly complete and correct. The response may have minor errors or omissions that do not detract from demonstrating a *general* understanding.

2 Points

- The response demonstrates a *partial* understanding of the mathematical concepts and procedures required by the task.
- The response is somewhat correct with *partial* understanding of the required mathematical concepts and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

1 Point

- The response demonstrates a *minimal* understanding of the mathematical concepts and procedures required by the task.

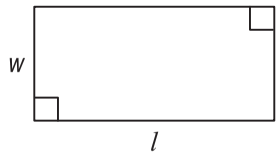
0 Points

- The response has no correct answer and *insufficient* evidence to demonstrate any understanding of the mathematical concepts and procedures required by the task for that grade level.

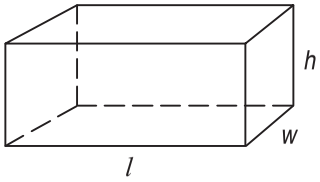
FORMULA SHEET

Formulas that you may need to work questions in this sampler are found below.

You may use calculator π or the number 3.14.



$A = lw$



$V = lwh$

Linear Equations

Slope: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Point-Slope Formula: $(y - y_1) = m(x - x_1)$

Slope-Intercept Formula: $y = mx + b$

Standard Equation of a Line: $Ax + By = C$

Arithmetic Properties

Additive Inverse: $a + (-a) = 0$

Multiplicative Inverse: $a \cdot \frac{1}{a} = 1$

Commutative Property: $a + b = b + a$
$a \cdot b = b \cdot a$

Associative Property: $(a + b) + c = a + (b + c)$
$(a \cdot b) \cdot c = a \cdot (b \cdot c)$

Identity Property: $a + 0 = a$
$a \cdot 1 = a$

Distributive Property: $a \cdot (b + c) = a \cdot b + a \cdot c$

Multiplicative Property of Zero: $a \cdot 0 = 0$

Additive Property of Equality:
If $a = b$, then $a + c = b + c$

Multiplicative Property of Equality:
If $a = b$, then $a \cdot c = b \cdot c$

MULTIPLE-CHOICE QUESTIONS

A1.1.1.1.1

1. An expression is shown below.

$$2\sqrt{51x}$$

Which value of x makes the expression equivalent to $10\sqrt{51}$?

A. 5

B. 25 *

C. 50

D. 100

A student could determine the **correct** answer, option B, by factoring $10\sqrt{51}$ as $2 \times 5\sqrt{51}$, then moving the 5 inside the radical as $2\sqrt{51 \times 5 \times 5} = 2\sqrt{51 \times 25}$.

A student could arrive at an **incorrect** answer by either using an incorrect method or by making errors in computation. For example, a student would arrive at option A if he/she failed to square 5 when he/she moved it under the radical.

A1.1.1.3.1

2. Simplify:

$2(2\sqrt{4})^{-2}$

A. $\frac{1}{8}$ *

B. $\frac{1}{4}$

C. 16

D. 32

A student could determine the **correct** answer, option A, by recognizing
$2(2\sqrt{4})^{-2} = \frac{2}{2\sqrt{4} \times 2\sqrt{4}} = \frac{2}{2 \times 2 \times \sqrt{4} \times \sqrt{4}} = \frac{1}{2 \times 4} = \frac{1}{8}$.

A student could arrive at an **incorrect** answer by failing to follow correct order of operations or by not knowing how to use radicals or negative exponents. For example, a student would arrive at option D if he/she ignored the negative exponent and treated $2(2\sqrt{4})^{-2}$ as $2(2\sqrt{4})^{2}$.

A1.1.1.5.1

3. A polynomial expression is shown below.

$$(mx^3 + 3)(2x^2 + 5x + 2) - (8x^5 + 20x^4)$$

The expression is simplified to $8x^3 + 6x^2 + 15x + 6$. What is the value of m?

A. −8

B. −4

C. 4 *

D. 8

A student could determine the **correct** answer, option C, by using correct order of operations and the distributive property to expand $(mx^3 + 3)(2x^2 + 5x + 2)$ to $2mx^5 + 5mx^4 + 2mx^3 + 6x^2 + 15x + 6$. The student could then combine like terms and realize that $2mx^5 - 8x^5 = 0x^5$, so $2m = 8$ and $m = 4$.

A student could arrive at an **incorrect** answer by failing to follow order of operations, making an error with the distributive property, or incorrectly combining like terms. For example, a student would arrive at option D if he/she failed to distribute and then set $mx^3 = 8x^3$, so $m = 8$.

A1.1.1.5.2

4. Which is a factor of the trinomial $x^2 - 2x - 15$?

A. $(x - 13)$

B. $(x - 5)$ *

C. $(x + 5)$

D. $(x + 13)$

A student could determine the **correct** answer, option B, by factoring the trinomial $x^2 - 2x - 15$ as $(x - 5)(x + 3)$ and identifying $(x - 5)$ as a factor.

A student could arrive at an **incorrect** answer by failing to correctly factor the trinomial. For example, a student would arrive at option C if he/she factored $x^2 - 2x - 15$ as $(x + 5)(x - 3)$ and identified $(x + 5)$ as a factor.

A1.1.1.5.3

5. Simplify:

$$\frac{x^2 - 3x - 10}{x^2 + 6x + 8} \; ; \; x \neq -4, -2$$

A. $-\frac{1}{2}x - \frac{5}{4}$

B. $x^2 - \frac{1}{2}x - \frac{5}{4}$

C. $\frac{x-5}{x+4}$ *

D. $\frac{x+5}{x-4}$

A student could determine the **correct** answer, option C, by factoring both the numerator and denominator, then reducing $\frac{x^2-3x-10}{x^2+6x+8} = \frac{(x-5)(x+2)}{(x+4)(x+2)} = \frac{x-5}{x+4}$.

A student could arrive at an **incorrect** answer by failing to factor the numerator and denominator or by incorrectly factoring the numerator and denominator. For example, a student would arrive at option D by factoring $\frac{x^2-3x-10}{x^2+6x+8}$ as $\frac{(x+5)(x-2)}{(x-4)(x-2)}$.

A1.1.2.2.1

6. Anna burned 15 calories per minute running for x minutes and 10 calories per minute hiking for y minutes. She spent a total of 60 minutes running and hiking and burned 700 calories. The system of equations shown below can be used to determine how much time Anna spent on each exercise.

$$15x + 10y = 700$$

$$x + y = 60$$

What is the value of x, the minutes Anna spent running?

A. 10

B. 20 *

C. 30

D. 40

A student could determine the **correct** answer, option B, by solving the system of equations using substitution. Solving the equation $x + y = 60$ for y yields $y = 60 - x$. Substituting $60 - x$ in the place of y in the equation $15x + 10y = 700$ yields $15x + 10(60 - x) = 700$. Using the distributive property yields $15x + 600 - 10x = 700$. Combining like terms and subtracting 600 from both sides yields $5x = 100$. Dividing both sides by 5 yields $x = 20$.

A student could arrive at an **incorrect** answer by either using an incorrect method for solving a system of equations or by making errors in computation. For example, a student would arrive at option D by incorrectly solving for y as $y = x + 60$ and then failing to distribute when substituting, yielding $15x + x + 60 = 700$. Combining like terms and subtracting 60 from both sides yields $16x = 640$. Dividing both sides by 16 yields $x = 40$.

A1.1.2.2.2

7. Samantha and Maria purchased flowers. Samantha purchased 5 roses for x dollars each and 4 daisies for y dollars each and spent $32 on the flowers. Maria purchased 1 rose for x dollars and 6 daisies for y dollars each and spent $22. The system of equations shown below represents this situation.

$$5x + 4y = 32$$

$$x + 6y = 22$$

Which statement is true?

A. A rose costs $1 more than a daisy. *

B. Samantha spent $4 on each daisy.

C. Samantha spent more on daisies than she did on roses.

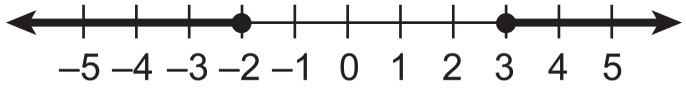
D. Maria spent 6 times as much on daisies as she did on roses.

A student could determine the **correct** answer, option A, by solving the system of equations and correctly interpreting the solution $x = 4$ and $y = 3$. The x-variable refers to the price of a rose and the y-variable refers to the price of a daisy. $4 - 3 = 1$

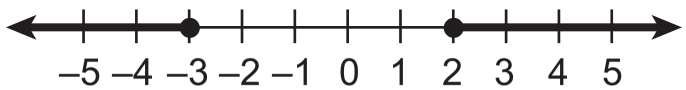
A student could arrive at an **incorrect** answer by either making errors in solving the system of equations or by incorrectly interpreting the solution set. For example, a student would arrive at option B if he/she interpreted the x-value as the price of a daisy.

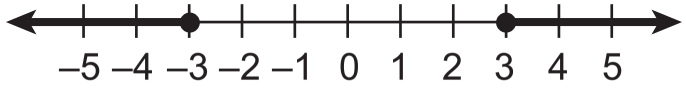
A1.1.3.1.1

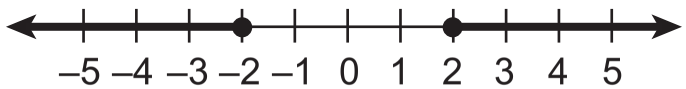
8. Which is a graph of the solution of the inequality $|2x - 1| \geq 5$?

A. 

*

B. 

C. 

D. 

A student could determine the **correct** answer, option A, by simplifying the absolute value inequality. $|2x - 1| \geq 5$ is eqivalent to $2x - 1 \geq 5$ and $2x - 1 \leq -5$. Solving the first inequality yields $x \geq 3$. Solving the second inequality yields $x \leq -2$.

A student could arrive at an **incorrect** answer by failing to split the absolute value inequality into simple inequalities before manipulating to solve the equation. For example, a student would arrive at option C if he/she first added 1 to each side of the absolute value inequality, divided both sides by 2, then split the absolute value inequality into simple inequalities.

A1.1.3.1.3

9. A baseball team had $1,000 to spend on supplies. The team spent $185 on a new bat. New baseballs cost $4 each. The inequality $185 + 4b \leq 1{,}000$ can be used to determine the number of new baseballs (b) that the team can purchase. Which statement about the number of new baseballs that can be purchased is true?

A. The team can purchase 204 new baseballs.

B. The minimum number of new baseballs that can be purchased is 185.

C. The maximum number of new baseballs that can be purchased is 185.

D. The team can purchase 185 new baseballs, but this number is neither the maximum nor the minimum. *

A student could determine the **correct** answer, option D, by solving the inequality and interpreting the solution $b \leq 203.75$. The variable b represents the number of baseballs that can be purchased. It is a true statement that $185 \leq 203.75$.

A student could arrive at an **incorrect** answer by either making errors in solving the system of equations or by incorrectly interpreting the solution set. For example, a student would arrive at option A if he/she switched the sign of the inequality when dividing by 4.

A1.1.3.2.2

10. Tyreke always leaves a tip of between 8% and 20% for the server when he pays for his dinner. This can be represented by the system of inequalities shown below, where y is the amount of tip and x is the cost of dinner.

$$y > 0.08x$$

$$y < 0.2x$$

Which of the following is a true statement?

A. When the cost of dinner, x, is \$10 the amount of tip, y, must be between \$2 and \$8.

B. When the cost of dinner, x, is \$15 the amount of tip, y, must be between \$1.20 and \$3.00. *

C. When the tip, y, is \$3, the cost of dinner, x, must be between \$11 and \$23.

D. When the tip, y, is \$2.40, the cost of dinner, x, must be between \$3 and \$6.

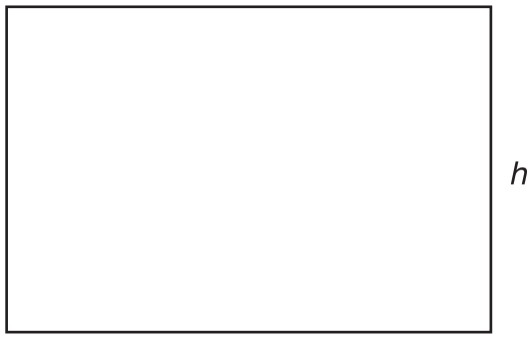
A student could determine the **correct** answer, option B, by interpreting the system of inequalities in the context of the problem situation. When 15 is substituted for the x-variable, $y > 0.08(15)$ or $y > 1.2$ and $y < 0.2(15)$ or $y < 3$.

A student could arrive at an **incorrect** answer by either making errors in computation or in interpretation of the system of inequalities. For example, a student would arrive at option A if he/she incorrectly calculated 0.08(10) as 8 and switched the signs of both inequalities.

CONSTRUCTED-RESPONSE QUESTIONS

A1.1.1

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.

ITEM-SPECIFIC SCORING GUIDELINE

ITEM # 11, MODULE 1

Assessment Anchor:

This item is reported under A1.1.1 Operations with Real Numbers and Expressions

Specific Eligible Content addressed by this item:

A1.1.1.5.1– Add, subtract, and/or multiply polynomial expressions (express answers in simplest form).

A1.1.1.5.2– Factor algebraic expressions, including difference of squares and trinomials.

Scoring Guide:

Score	
4	The student demonstrates a *thorough* understanding of operations with real numbers and expressions by correctly solving problems with clear and complete procedures and explanations when required.
3	The student demonstrates a *general* understanding of operations with real numbers and expressions by solving problems and providing procedures and explanations with only minor errors or omissions.
2	The student demonstrates a *partial* understanding of operations with real numbers and expressions by providing a portion of the correct problem solving, procedures, and explanations.
1	The student demonstrates a *minimal* understanding of operations with real numbers and expressions.
0	The student does not demonstrate any understanding of operations with real numbers and expressions.

Top Scoring Response:

Part A: What?	Why?
$h^2 + 4h$ **OR equivalent**	

(1 score point)

1 point for correct expression

Part B: What?	Why?
$h^2 + 16h + 60$ **OR equivalent**	

(1 score point)

1 point for correct expression

Part C: What?	Why?
1 inch	*Sample Explanation* To do this problem, I factored $h^2 + 8h + 12$ into $(h + 6)(h + 2)$ to find the length and height of the canvas and frame. The new height, $h + 2$, is 2 more than the height of the canvas, h, so the new frame must add a total of 2 inches, 1 inch on each side.

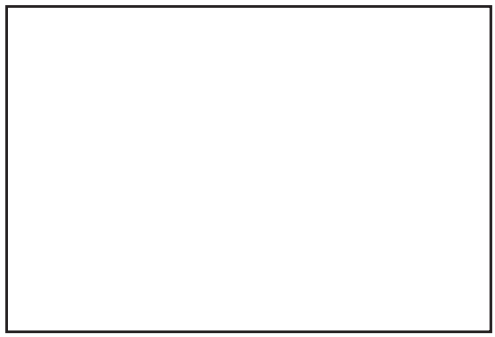
(2 score points)

1 point for correct answer

1 point for correct work and explanation

A1.1.1 Response Score: 4 points

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

$A = lw = (h+4)(h) = h^2 + 4h$

Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.

$lw = (h+4+3+3)(h+3+3) = (h+10)(h+6)$

$= h^2 + 10h + 6h + 60 = h^2 + 16h + 60$

Student has given a correct expression.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.

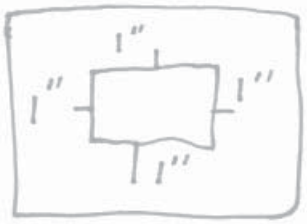
A = l w

$h^2 + 8h + 12 = (h+6)(h+2)$ to find length + width from new area

$h+6-(h+4)$

$h+6-h-4 = 2"$ to find how much longer new length is on both sides of frame (same for width)

$h+2-h = 2"$



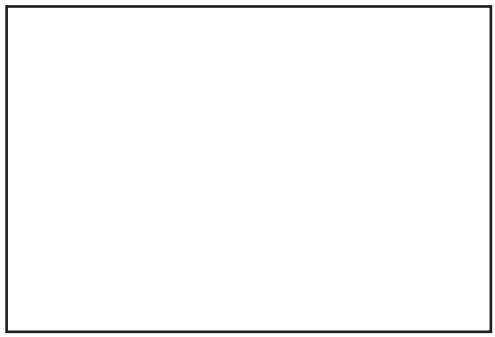
If 2 inches, then it's 1 inch on each side for new frame

Student has given a correct answer.
Student has shown work.
Student has given an explanation.

Based on Scoring Guidelines, 4 points is representative of a "thorough understanding."

A1.1.1 Response Score: 3 points

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

$h^2 + 4h$

Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.

$h^2 + 16h + 60$

Student has given a correct expression.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

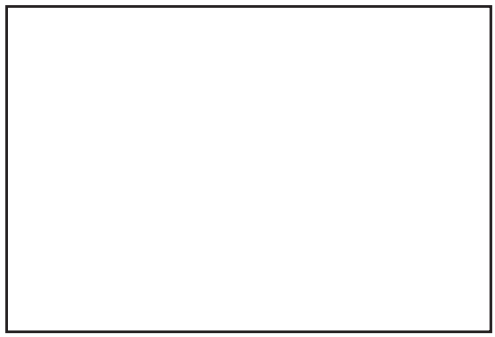
C. Determine the width of the new frame. Show all your work. Explain why you did each step.

Student has given a correct answer.
Student has shown no work.
Student has given no explanation.

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.1.1 Response Score: 3 points

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



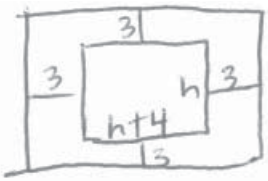
A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

$h \times (h+4) = h^2 + 4h$

Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.



$(h+10)(h+6) = h^2 + 16h + 60$

Student has given a correct expression.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.

?

I drew a picture to help me imagine it. I decided $(h+2x)(h+4+2x)$ was equal to the area. I multiplied using the distributive property and set it equal to $h^2+8h+12$. I solved for x to find the width of the frame but I don't know how.

$(h+2x)(h+4+2x)$

$h^2+4h+2xh+2xh+8x+4x^2$

$h^2+4h+4xh+8x+4x^2=$

$h^2+8h+12$

$4h$

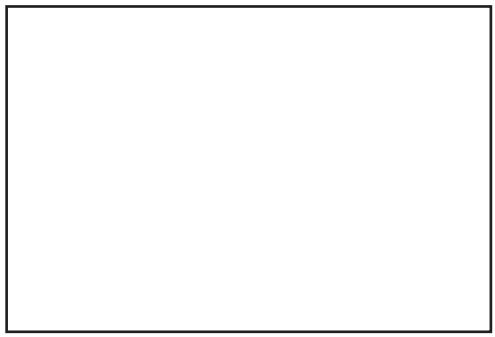
$4xh+8x+4x^2=4h+12$

Student has given no answer, the result of a calculation error of omission.
Student has correct work (all procedures necessary to solve problem are shown).
Student has correct explanation (picture helps).

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.1.1 Response Score: 2 points

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



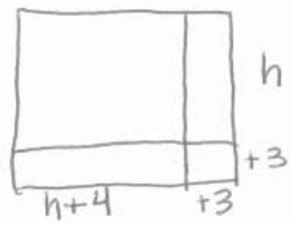
A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

$(h+4)(h) = h^2 + 4h$

Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.



$(h+7)(h+3) = h^2 + 10h + 21$

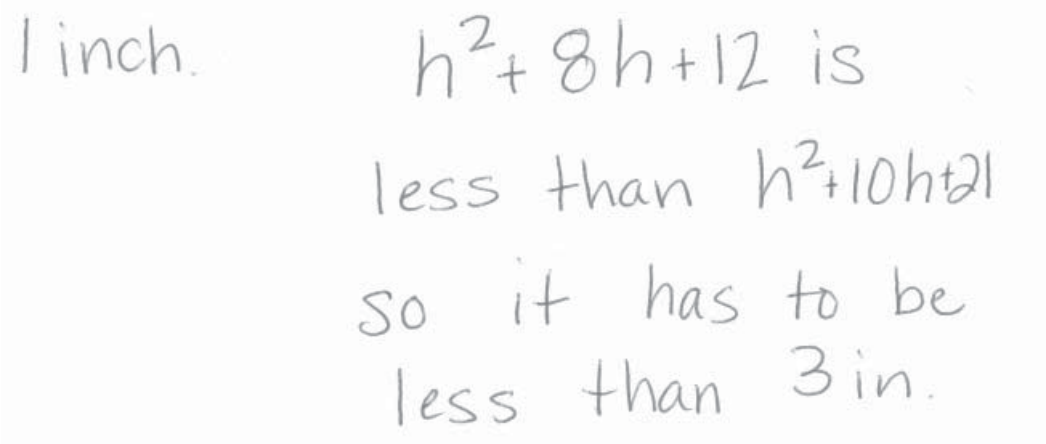
Student has given an incorrect expression. Student has failed to take into consideration that the frame is on all four sides of the figure and not just on two.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.

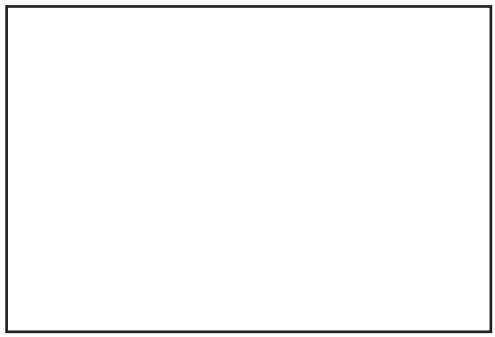


Student has given a correct answer.
Student has shown no correct work.
Student has given no correct explanation.

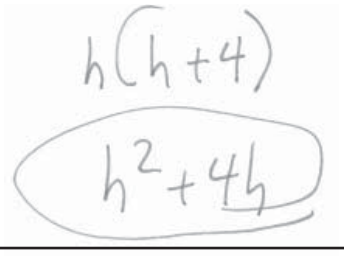
Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.1.1 Response Score: 2 points

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



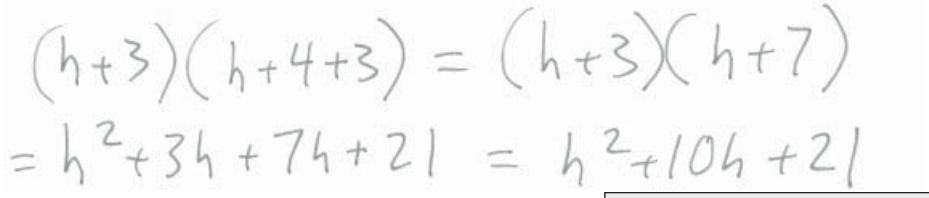
A. Write a polynomial expression, in simplified form, that represents the area of the canvas.



Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.



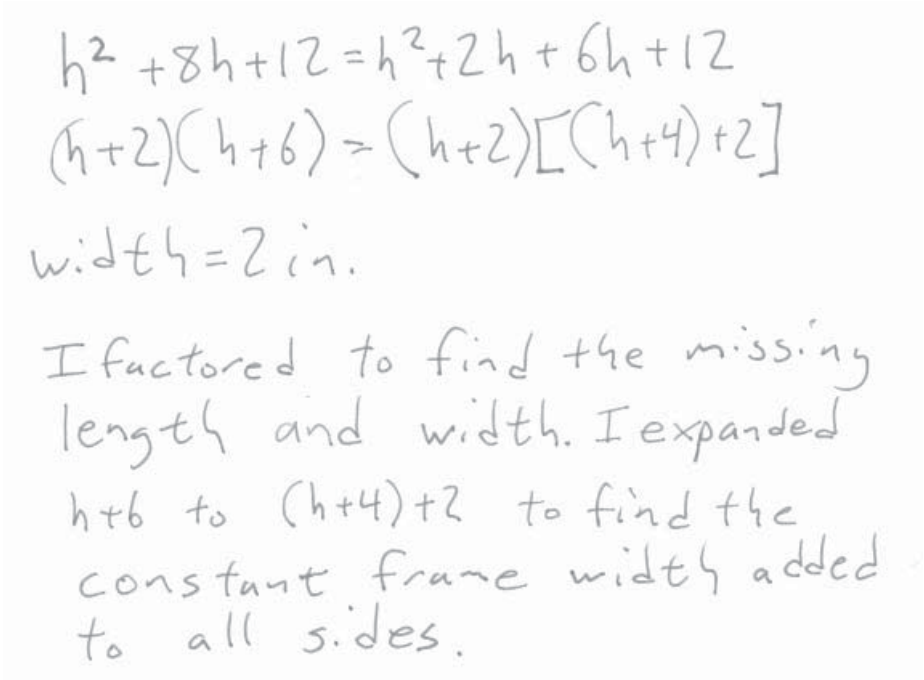
Student has given an incorrect expression. Student has failed to take into consideration that the frame is on all four sides of the figure and not just on two.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.

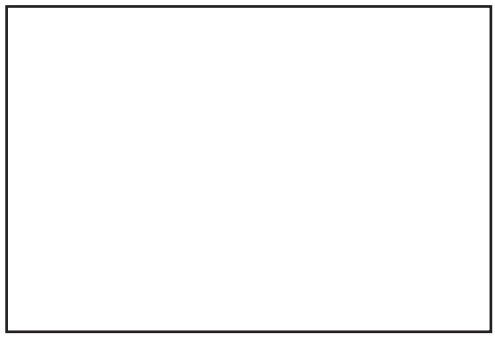


Student has given an incorrect answer.
Student has shown correct work up to interpreting answer.
Student has given correct explanation.

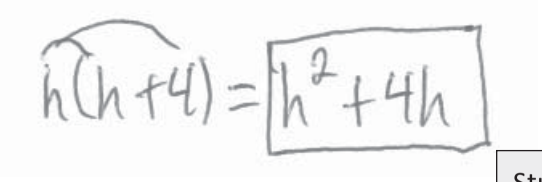
Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.1.1 Response Score: 1 point

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



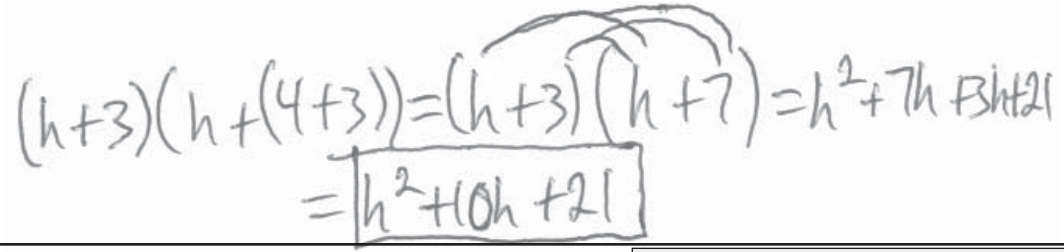
A. Write a polynomial expression, in simplified form, that represents the area of the canvas.



Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.



Student has given an incorrect expression.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.

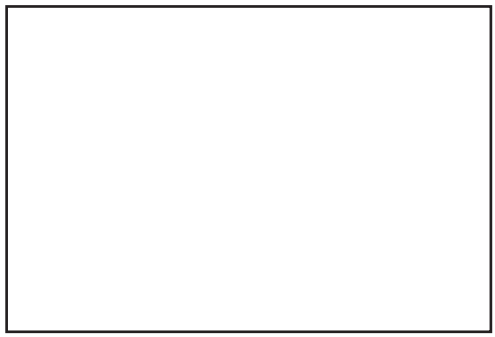
2 in. $h^2+8h+12$ is smaller than $h^2+10h+21$ so the new frame was smaller than 3 in.

Student has given an incorrect answer.
Student has shown no correct work.
Student has given no correct explanation.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.1.1 Response Score: 1 point

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

$h^2 + 4h$

Student has given a correct expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.

$h^2 + 7h$

Student has given an incorrect expression.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

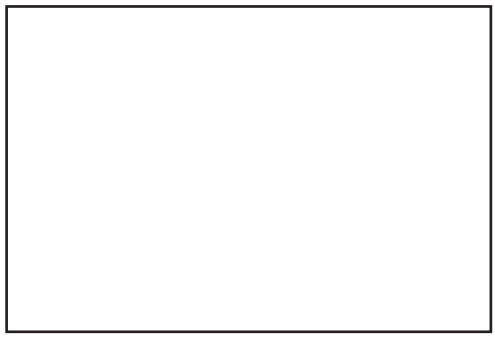
C. Determine the width of the new frame. Show all your work. Explain why you did each step.

Student has given an incorrect answer.
Student has shown no correct work.
Student has given no correct explanation.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.1.1 Response Score: 0

11. Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

$h^2 + 4$

Student has given an incorrect expression.

Keng adds a 3-inch-wide frame around all sides of his canvas.

B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.

$h^2 + 7$

Student has given an incorrect expression.

Go to the next page to finish question 11.

11. ***Continued.*** Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

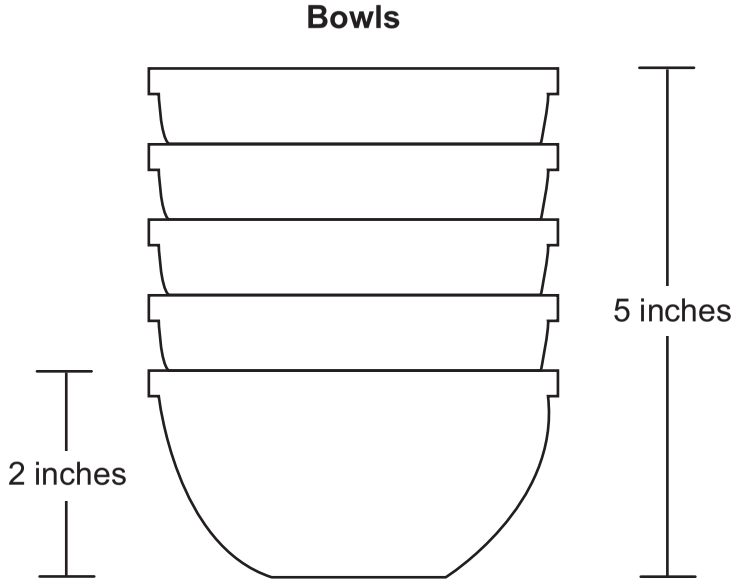
C. Determine the width of the new frame. Show all your work. Explain why you did each step.

Student has given an incorrect answer.
Student has shown no correct work.
Student has given no correct explanation.

Based on Scoring Guidelines, 0 points is representative of "no understanding."

A1.1.2

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: _____

B. Describe what the *x* and *y* variables represent.

x-variable: _____

y-variable: _____

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

height: _____ inches

ITEM-SPECIFIC SCORING GUIDELINE

ITEM # 12, MODULE 1

Assessment Anchor:

This item is reported under A1.1.2 Linear Equations

Specific Eligible Content addressed by this item:

A1.1.2.1.1– Write, solve, and/or apply a linear equation (including problem situations).

A1.1.2.1.3– Interpret solutions to problems in the context of the problem situation (linear equations only).

Scoring Guide:

Score	
4	The student demonstrates a *thorough* understanding of linear equations by correctly solving problems.
3	The student demonstrates a *general* understanding of linear equations by solving problems with only minor errors or omissions.
2	The student demonstrates a *partial* understanding of linear equations by providing a portion of the correct problem solving.
1	The student demonstrates a *minimal* understanding of linear equations.
0	The student does not demonstrate any understanding of linear equations.

Top Scoring Response:

Part A: What?	Why?
$y = 0.75x + 1.25$ **OR equivalent**	

(1 score point)

1 point for correct equation

Part B: What?	Why?
x-variable: the number of bowls y-variable: the height of the stack of bowls **OR equivalent**	

(2 score points)

1 point for correct description of x-variable

1 point for correct description of y-variable

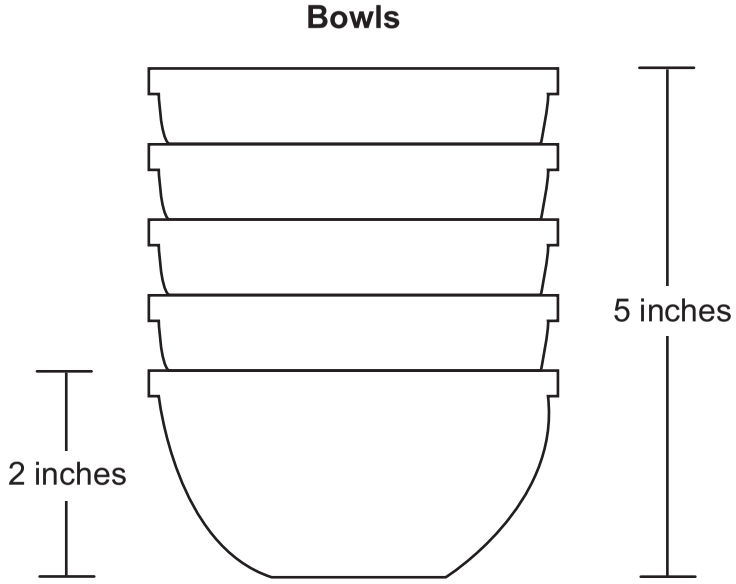
Part C: What?	Why?
8.75 inches **OR equivalent**	

(1 score point)

1 point for correct answer

A1.1.2 Response Score: 4 points

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: $y = .75x + 1.25$

$\frac{5-2}{4} = .75$

$5 - 5(.75)$

$5 - 3.75 = 1.25$

Student has given a correct equation.

B. Describe what the *x* and *y* variables represent.

x-variable: the number of bowls (how many)

y-variable: the height (how tall) of the bowls stacked

Student has given two correct descriptions.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

$y = .75(10) + 1.25$

$= 7.50 + 1.25$

$= 8.75$

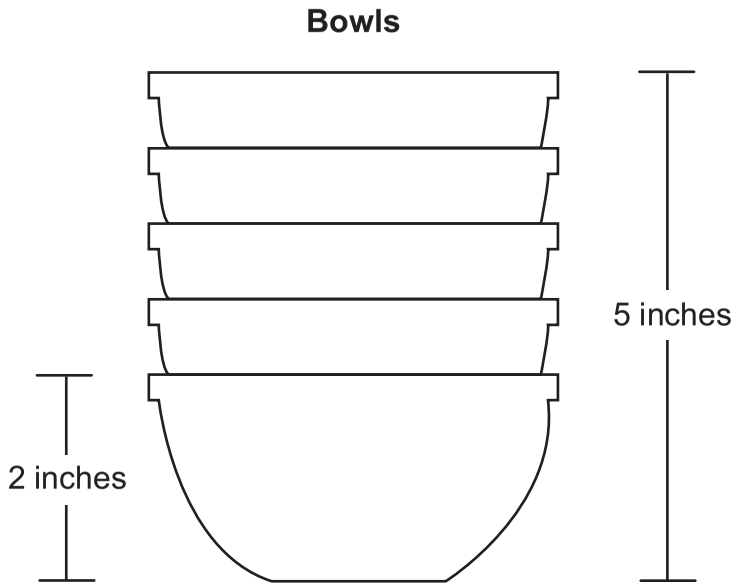
height: 8.75 inches

Student has given a correct answer.

Based on Scoring Guidelines, 4 points is representative of a "thorough understanding."

A1.1.2 Response Score: 3 points

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: $y = x + 2$

Student has given an incorrect equation.

B. Describe what the *x* and *y* variables represent.

x-variable: number of bowls

y-variable: total height

Student has given two correct descriptions.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

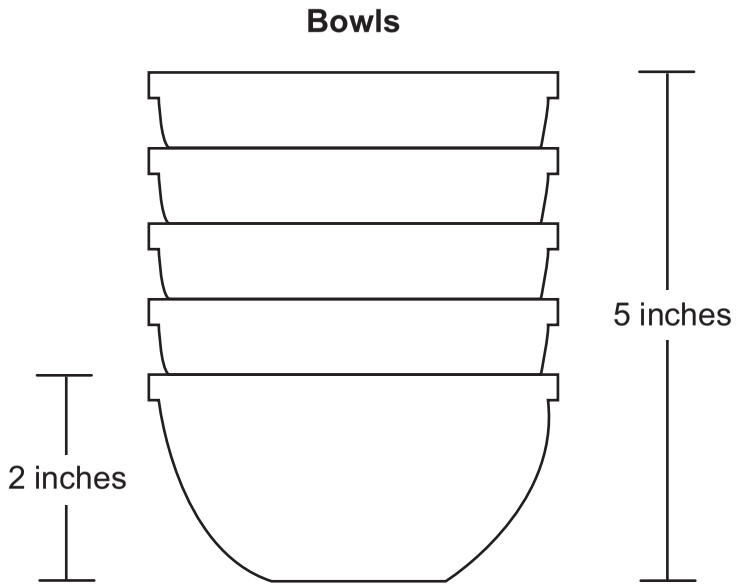
height: 12 inches

Student has given a "correct answer" based on an incorrect equation from Part A. (Error is carried through correctly, so student is not penalized twice.)

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.1.2 Response Score: 3 points

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: $y = \frac{3}{4}x + \frac{5}{4}$

Student has given a correct equation in fraction form.

B. Describe what the *x* and *y* variables represent.

x-variable: number of bowls

y-variable: height of bowls

Student has given two correct descriptions.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

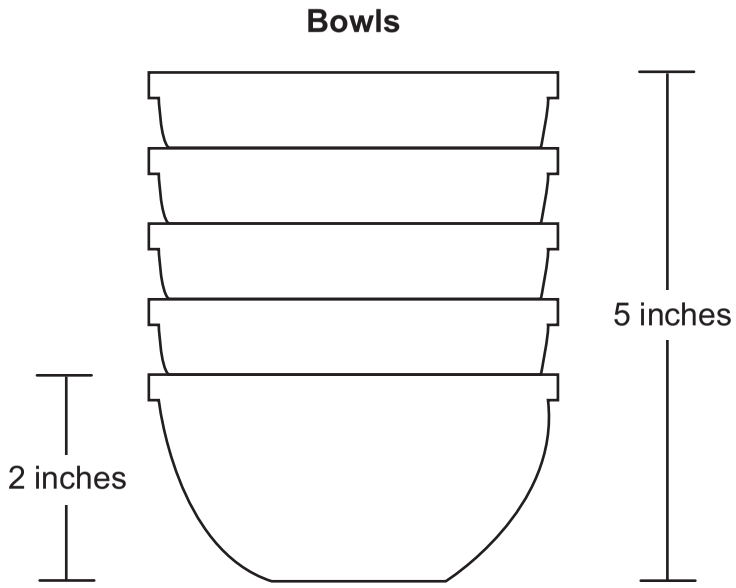
height: 7 1/2 inches

Student has given an incorrect answer.

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.1.2 Response Score: 2 points

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: $y = 2x + 5$

Student has given an incorrect equation.

B. Describe what the *x* and *y* variables represent.

x-variable: number of bowls

y-variable: height of stack

Student has given two correct descriptions.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

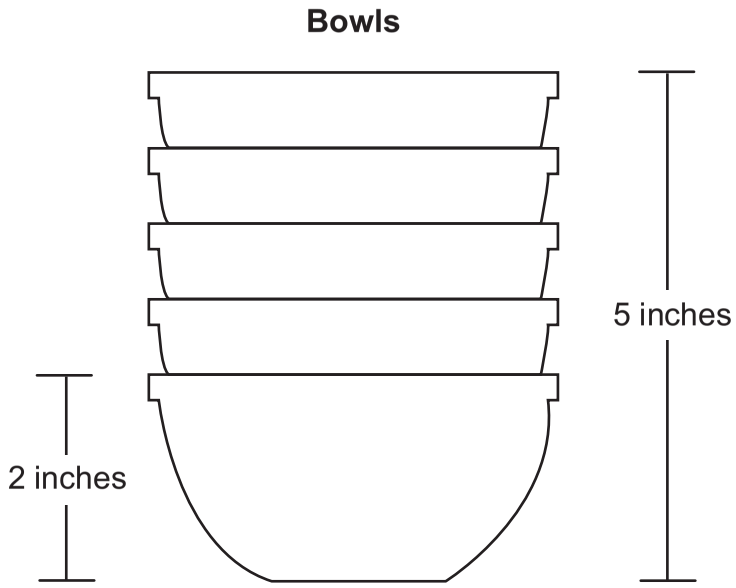
height: 10 inches

Student has given an incorrect answer.

Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.1.2 Response Score: 2 points

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: y= 1x +2

Student has given an incorrect equation.

B. Describe what the *x* and *y* variables represent.

x-variable: width of bowls

y-variable: height of bowls

Student has given one incorrect description followed by one correct description.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

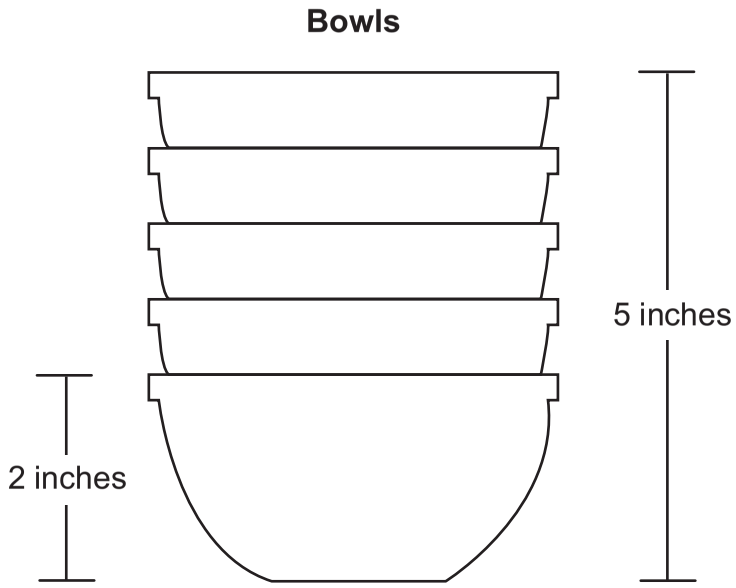
height: 12 inches

Student has given a "correct answer" based on an incorrect equation from Part A. (Error is carried through correctly, so student is not penalized twice.)

Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.1.2 Response Score: 1 point

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: $y-2=5(x-1)$

Student has given an incorrect equation.

B. Describe what the *x* and *y* variables represent.

x-variable: # bowls

y-variable: ?

Student has given one correct description followed by one incorrect description.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

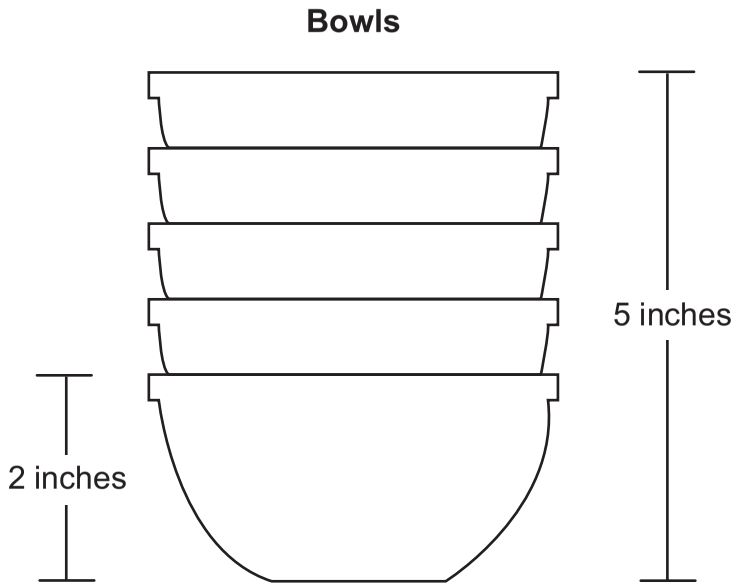
height: 7 inches

Student has given an incorrect answer.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.1.2 Response Score: 1 point

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: $y = 5x + 5$

Student has given an incorrect equation.

B. Describe what the *x* and *y* variables represent.

x-variable: 2 inches

y-variable: 5 inches

Student has given two incorrect descriptions.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

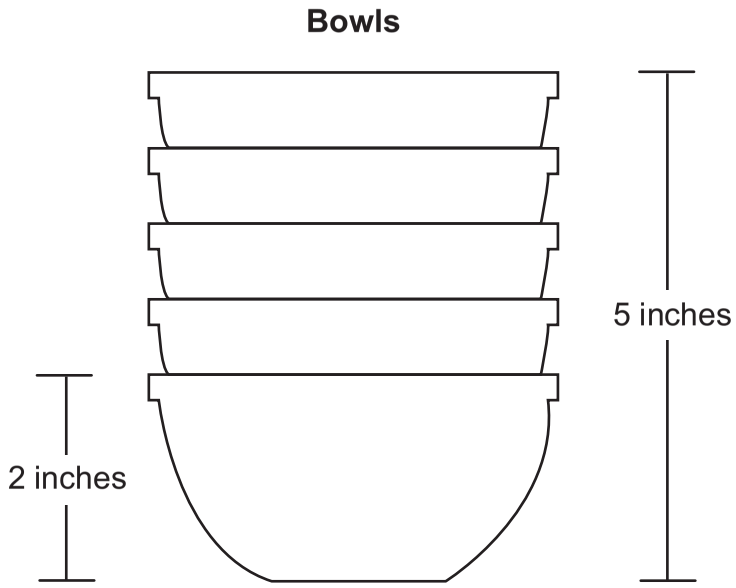
height: 8 3/4 inches

Student has given a correct answer.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.1.2 Response Score: 0

12. The diagram below shows 5 identical bowls stacked one inside the other.



The height of 1 bowl is 2 inches. The height of a stack of 5 bowls is 5 inches.

A. Write an equation using *x* and *y* to find the height of a stack of bowls based on any number of bowls.

equation: 5+2=7

Student has given an incorrect equation.

B. Describe what the *x* and *y* variables represent.

x-variable: 5

y-variable: 2

Student has given two incorrect descriptions.

Go to the next page to finish question 12.

12. ***Continued.*** Please refer to the previous page for task explanation.

C. What is the height, in inches, of a stack of 10 bowls?

height: 10 inches

Student has given an incorrect answer.

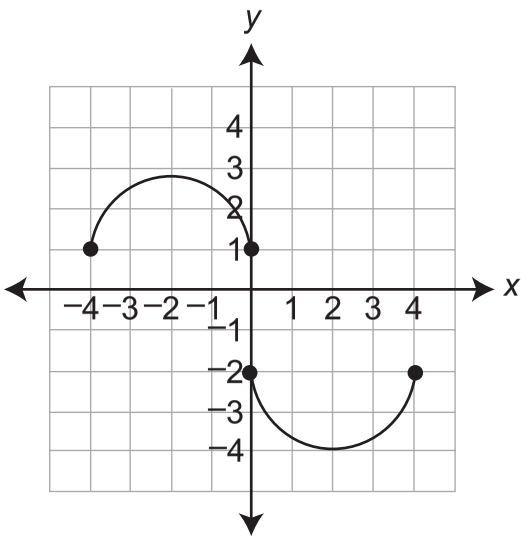
Based on Scoring Guidelines, 0 points is representative of "no understanding."

MULTIPLE-CHOICE QUESTIONS

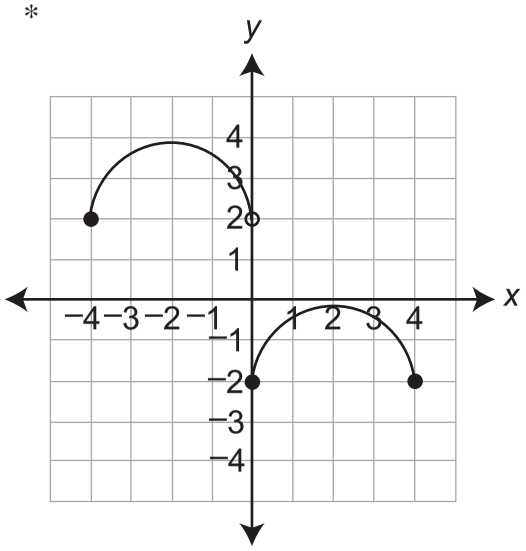
A1.2.1.1.2

1. Which graph shows *y* as a function of *x*?

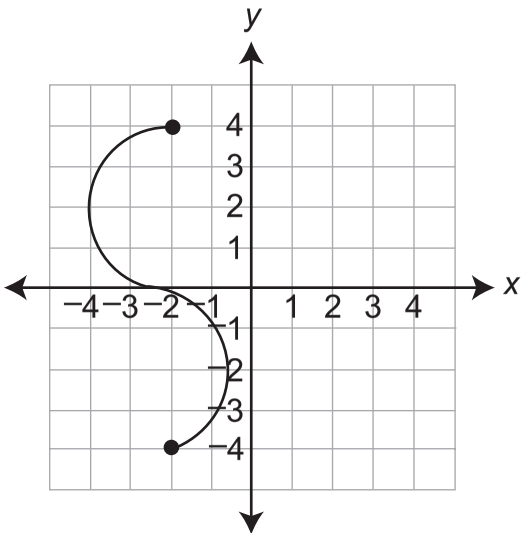
A.



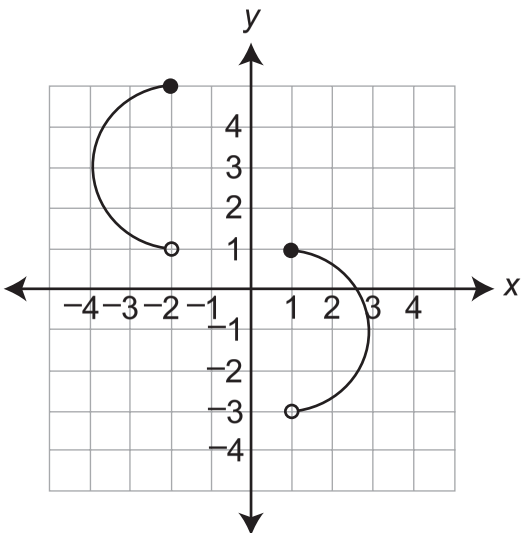
B. *



C.



D.

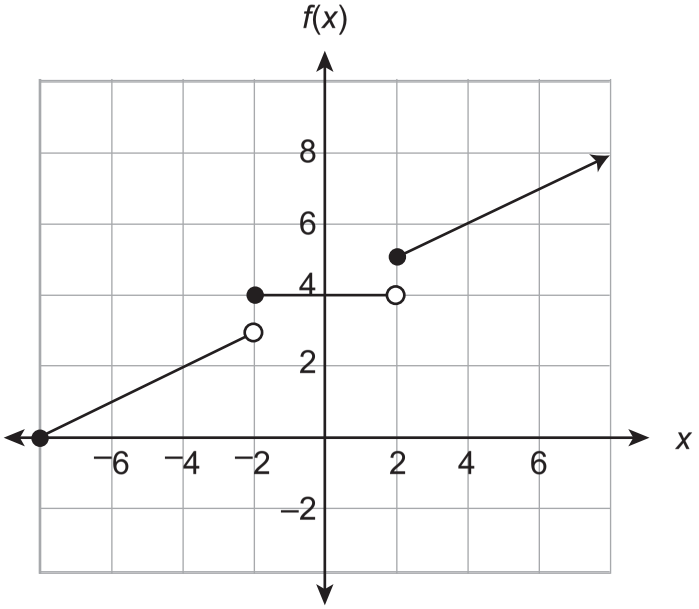


A student could determine the **correct** answer, option B, by examining the graphs of each of the relations and using the vertical line test.

A student could arrive at an **incorrect** answer by either not knowing the definition of a function or not knowing how to interpret closed and open circles. For example, a student would arrive at option C if he/she thought "function" meant "continuous".

A1.2.1.1.3

2. The graph of a function is shown below.



Which value is **not** in the range of the function?

A. 0

B. 3 *

C. 4

D. 5

A student could determine the **correct** answer, option B, by examining the graph and seeing that it never intersects with the horizontal line $y = 3$.

A student could arrive at an **incorrect** answer by either not knowing the definition of range or not knowing how to interpret closed and open circles. For example, a student would arrive at option C if he/she thought range meant that there was only one value of x for each value of y.

A1.2.1.2.1

3. A pizza restaurant charges for pizzas and adds a delivery fee. The cost (c), in dollars, to have any number of pizzas (p) delivered to a home is described by the function $c = 8p + 3$. Which statement is true?

A. The cost of 8 pizzas is $11.

B. The cost of 3 pizzas is $14.

C. Each pizza costs $8 and the delivery fee is $3. *

D. Each pizza costs $3 and the delivery fee is $8.

A student could determine the **correct** answer, option C, by interpreting the linear equation $c = 8p + 3$ in the context of the problem situation.

A student could arrive at an **incorrect** answer by misinterpreting the linear equation $c = 8p + 3$ in the context of the problem situation. For example, a student would arrive at option D if he/she interpreted the cost of a pizza to be the y-intercept and the delivery fee to be the slope.

A1.2.1.2.2

4. The table below shows values of y as a function of x.

x	y
2	10
6	25
14	55
26	100
34	130

Which linear equation best describes the relationship between x and y?

A. $y = 2.5x + 5$

B. $y = 3.75x + 2.5$ *

C. $y = 4x + 1$

D. $y = 5x$

A student could determine the **correct** answer, option B, by identifying the linear equation which will map every value of x in the table to the corresponding value of y.

A student could arrive at an **incorrect** answer by checking only one of the (x, y) coordinate pairs in the table. For example, a student could arrive at option A if he/she only checked to see that the equation worked when $x = 2$ and $y = 10$.

A1.2.2.1.1

5. Jeff's restaurant sells hamburgers. The amount charged for a hamburger, h, is based on the cost for a plain hamburger plus an additional charge for each topping, t, as shown in the equation below.

$$h = 0.60t + 5$$

What does the number 0.60 represent in the equation?

A. the number of toppings

B. the cost of a plain hamburger

C. the additional cost for each topping *

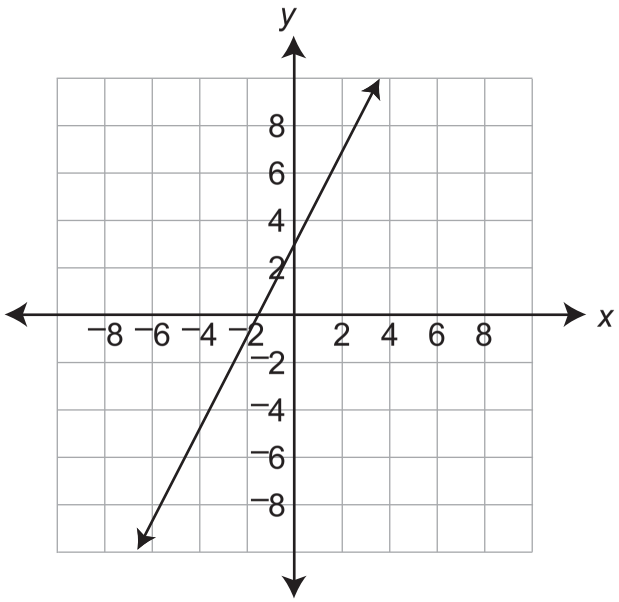
D. the cost of a hamburger with 1 topping

A student could determine the **correct** answer, option C, by interpreting the linear equation $h = 0.60t + 5$ in the context of the problem situation.

A student could arrive at an **incorrect** answer by misinterpreting the linear equation $h = 0.60t + 5$ in the context of the problem situation. For example, a student would arrive at option A if he/she interpreted the number of toppings to be the rate of change.

A1.2.2.1.3

6. A graph of a linear equation is shown below.



Which equation describes the graph?

A. $y = 0.5x - 1.5$

B. $y = 0.5x + 3$

C. $y = 2x - 1.5$

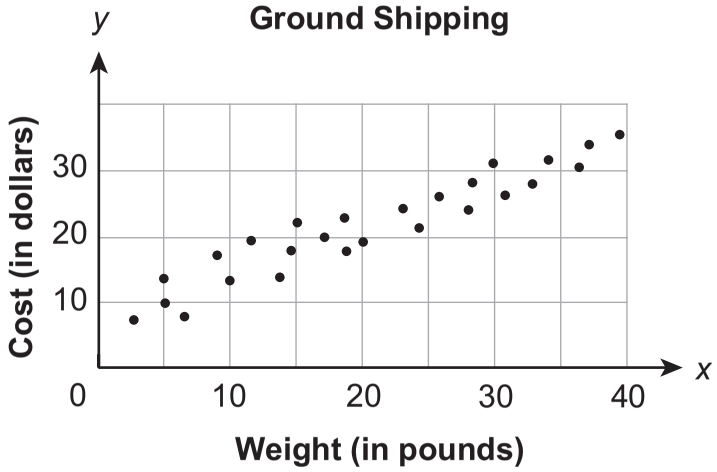
D. $y = 2x + 3$ *

A student could determine the **correct** answer, option D, by examining the graph to obtain the slope and *y*-intercept.

A student could arrive at an **incorrect** answer by either not knowing how to find the slope or *y*-intercept of a graph. For example, a student would arrive at option C if he/she used the *x*-intercept instead of the *y*-intercept.

A1.2.2.2.1

7. The scatter plot below shows the cost, y, of ground shipping packages from Harrisburg, PA, to Minneapolis, MN, based on the package weight, x.



Which equation **best** describes the line of best fit?

A. $y = 0.37x + 1.57$

B. $y = 0.37x + 10.11$

C. $y = 0.68x + 2.32$

D. $y = 0.68x + 6.61$ *

A student could determine the **correct** answer, option D, by drawing and deriving the equation of the line of best fit.

A student could arrive at an **incorrect** answer by either not knowing how to draw a line of best fit or not knowing how to find the equation of that line. For example, a student would arrive at option C if he/she drew a line such that all of the data points are at or above the line.

A1.2.3.1.1

8. The daily high temperatures in degrees Fahrenheit in Allentown, PA, for a period of 10 days are shown below.

76 80 89 96 98 100 98 91 89 82

Which statement correctly describes the data?

A. The median value is 98.

B. The interquartile range is 16. *

C. The lower quartile value is 76.

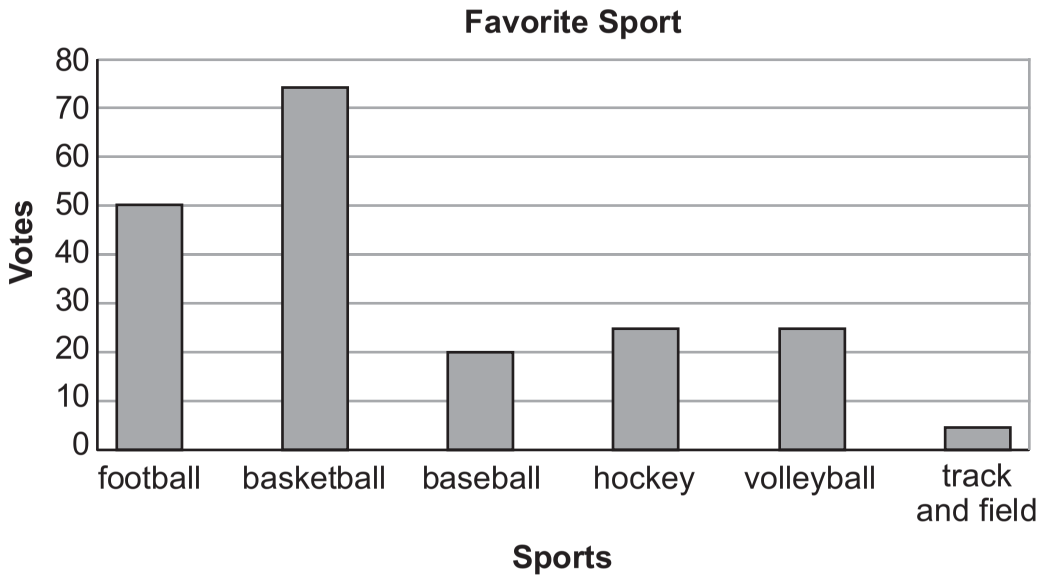
D. The upper quartile value is 96.

A student could determine the **correct** answer, option B, by finding the difference between the third and first quartile. Arranging the data from lowest to highest shows that the median value is the average of 89 and 91. The third quartile value is the median of the upper half of the data, 98, and the first quartile value is the median of the lower half of the data, 82. 98 – 82 = 16.

A student could arrive at an **incorrect** answer by not knowing how to use or compute median or interquartile range. For example, a student would arrive at option A if he/she confused median and mode.

A1.2.3.2.1

9. Vy asked 200 students to select their favorite sport and then recorded the results in the bar graph below.



Vy will ask another 80 students to select their favorite sport. Based on the information in the bar graph, how many more students of the next 80 asked will select basketball rather than football as their favorite sport?

A. 10 *

B. 20

C. 25

D. 30

A student could determine the **correct** answer, option A, by using the bar graph to obtain probabilities for basketball (75 ÷ 200 = 0.375) and football (50 ÷ 200 = 0.25), subtract the difference in the probabilities (0.375 – 0.25 = 0.125) and multiply by the new sample (0.125 × 80 = 10).

A student could arrive at an **incorrect** answer by using an incorrect method or making a computational error. For example, a student would arrive at option C if he/she multiplied the probability difference by 200 instead of 80 (0.125 × 200 = 25).

A1.2.3.3.1

10. A number cube with sides labeled 1–6 is rolled two times, and the sum of the numbers that end face up is calculated. What is the probability that the sum of the numbers is 3?

A. $\frac{1}{18}$ *

B. $\frac{1}{12}$

C. $\frac{1}{9}$

D. $\frac{1}{2}$

A student could determine the **correct** answer, option A, by realizing that the possible combinations are 2 and 1 or 1 and 2. There are 2 ways to get a number for the first number cube out of 6 possible outcomes, $\frac{2}{6}$, and only 1 way to get a number for the second number cube, $\frac{1}{6}$. Multiplying the probabilities together $\frac{2}{6} \times \frac{1}{6} = \frac{2}{36}$ which can be reduced to $\frac{1}{18}$.

A student could arrive at an **incorrect** answer by using an incorrect method or making a computational error. For example, a student would arrive at option C if he/she decided the probability for picking the first number cube was $\frac{2}{6}$ and that the second number cube was also $\frac{2}{6}$, then $\frac{2}{6} \times \frac{2}{6} = \frac{4}{36}$ which can be reduced to $\frac{1}{9}$.

CONSTRUCTED-RESPONSE QUESTIONS

A1.2.1

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

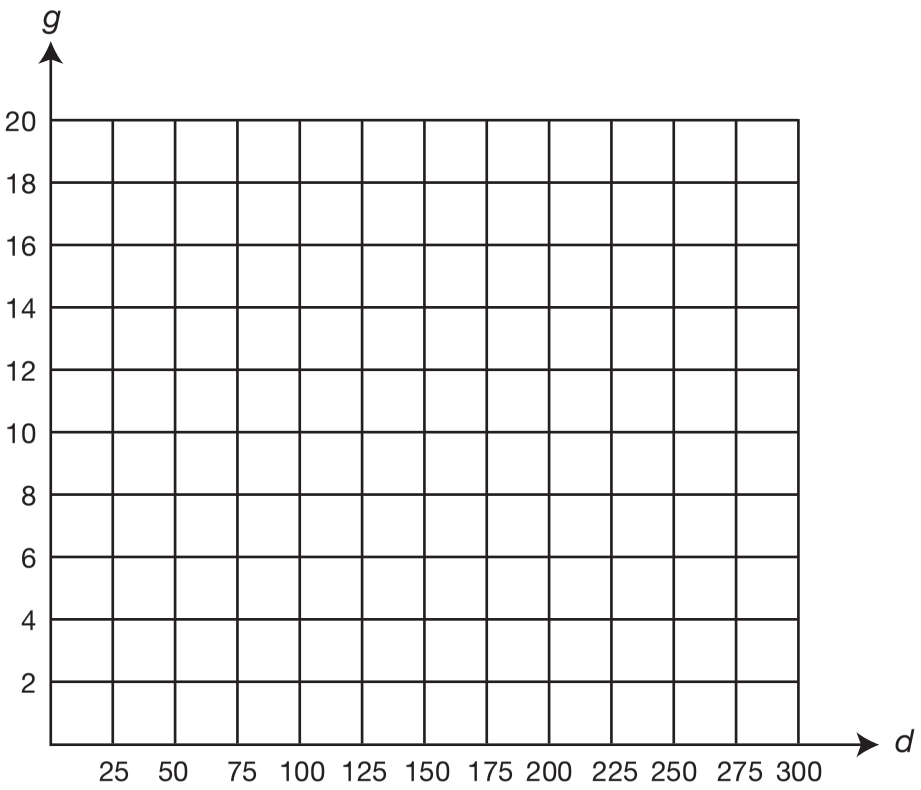
Use the equation to find the missing values for gallons of gasoline remaining.

Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	
200	
300	

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



D. Explain why the slope of the line drawn in **part C** must be negative.

ITEM-SPECIFIC SCORING GUIDELINE

ITEM # 11, MODULE 2

Assessment Anchor:

This item is reported under A1.2.1 Functions

Specific Eligible Content addressed by this item:

A1.2.1.1.1– Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.

A1.2.1.2.1– Create, interpret, and/or use the equation, graph, or table of a linear function.

Scoring Guide:

Score	
4	The student demonstrates a *thorough* understanding of functions by correctly solving problems with clear and complete procedures and explanations when required.
3	The student demonstrates a *general* understanding of functions by solving problems and providing procedures and explanations with only minor errors or omissions.
2	The student demonstrates a *partial* understanding of functions by providing a portion of the correct problem solving, procedures, and explanations.
1	The student demonstrates a *minimal* understanding of functions.
0	The student does not demonstrate any understanding of functions.

Top Scoring Response:

Part A: What?	Why?
$d = 62h + 84$ **OR equivalent**	

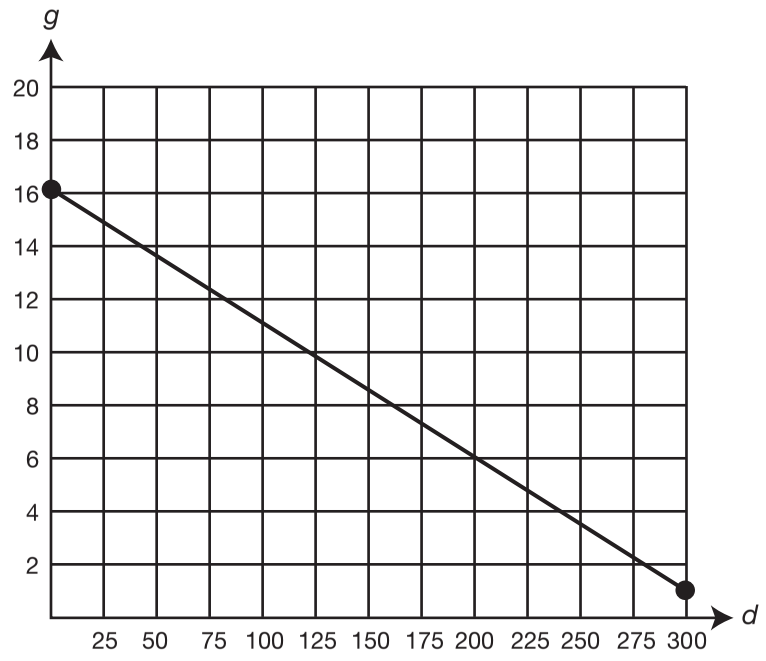
(1 score point)

1 point for correct equation

Part B: What?	Why?
11, 6, and 1	

(1 score point)

1 point for giving correct values

Part C: What?	Why?
	

(1 score point)

1 point for correct graph

Part D: What?	Why?
	As the distance driven increases, the amount of gasoline remaining must decrease. **OR equivalent**

(1 score point)

1 point for correct explanation

A1.2.1 Response Score: 4 points

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

146 208 270
−84 −146 −208
62 62 62

$d = 62h + 84$

$d = 62h + ?\ 84 = 0 + ?$

Student has given a correct equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	11
200	6
300	1

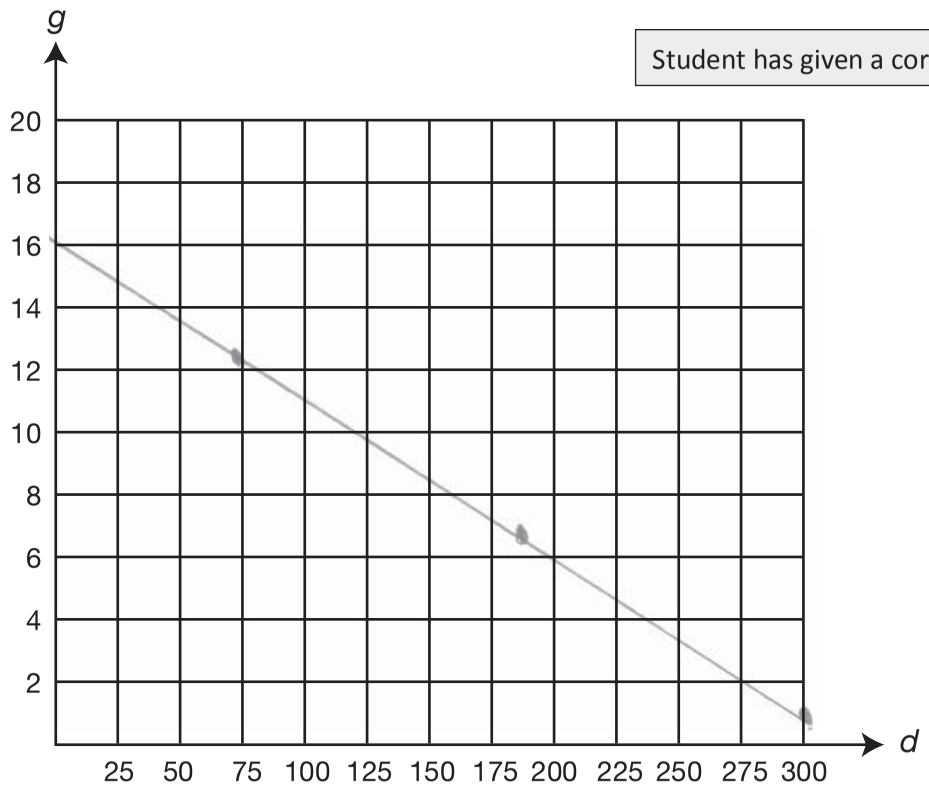
16 − 5
16 − 10
16 − 15

Student has given correct values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has given a correct graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

When a line slopes downward to the right, it is negative. This happens when as one variable (d) increases, the other variable (g) decrease. The distance driven increases (100 → 200 → 300) while the gallons of gas remaining decreases (11 → 6 → 1). You burn up gas as you drive.

Student has given a correct explanation.

Based on Scoring Guidelines, 4 points is representative of a "thorough understanding."

A1.2.1 Response Score: 3 points

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

$d = 62h + 84$

Student has given a correct equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

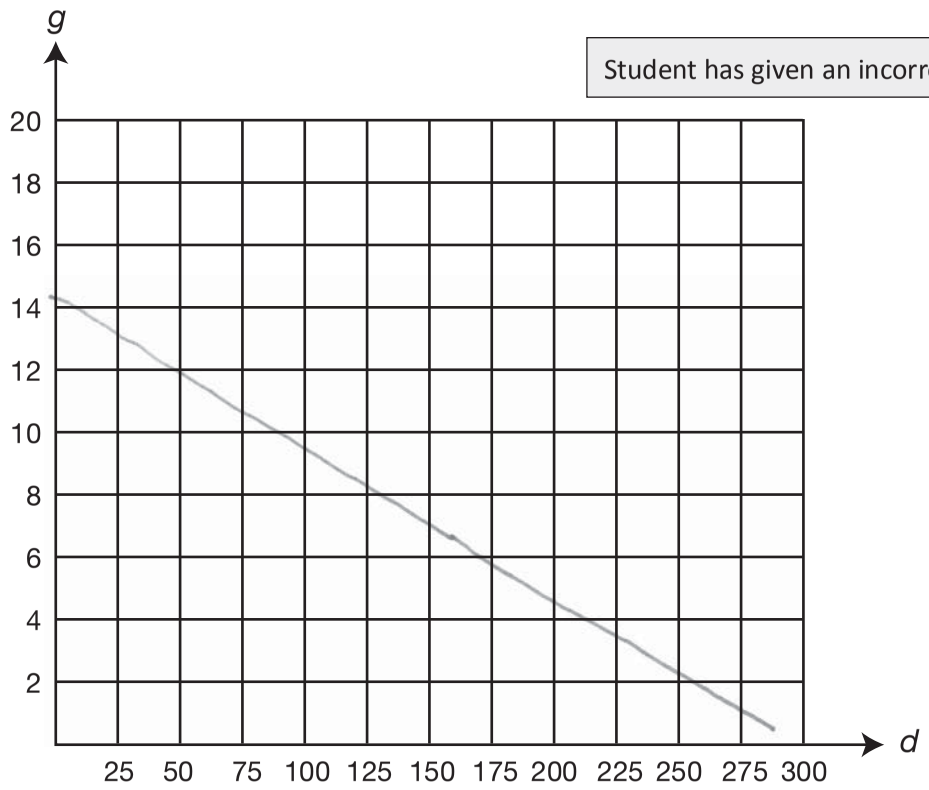
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	11
200	6
300	1

Student has given correct values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has given an incorrect graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

Gasoline will always be decreasing as miles driven increases.

Student has given a correct explanation.

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.2.1 Response Score: 3 points

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

Student has given a correct equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

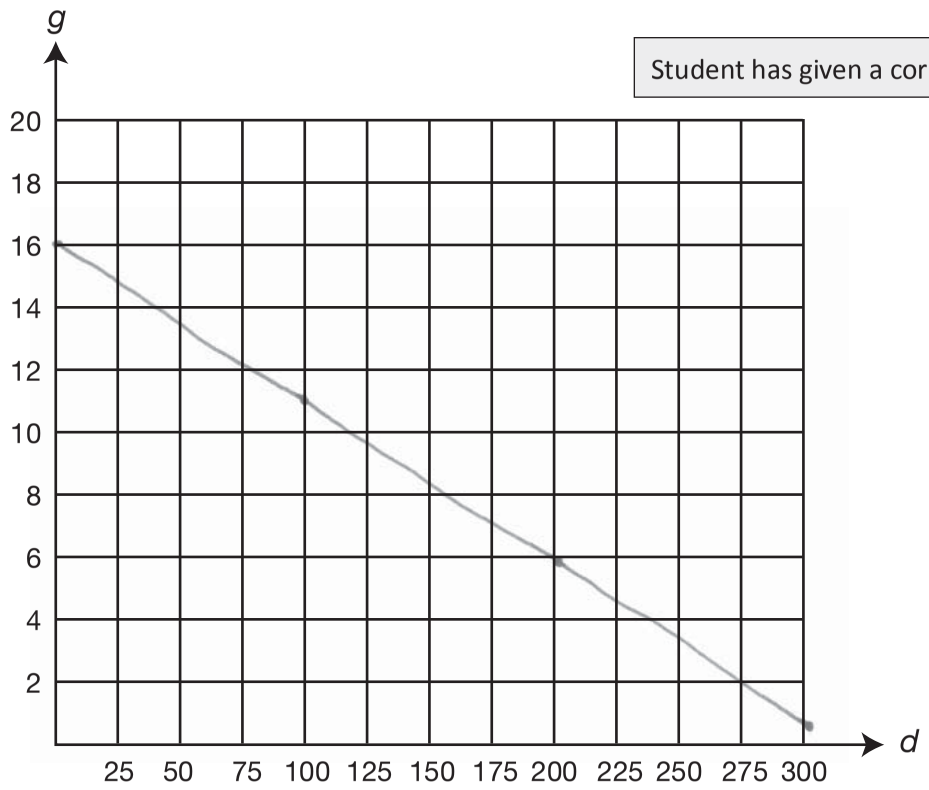
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	11
200	6
300	1

Student has given correct values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has given a correct graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

The slope is negative because miles go up.

Student has given an incomplete explanation.

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.2.1 Response Score: 2 points

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

$d = 84h + 62$

Student has given an incorrect equation.
Student has reversed the coefficients.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

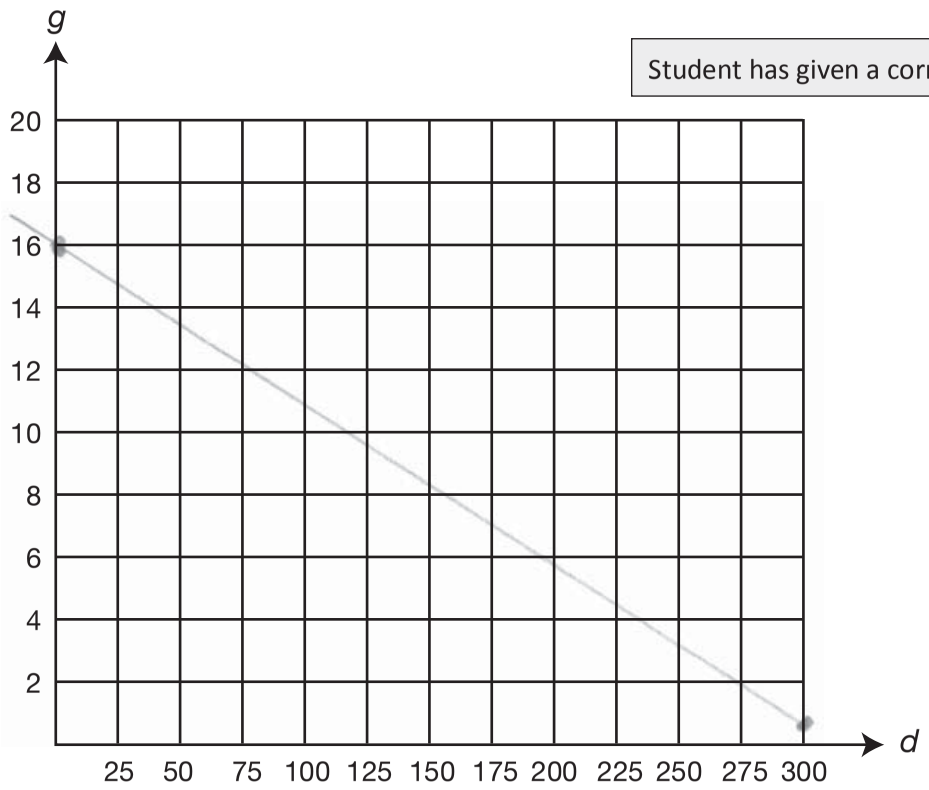
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	11
200	6
300	1

Student has given correct values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has given a correct graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

It doesn't have to be negative.
It just is.

Student has given an incorrect explanation.

Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.2.1 Response Score: 2 points

11. Hector's family is on a car trip.

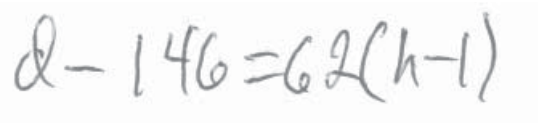
When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).



Student has given an equivalent equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

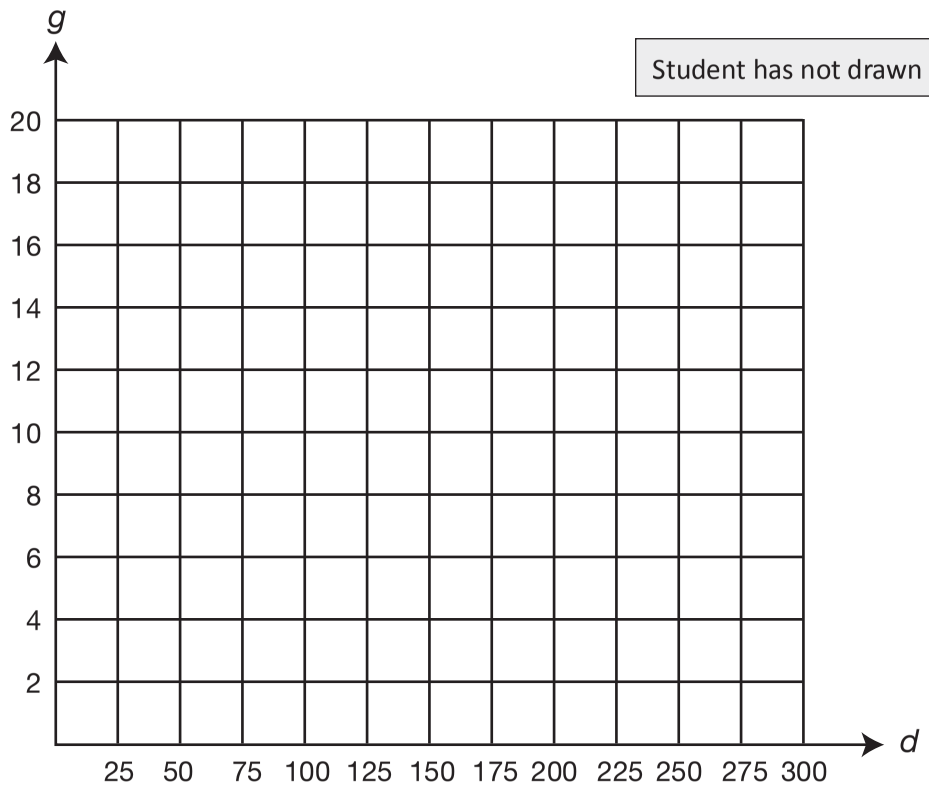
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	11
200	6
300	

Student has given correct values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has not drawn any graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

It isn't negative.

Student has given an incorrect explanation.

Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.2.1 Response Score: 1 point

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

Student has given a correct equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

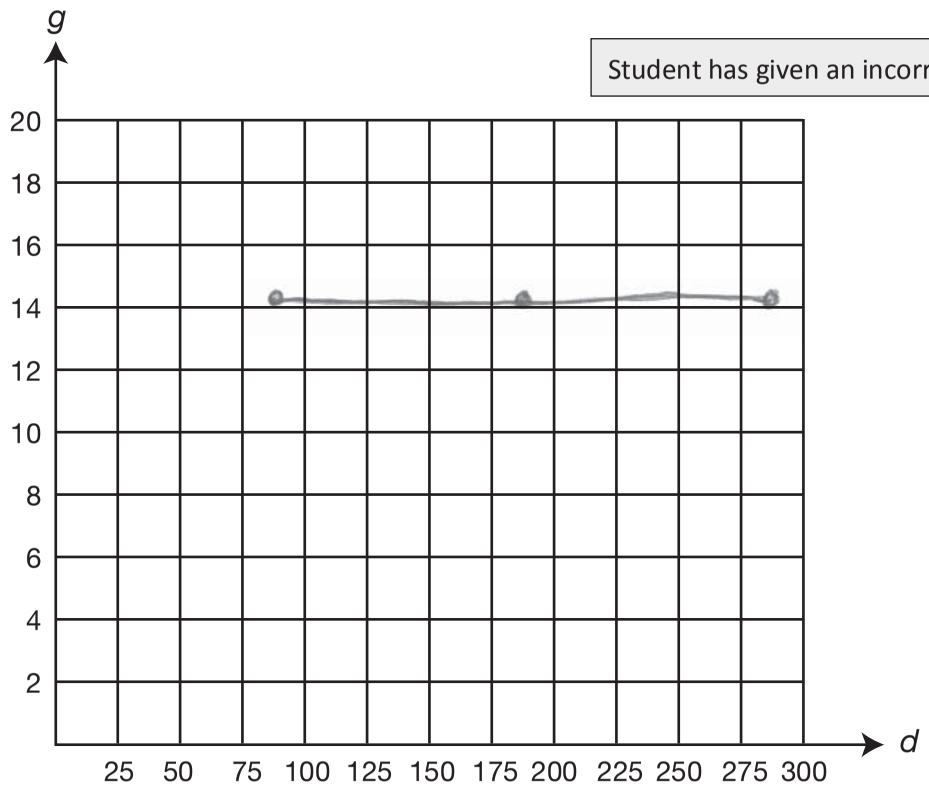
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	116
200	216
300	316

Student has given incorrect values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has given an incorrect graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

It takes time to drive places.

Student has given an incorrect explanation.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.2.1 Response Score: 1 point

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

$d = 84h$

Student has given an incorrect equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

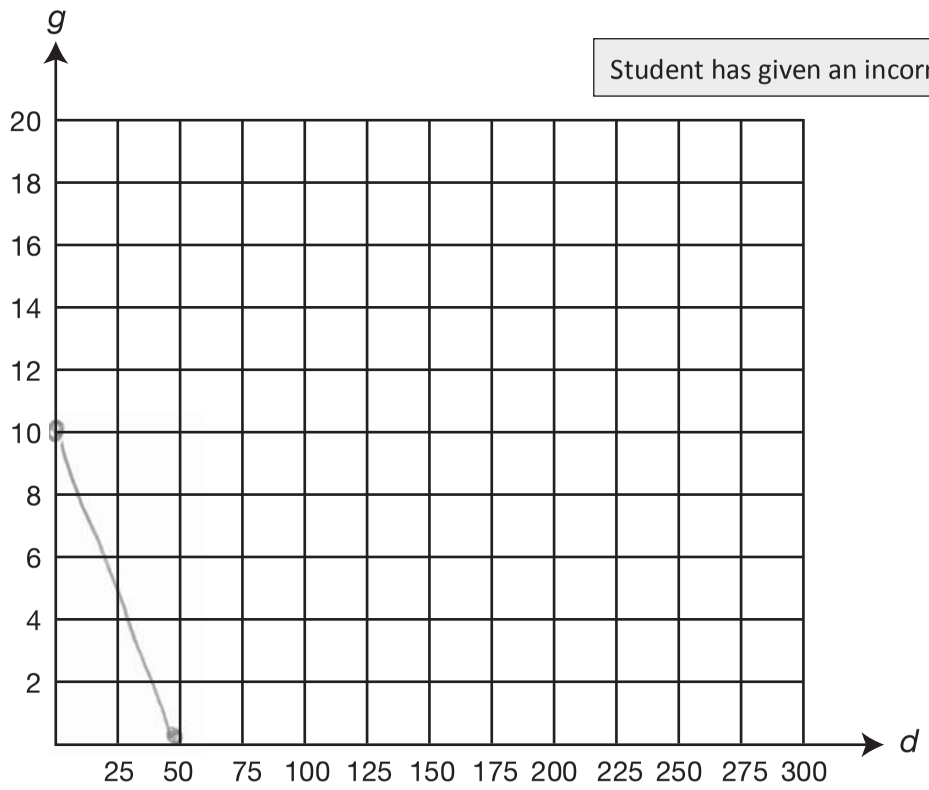
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	11
200	6
300	1

Student has given correct values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has given an incorrect graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

It can't be positive.

Student has given an incorrect explanation.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.2.1 Response Score: 0

11. Hector's family is on a car trip.

When they are 84 miles from home, Hector begins recording their distance driven each hour in the table below.

Distance by Hour

Time in Hours	Distance in Miles
0	84
1	146
2	208
3	270

The pattern continues.

A. Write an equation to find distance driven in miles (d) after a given number of hours (h).

$h = 84d + 62$

Student has given an incorrect equation.

B. Hector also kept track of the remaining gasoline. The equation shown below can be used to find the gallons of gasoline remaining (g) after distance driven (d).

$$g = 16 - \frac{1}{20}d$$

Use the equation to find the missing values for gallons of gasoline remaining.

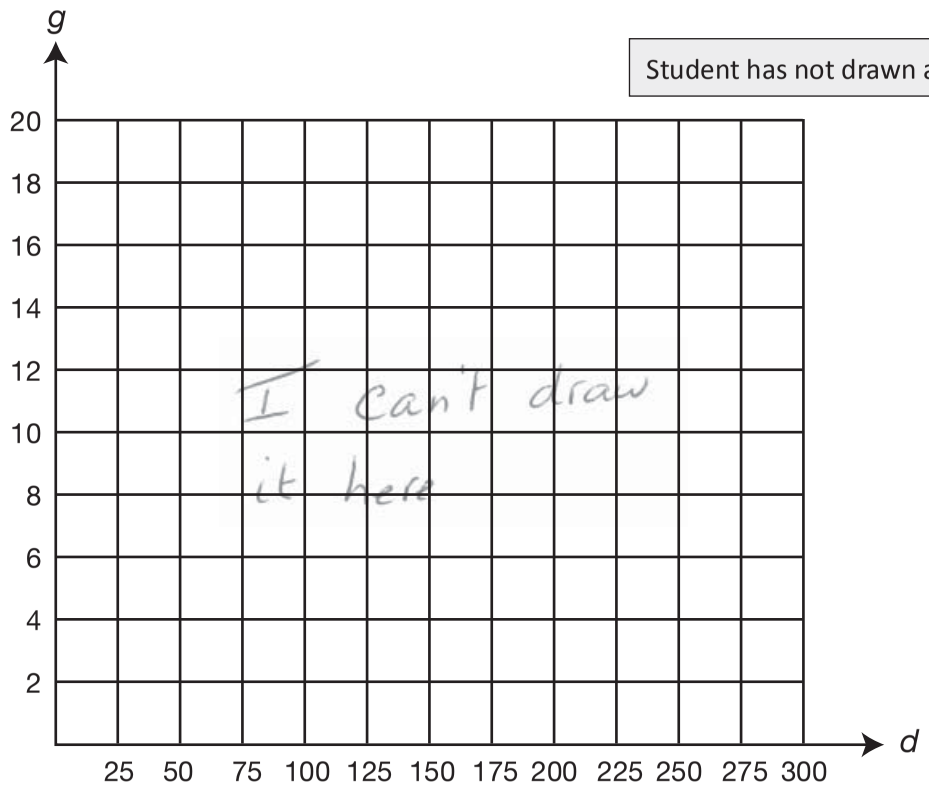
Distance Driven in Miles (d)	Gallons of Gasoline Remaining (g)
100	-84
200	-184
300	-284

Student has given incorrect values.

Go to the next page to finish question 11.

11. ***Continued***. Please refer to the previous page for task explanation.

C. Draw the graph of the line formed by the points in the table from **part B**.



Student has not drawn any graph.

D. Explain why the slope of the line drawn in **part C** must be negative.

The answers to B are negative numbers

Student has given an incorrect explanation.

Based on Scoring Guidelines, 0 points is representative of "no understanding."

A1.2.3

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: _____ pounds

B. What is the mean weight of the wrestlers?

mean: _____ pounds

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: _____ pounds and _____ pounds

ITEM-SPECIFIC SCORING GUIDELINE

ITEM # 12, MODULE 2

Assessment Anchor:

This item is reported under A1.2.3 Data Analysis

Specific Eligible Content addressed by this item:

A1.2.3.2.2– Analyze data, make predictions, and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots, scatter plots, measure of central tendency, or other representations).

Scoring Guide:

Score	
4	The student demonstrates a *thorough* understanding of data analysis by correctly solving problems.
3	The student demonstrates a *general* understanding of data analysis by solving problems with only minor errors or omissions.
2	The student demonstrates a *partial* understanding of data analysis by providing a portion of the correct problem solving.
1	The student demonstrates a *minimal* understanding of data analysis.
0	The student does not demonstrate any understanding of data analysis.

Top Scoring Response:

Part A: What?	Why?
146	

(1 score point)

1 point for correct answer

Part B: What?	Why?
153	

(1 score point)

1 point for correct answer

Part C: What?	Why?
148 & 158	

(2 score points)

1 point for a response that leads to correct median

1 point for a response that leads to correct mean

A1.2.3 Response Score: 4 points

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

~~112 130~~ 142 150 ~~178 206~~

150
142
292

2|292

median: 146 pounds

Student has given a correct answer.

B. What is the mean weight of the wrestlers?

78 + 142 + 112 + 150 + 206 + 130 = 918

918
6

mean: 153 pounds

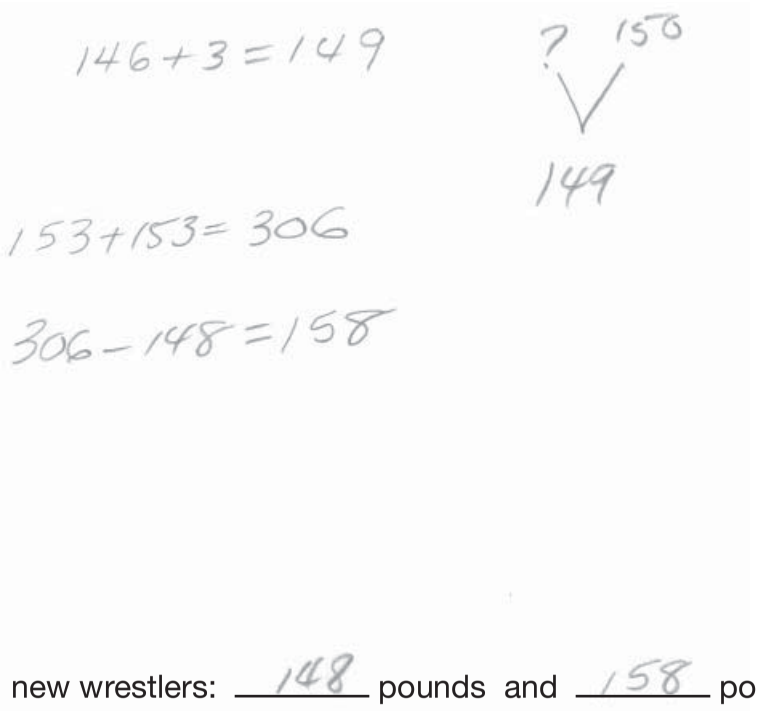
Student has given a correct answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.



new wrestlers: 148 pounds and 158 pounds

Student has given a response which leads to the correct median and mean.

Based on Scoring Guidelines, 4 points is representative of a "thorough understanding."

A1.2.3 Response Score: 3 points

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 146 pounds

Student has given a correct answer.

B. What is the mean weight of the wrestlers?

mean: 153 pounds

Student has given a correct answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 153 pounds and 153 pounds

Student has given a response that leads to a correct mean.
Student has given a response that does not lead to a correct median.

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.2.3 Response Score: 3 points

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 146 pounds

Student has given a correct answer.

B. What is the mean weight of the wrestlers?

mean: 153 pounds

Student has given a correct answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 148 pounds and 150 pounds

Student has given a response that does not lead to a correct mean.
Student has given a response that leads to a correct median.

Based on Scoring Guidelines, 3 points is representative of a "general understanding."

A1.2.3 Response Score: 2 points

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 146 pounds

Student has given a correct answer.

B. What is the mean weight of the wrestlers?

mean: 153 pounds

Student has given a correct answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 149 pounds and 153 pounds

Student has given a response that does not lead to a correct mean.
Student has given a response that does not lead to a correct median.

Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.2.3 Response Score: 2 points

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 131 pounds

Student has given an incorrect answer.

B. What is the mean weight of the wrestlers?

mean: 153 pounds

Student has given a correct answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 150 pounds and 156 pounds

Student has given a response that leads to a correct mean.
Student has given a response that does not lead to a correct median.

Based on Scoring Guidelines, 2 points is representative of a "partial understanding."

A1.2.3 Response Score: 1 point

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 146 pounds

Student has given a correct answer.

B. What is the mean weight of the wrestlers?

mean: 154 pounds

Student has given an incorrect answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 149 pounds and 154 pounds

Student has given a response that does not lead to a correct mean.
Student has given a response that does not lead to a correct median.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.2.3 Response Score: 1 point

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 150 pounds

Student has given an incorrect answer.

B. What is the mean weight of the wrestlers?

mean: 153 pounds

Student has given a correct answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 150 pounds and 153 pounds

Student has given a response that does not lead to a correct mean.
Student has given a response that does not lead to a correct median.

Based on Scoring Guidelines, 1 point is representative of a "minimal understanding."

A1.2.3 Response Score: 0

12. The weight (in pounds) of each wrestler on the high school wrestling team at the beginning of the season is listed below.

178 142 112 150 206 130

A. What is the median weight of the wrestlers?

median: 142 pounds

Student has given an incorrect answer.

B. What is the mean weight of the wrestlers?

mean: 150 pounds

Student has given an incorrect answer.

Go to the next page to finish question 12.

12. ***Continued***. Please refer to the previous page for task explanation.

Two more wrestlers join the team during the season. The addition of these wrestlers has no effect on the mean weight of the wrestlers, but the median weight of the wrestlers increases 3 pounds.

C. Determine the weights of the two new wrestlers.

new wrestlers: 145 pounds and 150 pounds

Student has given a response that does not lead to a correct mean.
Student has given a response that does not lead to a correct median.

Based on Scoring Guidelines, 0 points is representative of "no understanding."

Keystone Exams
Algebra I
2011

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pennsylvania
DEPARTMENT OF EDUCATION

Pennsylvania Keystone Exams

Algebra I

Spring 2015 Online Exam

Online Directions for Administration Manual

May 2015

Pennsylvania Keystone Exams

Spring 2015 Online Exam
Algebra I

Exam Security Reminder

- **No person is to read or view the contents of an exam at any time except the student taking the exam during the test session.**
- **If you suspect a test security violation, consult the School Assessment Coordinator (SAC) or contact the Pennsylvania Department of Education (PDE) at (717) 787-4234.**

General Responsibility Summary for the Test Administrator (TA)

The Test Administrator (TA) is responsible for the following tasks:

- taking the Pennsylvania State Test Administration Training (PSTAT) online module
- becoming familiar with the online test administration procedures and online testing tools provided in the *Online Directions for Administration Manual*
- receiving Student Login Tickets (Test Tickets) from the School Assessment Coordinator on the scheduled test day
- verifying that student demographic information is correct on the Student Login Roster
- alerting the School Assessment Coordinator if any student demographic information is incorrect and needs to be changed
- distributing the Test Tickets to the students at the time of the test
- monitoring the testing environment during the scheduled testing time
- collecting, accounting for, and returning all Test Tickets, as well as scratch/grid paper, to the School Assessment Coordinator
- reviewing and understanding the *Test Administrator/Proctor Test Security Certification* and returning the signed form to the School Assessment Coordinator after the administration of any Keystone Exam

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APPENDICES

INTRODUCTION

This manual is to be used for the administration of the **Keystone Algebra I Spring 2015 Online Exam**. The manual provides the Test Administrator with directions that will ensure a standard assessment environment in schools throughout the Commonwealth of Pennsylvania. The administration of this exam may differ from other assessments the Test Administrator has given; therefore, **Test Administrators are to become thoroughly familiar with this manual and the procedures for administering the exam before the testing window (May 13–27, 2015).**

MAINTAIN EXAM SECURITY

District and School Assessment Coordinators, Test Administrators, principals, and all other individuals who are involved in this assessment program must maintain the security of all exam materials. Together, they share the responsibility for ensuring that all materials and student responses are handled securely, confidentially, and in accordance with security mandates and other general procedures. These include, but are not limited to, the following:

- **Online exams are not to be viewed by anyone, including Test Administrators or Proctors, prior to the exam sessions.**
- **Except where allowed by a specific written accommodation, only students being tested are allowed to view the content of the online exam materials.**
- **No materials from the online exam may be copied, photographed, or recorded in any manner.**
- **The student may not review responses at any time other than during the administration of the exam.**

Each student taking the Keystone Exam online will receive a **Student Login Ticket (Test Ticket)**. This ticket provides the secure login credentials (i.e., username and password) required for a student to use the testing software. The Test Tickets must be kept in a predetermined, locked, secure storage area at both the district and school levels. Secure materials must never be left unattended or in open areas. Test Administrators must not be given access to the **secure** test materials before the administration day; however, this manual is not considered secure test material and should be provided to Test Administrators for review prior to the exam administration. The principal or his/her designee (known as the School Assessment Coordinator [SAC]) will make arrangements for the Test Administrator to receive the Test Tickets on the day of the exam, just prior to the scheduled test session, and for the immediate return of exam materials (see Part V of this document for a complete list of materials) after the session. At the end of the testing window, all Test Tickets must be accounted for and returned to the School Assessment Coordinator. In addition, all other materials assigned to the Test Administrator, including any scratch/grid paper used during the assessments, must be returned to the School Assessment Coordinator immediately at the end of each session.

The Pennsylvania Keystone Exams are a measure of individual student achievement conducted by the Pennsylvania Department of Education (PDE). Any deviation from the exam procedures outlined in this manual (including, but not limited to, group work, teacher coaching, teaching or release of the performance tasks or exam questions, use of old Pennsylvania assessments as preparation tools, etc.) is strictly prohibited and will be considered a violation of exam security.[1] Those individuals who divulge exam questions, falsify student scores, or compromise the integrity of the state assessment system in any manner will be subject to professional disciplinary action under the Professional Educator Discipline Act, 24 P.S. § 2070.1a *et seq*, including a private reprimand, a public reprimand, a suspension of their teaching certificate(s), a revocation of their teaching certificate(s), and/or a suspension or prohibition from being employed by a charter school. For more information regarding guidelines to ensure that the integrity of the assessment remains above reproach, see the *Ethical Standards of Test Administration*, found in Appendix A of this manual and in the *Keystone Exams Handbook for Assessment Coordinators*.

[1] This prohibition excludes the item and scoring samplers (released items).

After administering any Keystone Exam, every Test Administrator involved in the administration of this Keystone Exam must sign and date a *Test Administrator/Proctor Test Security Certification*. The Test Security Certification certifies that all security measures for the Keystone Exams were maintained, including, but not limited to

- following test security regulations and procedures,
- handling secure assessment materials appropriately, and
- maintaining confidentiality of information contained within secure assessment materials.

A copy of the *Test Administrator/Proctor Test Security Certification* is provided in Appendix C and in the *Keystone Exams Handbook for Assessment Coordinators*. Prior to the administration of the exam, the School Assessment Coordinator will distribute copies of this certification to all Test Administrators and Proctors involved in the administration of this Keystone Exam. Prior to receiving any exam materials or participating in the administration of the Keystone Exams in any way, the Test Administrator must read and understand the *Test Administrator/Proctor Test Security Certification*. Upon completion of the exam administration, the signed form must be returned to the School Assessment Coordinator.

FOLLOW THE EXAM SCHEDULE SET BY THE SCHOOL ASSESSMENT COORDINATOR

The Keystone Algebra I Spring 2015 Online Exam must be administered within the testing window on the dates assigned by the School Assessment Coordinator. Appropriate exam conditions optimize the chance for greater accuracy of the scores. Since this exam is to be administered online, the classroom or computer lab settings must include an adequate number of computer terminals. Other settings may be used according to local needs and available facilities. However, exam situations created to inflate assessment scores are a violation of exam-security practices.

The Keystone Algebra I Spring 2015 Online Exam consists of **two modules**, and each module must be scheduled as a separate exam session. Since the Keystone Exams are untimed, there may be instances in which the actual testing times take longer than the recommended testing time. Exam modules must not be scheduled back-to-back in the morning (or in the afternoon). Instead, the exam modules must be divided across two days or divided across the morning and afternoon of the same day. The School Assessment Coordinator must discuss the schedule with the Test Administrators at least one week prior to the exam dates. Please note that each module in this exam is designed to be completed in the same amount of administration time. See Part II: Exam Timing for more information on administration time and testing time.

ADVANCE CONSIDERATIONS FOR EXAM ADMINISTRATION

The procedures listed below must be followed before administering the Algebra I Spring 2015 Online Exam. This exam includes procedures that students may not have encountered before.

- The School Assessment Coordinator will receive a *Keystone Exams Handbook for Assessment Coordinators* that provides additional, detailed information about the exam. This document is posted on these portals:
  - *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."] 
- The entire *Online Directions for Administration Manual* (this document) must be read in advance in order to become familiar with the procedures for administering the online exam. Just prior to the exam session on the day of the administration, the School Assessment Coordinator will allow the Test Administrator to review the Keystone Test Ticket information. Prior to the exam administration, the Test Administrator must do the following:
  - Become familiar with the exam schedule and the procedures for allowing extended exam time.
  - Follow the directions of the School Assessment Coordinator for maintaining exam security.
  - Plan sufficient time for distribution and collection of materials.

- Post a "**Testing—Do Not Disturb**" sign on the door(s) to the classroom to indicate that an exam session is taking place. A quiet, calm atmosphere is essential for concentration on the task.
- Plan to arrange student seating to prevent student interaction during the exam sessions. The location of existing computer stations may require repositioning some workstations to avoid this interaction, as well as to minimize potential security concerns.
- **Optional:** Prepare copies of the *Keyboard Shortcuts for System* (see Appendix H), the *Online Calculator Shortcuts* (see Appendix I), and the *Algebra I Constructed-Response Scoring Guidelines* (see Appendix E) for those students that may want them.

- View the Student Tutorial and take the Online Tools Training to become familiar with the online testing tools and functionality. See Part III of this document for more information.
- Review the Exam Directions that students will have access to during the exam administration. See Appendix D for more information.
- Review the software tools and features related to the Pause/Exit Function, Interrupted Testing, and Unplanned Test Inactivity. See Appendix F for more information.
- Prior to the first scheduled exam session, confirm that PA Online Assessment software is installed on computers to be used for testing. Confirm that the text-to-speech software is installed on computers to be used by students who need the read-aloud accommodation. Contact the School Assessment Coordinator for more information.

Remember:

- Test Tickets are supplied for each student; however, if any student does not have a Test Ticket, notify the School Assessment Coordinator.
- Review and understand the *Test Administrator/Proctor Test Security Certification* found in Appendix C (contact your School Assessment Coordinator for more information).
- This exam includes multiple test forms. One of these forms will be assigned to each student when he or she successfully signs in to the online testing engine.
- Be aware of test accommodations ("Test Administrator transcribed student responses," "Extended time," etc.) that are outlined in the *2015 PSSA and Keystone Accommodations Guidelines* and in the *2014–15 Accommodations Guidelines for English Language Learners*. These documents are posted on these portals:
  - *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

- **If an exam security violation is suspected, contact the School Assessment Coordinator or the Pennsylvania Department of Education [(717) 787-4234] immediately.**

PREPARE THE STUDENTS FOR THE EXAM

- Inform students in advance of the schedule for the exam sessions, as communicated by the School Assessment Coordinator.
  - Explain to students that they will have the opportunity to become familiar with features of the online test by taking a Test Tutorial and by completing the Online Tools Training.

- Each student should know his or her PAsecureID. Students are asked to confirm their PAsecureID when logging in to the online testing system. For more information on PAsecureID, contact the School Assessment Coordinator.

- Students will not be permitted to have cell phones, cameras, or any other electronic devices in their possession during the administration of the exam. Students **must** be informed of this policy in advance and encouraged to leave such items at home on exam days. **The Test Administrator must collect all such devices prior to distributing assessment materials and shall return them upon completion of the assessment.**

- In addition, PDE encourages school districts and schools to inform students before testing of the locally determined ramifications/sanctions for student misconduct during the Keystone Exams. This includes, but is not limited to, sanctions associated with
  - cheating and
  - sharing and/or reproduction of test content.

- Discuss the *Code of Conduct for Test Takers*, found in Appendix B of this manual and in the *Keystone Exams Handbook for Assessment Coordinators*, with all students prior to the scheduled exam time. It is essential that students understand the importance of each point in the code of conduct before testing begins. Prior to the administration, students must indicate that they understand the *Code of Conduct for Test Takers* that their Test Administrator has reviewed with them. Test Administrators should answer any questions that students have to ensure that all students understand this code of conduct.

- Students must use the online test to respond to the test questions. There is no printed test booklet or answer booklet used with any Keystone Online Exam. Students may highlight or make notes or comments using the features available with the Keystone Online Assessment Software. They may also use scratch/grid paper, but they must record their answers online. All scratch/grid paper must be collected and returned to the School Assessment Coordinator at the conclusion of each module.

- This exam includes questions that require students to select from four possible answers. These multiple-choice questions and answer options are displayed on the computer screen. Students will read the questions and record their answers using a mouse or key commands to select answer options.

- This exam includes questions that require students to type their responses. The constructed-response questions and corresponding response spaces are displayed on the computer screen. Students will read each question and record their response using a mouse, key commands, and a combination of online tools.

- Students may use calculators on this exam. Online calculators (including a scientific calculator and a graphing tool) are provided during testing, but students may use their own calculators or calculators provided by the school. (Scientific calculators and graphing calculators are optional but recommended.) **Note: Students may not share calculators during the exam.** For more information, see the *Pennsylvania Calculator Policy* in Appendix I of this manual. This document is also posted on these portals:
  - *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

- Students may not use a dictionary or a thesaurus for any part of this exam. **Note:** an exception is for English Language Learners (ELLs) taking any portion of the exam. They may use word-to-word bilingual/translation dictionaries that translate native language to English or English to native language. Bilingual/translation dictionaries that include word definitions or pictures are not allowed.

Students are permitted to	Students are NOT permitted to
• use scratch/grid paper. (Students may use it to create their own graphic organizers, etc., during the exam.) • highlight and make notes or comments using the features available online. • use a calculator on the exam in accordance with the *Pennsylvania Calculator Policy* (see Appendix I).	• use preprinted graphic organizers. • possess or use cell phones, smart phones, cameras, any type of unauthorized computer, or any mobile device with a camera and/or Internet access (e.g., tablets, MP3 players, gaming systems, entertainment devices, smart watches) when responding to any part of the exam. • possess or use dictionaries (with the exception of ELL students), thesauri, and spell- or grammar checkers when responding to any part of the exam.

PREPARE THE CLASSROOM OR COMPUTER LAB PRIOR TO THE EXAM

Good organization of exam materials and well-executed procedures will make the administration of the online exam proceed smoothly.

- Make certain that the testing software has been installed on all computers being used during testing.
- Make certain that all monitoring capabilities have been disabled on all computers being used during testing. Please see the School Assessment Coordinator if you have any questions.
- Remove or cover all classroom instructional materials that may affect the validity of the Keystone Online Exam.

DO NOT DISPLAY:

- mathematics terms and/or definitions
- mathematics rules and properties
- examples of problems and answers
- multiplication tables
- instructions on how to use a calculator
- illustrations or drawings of geometric shapes, algorithms, algebraic equations, graphs, number lines, etc.

Note: This is not an exhaustive list. These are general examples of what is not permitted. Any materials that may contain content that could be tested must be removed or covered.

The *Algebra I Constructed-Response Scoring Guidelines* used for Algebra I constructed-response questions may be displayed in the classroom. (The scoring guidelines are contained in Appendix E of this document and may be provided to each student for personal use during the exam.) They are also available online during testing within the Online Assessment Software. This document is also posted on these portals:

- *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
- *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."] 

A quiet, calm atmosphere is essential for concentration on the exam. Student seating must be arranged to prevent student interaction during the exam sessions. Disturbances must be kept to a minimum during the exam sessions. Posting a "**Testing—Do Not Disturb**" sign on the door(s) to the classroom indicates that an exam is in session. Students must not be permitted to sharpen pencils during the exam sessions. Extra pencils must be available for the students.

REQUIRED EXAM MATERIALS

The testing software should be installed on all computers prior to the start of testing. (Contact the School Assessment Coordinator for more information.) Each student taking the assessment requires a Student Login Ticket (Test Ticket). These Test Tickets will be provided prior to the test administration. There are no other preprinted student test materials used with any Keystone Online Exam. After each administration, return the Test Tickets to the School Assessment Coordinator. Note that every Test Ticket has a unique Username and a unique Password. The Username is the student's PAsecureID.

Keyboard shortcuts are available for students to use. These shortcuts are provided in Appendices H and I and may be copied from this book and reproduced as necessary. The copies of these keyboard shortcuts are considered part of the secure testing materials and must be returned to the School Assessment Coordinator for secure storage and destruction upon completion of the online exam.

ORGANIZE THE EXAM MATERIALS

For the person administering the assessment:

- ☐ One *Online Directions for Administration Manual* (this manual)
- ☐ **Testing—Do Not Disturb** sign(s) to hang on the door(s)
- ☐ A Student Login Roster (includes a Test Ticket for each student taking a Keystone Online Exam)

For each student being tested:

- ☐ A computer terminal with the testing software installed
- ☐ Scratch/grid paper for each module
- ☐ A pencil for use with the scratch/grid paper
- ☐ A Student Login Ticket (Test Ticket)

Optional materials for each student being tested:

- ☐ A copy of the *Keyboard Shortcuts for System* (see Appendix H)
- ☐ A copy of the *Algebra I Constructed-Response Scoring Guidelines* (see Appendix E)
- ☐ Calculators and/or *Online Calculator Shortcuts* for students taking the Algebra I Online Exam (see Appendix I) [2]

[2] Students may use calculators on this exam. Online calculators (including a scientific calculator and a graphing tool) are provided during testing, but students may use their own calculators or calculators provided by the school. (Scientific calculators and graphing calculators are optional but recommended.) **Note: Students may not share calculators during the exam.** For more information, see the *Pennsylvania Calculator Policy* in Appendix I of this manual. This document is also posted on these portals:

- *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
- *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

STUDENT LOGIN TICKETS (TEST TICKETS) AND THE STUDENT LOGIN ROSTER

A Test Ticket contains unique login credentials used by the student to access the testing software. An individual Test Ticket is required to use the online testing system. These Test Tickets are secure materials and must be treated appropriately. The Test Tickets for a given testing session are part of the Student Login Roster. The roster is printed by the School Assessment Coordinator (SAC) and distributed on the day of the test. The roster summarizes test session information such as the administration name, test session name, and the name of the test. In addition, it provides a list of students who are registered as part of a specific test session to participate in a specific test. The Student Login Roster contains a list of tasks that the Test Administrator will perform prior to testing. These Student Login Tasks are included in Appendix G.

Note: The Username on the login ticket is the student's PAsecureID and can be used to verify that each student receives the correct Test Ticket prior to student testing.

TEST MANAGEMENT CONCERNS

Some circumstances during testing require that the Test Administrator consult the School Assessment Coordinator (SAC) or contact the District Assessment Coordinator (DAC). Those instances include, but are not limited to, the following:

- **a student cheating**
- **test security violation**
- **improper test administration**
- **student illness (during testing)**

GENERAL ORGANIZATION OF THE EXAM

The Algebra I Spring 2015 Online Exam consists of **two modules**, and each module must be scheduled as a separate exam session. The School Assessment Coordinator must discuss the schedule with the Test Administrator at least one week prior to the exam dates. Enough time must be scheduled for the preparation of the computers and testing space. Each module is designed to be completed in the same amount of administration time. Administration times provided below are approximate and are supplied for scheduling purposes only.

Course	Module	Multiple-Choice Questions	Constructed-Response Questions	Estimated Time Needed (in minutes)		
				Administrative Tasks	Actual Exam	Total Administration
Algebra I	1	23	4	10–15	75	85–90
Algebra I	2	23	4	10–15	75	85–90

CODE OF CONDUCT FOR TEST TAKERS

The *Code of Conduct for Test Takers* provides students with guidelines that students should follow before, during, and after each assessment. This code of conduct must be reviewed with all students in advance of the testing day. Prior to taking the assessment, students will be asked to darken a circle to indicate that they understand the *Code of Conduct for Test Takers* that has been reviewed with them by their Test Administrator (or teacher). It is important that the *Code of Conduct for Test Takers* is reviewed with all students and all questions are answered such that all students understand each point in this code of conduct.

COMMUNICATE EXAM INFORMATION

During the exam, students are to respond to a specific set of exam questions. The following information must be posted on a chalkboard or dry-erase board during each individual module testing session. Only information about the current exam module (test session) should be posted.

Algebra I Online Exam

Algebra I Module 1
Exam Questions 1–27

Algebra I Module 2
Exam Questions 1–27

- In addition to the above information, also post the **Test Session** name. Students will be asked to confirm the Test Session name when they sign in to an assessment. The Test Session name is printed on the Student Login Roster to be provided by the School Assessment Coordinator on the day of testing.

EXTENDED EXAM TIME

This Keystone Online Exam is an untimed assessment. Not all students will finish the exam at the same time. Students should not feel rushed while they are taking the exam, and no student should be penalized because he or she works slowly. It is equally important, however, to encourage students to work in a timely manner to finish the exam. Students should select the Review/End Test button and follow the onscreen directions when they have finished the assessment. Students who finish early may sit quietly or read for pleasure until all students have finished. Students with special requirements and/or abilities (i.e., physical, visual, auditory, or learning disabilities as defined by their IEP or service contracts) and students who just work slowly may require extended time. Special exam situations should be arranged for these students. When all students have indicated they have finished an exam module, end the module. Students should then return to regular activities.

Students may request extended time if they indicate they have not completed an exam module. Such requests should be granted if the Test Administrator finds the request to be educationally valid. Not permitting ample time for students to complete the exam module may impact performance.

If a student needs to move to a new location to continue the assessment, the student should select the **Pause** button located at the bottom of the screen. As the student has not completed the assessment, he or she should not select **End Test**. For more information, see Appendix F of this manual.

As a general guideline, the exam session should be closed when all students indicate they have finished an exam module.

- All students should complete a module within one school day, and modules must be scheduled so that there is enough time to complete the module within the school day.

In rare circumstances (e.g., illness, emergency), students may be required to complete the module the next day. If a student must continue the module the next day, he or she may use the same Student Login Ticket (Test Ticket) to sign in to the test. However, the Student Login Ticket (Test Ticket) must be **Unlocked** before the student will have access to the test.

- Contact the School Assessment Coordinator for more information if these circumstances occur.
- Students completing the module the next day must be monitored closely to ensure that no previous answers are changed.

Since the Keystone Exams are untimed, there may be instances in which the actual testing times take longer than the recommended testing time. Exam modules must **not** be scheduled back-to-back in the morning (or in the afternoon). Instead, the exam modules must be divided across two days or divided across the morning and afternoon of the same day.

For example, do not schedule both Module 1 and Module 2 testing events to occur during the same morning. Rather, schedule Module 1 testing for a morning and schedule Module 2 testing either the afternoon of the same day or sometime the following day.

Important Reminder: There are certain scenarios for which a student will need to Pause and Exit the test during a session. The most common reason is that a student requires extended testing time and needs to be moved to a different room and computer to finish a session. The only other reasons for students to Pause and Exit are for approved absences from the testing room that span longer than the timeout for test inactivity (e.g., nurse's office for illness/medical attention, unexpected fire drill). The Pause and Exit action must be strictly limited to situations that cannot be avoided or are educationally valid.

The testing room must be closely monitored to ensure that students remain logged in to the assessment at all times. Students who exit and reenter the assessment during the administration of a section without explicit approval are violating test security. Any such violation must be addressed immediately and reported to PDE if it is determined that the student exited the test to access any information to give the student a testing advantage.

PDE has DRC (the test contractor) prepare a report on excessive logins by the same student to an online assessment. Please keep a record of system failures such as the loss of the Internet, etc., in the event an excessive login report regarding any of your students is questioned.

When allowing extended time for an exam session for a portion of the student population:

- **Do not** allow students to attend a lunch period with other students if the lunch period occurs between the original exam session and the extended exam session.
- **Do not** allow students to attend any classes or related activities between the original exam session and the extended exam session.
- **Do not** allow any overnight extensions.
- **Do not** allow students to return to a module after the completion of that module.

Do not allow the extended exam session to be administered without monitoring. It is the responsibility of a Test Administrator to monitor any extended exam session, wherever that session is held.

KEYSTONE EXAMS STUDENT TUTORIALS

The Student Tutorials are designed to be used by students prior to taking any Keystone Online Exam. The tutorials use pictures, motion, and sound to present visual and verbal descriptions of the properties and features of the PA Online Assessment Software. There is a unique tutorial for Algebra I. Each tutorial is an interactive environment that allows students to explore areas of interest within the PA Online Assessment and allows students to explore at their own pace. Although an exhaustive exploration of a tutorial will take about 20 minutes, most students can become knowledgeable about the PA Online Assessment in as little as 10 minutes of exploration. However, additional time should be scheduled for students to review tutorial segments as needed.

- The Student Tutorials can be accessed directly from students' computer desktops by double-clicking on the PA Online Tutorials icon or from the PA eDIRECT Web site (*https://pa.drcedirect.com* under Test Setup / General Information / Test Tutorials). Students should choose the tutorial that relates to the intended exam.
- The tutorial **must** be viewed at least once by all Test Administrators who will supervise any of the Keystone Online Exam administrations.
- The tutorial **must** be viewed at least once by students in advance of their testing day. Allow students to repeat the tutorial as often as desired and needed. There are no restrictions on accessing these tools.
- The narration within the tutorials is included both as spoken audio and as printed captioning displayed directly on the screen, allowing the student to be able to read along as the script is read aloud. It is recommended that headphones be provided for those students who might be going through the tutorial in close quarters.
- Students are encouraged to revisit the tutorials to review specific functionality. They can select specific topics or concepts within a tutorial using the links to specific tools and functions. Overview videos are also available, so students can review an entire grouping of topics.
- Test Administrators are encouraged to explore the overview videos (groupings of topics) and to review specific functionality within the tutorial environment.
- The tutorial should be viewed by a student first, and then the Online Tools Training should occur. *(See the next page of this document for more information about the Online Tools Training.)* Many schools schedule a tutorial session for students and then immediately have the students do the Online Tools Training. This training should be completed before the scheduled test administration day. Experience with and awareness of the Keystone computerized assessment format are essential for a fair and valid student assessment.
- Test Administrators should review the Test Directions that students will have access to during the administration of the assessment. See Appendix D for more information.
- Test Administrators should review Appendix F and become familiar with the software tools and features related to the Pause/Exit Function, Interrupted Testing, and Unplanned Test Inactivity.

TIP: If your school has capacity issues with the computer labs, Test Administrators may lead the students through the Student Tutorials in the regular classroom using an LCD projector and one Internet connection. However, the Online Tools Training will require that students have access to individual computer stations.

KEYSTONE EXAMS ONLINE TOOLS TRAINING

The Online Tools Training (OTT) is designed to provide an introductory experience in preparation for taking a Keystone Online Exam. The purpose of the OTT is for the students to observe and try out features of the PA Online Assessment Software prior to an actual administration. Although the exam questions used for illustration purposes are indicative of the content of a given exam, the OTT is **not** a practice test of the content. That is, the OTT is not designed to demonstrate complete coverage of the tested content, and **it is not scored**. Exam questions have been chosen to demonstrate the features and tools of online testing. The goal is instruction on the use of the computer and not the testing of skill acquisition within any subject. **Remind students that the OTT is designed to allow students to experience taking an exam on a computer and to experiment with the features available to them during an actual exam.**

- Both Test Administrators and students should experience the Online Tools Training before students begin the online exam administration.
- To begin an Online Tools Training, students double-click on the PA Online Assessments icon on their desktop, select Online Tools Training under the Keystone portion of the window, select a content area, and then select a subject. Once the program opens, all students should enter the Username and Password displayed on the sign-in screen. A sample sign-in screen is shown below.

Sample Sign-In Screen for the Algebra I Exam OTT

  - The Username is "OTTAlg1." [1]
  - The Password for each OTT is "ott2468." [1]
- Test Administrators should encourage students to learn to use the testing tools while answering the practice questions. Practice Hints are provided with some test questions. The Practice Hints are a guide to focus student exploration on key tools and features. Practice Hints do not appear in actual exams.
- Test Administrators should review
  - the Test Directions that students will have access to during the exam. See Appendix D for more information.
  - the software tools and features related to the Pause/Exit Function, Interrupted Testing, and Unplanned Test Inactivity. See Appendix F for more information.
- **Remember:** The Online Tools Training is provided so that students can practice using the tools and features of online assessments within the format of the actual assessment. The PA Online Assessment Software will allow the student to finish the test without answering all of the questions.

Test Administrators may help students with questions concerning the Online Tools Training or show them how to use the tools on the Online Tools Training.

[1] Username and Password for all OTT are displayed on the sign-in screen.

ALGEBRA I EXAM ADMINISTRATION REMINDERS

It is important to use standardized exam procedures to maintain fairness for all students. Following the exam administration instructions carefully ensures that all students are tested under similar conditions in all classrooms.

Before exam administration:

- Be sure students have explored the Student Tutorial, have taken the Online Tools Training, and know how to use the tools within the online system—including where and how to mark their answers.
- Review the roster contained within the Student Login Summary, and make certain that all students intended for testing are on the roster. Notify the School Assessment Coordinator if there are errors on the roster.
- Make certain that a Student Login Ticket (Test Ticket) is ready for each student taking the exam. Notify the School Assessment Coordinator if any Student Login Tickets are missing.
- Make certain that students who are to receive the read-aloud accommodation are seated at computers with the text-to-speech software installed.
- Be sure each student has the correct Student Login Ticket (Test Ticket).
- Review the Test Directions that students will have access to during the assessment. See Appendix D for more information.
- Review the software tools and features related to the Pause/Exit Function, Interrupted Testing, and Unplanned Test Inactivity. See Appendix F for more information.
- **Optional:** Prepare copies of the *Keyboard Shortcuts for System* (see Appendix H), the *Online Calculator Shortcuts* (see Appendix I), and the *Algebra I Constructed-Response Scoring Guidelines* used for Algebra I constructed-response questions (see Appendix E).

During exam administration:

- Follow the directions of the School Assessment Coordinator for maintaining exam security.
  - ➢ Be sure that all classroom instructional materials are removed or covered.
- Help students approach the assessment in a positive manner.
- Encourage students to keep trying.
- Help students understand where and how to mark their answers, and clarify directions for students having difficulty. The Test Directions (as they appear online) are printed in Appendix D of this manual. They may be repeated to students as needed during the administration; however, the Test Administrator may not paraphrase, offer additional information, or give information that provides clues concerning test questions or answer choices.
- For issues associated with the software tools and features of the Pause/Exit Function, Interrupted Testing, and Unplanned Test Inactivity, refer to Appendix F.

- **In some places in this manual the Test Administrator will be prompted to reference where specific administration information can be found within the online testing system. You may need to pause to show individual students how to find onscreen information.**
- **Students are not permitted to assist other students with operating the computer or the online tools during the online exam.**
- For the remainder of this manual, **indented text in bold type** is to be read aloud to students exactly as written. All other text is information for the Test Administrator.
- Screen captures included in this manual are intended to help Test Administrators confirm that students are on the correct screen within the online assessment.

When ready to start the exam, the Test Administrator should begin with the section titled "Start the Exam—Code of Conduct for Test Takers" found on the next page of this manual.

START THE EXAM—CODE OF CONDUCT FOR TEST TAKERS

Make sure that each student is sitting at a separate computer, and make sure that each computer is turned on and ready at the desktop. Make sure that no student is in possession of a cell phone, camera, or other electronic device. **Collect all electronic devices prior to distributing any exam materials.**

Say:

> **Welcome to the Pennsylvania Keystone Algebra I Exam. Carefully follow the directions and give this exam your best effort. I will now pass out your Student Login Ticket, or Test Ticket. Do not begin until I tell you to do so.**

Distribute individual Student Login Tickets (Test Tickets). The Test Tickets are unique to each student, so match the correct Test Ticket to each student. When you are ready, say:

> **Each of you now has a Test Ticket. Check to make certain that your name appears on the Test Ticket. Raise your hand if your Test Ticket does not have your name on it.**

Correct any ticket distribution errors. When you are ready, say:

> **Now we are ready to begin. First, double-click on the PA Online Assessments icon on your desktop. You should see the Welcome to Pennsylvania Online Assessments screen. Is there anyone who does not see the Welcome screen?**

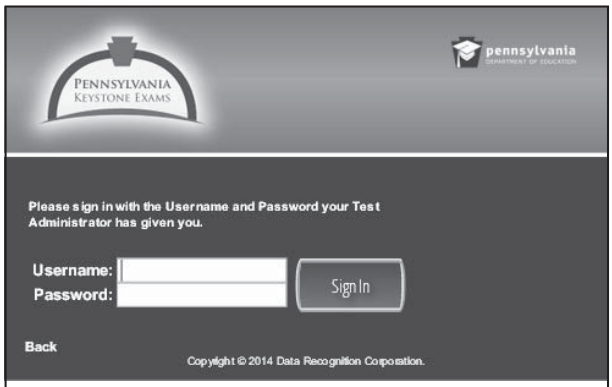
First Welcome Screen with the words "Test Sign In" circled under the Keystone column

Pause to assist students as necessary. If a student receives an error message, note the content of the error message and contact the School Assessment Coordinator. When all students are ready, say:

> **Under the Keystone Exams column on the right side of your screen, click on the words Test Sign In. You should see the Sign-In screen appear. Is there anyone who does not see the Sign-In screen?**

Pause to assist students as necessary. Check to make sure that the Sign-In screen includes the Keystone Exams logo. If a student receives an error message, note the content of the error message and contact the School Assessment Coordinator. When all students are ready, say:

> **You may now enter your Username and Password in the spaces provided on the screen. Your individual Username and Password are found on your Test Ticket. When you have finished entering your Username and Password, click on the Sign In button in the middle of the screen.**



Keystone—Test Sign-In Screen

Pause while students enter their login credentials. Assist students as necessary to enter the information. Remember: Usernames and Passwords are unique to each student.

Note: If any Test Ticket has an error on it, please contact the School Assessment Coordinator. However, in some cases the student should continue using the same Test Ticket anyway. For example:

- The Test Ticket shows a given name rather than a nickname or informal name (e.g., David vs. Dave); as long as the PAsecureID is correct, the student should continue with the same Test Ticket.

When all students are ready, say:

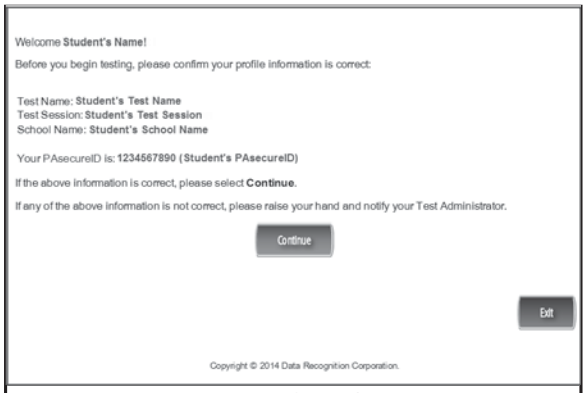
When you have clicked on the Sign In button, a second Welcome screen opens. Is there anyone who does not see the second Welcome screen?

Pause to assist students as necessary. When all students are ready, say:

Look at the information on the Welcome screen and make sure that the following facts about you are correct:

- **Your name**
- **Your test name**
- **Your test session**
- **Your school name**
- **Your PAsecureID**

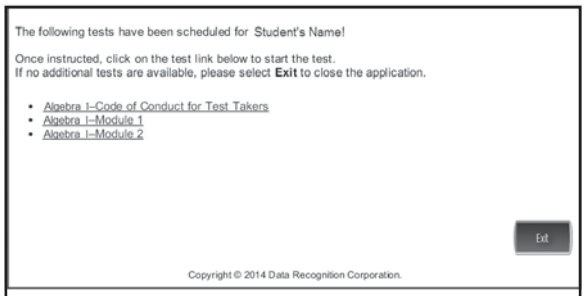
If the information about you is correct, click on the Continue button. If the information is not correct, raise your hand.



Keystone—Second Welcome Screen

Pause to assist students as necessary. Contact your School Assessment Coordinator if a student finds an error on the Welcome screen. When all students are ready, say:

After you have clicked on the Continue button, the Test Selection screen will open. Is there anyone who does not see the Test Selection screen?



Keystone—Test Selection Screen

Pause to assist students as necessary. When all students are ready, say:

We are now ready to begin. Use your mouse pointer to click on the words "Algebra I—Code of Conduct for Test Takers." Once you have clicked on "Algebra I—Code of Conduct for Test Takers," the General Test Directions screen should open. Is there anyone who does not see the General Test Directions screen?

The test session is identified in the upper-left corner of the General Test Directions screen. Check the screens of all devices to confirm that all students are on the *Code of Conduct for Test Takers*. If a student has selected a Module, click on **Pause** and then on **Exit** to return to the Test Sign-In screen to log back in to the exam. Contact the School Assessment Coordinator for guidance on how to allow the student later access to the incorrectly selected session.

Pause to assist students as necessary. When all students are ready, say:

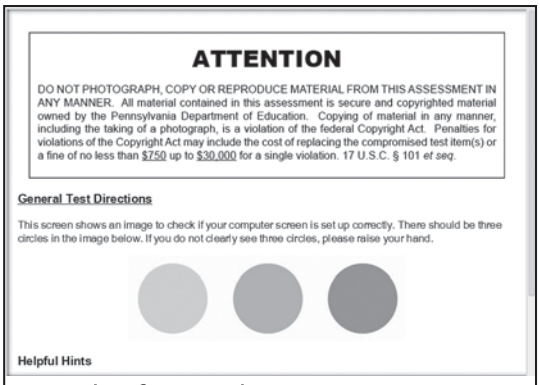
At the top of the screen is a box labeled "ATTENTION." Read the paragraph inside the box now.

Pause for students to read the paragraph. When all students are ready, say:

Are there any questions about this paragraph?

Answer all questions. When students are ready, say:

I will now read the General Test Directions. Read the General Test Directions silently as I read them aloud.



Sample of General Test Directions Screen

General Test Directions

This screen shows an image to check if your computer screen is set up correctly. There should be three circles in the image below. If you do not clearly see three circles, please raise your hand.

Pause to assist students as necessary. Contact the School Assessment Coordinator if a student does not see the three circles. Then say:

I will now read the Helpful Hints. The Helpful Hints are printed below the General Test Directions. Use the scroll bar on the right side to follow along silently as I read the Helpful Hints aloud.

Helpful Hints

- **There is no time limit to finish the test.**
- **Only one question at a time will appear on the screen.**
- **If you need to go away from your computer, click on the Pause button. Click on the Resume button to continue. If you are away from your computer for more than 20 minutes, you will need to log back in.**
- **To see your progress on the test, click on the Review/End Test button. You may go to any question by selecting it from the list that appears on the screen.**
- **Click on the ? [Help] button to find more information.**

Are there any questions about the Helpful Hints?

Answer all questions. When all students are ready, say:

Click on the Begin The Test button at the bottom of the screen.

Pause to assist students as necessary. When all students are ready, say:

Read the statement on your screen as I read it aloud.

"By marking this bubble, I verify that I understand the *Code of Conduct for Test Takers* that my Test Administrator has reviewed with me."

If you understand the *Code of Conduct for Test Takers*, use your mouse pointer to click on the bubble now. If you have questions about the *Code of Conduct for Test Takers*, raise your hand.

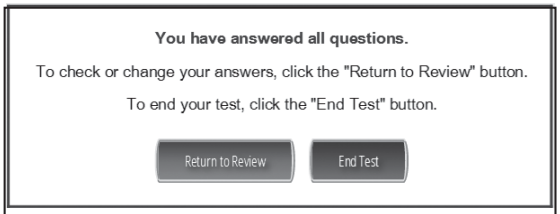
Code of Conduct Screen

Note: The *Code of Conduct for Test Takers* is printed in Appendix B of this manual.

Answer student questions until all understand the *Code of Conduct for Test Takers* and click on the bubble. When students are ready, say:

Click on the Review/End Test button in the bottom-left corner of the screen.

Then click on the End Test button to finish the test section. You will be asked to confirm that you are done.

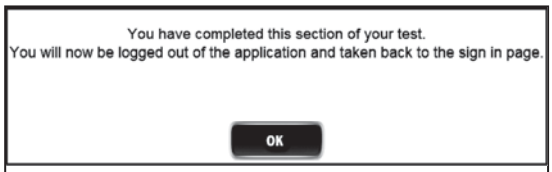


End Test Confirmation Screen
(for students who have completed all items)

Note: Once the student has clicked on the End Test button, the student must provide a confirmation that he or she is finished. If the student has left the item incomplete, the End Test Confirmation Screen will read "Please be sure you have answered all of the questions. To continue testing, click the Return to Review button. To end your test, click the End Test button." Once the student has clicked through, the student cannot go back into the test section to review the statement or indicate that the student understands the *Code of Conduct for Test Takers*.

When all students have finished, say:

When you have clicked on the End Test button, a confirmation screen opens indicating you have completed this test section. Click on OK to return to the Test Sign-In screen. Is there anyone who does not see the Test Sign-In screen?



Finished Testing Confirmation Screen

Allow time for students to click through to reach the Test Sign-In screen. Say:

You are now going to take Module 1.

Continue with the next section found on the next page of this manual.

ADMINISTER THE ALGEBRA I EXAM—MODULE 1

Make sure that each student is sitting at a separate computer, and make sure that each computer is turned on and ready at the desktop. Make sure that no student is in possession of a cell phone, camera, or other electronic device. **Collect all electronic devices prior to distributing any exam materials.** Students will have an opportunity to do some work on scratch/grid paper, so make sure that all students have a pencil. These directions will also prompt you to distribute a supply of scratch/grid paper.

Say:

Welcome to the Pennsylvania Keystone Algebra I Exam. We are now ready to begin Module 1. Carefully follow the directions and give this exam your best effort.

Formulas that you may need to solve questions in this module are found by clicking on the References button in the online test. You may refer to the formulas any time during the exam.

You may use a calculator on this module. Calculators are included with the exam questions. When performing operations with π (pi), you may use either calculator π or the number 3.14.

There are two types of questions in each module.

Multiple-choice questions will ask you to select an answer from among four choices.

- **First read the question and solve the problem. Then choose the correct answer and record your choice.**
- **Only one of the answers provided is correct.**
- **If none of the choices matches your answer, go back and check your work for possible errors.**

Constructed-response questions require that you type your response.

- **These questions have more than one part. Be sure to read the directions carefully.**
- **You cannot receive the highest score for a constructed-response question without following all directions.**
- **If the question asks you to show your work or explain your reasoning, be sure to show your work or explain your reasoning. However, not all questions will require that you show your work or explain your reasoning.**
- **All responses must be typed in the appropriate response box. Some answers may require graphing, plotting, labeling, drawing, or shading.**

I will now pass out scratch/grid paper. Do not begin until I tell you to do so.

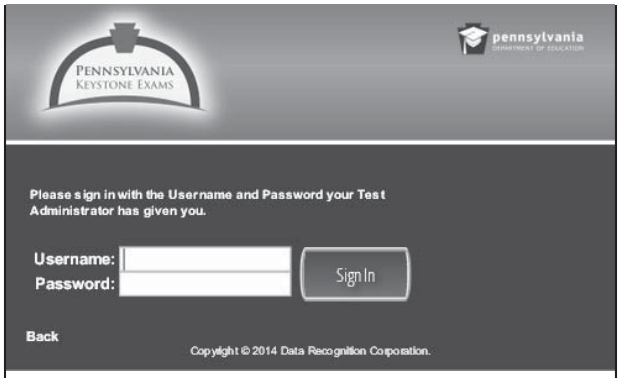
Distribute scratch/grid paper. When you are ready, say:

Now we are ready to begin.

You should see the Sign-In screen. Is there anyone who does not see the Sign-In screen?

Pause to assist students as necessary. Check to make sure that the Sign-In screen includes the Keystone Exams logo. If a student receives an error message, note the content of the error message and contact the School Assessment Coordinator. When all students are ready, say:

You may now enter your Username and Password in the spaces provided on the screen. Your individual Username and Password are found on your Test Ticket. When you have finished entering your Username and Password, click on the Sign In button in the middle of the screen.



Keystone—Test Sign-In Screen

Pause while students enter their login credentials. Assist students as necessary to enter the information. Remember: Usernames and Passwords are unique to each student.

Note: If any Test Ticket has an error on it, please contact the School Assessment Coordinator. However, in some cases the student should continue using the same Test Ticket anyway. For example:

- The Test Ticket shows a given name rather than a nickname or informal name (e.g., David vs. Dave); as long as the PAsecureID is correct, the student should continue with the same Test Ticket.

When all students are ready, say:

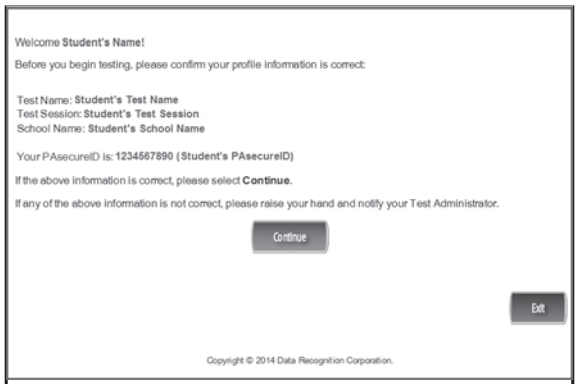
When you have clicked on the Sign In button, a second Welcome screen opens. Is there anyone who does not see the second Welcome screen?

Pause to assist students as necessary. When all students are ready, say:

Look at the information on the Welcome screen and make sure that the following facts about you are correct:

- **Your name**
- **Your test name**
- **Your test session**
- **Your school name**
- **Your PAsecureID**

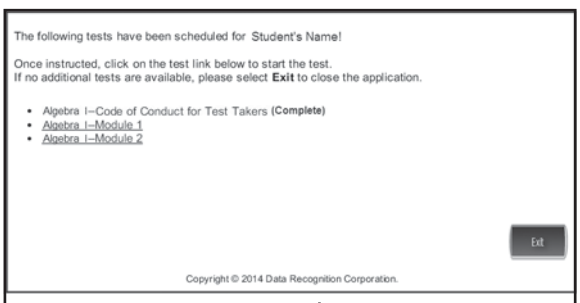
If the information about you is correct, click on the Continue button. If the information is not correct, raise your hand.



Keystone—Second Welcome Screen

Pause to assist students as necessary. Contact your School Assessment Coordinator if a student finds an error on the Welcome screen. When all students are ready, say:

After you have clicked on the Continue button, the Test Selection screen will open. Is there anyone who does not see the Test Selection screen?



Keystone—Test Selection Screen

Pause to assist students as necessary. When all students are ready, say:

We are now ready to begin the test. Use your mouse pointer to click on the words "Algebra I—Module 1." Once you have clicked on "Algebra I—Module 1," the General Test Directions screen should open. Is there anyone who does not see the General Test Directions screen for Module 1?

The Module number appears in the upper-left corner of the Test Directions screen. Check the screens of all devices to confirm that all students are on Module 1. If a student has selected Module 2, click on **Pause** and then on **Exit** to return to the Test Sign-In screen to log back in to the exam. Contact the School Assessment Coordinator for guidance on how to allow the student later access to the incorrectly selected module.

Pause to assist students as necessary. When all students are ready, say:

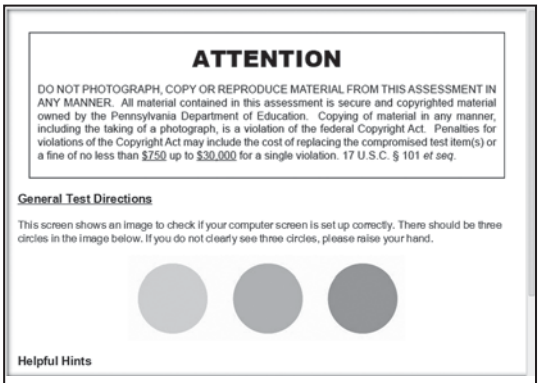
At the top of the screen is a box labeled "ATTENTION." Read the paragraph inside the box now.

Pause for students to read the paragraph. When all students are ready, say:

Are there any questions about this paragraph?

Answer all questions. When students are ready, say:

I will now read the General Test Directions. Read the General Test Directions silently as I read them aloud.



Sample of General Test Directions Screen

General Test Directions

This screen shows an image to check if your computer screen is set up correctly. There should be three circles in the image below. If you do not clearly see three circles, please raise your hand.

Pause to assist students as necessary. Contact the School Assessment Coordinator if a student does not see the three circles. Then say:

I will now read the Helpful Hints. The Helpful Hints are printed below the General Test Directions. Use the scroll bar on the right side to follow along silently as I read the Helpful Hints aloud.

Helpful Hints

- **There is no time limit to finish the test.**
- **Only one question at a time will appear on the screen.**
- **If you need to go away from your computer, click on the Pause button. Click on the Resume button to continue. If you are away from your computer for more than 20 minutes, you will need to log back in.**
- **To see your progress on the test, click on the Review/End Test button. You may go to any question by selecting it from the list that appears on the screen.**
- **Click on the ? [Help] button to find more information.**

Are there any questions about the Helpful Hints?

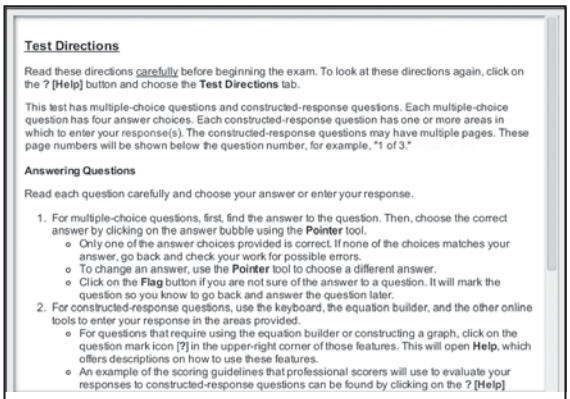
Note: The General Test Directions and Helpful Hints (as they appear online) are printed in Appendix D of this manual. If asked, refer to this appendix to repeat any portion to students during the test administration.

Answer all questions. When all students are ready, say:

Click on the Next button at the bottom of the screen.

Pause to assist students as necessary. When all students are ready, say:

I will now read the Test Directions. Read the Test Directions silently as I read them aloud. Use the scroll bar on the right side to follow along.


Test Directions

Read these directions carefully before beginning the exam. To look at these directions again, click on the ? [Help] button and choose the Test Directions tab.

This test has multiple-choice questions and constructed-response questions. Each multiple-choice question has four answer choices. Each constructed-response question has one or more areas in which to enter your response(s). The constructed-response questions may have multiple pages. These page numbers will be shown below the question number, for example, "1 of 3."

Answering Questions

Read each question carefully and choose your answer or enter your response.

1. For multiple-choice questions, first, find the answer to the question. Then, choose the correct answer by clicking on the answer bubble using the Pointer tool.
   - Only one of the answer choices provided is correct. If none of the choices matches your answer, go back and check your work for possible errors.
   - To change an answer, use the Pointer tool to choose a different answer.
   - Click on the Flag button if you are not sure of the answer to a question. It will mark the question so you know to go back and answer the question later.
2. For constructed-response questions, use the keyboard, the equation builder, and the other online tools to enter your response in the areas provided.
   - For questions that require using the equation builder or constructing a graph, click on the question mark icon [?] in the upper-right corner of those features. This will open Help, which offers descriptions on how to use these features.
   - An example of the scoring guidelines that professional scorers will use to evaluate your responses to constructed-response questions can be found by clicking on the ? [Help]

Sample of a Test Directions Screen

Test Directions

Read these directions carefully before beginning the exam. To look at these directions again, click on the ? [Help] button and choose the Test Directions tab.

This test has multiple-choice questions and constructed-response questions. Each multiple-choice question has four answer choices. Each constructed-response question has one or more areas in which to enter your response(s). The constructed-response questions may have multiple pages. These page numbers will be shown below the question number, for example, "1 of 3."

Answering Questions

Read each question carefully and choose your answer or enter your response.

1. **For multiple-choice questions, first, find the answer to the question. Then, choose the correct answer by clicking on the answer bubble using the Pointer tool.**
   - **Only one of the answer choices provided is correct. If none of the choices matches your answer, go back and check your work for possible errors.**
   - **To change an answer, use the Pointer tool to choose a different answer.**
   - **Click on the Flag button if you are not sure of the answer to a question. It will mark the question so you know to go back and answer the question later.**
2. **For constructed-response questions, use the keyboard, the equation builder, and the other online tools to enter your response in the areas provided.**
   - **For questions that require using the equation builder or constructing a graph, click on the question mark icon [?] in the upper-right corner of those features. This will open Help, which offers descriptions on how to use these features.**
   - **An example of the scoring guidelines that professional scorers will use to evaluate your responses to constructed-response questions can be found by clicking on the ? [Help] button and choosing the Scoring tab. You may refer to the Scoring Guidelines at any time while responding to constructed-response questions.**
3. **Use tools such as the Cross-Off, Highlighter, Sticky Note, Magnifier, Line Guide, Calculator, Graphing Tool, and Formula Sheet to assist you during the test.**

Continue reading aloud:

Navigation

1. **Use the Next and Back buttons to move from question to question or page to page.**
2. **Finally, when you have answered all the questions, click on the Review/End Test button at the bottom of the screen.**
   - **You may check your work by selecting questions from the list that appears on the screen.**
   - **When you have finished and have checked your answers, follow the directions on the screen to exit.**

Are there any questions about the Test Directions?

Note: The Test Directions (as they appear online) are printed in Appendix D of this manual. If asked, refer to this appendix to repeat any portion of these Test Directions to students during the test administration.

Answer all questions. When all students are ready, say:

Remember: For each multiple-choice question, be sure to click on the circle next to the answer choice you select. For each constructed-response question, be sure to answer each part. Continue working until you complete all of the questions. When you reach the end of the test, click on the Review/End Test button and follow the onscreen directions to review your test. After you have checked your work, you may click on the End Test button and follow the onscreen instructions to complete your test. You may then read or sit quietly until everyone has finished.

Are there any questions?

Answer all questions. When all students are ready, say:

To start the test, click on the Begin The Test button at the bottom of the screen. Remember to click on the Pause button if you need to pause your test for any reason.

You may begin.

While students are taking the exam, be available as a resource. Do not give any individual or group help that might suggest the correct answer to a question. Do not communicate to a student that the student should "check" an answer or that the student has answered an item incorrectly. You may, however, provide clarification of directions and assist students to functionally operate their computers. The Test Directions (as they appear online) are printed in Appendix D of this manual. They may be repeated to students as needed during the administration.

Reminder about *Software Tools and Features for Test Administrators* (see Appendix F) that you may need to use during the test administration:

- Pause/Exit Function: Temporary, short breaks (e.g., restroom break)
- Interrupted Testing: Emergency issues (e.g., local alarms, electrical outages)
- Unplanned Test Inactivity: More than 20 minutes of no input from the student

Sometimes a word of encouragement is all that is needed to help a student continue to work. Encourage students to try all of the tasks and to complete the assessment.

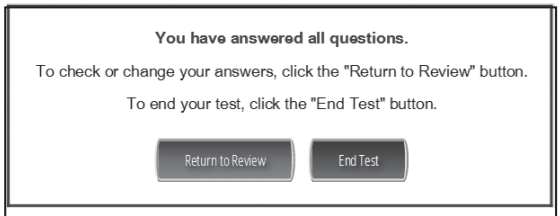
Keyboard shortcuts (including those for the Online Calculators) are available for students to use. These shortcuts (provided in Appendices H and I) may be copied from this book and reproduced as necessary. The copies of these keyboard shortcuts are considered part of the secure testing materials and must be returned to the School Assessment Coordinator for secure storage and destruction.

Note: In the event of a temporary loss of Internet connectivity, wait a few minutes and then try again to complete the test. If the problem persists, consult the School Assessment Coordinator.

The testing time for this module is estimated at 75 minutes, but the actual administration time may vary. Since each student is to be provided sufficient time to finish the exam, additional time may be allowed on an individual basis if one or more students are continuing to make reasonable progress on the exam. End the session only when all students have completed all questions or when you determine that additional time is not necessary. For more information about Extended Exam Time, see Part II of this document. When you have confirmed that approximately five minutes remain in the exam time for the group not yet finished with this exam module, say:

You have about five minutes to complete Module 1. Be sure to click on the Review/End Test button in the bottom-left corner of the screen.

Then click on the End Test button to finish the test. You will be asked to confirm that you are done. If you have flagged any test questions, be sure to complete your review of those questions before you click on End Test. If you think you might need more than five minutes, raise your hand.

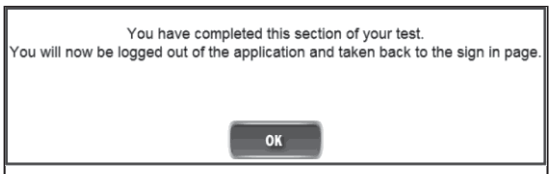


End Test Confirmation Screen
(for students who have completed all items)

Note: Once the student has clicked on the End Test button, the student must provide a confirmation that he or she is finished. If the student has left one or more items incomplete, the End Test Confirmation Screen will read "Please be sure you have answered all of the questions. To continue testing, click the Return to Review button. To end your test, click the End Test button." Once the student has clicked through, the student cannot go back in to the test to review or answer test questions.

When all students have finished, or sufficient time has passed, say:

This ends Module 1 of the Algebra I Online Keystone Exam. If you have not done so already, click on Review/End Test and click on End Test. Then click on End Test again, confirming that you are done. Then click OK on the last screen to close the test.



Finished Testing Confirmation Screen

Allow time for students to click through to finish the test. When all students are ready, say:

I will now collect your Test Ticket and your scratch paper and grid paper.

Collect all Test Tickets and scratch/grid paper at this time. If students used optional materials like the keyboard and/or calculator shortcuts or the Algebra I scoring guidelines, collect these at this time. Student Login Tickets (Test Tickets), used scratch/grid paper, and all optional materials must be returned to the School Assessment Coordinator. All calculators used during the exam must be cleared of any information entered during this module. **Note:** If students used school-provided calculators, also collect the calculators.

If you are administering Module 2 later in the same day, say:

You are going to take Module 2 later today.

If you are administering Module 2 on a different day [*you may specify the day*], say:

You are going to take Module 2 on [a different day *or say the name of the day*]**.**

Return all materials (Test Tickets, used scratch/grid paper, and any optional materials) immediately to the School Assessment Coordinator for secure storage.

ADMINISTER THE ALGEBRA I EXAM—MODULE 2

Make sure that each student is sitting at a separate computer, and make sure that each computer is turned on and ready at the desktop. Make sure that no student is in possession of a cell phone, camera, or other electronic device. **Collect all electronic devices prior to distributing any exam materials.** Students will have an opportunity to do some work on scratch/grid paper, so make sure that all students have a pencil. These directions will also prompt you to distribute a supply of scratch/grid paper.

Say:

Welcome back to the Pennsylvania Keystone Algebra I Exam. We are now ready to begin Module 2. Carefully follow the directions and give this exam your best effort.

Formulas that you may need to solve questions in this module are found by clicking on the References button in the online test. You may refer to the formulas any time during the exam.

You may use a calculator on this module. Calculators are included with the exam questions. When performing operations with π (pi), you may use either calculator π or the number 3.14.

There are two types of questions in each module.

Multiple-choice questions will ask you to select an answer from among four choices.

- **First read the question and solve the problem. Then choose the correct answer and record your choice.**
- **Only one of the answers provided is correct.**
- **If none of the choices matches your answer, go back and check your work for possible errors.**

Constructed-response questions require that you type your response.

- **These questions have more than one part. Be sure to read the directions carefully.**
- **You cannot receive the highest score for a constructed-response question without following all directions.**
- **If the question asks you to show your work or explain your reasoning, be sure to show your work or explain your reasoning. However, not all questions will require that you show your work or explain your reasoning.**
- **All responses must be typed in the appropriate response box. Some answers may require graphing, plotting, labeling, drawing, or shading.**

I will now pass out scratch/grid paper and your Student Login Ticket, or Test Ticket. Do not begin until I tell you to do so.

Distribute scratch/grid paper and individual Student Login Tickets (Test Tickets). The Test Tickets are unique to each student, so match the correct Test Ticket to each student. When you are ready, say:

Each of you now has a Test Ticket. Check to make certain that your name appears on the Test Ticket. Raise your hand if your Test Ticket does not have your name on it.

Correct any ticket distribution errors. When you are ready, say:

Now we are ready to begin. Double-click on the PA Online Assessments icon on your desktop. You should see the Welcome to Pennsylvania Online Assessments screen. Is there anyone who does not see the Welcome screen?

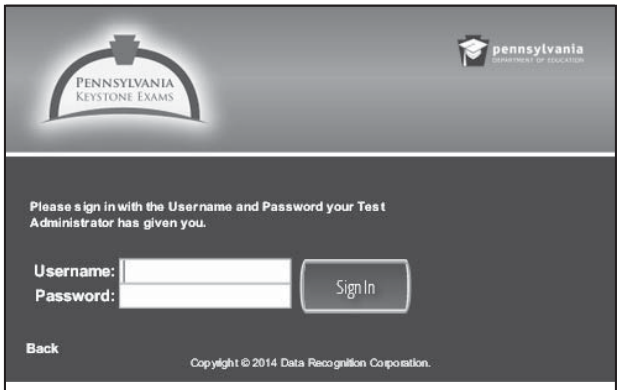
First Welcome Screen with the words "Test Sign In" circled under the Keystone column

Pause to assist students as necessary. If a student receives an error message, note the content of the error message and contact the School Assessment Coordinator. When all students are ready, say:

Under the Keystone Exams column on the right side of your screen, click on the words Test Sign In. You should see the Sign-In screen appear. Is there anyone who does not see the Sign-In screen?

Pause to assist students as necessary. Check to make sure that the Sign-In screen includes the Keystone Exams logo. If a student receives an error message, note the content of the error message and contact the School Assessment Coordinator. When all students are ready, say:

You may now enter your Username and Password in the spaces provided on the screen. Your individual Username and Password are found on your Test Ticket. When you have finished entering your Username and Password, click on the Sign In button in the middle of the screen.



Keystone—Test Sign-In Screen

Pause while students enter their login credentials. Assist students as necessary to enter the information. Remember: Usernames and Passwords are unique to each student.

Note: If any Test Ticket has an error on it, please contact the School Assessment Coordinator. However, in some cases the student should continue using the same Test Ticket anyway. For example:

- The Test Ticket shows a given name rather than a nickname or informal name (e.g., David vs. Dave); as long as the PAsecureID is correct, the student should continue with the same Test Ticket.

When all students are ready, say:

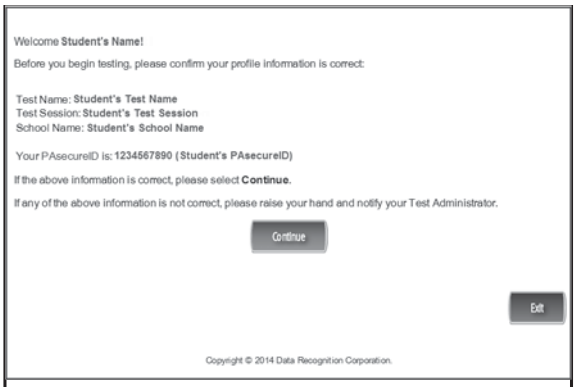
When you have clicked on the Sign In button, a second Welcome screen opens. Is there anyone who does not see the second Welcome screen?

Pause to assist students as necessary. When all students are ready, say:

Look at the information on the Welcome screen and make sure that the following facts about you are correct:

- **Your name**
- **Your test name**
- **Your test session**
- **Your school name**
- **Your PAsecureID**

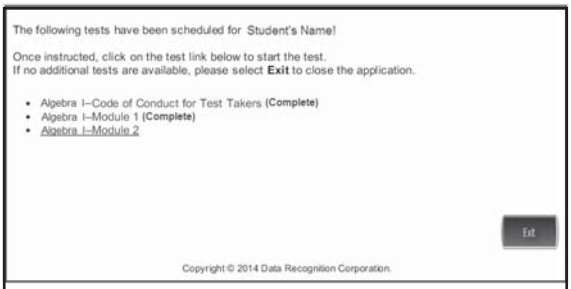
If the information about you is correct, click on the Continue button. If the information is not correct, raise your hand.



Keystone—Second Welcome Screen

Pause to assist students as necessary. Contact your School Assessment Coordinator if a student finds an error on the Welcome screen. When all students are ready, say:

After you have clicked on the Continue button, the Test Selection screen will open. Is there anyone who does not see the Test Selection screen?



Keystone—Test Selection Screen

Pause to assist students as necessary. When all students are ready, say:

We are now ready to begin the test. Use your mouse pointer to click on the words "Algebra I—Module 2." Once you have clicked on "Algebra I—Module 2," the General Test Directions screen should open. Is there anyone who does not see the General Test Directions screen for Module 2?

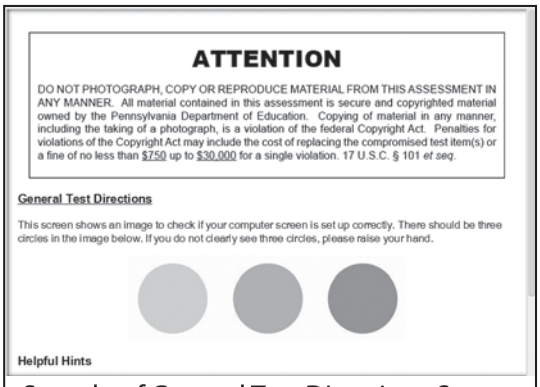
The Module number appears in the upper-left corner of the Test Directions screen. Check the screens of all devices to confirm that all students are on Module 2. If a student has selected Module 1, click on **Pause** and then on **Exit** to return to the Test Sign-In screen to log back in to the exam. Contact the School Assessment Coordinator for guidance on how to allow the student later access to the incorrectly selected module.

Pause to assist students as necessary. When all students are ready, say:

At the top of the screen is a box labeled "ATTENTION." Read the paragraph inside the box now.

Pause for students to read the paragraph. When all students are ready, say:

Are there any questions about this paragraph?



Sample of General Test Directions Screen

Answer all questions. When students are ready, say:

I will now read the General Test Directions. Read the General Test Directions silently as I read them aloud.

General Test Directions

This screen shows an image to check if your computer screen is set up correctly. There should be three circles in the image below. If you do not clearly see three circles, please raise your hand.

Pause to assist students as necessary. Contact the School Assessment Coordinator if a student does not see the three circles. Then say:

I will now read the Helpful Hints. The Helpful Hints are printed below the General Test Directions. Use the scroll bar on the right side to follow along silently as I read the Helpful Hints aloud.

Helpful Hints

- **There is no time limit to finish the test.**
- **Only one question at a time will appear on the screen.**
- **If you need to go away from your computer, click on the Pause button. Click on the Resume button to continue. If you are away from your computer for more than 20 minutes, you will need to log back in.**
- **To see your progress on the test, click on the Review/End Test button. You may go to any question by selecting it from the list that appears on the screen.**
- **Click on the ? [Help] button to find more information.**

Are there any questions about the Helpful Hints?

Note: The General Test Directions and Helpful Hints (as they appear online) are printed in Appendix D of this manual. If asked, refer to this appendix to repeat any portion to students during the test administration.

Answer all questions. When all students are ready, say:

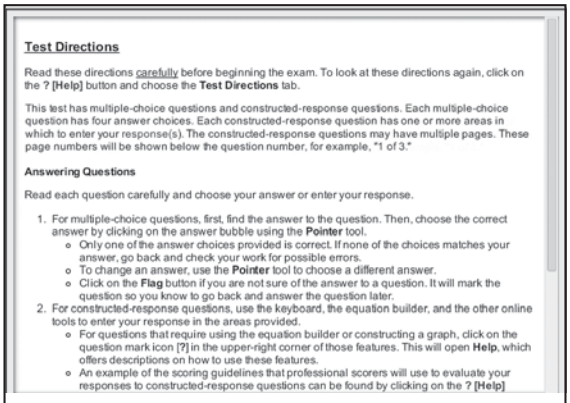
Click on the Next button at the bottom of the screen.

Pause to assist students as necessary. When all students are ready, say:

I will now read the Test Directions. Read the Test Directions silently as I read them aloud. Use the scroll bar on the right side to follow along.

Test Directions

Read these directions carefully before beginning the exam. To look at these directions again, click on the ? [Help] button and choose the Test Directions tab.



Test Directions

Read these directions carefully before beginning the exam. To look at these directions again, click on the ? [Help] button and choose the Test Directions tab.

This test has multiple-choice questions and constructed-response questions. Each multiple-choice question has four answer choices. Each constructed-response question has one or more areas in which to enter your response(s). The constructed-response questions may have multiple pages. These page numbers will be shown below the question number, for example, "1 of 3."

Answering Questions

Read each question carefully and choose your answer or enter your response.

1. For multiple-choice questions, first, find the answer to the question. Then, choose the correct answer by clicking on the answer bubble using the Pointer tool.
   - Only one of the answer choices provided is correct. If none of the choices matches your answer, go back and check your work for possible errors.
   - To change an answer, use the Pointer tool to choose a different answer.
   - Click on the Flag button if you are not sure of the answer to a question. It will mark the question so you know to go back and answer the question later.
2. For constructed-response questions, use the keyboard, the equation builder, and the other online tools to enter your response in the areas provided.
   - For questions that require using the equation builder or constructing a graph, click on the question mark icon [?] in the upper-right corner of those features. This will open Help, which offers descriptions on how to use these features.
   - An example of the scoring guidelines that professional scorers will use to evaluate your responses to constructed-response questions can be found by clicking on the ? [Help]

Sample of a Test Directions Screen

Continue reading aloud:

This test has multiple-choice questions and constructed-response questions. Each multiple-choice question has four answer choices. Each constructed-response question has one or more areas in which to enter your response(s). The constructed-response questions may have multiple pages. These page numbers will be shown below the question number, for example, "1 of 3."

Answering Questions

Read each question carefully and choose your answer or enter your response.

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3. **Use tools such as the Cross-Off, Highlighter, Sticky Note, Magnifier, Line Guide, Calculator, Graphing Tool, and Formula Sheet to assist you during the test.**

Navigation

1. **Use the Next and Back buttons to move from question to question or page to page.**
2. **Finally, when you have answered all the questions, click on the Review/End Test button at the bottom of the screen.**
   - **You may check your work by selecting questions from the list that appears on the screen.**
   - **When you have finished and have checked your answers, follow the directions on the screen to exit.**

Are there any questions about the Test Directions?

Note: The Test Directions (as they appear online) are printed in Appendix D of this manual. If asked, refer to this appendix to repeat any portion of these Test Directions to students during the test administration.

Answer all questions. When all students are ready, say:

Remember: For each multiple-choice question, be sure to click on the circle next to the answer choice you select. For each constructed-response question, be sure to answer each part. Continue working until you complete all of the questions. When you reach the end of the test, click on the Review/End Test button and follow the onscreen directions to review your test. After you have checked your work, you may click on the End Test button and follow the onscreen instructions to complete your test. You may then read or sit quietly until everyone has finished.

Are there any questions?

Answer all questions. When all students are ready, say:

To start the test, click on the Begin The Test button at the bottom of the screen. Remember to click on the Pause button if you need to pause your test for any reason.

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- Unplanned Test Inactivity: More than 20 minutes of no input from the student

Sometimes a word of encouragement is all that is needed to help a student continue to work. Encourage students to try all of the tasks and to complete the assessment.

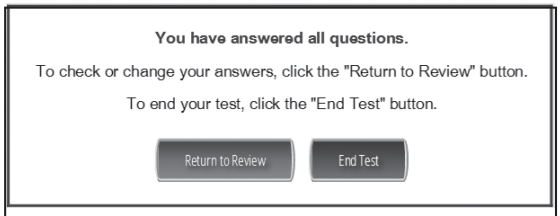
Keyboard shortcuts (including those for the Online Calculators) are available for students to use. These shortcuts (provided in Appendices H and I) may be copied from this book and reproduced as necessary. The copies of these keyboard shortcuts are considered part of the secure testing materials and must be returned to the School Assessment Coordinator for secure storage and destruction.

Note: In the event of a temporary loss of Internet connectivity, wait a few minutes and then try again to complete the test. If the problem persists, consult the School Assessment Coordinator.

The testing time for this module is estimated at 75 minutes, but the actual administration time may vary. Since each student is to be provided sufficient time to finish the exam, additional time may be allowed on an individual basis if one or more students are continuing to make reasonable progress on the exam. End the session only when all students have completed all questions or when you determine that additional time is not necessary. For more information about Extended Exam Time, see Part II of this document. When you have confirmed that approximately five minutes remain in the exam time for the group not yet finished with this exam module, say:

You have about five minutes to complete Module 2. Be sure to click on the Review/End Test button in the bottom-left corner of the screen.

Then click on the End Test button to finish the test. You will be asked to confirm that you are done. If you have flagged any test questions, be sure to complete your review of those questions before you click on End Test. If you think you might need more than five minutes, raise your hand.

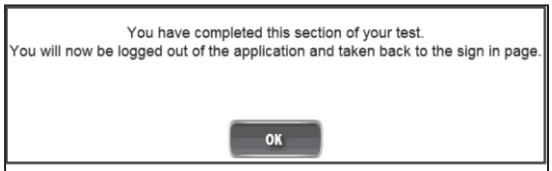


End Test Confirmation Screen
(for students who have completed all items)

Note: Once the student has clicked on the End Test button, the student must provide a confirmation that he or she is finished. If the student has left one or more items incomplete, the End Test Confirmation Screen will read "Please be sure you have answered all of the questions. To continue testing, click the Return to Review button. To end your test, click the End Test button." Once the student has clicked through, the student cannot go back into the test to review or answer test questions.

When all students have finished, or sufficient time has passed, say:

This ends Module 2 of the Algebra I Online Keystone Exam. If you have not done so already, click on Review/End Test and click on End Test. Then click on End Test again, confirming that you are done. Then click OK on the last screen to close the test.



Finished Testing Confirmation Screen

Allow time for students to click through to finish the test. When all students are ready, say:

I will now collect your Test Ticket and your scratch paper and grid paper.

Collect all Test Tickets and scratch/grid paper at this time. If students used optional materials like the keyboard and/or calculator shortcuts or the Algebra I scoring guidelines, collect these at this time. Student Login Tickets (Test Tickets), used scratch/grid paper, and all optional materials must be returned to the School Assessment Coordinator. All calculators used during the exam must be cleared of any information entered during this module.
Note: If students used school-provided calculators, also collect the calculators. Say:

This concludes the Algebra I Online Keystone Exam.

Go on to read the section labeled "After Exam Administration" found on the next page of this manual.

CLOSING OUT THE EXAM

After testing is complete:

- Make sure all students have closed out their testing session by
  1. clicking on "Review/End Test" (to open the Test Review Screen), followed by
  2. clicking on "End Test" (to open the test submission dialog box), then
  3. clicking on "End Test" [again] (to complete the test, confirming that once the test is ended the student is unable to change his or her answers), and then
  4. clicking on "OK" (to close the Test Session).

- Collect Test Tickets and any scratch/grid paper or optional materials. Return them to the School Assessment Coordinator.

Note: In the event of a temporary loss of Internet connectivity, wait a few minutes and then try again to complete the test. If the problem persists, consult the School Assessment Coordinator.

RETURN MATERIALS

Test materials must be kept secure. The Student Login Tickets (Test Tickets) (including any unused Test Tickets) and the Student Login Roster must be returned to the School Assessment Coordinator. In addition, all used scratch/grid paper and any copies of the keyboard shortcuts or online calculator shortcuts must be returned to the School Assessment Coordinator.

- Return all materials to the School Assessment Coordinator for secure storage, including the following:
  - Used Student Login Tickets
  - Unused Student Login Tickets
  - Student Login Rosters
  - Copies of the *Keyboard Shortcuts for System* (Appendix H)
  - Copies of the *Online Calculator Shortcuts* (Appendix I)
  - Copies of the *General Description of Scoring Guidelines* (Appendix E)
  - This manual
  - Used scratch/grid paper

- Return all assessment materials to the School Assessment Coordinator immediately at the end of each exam session.

- Consult the School Assessment Coordinator if there are any questions regarding the return of assessment materials.

Remember: Every Test Administrator involved in the administration of this Keystone Exam must sign and date a *Test Administrator/Proctor Test Security Certification*. When a Test Administrator signs and dates the Test Security Certification, that person certifies that all security measures have been followed for this Keystone Exam administration. Test Administrators should return the signed and dated *Test Administrator/Proctor Test Security Certification* to the School Assessment Coordinator upon completion of the last testing session.

NOTE: If an assessment security violation is suspected, contact the School Assessment Coordinator or the Pennsylvania Department of Education [(717) 787-4234] immediately.

NOTE: The School Assessment Coordinator has all information on returning assessment materials to Data Recognition Corporation (DRC).

pennsylvania
DEPARTMENT OF EDUCATION

ETHICAL STANDARDS OF TEST ADMINISTRATION

Before Test Administration:

DO…

- Communicate to students, parents, and the community what the test does and does not measure, when and how it will be administered, and how the results will be used.
- Maintain a positive attitude about testing.
- Teach to the Pennsylvania Core Standards.
- Review skills, strategies, and concepts previously taught.
- Integrate teaching of test-taking skills with regular classroom instruction and assessment. Examples of test-taking skills include responding to both multiple-choice and constructed-response (open-ended) items.
- Be sure that students testing online have prior experience with the online practice test that models the testing mode (online) and its tools.
- Use any test preparation documents provided by the Pennsylvania Department of Education including *Item and Scoring Samplers* and *General Scoring Guidelines*.
- Read the *Directions for Administration Manual*.
- Follow test security and administration guidelines.
- Consider having a teacher, other than the teacher of record, administer the assessment to a particular group of students. If local circumstances do not allow that option, assign a Proctor in the classroom with the Test Administrator.
- Schedule the assessment.
- Include all students in the appropriate assessment.
- Attend the annual training for the administration of the assessments in order to be properly informed of the procedures to follow. This training includes understanding test security and the confidential and proprietary nature of the documents.
- Make contingency plans for unexpected disruptions during testing. All school personnel must know what to do in the event of a fire alarm, bomb threat, HAZMAT incident, unruly student, etc.
- Remove or disable monitoring software (spyware) from computers, iPads, and Chromebooks to be used for testing.
- Cover or remove from classrooms or hallways all instructional materials that could aid students in answering test items.
- Make sure the testing environment is comfortable and has appropriate lighting.
- Ensure students are seated at the correct workstation for an online test administration.
- Review the Code of Conduct for Test Takers with students.
- Review the Calculator Policy. Clear the memory and all stored programs before and after the calculators are used for a test.
- Make sure calculators (other than calculators provided within the online testing engine) meet the requirements of the Calculator Policy.
- Know the required accommodations for each student with an IEP or 504 Service Plan and for each English Language Learner being assessed.
- Review with students the possible local sanctions the district will enforce for student misconduct (e.g., cheating and recording test questions).

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DO NOT…

- Teach students a test-taking technique that would require them to bubble more than one response to a test question and then return and erase all but one response.
- Review student test booklets except for purposes as stated in the *Directions for Administration Manual* and any of the accommodations guidelines documents. Knowledge or review of test content is not necessary for valid test administration and is prohibited.

  Note: Interpreters may have access to test materials three days prior to test administration to prepare for accurate interpretation of the test.
- Reveal any part of secure copyrighted tests to students.
- Copy or otherwise reproduce any part of secure tests.
- Review and/or provide answers to test questions to students.
- Possess unauthorized copies of state tests.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

<u>During Test Administration:</u>

DO…

- Follow test security and administration guidelines.
- Continually move around the testing site to ensure students are adhering to the instructions given.
- During active monitoring ensure that students are working in the correct section and that they are bubbling in answers in the correct section of the answer sheet for the section of the test booklet in which they are working. Be cautious in redirecting or assisting students that you are not violating test security by coaching (see DO NOT list on the next page).
- Make sure students are supervised at all times during testing and all breaks. This supervision requirement includes those students who need additional time to complete any test session.
- Escort all students and carry all secure testing materials to alternate testing sites for extended time, etc.
- Maintain a positive attitude about testing.
- Make sure that sections/modules are started and completed in the same day.
- Account for all test booklets and answer booklets and keep them in a secure location.
- Keep voice inflections neutral if an allowable or required accommodation is to read portions of the test aloud.
- Minimize distractions, including intercom announcements.
- Place a "**Testing—Do Not Disturb**" sign on doors where testing is occurring.
- Collect cell phones, smart phones, and other unauthorized electronic devices as students enter the testing site.
- Report testing irregularities/security breaches to the School Assessment Coordinator, principal, or the Pennsylvania Department of Education.

DO NOT…

- Leave students unattended with testing materials or permit any student to leave the testing site with testing materials for any reason.
- Permit students to look ahead to another section or module of the test before being instructed to do so, or allow students to look back in a test booklet once a test section or module has been completed.
- Discuss, disseminate, or otherwise reveal contents of the test to anyone.
- Possess secure test materials at any time other than during the actual administration of the test. Test Administrators should be given the secure materials immediately prior to the administration of the test, and the materials must be counted and collected by the School Assessment Coordinator immediately after the testing session ends each day.
- Coach or provide feedback to students (e.g., answer any questions pertaining to the content of the test, review rough drafts, or give feedback of any kind including indicating to students any items that need a second look). This prohibition includes, but is not limited to, a Personal Care Aid (PCA), Therapeutic Support Staff (TSS), or any other one-on-one aide who is assigned to a student.
- Define or clarify a word.
- Read aloud any portion of the Literature Assessment.
- Read aloud the passages, multiple-choice questions or answer choices, or short-answer questions in Sections 2, 3, or 4 of the PSSA English Language Arts assessment.
- Read aloud any part of a mathematics item that will cue the correct answer or provide a hint for the test taker.
- Return a test booklet to any student after it has been turned in to the Test Administrator except for make-up sessions for absences and for students who go to another testing site for extended time.
- Alter, influence, or interfere with a test response in any way, fill in any unanswered item, or instruct the student to do so.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

<u>After Test Administration:</u>

DO…

- Follow test security and administration guidelines.
- Maintain a positive attitude about testing.
- Collect all scratch paper or rough drafts at the end of each test session, and return them to the School Assessment Coordinator to be destroyed.
- Return all secure testing materials to the School Assessment Coordinator immediately after the testing session each day.
- Account for all test booklets and answer booklets daily, and keep them in a secure location.
- Transcribe exact student responses, including incorrect responses, when an alternate test format (such as Braille or large print) has been used or when a student's answer booklet has been damaged.
- Clear the memory of calculators after each testing session.
- Pack and ship the secure testing materials to the testing contractor.
- Sign the appropriate Test Security Certification, and return it to the appropriate individual as directed.

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DO NOT…

- Discuss, disseminate, or otherwise reveal the contents of the test to anyone.
- Keep/save, copy, reproduce, or use any test, test item, specific test content, or examinee responses to any item or any section of a secure test in any manner inconsistent with the instructions provided by and through the Pennsylvania Department of Education.
- Review student responses in the answer booklet.
- Review test booklets containing the test items.
- Alter, influence, or interfere with a test response in any way, fill in any unanswered item, or instruct the student to do so.
- Discuss or provide feedback regarding test items.
- Copy or reproduce any portion of the secure test materials or provide answer keys.
- Erase or change student answers.
- Make false or misleading statements about assessment results, including inappropriate interpretations, inaccurate reports, or unsubstantiated claims.
- Erase stray marks or darken bubbles.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

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CODE OF CONDUCT FOR TEST TAKERS

DO…

- Get a good night's sleep.
- Eat a good breakfast.
- Listen to, read, and follow all directions given.
- Ask questions if you do not understand the directions.
- Read each question carefully, especially multiple-choice items that ask for the "best answer." Also, be sure to read any open-ended items and writing prompts carefully before responding.
- Be careful when marking your answers so that you do not skip spaces or fill in the wrong sections.
- Make sure to completely fill in the bubble for the answer you select and erase completely any answers you change.
- Keep your eyes on your own test.
- Try to answer each test item.
- Check that you have completed all the test items in the test section before closing your test booklet or submitting your final responses online.
- Report any suspected cheating to your teacher or principal.

DO NOT…

- Bring notes with you to the test.
- Bring any electronic devices (e.g., cell phones, smart phones, etc.) other than an approved calculator, if applicable, to the test.
- Share a calculator with others.
- Use the bubbles in the answer booklet to either eliminate possible incorrect answers or possible correct answers. Mark only the bubble for the one correct answer you have chosen.
- Talk with others about questions on the test during or after the test.
- Take notes about the test to share with others.
- Leave an online test session until the session is complete or until instructed to do so.

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Spring 2015 Keystone Exam Security Certification

(Test Administrator and Proctor)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, I completed the Pennsylvania State Test Administration Training, and I understand that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have not removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction. I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have not provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees.

I understand that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

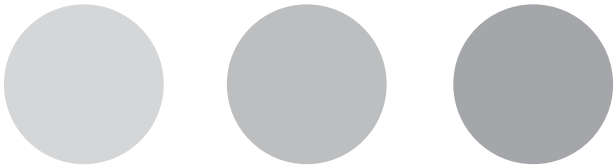
Administrator/Proctor Name	Administrator/Proctor Signature	Date of Signature

ATTENTION

DO NOT PHOTOGRAPH, COPY, OR REPRODUCE MATERIAL FROM THIS ASSESSMENT IN ANY MANNER. All material contained in this assessment is secure and copyrighted material owned by the Pennsylvania Department of Education. Copying of material in any manner, including the taking of a photograph, is a violation of the federal Copyright Act. Penalties for violations of the Copyright Act may include the cost of replacing the compromised test item(s) or a fine of no less than $750 up to $30,000 for a single violation. 17 U.S.C. § 101 *et seq*.

General Test Directions

This screen shows an image to check if your computer screen is set up correctly. There should be three circles in the image below. If you do not clearly see three circles, please raise your hand.



Helpful Hints

- There is no time limit to finish the test.
- Only one question at a time will appear on the screen.
- If you need to go away from your computer, click on the **Pause** button. Click on the **Resume** button to continue. If you are away from your computer for more than 20 minutes, you will need to log back in.
- To see your progress on the test, click on the **Review/End Test** button. You may go to any question by selecting it from the list that appears on the screen.
- Click on the **? [Help]** button to find more information.

Test Directions

Read these directions carefully before beginning the exam. To look at these directions again, click on the **? [Help]** button and choose the **Test Directions** tab.

This test has multiple-choice questions and constructed-response questions. Each multiple-choice question has four answer choices. Each constructed-response question has one or more areas in which to enter your response(s). The constructed-response questions may have multiple pages. These page numbers will be shown below the question number, for example, "1 of 3."

Answering Questions

Read each question carefully and choose your answer or enter your response.

1. For multiple-choice questions, first, find the answer to the question. Then, choose the correct answer by clicking on the answer bubble using the **Pointer** tool.
    - Only one of the answer choices provided is correct. If none of the choices matches your answer, go back and check your work for possible errors.
    - To change an answer, use the **Pointer** tool to choose a different answer.
    - Click on the **Flag** button if you are not sure of the answer to a question. It will mark the question so you know to go back and answer the question later.
2. For constructed-response questions, use the keyboard, the equation builder, and the other online tools to enter your response in the areas provided.
    - For questions that require using the equation builder or constructing a graph, click on the question mark icon **[?]** in the upper-right corner of those features. This will open **Help**, which offers descriptions on how to use these features.
    - An example of the scoring guidelines that professional scorers will use to evaluate your responses to constructed-response questions can be found by clicking on the **? [Help]** button and choosing the **Scoring** tab. You may refer to the Scoring Guidelines at any time while responding to constructed-response questions.
3. Use tools such as the **Cross-Off**, **Highlighter**, **Sticky Note**, **Magnifier**, **Line Guide**, **Calculator**, **Graphing Tool**, and **Formula Sheet** to assist you during the test.

Navigation

1. Use the **Next** and **Back** buttons to move from question to question or page to page.
2. Finally, when you have answered all the questions, click on the **Review/End Test** button at the bottom of the screen.
    - You may check your work by selecting questions from the list that appears on the screen.
    - When you have finished and have checked your answers, follow the directions on the screen to exit.

KEYSTONE REFERENCE

ALGEBRA I CONSTRUCTED-RESPONSE QUESTIONS

GENERAL DESCRIPTION OF SCORING GUIDELINES

4 Points

- The response demonstrates a *thorough* understanding of the mathematical concepts and procedures required by the task.
- The response provides correct answer(s) with clear and complete mathematical procedures shown and a correct explanation, as required by the task. Response may contain a minor "blemish" or omission in work or explanation that does not detract from demonstrating a *thorough* understanding.

3 Points

- The response demonstrates a *general* understanding of the mathematical concepts and procedures required by the task.
- The response and explanation (as required by the task) are mostly complete and correct. The response may have minor errors or omissions that do not detract from demonstrating a *general* understanding.

2 Points

- The response demonstrates a *partial* understanding of the mathematical concepts and procedures required by the task.
- The response is somewhat correct with *partial* understanding of the required mathematical concepts and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

1 Point

- The response demonstrates a *minimal* understanding of the mathematical concepts and procedures required by the task.

0 Points

- The response has no correct answer and *insufficient* evidence to demonstrate any understanding of the mathematical concepts and procedures required by the task.

SOFTWARE TOOLS AND FEATURES FOR TEST ADMINISTRATORS

The online testing system includes tools and features to assist the Test Administrator in managing the test during the test administration.

PAUSE/EXIT FUNCTION

There is a blue Pause button in the tool bar along the bottom of the screen. If a student needs to leave the computer lab/classroom for a short break (e.g., restroom break, office visit) during the test administration, the student should click this button to pause his or her test. Once a student clicks on this button, the test questions are removed from the screen (for test security reasons), and the student has up to 20 minutes to return and resume testing before being logged out of the test. A student can exit the test by clicking on the Pause button and then selecting Exit.

The **Pause** function should be utilized if a student has to leave his or her computer station for any reason for a period of less than 20 minutes.

- There is a countdown timer that will appear on the Pause screen notifying the student of how much time is remaining before the test will be automatically exited.
- Upon resuming, the student is returned to the test where he or she was prior to the pause.
- All of the highlights, flags, cross-offs, and sticky notes will remain within the test session.
- If the student does NOT resume the test within 20 minutes of clicking the Pause button, he or she will be exited from the test. The student will be able to use the same Test Ticket to log back in to the assessment.

The **Exit** function should be utilized if a student needs to exit the test session without submitting his or her answers for scoring. The student should not **End** the test if he or she has not completed the assessment.

- The student will be able to use the same Test Ticket to log back in to the assessment.
- All of the highlights, flags, cross-offs, and sticky notes will remain within the test session.
- If there is an extenuating circumstance in which the student cannot complete the test in the same day, contact the School Assessment Coordinator (SAC) for guidance.

INTERRUPTED TESTING

Generally, the only reason that a student should be interrupted during testing would be if the Internet connectivity for that computer is lost. When a student's workstation has been configured to utilize a Local Caching Service (LCS), the student will be able to continue testing and will not be aware of the loss of Internet connectivity until the student attempts to exit the assessment or attempts to submit the assessment for scoring. If Internet connectivity is not present at that time, a warning message will be displayed. If this happens, the LCS will store the student's responses and will transmit them for scoring when the Internet connection for the LCS is restored. If a student's workstation is not configured to utilize the LCS and the Internet connection is lost, a message will be displayed and the test session will close. The student may then log in to any computer with an available Internet connection to continue testing.

Otherwise, if an unforeseen emergency occurs during testing (e.g., a fire drill, electrical outage), the Test Administrator must notify the School Assessment Coordinator, District Coordinator, or District Technology Coordinator. You may also contact Data Recognition Corporation's Pennsylvania Customer Service Team at (800) 451-7849 or by email at PAcustomerservice@datarecognitioncorp.com. Under emergency circumstances, the Pennsylvania Department of Education will provide additional instructions on how to proceed.

UNPLANNED TEST INACTIVITY

In the event that a whole class needs to stop testing (e.g., a fire drill, electrical outage, or other emergency), the Test Administrator should instruct all students to either Pause or Exit the test. If the student is not finished with the test, the student should not **End** the test. The student should click on the **Pause** button and then the **Exit** button.

Note: If students do not pause or exit the test, an inactivity feature will also exit the student from the test if any mouse and/or keyboard activity is absent for 20 minutes.

- If students will return within 20 MINUTES, instruct all students to PAUSE their tests or the Test Administrator may PAUSE their tests for them. If they do not pause, the test will automatically exit the student after 20 minutes of mouse and/or keyboard inactivity.
- If students will not return within 20 MINUTES, instruct all students to EXIT the test (click PAUSE and then EXIT) or the Test Administrator may EXIT the tests for them.
- If it is uncertain whether students will return within 20 MINUTES, instruct all students to PAUSE their tests or the Test Administrator may PAUSE their tests for them.

PDE has DRC (the test contractor) prepare a report on excessive logins by the same student to an online assessment. Please keep a record of system failures such as the loss of the Internet, etc., in the event an excessive login report regarding any of your students is questioned.

STUDENT LOGIN TASKS

Student Login Tickets (Test Tickets) are secure materials and must be treated appropriately. The Student Login Roster provides a list of students who are registered as part of a Test Session to participate in an assessment. Below is a list of tasks that should be performed to properly handle, distribute, and collect the Student Login Tickets.

PRIOR TO TESTING

1. Review the Student Login Roster to ensure all students scheduled to test have a login ticket and that all student information is correct, including accommodations, if applicable to the assessment specified above.
2. If students are missing from the Student Login Roster, make the proper adjustments to the Test Session specified above and reprint the Student Login Tickets.
3. If a student is missing an accommodation or has been incorrectly assigned an accommodation, notify your School Assessment Coordinator and reprint the Student Login Ticket.
4. If student information is incorrect, make note of it and notify your School Assessment Coordinator.
5. Separate Student Login Tickets.

WHEN STUDENTS ARE AT THEIR COMPUTER STATIONS

1. Distribute the Student Login Tickets to the students.
2. Ensure that students with accommodations noted on their Student Login Tickets are seated at a computer that has been set up to handle accommodations.
3. Instruct the students to log in to the assessments using the Username and Password on their Student Login Tickets.

WHEN STUDENTS ARE FINISHED TESTING

1. Collect all Student Login Tickets after students have completed testing and return them along with the Student Login Roster to the School Assessment Coordinator.

NOTE: The Username on the Student Login Ticket is the student's PAsecureID and can be used to verify that students receive the correct Student Login Ticket.

KEYBOARD SHORTCUTS FOR SYSTEM

These keyboard shortcuts may be copied from this book and reproduced as necessary. The copies of these keyboard shortcuts are considered part of the secure testing materials and must be returned to the School Assessment Coordinator for secure storage and destruction.

SYSTEM SHORTCUTS

Keyboard Shortcut	Function
Tab	Transfers the focus from one button to the next (**from left to right**). The focus is indicated by a red box that appears around the selected tool or function button when the Tab key is pressed.
Shift + Tab	Transfers the focus from one button to the next (**from right to left**). The focus is indicated by a red box that appears around the selected tool or function button when the Shift key and Tab key are pressed.
Enter/Space Bar	Activates the tool or function highlighted by the red box. Pressing the Enter key or Space Bar a second time deactivates the tool or function (with the exception of tools that keep the focus, such as Sticky Notes).
Esc	Closes the Magnifier and ? [Help] button when activated. If the red box is activated and the Esc key is pressed while on the tool bar without having any tools activated, the red box will move to the pointer button.
ABCD, abcd	Selects an answer option on a multiple-choice question. Entering one of the letters fills or unfills the letter bubble before each answer option. Both uppercase and lowercase letters can be used.
Alt + X	Exits the system from each page that has an Exit button.
Ctrl + {Left, Right, Up, Down Arrows}	Moves any pop-up tool like the ? [Help] button around the screen. [Does not work with Sticky Notes.]
Ctrl + Minus (Numerical Row)	Rotates the active tool 1 degree.
Up/Down Arrows	Moves the cursor up and down through a list of choices (questions on the Review/End Test page).
Enter	Selects the highlighted test question from the Review/End Test page. Selects Sign In button after Username and Password are entered. Selects Continue from the Student Verification Page. Selects the Go To Page number within the quick navigation dropdown arrow.
Ctrl + Tab	Switches between multiple active pop-up tools on the screen.
Alt—R	Activates the Review/End Test button and moves the user to the Review page of the test.
Alt—P	Activates the Pause button and pauses the test.
Alt—F	Activates the Flagged button and marks an item as flagged or removes a flag from an item.
Alt—B	Activates the Back button and moves the student back a question.
Alt—N	Activates the Next button and moves the student forward a question.

Keyboard Shortcut	Accommodations Function
F7	Activates "Start Points" (audio tracks) button when Audio is active (on a Mac use FUNC F7).
F8	Activates the Play/Pause button when Audio is active (on a Mac use FUNC F8).
F9	Activates the Stop button when Audio is active (on a Mac use FUNC F9).
Alt—O	Activates the Options button and opens or closes the Color Chooser selection pop-up window.

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PENNSYLVANIA CALCULATOR POLICY

If a student chooses to use a calculator (other than the online options) on the Keystone Exams or PSSA in sections where the calculator is permitted, the student must adhere to the guidelines listed below. It is incumbent upon the School Assessment Coordinator to ensure that all calculator policies are implemented and followed, including making sure calculators have no programs stored in their memory other than those that are factory installed. Please note that if a student wants to restore the deleted programs, the student will need to back up these programs prior to the assessment. In addition, the memory must be cleared on the calculator following each test session of the assessment.

The following are **not** permitted for the PSSA or Keystone Exams:

- Noncalculators such as cell phones, smart phones, PDAs, laptops, tablets, pocket organizers, etc.
- Calculators with infrared, Wi-Fi, Bluetooth, or other beaming or wireless capabilities, unless the beaming or wireless capabilities are disabled
- Calculators with QWERTY keyboards, typewriter-like keyboards, or keypads (e.g., Dvorak)
- Calculators with built-in Computer Algebra Systems (CAS)
- Calculators that make noise, have paper tape, need to be plugged in, or talk; these specific calculators can only be used as a required accommodation as stated in the *Accommodations Guidelines*
- Calculators shared by students during a test session
- Any and all nonfactory programs or information stored in the calculator

This calculator policy is intended to be a general description of what is not allowed. It is not meant to be an exhaustive list of specific calculators, devices, or technologies that cannot be used on the PSSA or Keystone Exams. Please note that as technology changes, this policy may also change.

These keyboard shortcuts may be copied from this book and reproduced as necessary. The copies of these keyboard shortcuts are considered part of the secure testing materials and must be returned to the School Assessment Coordinator for secure storage and destruction.

ONLINE CALCULATOR SHORTCUTS

Keyboard Shortcut	Function
Alt + Delete	Clears the calculator screen.
-	Works as a shortcut key for subtracting on all calculators.
!	Works as a shortcut key for factorial on Scientific Calculator/Graphing Tool.
(	Works as a shortcut key for using open parenthesis on Scientific Calculator/Graphing Tool.
)	Works as a shortcut key for using closed parenthesis on Scientific Calculator/Graphing Tool.
*	Works as a shortcut key for multiplying on all calculators.
/	Works as a shortcut key for dividing on all calculators.
@	Works as a shortcut key for squaring on Scientific Calculator/Graphing Tool.
+	Works as a shortcut key for adding on all calculators.
0–9	Work as shortcut keys for numeric entry on all calculators.
Backspace	Works as a backspace on all calculators.
Delete	Works as a delete function on all calculators.
Enter	Works as an enter key on all calculators (this will not work on the Graphing Tool).
^	Works as a shortcut to take a number to a specific power on Scientific Calculator/Graphing Tool.
‘	Works as the negate key on the Basic Calculator.

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SPRING 2015
KEYSTONE EXAMS
ALGEBRA I ONLINE EXAM

ONLINE DIRECTIONS FOR ADMINISTRATION MANUAL

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DEPARTMENT OF EDUCATION

Pennsylvania Keystone Exams

Algebra I

Spring 2015 Exam

Directions for Administration Manual

May 2015

Pennsylvania Keystone Exams

Algebra I—Spring 2015

Exam Security Reminder

- **No person is to read or view the contents of an exam at any time except the student taking the exam during the test session.**
- **If you suspect a test security violation, consult the School Assessment Coordinator (SAC) or contact the Pennsylvania Department of Education (PDE) at (717) 787-4234.**

General Responsibility Summary for the Test Administrator (TA)

The Test Administrator (TA) is responsible for the following tasks:

- taking the Pennsylvania State Test Administration Training (PSTAT) online module
- becoming familiar with the exam administration procedures provided in the Algebra I Spring 2015 Exam *Directions for Administration Manual*
- receiving student exam materials from the School Assessment Coordinator on the day his or her class is scheduled to take the Algebra I Spring 2015 Exam
- verifying that student demographic information is correct on each answer booklet
- alerting the School Assessment Coordinator if any student information is incorrect and needs to be changed
- distributing the test booklets and answer booklets to the students at the time of the exam
- reading the directions for administration to the students at the start and end of each Algebra I Spring 2015 Exam module
- monitoring the exam environment during the scheduled exam time
- collecting, accounting for, and returning all student exam materials and all scratch/grid paper to the School Assessment Coordinator
- reviewing and understanding the *Test Administrator/Proctor Test Security Certification* and returning the signed form to the School Assessment Coordinator after the administration of any Keystone Exam

TABLE OF CONTENTS

INTRODUCTION

This manual is to be used for the administration of the **Algebra I Spring 2015 Exam**. The manual provides the Test Administrator with directions that will ensure a standard assessment environment in schools throughout the Commonwealth of Pennsylvania. The administration of this exam may differ from other assessments the Test Administrator has given; therefore, **Test Administrators are to become thoroughly familiar with this manual and the procedures for administering the exam before the testing window (May 13–27, 2015).**

MAINTAIN EXAM SECURITY

District and School Assessment Coordinators, Test Administrators, principals, and all other individuals who are involved in this assessment program must maintain the security of all exam materials. Together, they share the responsibility for ensuring that all exam materials and student responses are handled securely, confidentially, and in accordance with security mandates and other general procedures. These include, but are not limited to, the following:

- **Except where allowed by a specific written accommodation, only those students being tested are allowed to view the content of the exam materials.**
- **No materials from the exam may be copied or recorded in any manner.**
- **Student responses are not to be reviewed for accuracy or completeness by anyone other than the student at any time other than during the administration of the exam.**
- **The student may not review responses at any time other than during the administration of the exam.**

Each student taking the Algebra I Spring 2015 Exam will receive **a test booklet and an answer booklet**. These secure exam materials must never be left unattended or in open areas. Test Administrators must not be given access to the **secure** exam materials before the administration day; however, this manual is not considered secure exam material and should be provided to Test Administrators for review prior to the administration of the exam. The principal or his/her designee, such as the School Assessment Coordinator (SAC), will make arrangements for the Test Administrator to receive the exam materials on the day of the exam, just prior to the scheduled session, and for the immediate return of exam materials after the session.

At the end of each Algebra I Spring 2015 Exam module, all test booklets and answer booklets must be accounted for and returned to the School Assessment Coordinator. In addition, all other materials assigned to the Test Administrator, including any scratch/grid paper used during the exam, must be returned to the School Assessment Coordinator immediately at the end of each session.

The Pennsylvania Keystone Exams are a measure of individual student achievement conducted by the Pennsylvania Department of Education (PDE). Any deviation from the exam procedures outlined in this manual (including, but not limited to, group work, teacher coaching, teaching or release of the performance tasks or exam questions, use of old Pennsylvania assessments as preparation tools, etc.) is strictly prohibited and will be considered a violation of exam security.[1] Those individuals who divulge exam questions, falsify student scores, or compromise the integrity of the state assessment system in any manner will be subject to professional disciplinary action under the Professional Educator Discipline Act, 24 P.S. § 2070.1a *et seq*, including a private reprimand, a public reprimand, a suspension of their teaching certificate(s), a revocation of their teaching certificate(s), and/or a suspension or prohibition from being employed by a charter school. For more information regarding guidelines to ensure that the integrity of the exam remains above reproach, see the *Ethical Standards of Test Administration*, found in Appendix A of this manual and in the *Keystone Exams Handbook for Assessment Coordinators*.

[1] This prohibition excludes the item and scoring samplers (released items).

After administering any Keystone Exam, every Test Administrator involved in the administration of this Keystone Exam must sign and date a *Test Administrator/Proctor Test Security Certification*. The Test Security Certification certifies that all security measures for the Keystone Exams were maintained, including, but not limited to

- following test security regulations and procedures,
- handling secure assessment materials appropriately, and
- maintaining confidentiality of information contained within secure assessment materials.

A copy of the *Test Administrator/Proctor Test Security Certification* is provided in Appendix C and in the *Keystone Exams Handbook for Assessment Coordinators*. Prior to the administration of the exam, the School Assessment Coordinator will distribute copies of this certification to all Test Administrators and Proctors involved in the administration of this Keystone Exam. Prior to receiving any exam materials or participating in the administration of the Keystone Exams in any way, the Test Administrator must read and understand the *Test Administrator/Proctor Test Security Certification*. Upon completion of the exam administration, the signed form must be returned to the School Assessment Coordinator.

FOLLOW THE EXAM SCHEDULE SET BY THE SCHOOL ASSESSMENT COORDINATOR

The Algebra I Spring 2015 Exam must be administered within the exam window on the dates assigned by the School Assessment Coordinator. Appropriate exam conditions optimize the chance for greater accuracy of the performance. The exam should be given in a regular classroom setting if possible. Other settings may be used according to needs and available facilities. However, exam situations created to inflate assessment scores are a violation of exam-security practices.

The Algebra I Spring 2015 Exam consists of **two modules**, and each module must be scheduled as a separate exam session. Since the Keystone Exams are untimed, there may be instances in which the actual testing times take longer than the recommended testing time. Exam modules must not be scheduled back-to-back in the morning (or in the afternoon). Instead, the exam modules must be divided across two days or divided across the morning and afternoon of the same day. The School Assessment Coordinator must discuss the schedule with the Test Administrators at least one week prior to the exam dates. Please note that each module in this exam is designed to be completed in the same amount of administration time. See Part II: Exam Timing for more information on administration time and testing time.

ADVANCE CONSIDERATIONS FOR EXAM ADMINISTRATION

The procedures listed below must be followed before administering the Algebra I Spring 2015 Exam. This exam includes procedures that students may not have encountered before.

- The School Assessment Coordinator will receive a *Keystone Exams Handbook for Assessment Coordinators* that provides additional, detailed information about the exam. This document is posted on these portals:
  - *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

- The entire Algebra I Spring 2015 Exam *Directions for Administration Manual* (this document) must be read in advance in order to become familiar with the procedures for administering the exam. Prior to the exam administration, the Test Administrator must do the following:
  - Become familiar with the exam schedule and the procedures for allowing extended exam time.
  - Follow the directions of the School Assessment Coordinator for maintaining exam security.
  - Plan sufficient time for distribution and collection of materials.
  - Post a "**Testing—Do Not Disturb**" sign on the door(s) to the classroom to indicate that an exam session is taking place. A quiet, calm atmosphere is essential for concentration on the task.
  - Plan to arrange student seating to prevent student interaction during the exam sessions.

- Student Precode Labels are supplied for most students; however, if any student does **not** have a Student Precode Label, a District/School Label must be used:
  - **Prior** to the start of the exam, fill in the student's name in the boxes on page 1 (cover) of the answer booklet.
  - **Prior** to the start of the exam, complete the applicable portions on page 2 of the answer booklet.
  - Contact the School Assessment Coordinator for further direction on barcode labels.

- The **Complete for All Students** grid on page 1 of the answer booklet distinguishes students who are currently enrolled in a Keystone-related course from those students that have completed the course in the past. **It is essential that this grid is completed for ALL students.**

  If a student is currently enrolled in a Keystone-related course and is taking the corresponding exam, darken the first bubble. If a student is **not** currently enrolled in a Keystone-related course but is taking the exam for federal accountability purposes, darken the second bubble. This grid must be completed for students with Precode Labels and students using District/School Labels.

- Review and understand the *Test Administrator/Proctor Test Security Certification* found in Appendix C (contact your School Assessment Coordinator for more information).

- Be aware of test accommodations ("Test Administrator transcribed student responses," "Extended time," etc.) that are outlined in the *2015 PSSA and Keystone Accommodations Guidelines* and in the *2014–15 Accommodations Guidelines for English Language Learners*. These documents are posted on these portals:
  - *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

  Note: For the Algebra I Spring 2015 Exam, any student, regardless of IEP status, may have a word, phrase, or test item read aloud upon request. If the student has a documented need for more than an occasional word, phrase, or test item to be read aloud, school personnel must bubble "Some test items/questions read aloud" under "Student used the following Presentation Accommodations" on page 3 of the student's answer booklet. However, it is only appropriate to read all test items aloud if this practice is documented as an accommodation. If reading the entire exam is used as an accommodation, school personnel must bubble "All test items/questions read aloud" under "Student used the following Presentation Accommodations" on page 3 of the student's answer booklet.

- A form number is on the front cover of each test booklet and each answer booklet. For the Algebra I Spring 2015 Exam, there are twenty-four (24) different forms labeled 01 through 24. Students must use a test booklet and an answer booklet with the same form number designation.

- **If an exam security violation is suspected, contact the School Assessment Coordinator or the Pennsylvania Department of Education immediately.**

PREPARE THE STUDENTS FOR THE EXAM

- Inform students in advance of the schedule for the exam sessions, as communicated by the School Assessment Coordinator.
- Students will not be permitted to have cell phones, cameras, or any other electronic devices in their possession during the administration of the exam. Students **must** be informed of this policy in advance and encouraged to leave such items at home on exam days. **The Test Administrator must collect all such devices prior to distributing assessment materials and shall return them upon completion of the assessment.**
- In addition, PDE encourages school districts and schools to inform students before testing of the locally determined ramifications/sanctions for student misconduct during the Keystone Exams. This includes, but is not limited to, sanctions associated with
  - cheating and
  - sharing and/or reproduction of test content.
- Discuss the *Code of Conduct for Test Takers*, found in Appendix B of this manual and in the *Keystone Exams Handbook for Assessment Coordinators*, with all students prior to the scheduled exam time. It is essential that students understand the importance of each point in the code of conduct before testing begins. Prior to the administration, students must indicate that they understand the *Code of Conduct for Test Takers* that their Test Administrator has reviewed with them. Test Administrators should answer any questions that students have to ensure that all students understand this code of conduct.
- Students may **not** use a dictionary or a thesaurus for any part of this exam. **Note:** an exception is for English Language Learners (ELL) taking any portion of the exam. They may use word-to-word bilingual/translation dictionaries that translate native language to English or English to native language. Bilingual/translation dictionaries that include word definitions or pictures are not allowed. If using this accommodation, school personnel must bubble "Translation dictionary for ELL student" under "Student used the following Response Accommodations" on page 3 of the student's answer booklet.
- Students must use a No. 2 pencil; an ink pen may **not** be used.
- Students may highlight, underline, and make notes or comments in the test booklet, but they must record their answers in the answer booklet. They may also use scratch/grid paper. All scratch/grid paper must be collected and returned to the School Assessment Coordinator. **Students must not use highlighters on the answer bubbles.**
- Students should not make any extraneous marks in the answer booklet (e.g., crossing out answers believed to be incorrect or marking multiple answers thought to be correct) but should only mark their final response in the answer booklet.
- The Algebra I Spring 2015 Exam includes questions that require students to select from four possible answer choices. These multiple-choice questions and answer choices are found in the test booklet. Students will read each question and record their answer in the space provided in their answer booklet only. **Answers written or marked in the test booklet will not be scored.**
- The Algebra I Spring 2015 Exam includes questions that require students to write a response. **These questions appear in the answer booklet only.** Students will read each question and write their responses in the spaces provided in the answer booklet only. **Answers written in the test booklet or on scratch/grid paper will not be scored.**

- Students may use calculators for the Algebra I Spring 2015 Exam. (Scientific calculators and graphing calculators are optional but recommended.) **Note:** Students may not share calculators during the exam. For more information, see the *Pennsylvania Calculator Policy* in Appendix E of this manual. This document is also posted on these portals:
  - *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

Students are permitted to	Students are NOT permitted to
• use scratch/grid paper. (Students may use it to create their own graphic organizers, etc., during the exam.) • highlight, underline, and make notes or comments in the test booklet. (Students should not use highlighters to mark the answer bubbles.) • use a calculator on the exam in accordance with the *Pennsylvania Calculator Policy* (see Appendix E).	• use preprinted graphic organizers. • possess or use cell phones, smart phones, cameras, any type of computer, or any mobile device with a camera and/or Internet access (e.g., tablets, MP3 players, gaming systems, entertainment devices, smart watches) when responding to any part of the exam. • possess or use dictionaries (with the exception of ELL students), thesauri, and spell- or grammar-checkers when responding to any part of the exam.

PREPARE THE CLASSROOM FOR THE EXAM

Good organization of exam materials and well-executed procedures will make the administration of the exam proceed smoothly.

Remove or cover all classroom instructional materials that may affect the validity of the Algebra I Spring 2015 Exam.

DO NOT DISPLAY:

- mathematics terms and/or definitions
- mathematics rules and properties
- examples of problems and answers
- multiplication tables
- instructions on how to use a calculator
- illustrations or drawings of geometric shapes, algorithms, algebraic equations, graphs, number lines, etc.

Note: This is not an exhaustive list. These are general examples of what is not permitted. Any materials that may contain content that could be tested must be removed or covered.

The *General Description of Scoring Guidelines* used for Algebra I constructed-response questions may be displayed in the classroom. (Each student test booklet contains a copy of the general scoring guidelines for personal use.) This document is also posted on these portals:

- *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
- *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

A quiet, calm atmosphere is essential for concentration on the exam. Student seating must be arranged to prevent student interaction during the exam sessions. Disturbances must be kept to a minimum during the exam sessions. Posting a "**Testing—Do Not Disturb**" sign on the door(s) to the classroom indicates that an exam is in session. Students must not be permitted to sharpen pencils during the exam sessions. Each student must have at least two sharpened No. 2 pencils with good erasers and some scratch/grid paper. Extra pencils must be available for the students.

REQUIRED EXAM MATERIALS

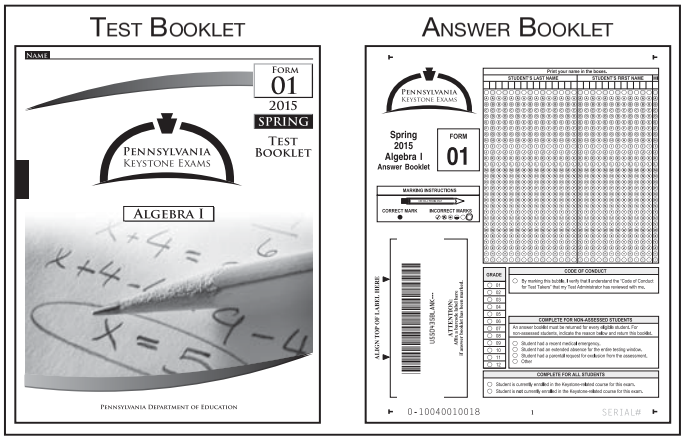
The School Assessment Coordinator will provide the Test Administrator with the appropriate exam materials on each administration day. After each administration, exam materials must be returned immediately to the School Assessment Coordinator for secure, overnight storage. **Note:** Every answer booklet has a unique security number and barcode printed on the back cover. These security numbers should be used to track the distribution and collection of secure exam materials. **All** secure exam materials assigned to a school must be accounted for and returned to Data Recognition Corporation (DRC).

INVENTORY THE EXAM MATERIALS

For the person administering the exam:

- ☐ One Algebra I Spring 2015 Exam *Directions for Administration Manual* (this document)
- ☐ "**Testing—Do Not Disturb**" sign(s) to hang on the classroom door(s)

EXAM MATERIALS



For each student taking an exam:

- ☐ One Algebra I Spring 2015 Exam Test Booklet (There are twenty-four [24] different forms labeled 01 through 24. Students must use an answer booklet and test booklet with the same form number designation.)
- ☐ One Algebra I Spring 2015 Exam Answer Booklet with a Student Precode Label or a District/School Barcode Label
- ☐ Two sharpened No. 2 pencils with good erasers
- ☐ Scratch/grid paper for each module
- ☐ One calculator (Scientific calculators and graphing calculators are optional but recommended. The school or the students may provide the calculators.) For more information, see the *Pennsylvania Calculator Policy* in Appendix E of this manual. This document is also posted on these portals:
  - ➢ *https://pa.drcedirect.com* [Click on "Documents" under the "General Information" tab.]
  - ➢ *www.education.state.pa.us* [Click on the green check mark and select "Keystone Exams."]

DAMAGED EXAM BOOKLETS

If a student receives an Algebra I Spring 2015 Exam Answer Booklet with damaged or missing pages, replace it with an answer booklet of the same form designation and allow the student to continue working. If the student has already begun one or both modules of the exam, he or she should start working in the new answer booklet at the point where the defect was discovered and use the new answer booklet for the remainder of the exam. After the exam has been completed, the School Assessment Coordinator or designee must transcribe all of the student's previous responses into the undamaged answer booklet. On the new booklet, affix a District/School Label. The student's name, as it appears on the Precode Label, should be placed in the grid on the front cover of this new booklet with the circles filled in. Applicable portions of page 2 of the booklet should also be completed. Do not insert pages from one answer booklet into another. Multiple documents for one student and loose pages will not be scored.

Write "DEFECTIVE" on the damaged answer booklet and apply a "**Do Not Score**" label over the existing label on the front cover of the damaged booklet. Return the damaged answer booklet with your school's answer booklets to the School Assessment Coordinator.

GENERAL ORGANIZATION OF THE EXAM

The Algebra I Spring 2015 Exam consists of **two modules**, and each module must be scheduled as a separate exam session. The School Assessment Coordinator must discuss the schedule with the Test Administrator at least one week prior to the exam dates. Enough time must be scheduled for the preparation of the classroom. Each module in the Algebra I Spring 2015 Exam is designed to be completed in the same amount of administration time. Administration times provided below are approximate and are supplied for scheduling purposes only.

Course	Module	Multiple-Choice Questions	Constructed-Response Questions	Estimated Time Needed (in minutes)		
				Administrative Tasks	Actual Exam	Total Administration
Algebra I	1	23	4	10–15	75	85–90
Algebra I	2	23	4	10–15	75	85–90

CODE OF CONDUCT FOR TEST TAKERS

The *Code of Conduct for Test Takers* provides students with guidelines that students should follow before, during, and after each assessment. This code of conduct must be reviewed with all students in advance of the testing day. Prior to taking the assessment, students will be asked to darken a circle to indicate that they understand the *Code of Conduct for Test Takers* that has been reviewed with them by their Test Administrator (or teacher). It is important that the *Code of Conduct for Test Takers* is reviewed with all students and all questions are answered such that all students understand each point in this code of conduct.

COMMUNICATE EXAM INFORMATION

During the exam, students are to respond to a specific set of questions. The following Algebra I Spring 2015 Exam information must be posted on a chalkboard or dry-erase board. Only information about the current module should be posted.

Algebra I Module 1
Exam Questions 1–27
Test Booklet Start on page 6
Answer Booklet Start on page 5

Algebra I Module 2
Exam Questions 1–27
Test Booklet Start on page 24
Answer Booklet Start on page 17

In addition, the following statement must be posted on the chalkboard or dry-erase board:

Go back to make sure you have answered each question before closing your test booklet and answer booklet.

EXTENDED EXAM TIME

The Algebra I Spring 2015 Exam is an untimed assessment. Not all students will finish the exam at the same time. Students should not feel rushed while they are taking the exam, and no student should be penalized because he or she works slowly. It is equally important, however, to encourage students to work in a timely manner to finish the exam. Students should close their test booklets and answer booklets when they have finished the module of the exam in which they have been working. Test Administrators should collect exam materials when students are finished testing rather than keeping them closed on the students' desks. Students who finish early may sit quietly or read for pleasure until all students have finished the exam. Students with special requirements and/or abilities (i.e., physical, visual, auditory, or learning disabilities as defined by their IEP or service contracts) and students who just work slowly may require extended time. Special exam situations should be arranged for these students. When all students have indicated they have finished an exam module, end the module. Students should then return to regular activities.

Students may request extended time if they indicate they have not completed an exam module. Such requests should be granted if the Test Administrator finds the request to be educationally valid. Not permitting ample time for students to complete the exam module may impact performance.

Since the Keystone Exams are untimed, there may be instances in which the actual testing times take longer than the recommended testing time. Exam modules must **not** be scheduled back-to-back in the morning (or in the afternoon). Instead, the exam modules must be divided across two days or divided across the morning and afternoon of the same day.

For example, do not schedule both Module 1 and Module 2 testing events to occur during the same morning. Rather, schedule Module 1 testing for a morning and schedule Module 2 testing either the afternoon of the same day or sometime the following day.

As a general guideline, the exam session should be closed when all the students indicate they have finished an exam module.

When allowing extended time for an exam session for a portion of the student population:

- **Do not** allow students to attend a lunch period with other students if the lunch period occurs between the original exam session and the extended exam session.
- **Do not** allow students to attend any classes or related activities between the original exam session and the extended exam session.
- **Do not** allow any overnight extensions.
- **Do not** allow students to return to a module after the completion of that module.

Do not allow the extended exam session to be administered without monitoring. It is the responsibility of a Test Administrator to monitor any extended exam session, whether in the classroom where the exam was begun or in a separate classroom.

EXAM ADMINISTRATION REMINDERS

It is important to use standardized exam procedures to maintain fairness for all students. Following the exam administration instructions carefully ensures that all students are tested under similar conditions in all classrooms.

Before exam administration:

- Be sure each student has the correct test booklet and answer booklet.
- Be sure students understand where and how to mark or write their answers.
- Follow the directions of the School Assessment Coordinator for maintaining exam security.

During exam administration:

- Follow the directions of the School Assessment Coordinator for maintaining exam security.
- Help students approach the exam in a positive manner.
- Encourage students to keep trying.
- Clarify directions for students having difficulty.
  - The Exam Directions are printed in Appendix D of this manual. They may be repeated to students as needed during the administration; however, the Test Administrator may not paraphrase or offer additional information and may not give information that provides clues concerning exam questions or answer choices.

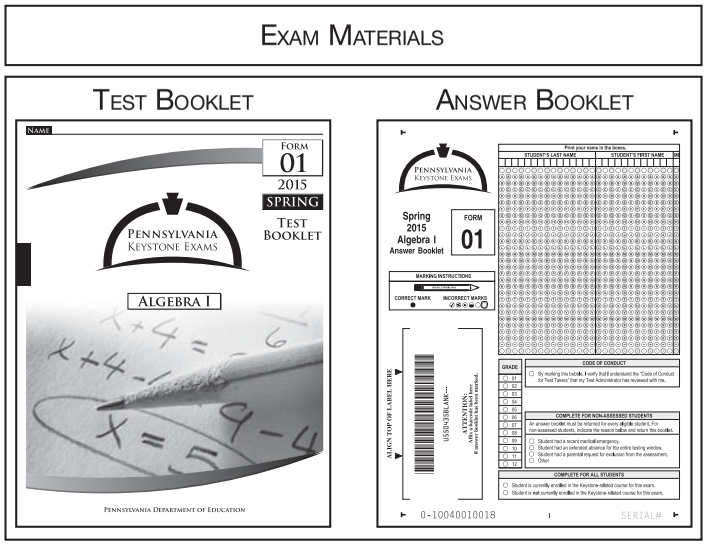
- **In this exam, the presentation and content of exam questions vary from one form to another. This variation is an intentional element of the Keystone Exams. Questions from students about directions *may* require form-specific responses from the Test Administrator.**
- For the remainder of this manual, **indented text in bold type** is to be read aloud to students exactly as written. All other text is information for the Test Administrator.

When ready to start the exam, the Test Administrator should begin with the next section found on the next page of this manual.

START THE EXAM

Make sure that all students have two sharpened No. 2 pencils with good erasers. Make sure that no student is in possession of a cell phone, camera, or other electronic device. Collect all electronic devices prior to distributing any exam materials. First distribute test booklets with front covers facing up; then distribute answer booklets with front covers facing up.

- Answer booklets must have a Student Precode Label or a School/District Label if the Student Precode Label is not available.
- The "Complete for All Students" box on page 1 of the answer booklets must be completed for all students.



Note: A form number is on the front cover of each test booklet and each answer booklet. There are twenty-four (24) different forms labeled 01 through 24. Make certain that the form number on each test booklet matches the form number on the answer booklet distributed to each student.

Say:

Welcome to the Pennsylvania Keystone Exams. Each of you should have an Algebra I Spring 2015 Exam Test Booklet and Answer Booklet. Do not open your test booklet or answer booklet until I tell you to do so.

Look at the cover pages of the two booklets. In the upper right-hand corner of the test booklet, there is a number from 01 through 24. Make sure that this number is the same as the number shown in the upper left-hand corner of the answer booklet. If the number in the box on your answer booklet is not the same, raise your hand, and I will give you a new test booklet.

Check to see that each student has the correct test booklet and answer booklet. Correct any errors in booklet distribution. When all students are ready, say:

Look at the front cover page of your test booklet. Print your full, legal name on the line provided at the top of the page.

Pause while students print their names on the line on the cover of their test booklets. The student's name on the front of the test booklet ensures accurate distribution of the correct test booklet to each student at the beginning of each exam session. Make certain that all students have recorded their names correctly. When students are ready, continue with the next section found on the next page of this manual.

DIRECTIONS FOR BARCODE [DISTRICT/SCHOOL OR STUDENT PRECODE] LABELS

Say and demonstrate:

Look at the cover page of your answer booklet. In the lower left-hand corner is a barcode label. Check to see if the barcode label has a colored stripe on it.

If the barcode label DOES NOT have a colored stripe, do nothing more at this time.

If the barcode label DOES have a colored stripe, check to make sure that your full name is printed in the boxes on the right-hand side of the cover page of the answer booklet.

If the barcode label DOES have a colored stripe and your name IS NOT printed in the boxes, you must print your name now. Print your last name in the boxes below the words "STUDENT'S LAST NAME." Start at the left and print one letter in each box. Print as many letters of your last name as will fit in the number of boxes provided.

Pause while students fill in their last names. **Note:** If any barcode label has an error on it, please contact the School Assessment Coordinator. See page 3 and page 21 of this document for more information on what to do if a student does not have a Student Precode Label. When all students are ready, say:

Now that you have printed your last name, find the words "STUDENT'S FIRST NAME" and print each letter of your first name. You must print your full, legal name. Please do not print a nickname or a shortened first name. Print as many letters of your first name as will fit in the number of boxes provided.

Pause while students fill in their first names. When all students are ready, say:

Now that you have printed your first name, find the box below the letters "MI." Print the first letter of your middle name in this box. If you have no middle initial, leave it blank.

Are there any questions?

Answer all questions and then say and demonstrate to the entire class:

If your name is printed in the boxes, whether it was printed for you or you have just printed it, you must now go back to the first letter of your last name. Find the circle below the box that has the same letter as the one printed in the box. Darken the circle for that letter. Now darken the remaining circles for each letter of your last name. Then darken the circles for each letter of your first name and the first letter of your middle name.

Walk around the room to check that students are filling in the circles correctly. Please note that students do not need to darken the blank circle beneath blank boxes unless a space is within a student's name (as in "Mary Lou") or if a student has no middle initial. If a student has more than one middle name, use the first middle name. Use a hyphen to separate hyphenated names. When all students have completed this task, say:

Are there any questions?

Answer all questions. Then say:

In the bottom right-hand corner of your answer booklet is a box labeled "CODE OF CONDUCT." Read the statement inside this box silently as I read it aloud. "By marking this bubble, I verify that I understand the *Code of Conduct for Test Takers* that my Test Administrator has reviewed with me." If you understand the *Code of Conduct for Test Takers*, darken the circle inside the box now. If you have questions about the *Code of Conduct for Test Takers*, raise your hand.

Answer student questions until all understand the *Code of Conduct for Test Takers* and darken the circle inside the box. When students are ready, continue with the next section found on the next page of this manual.

ADMINISTER THE ALGEBRA I EXAM—MODULE 1

When all students are ready, say:

I will now distribute scratch/grid paper to be used with this module of the Algebra I Spring 2015 Exam.

Distribute scratch/grid paper. When all students are ready, say:

Now we are ready to begin Algebra I—Module 1. Carefully follow the directions, and give this exam your best effort. Open your test booklet to page 2. Fold your test booklet back so that only page 2 is showing. In the middle of the page is a box labeled "ATTENTION." Read the paragraph inside this box now.

Pause for students to read the paragraph. Then say:

Are there any questions about this paragraph?

Answer all questions. When all students are ready, say:

Turn to page 3 in your test booklet. Fold your test booklet back so that only page 3 is showing.

Pause while students find the correct page in their test booklets. Make sure all students have folded their test booklets back so that only page 3 is showing. When all students are ready, say:

Look at the directions on page 3. Read the directions silently as I read them aloud.

On the following pages of this test booklet are the Keystone Algebra I Exam questions for Module 1.

Formulas that you may need to solve questions in this module are found on page 5 of this test booklet. You may refer to the formula page at any time during the exam.

You may use a calculator on this module. When performing operations with π (pi), you may use either calculator π or the number 3.14.

Are there any questions?

Answer all questions. When all students are ready, say:

Continue to read the directions on page 3 silently as I read them aloud.

There are two types of questions in each module.

Multiple-Choice Questions

These questions will ask you to select an answer from among four choices.

- ***First read the question and solve the problem on scratch paper. Then choose the correct answer.***
- ***Only one of the answers provided is correct.***
- ***If none of the choices matches your answer, go back and check your work for possible errors.***
- ***Record your answer in the Algebra I answer booklet.***

Are there any questions?

Answer all questions. When all students are ready, say:

Continue to read the directions on page 3 silently as I read them aloud.

Constructed-Response Questions

These questions will require you to write your response.

- ***These questions have more than one part. Be sure to read the directions carefully.***
- ***You cannot receive the highest score for a constructed-response question without completing all the tasks in the question.***
- ***If the question asks you to show your work or explain your reasoning, be sure to show your work or explain your reasoning. However, not all questions will require that you show your work or explain your reasoning. If the question does not require that you show your work or explain your reasoning, you may use the space provided for your work or reasoning, but the work or reasoning will not be scored.***
- ***All responses must be written in the appropriate location within the response box in the Algebra I answer booklet. Some answers may require graphing, plotting, labeling, drawing, or shading. If you use scratch paper to write your draft, be sure to transfer your final response to the Algebra I answer booklet.***

Are there any questions?

Answer all questions. When all students are ready, say:

Continue to read the directions on page 3 silently as I read them aloud.

If you finish early, you may check your work in Module 1 only.

- ***Do not look ahead at the questions in Module 2 of your exam materials.***
- ***After you have checked your work, close your exam materials.***

You may refer to this page at any time during this portion of the exam.

Are there any questions?

Answer all questions. When all students are ready, say:

Now turn to pages 4 and 5 of your test booklet.

Pause while students turn the page in their test booklet. When all students are ready, say:

On page 4 of your test booklet is the *General Description of Scoring Guidelines* for use with Algebra I constructed-response questions. This is an example of the scoring guidelines that professional scorers will use to evaluate your responses to constructed-response questions for Algebra I. You may refer to these scoring guidelines at any time while responding to a constructed-response question for Algebra I. Are there any questions?

Answer all questions. When all students are ready, say:

On page 5 of your test booklet is the formula sheet for use with the Algebra I Spring 2015 Exam. The same formula sheet can be found on pages 4 and 10 of your answer booklet. You may use these formulas to solve questions on this exam. You may refer to the formula page at any time during the test. Are there any questions?

Answer all questions. When all students are ready, say:

We are now ready to start Module 1. Turn to page 6 in your test booklet and page 5 in your answer booklet. Look at the GO ON arrow on the bottom of each page. The GO ON arrow indicates that you are not yet finished with Module 1 and you are to continue on to the next page. Follow all GO ON arrows and directions that tell you which questions are in your test booklet and which questions are in your answer booklet. At the end of Module 1, you will see a STOP sign in your test booklet and a STOP sign in your answer booklet. Make sure you continue to respond to questions until you see the STOP sign in both your test booklet and your answer booklet.

Remember to complete questions 1 through 27 in Module 1 and to mark only one correct answer for each question in your answer booklet. Make sure that you have completely erased wherever you have changed an answer or made a stray mark in your answer booklet. Then close your answer booklet and place it inside your test booklet so I will know you have finished. I will collect your exam materials when you finish. You may read or sit quietly until the rest of the class completes Module 1. Are there any questions?

Answer all questions. When all students are ready, say:

You may begin.

While students are taking the exam, be available as a resource. Do not give any individual or group help that might suggest the correct answer to a question. Do not communicate to a student that the student should "check" an answer or that the student has answered an item incorrectly. You may, however, provide clarification of exam directions. The Exam Directions are printed in Appendix D of this manual. They may be repeated to students as needed during the administration.

Sometimes a word of encouragement is all that is needed to help a student continue to work. Encourage students to try all of the tasks (questions) and to complete the exam.

The testing time for this module is estimated at 75 minutes, but the actual administration time may vary. Collect exam materials when students are finished testing rather than keeping them closed on the students' desks. Since each student is to be provided sufficient time to finish the exam, additional time may be allowed on an individual basis if one or more students are continuing to make reasonable progress on the exam. End the session only when all students have completed all questions or when you determine that additional time is not necessary. For more information about Extended Exam Time, see Part II of this document. When you have confirmed that approximately five minutes remain in the exam time for the group not yet finished with this exam module, say:

You have about five minutes to complete Module 1. Make sure that you have completely erased wherever you have changed an answer or made a stray mark in your answer booklet.

Allow time for students to erase wherever necessary. When all students are ready, say:

Close your test booklet and answer booklet.

You will use the same booklets for Module 2, so make sure your name is on the front cover of each booklet. Place your answer booklet inside the test booklet. I will now collect your scratch/grid paper.

Collect all scratch/grid paper at this time. Used scratch/grid paper must be returned to the School Assessment Coordinator and kept in a secure location until it can be destroyed.

- If you are administering Module 2 later in the same day, say:
  You are going to take Module 2 later today, so I will now collect your test booklet and answer booklet. They will be returned to you at that time.

- If you are administering Module 2 on a different day [*you may specify the day*], say:
  You are going to take Module 2 on [a different day *or say the name of the day***], so I will now collect your test booklet and answer booklet. They will be returned to you at that time.**

Collect the booklets in a systematic fashion, making sure that answer booklets have been placed inside the test booklets and that each student's name is on his or her test booklet. All calculators used during the exam must be cleared of any information entered during this module. **Note:** If students used school-provided calculators, also collect the calculators.

Return all materials (test booklets, answer booklets, and used scratch/grid paper) immediately to the School Assessment Coordinator for secure storage. **Note:** Do NOT review student responses to test questions for completeness or accuracy. Do NOT review answer booklets for stray marks.

ADMINISTER THE ALGEBRA I EXAM—MODULE 2

Make sure that no student is in possession of a cell phone, camera, or other electronic device. Collect all electronic devices prior to distributing any exam materials. Distribute booklets to students and make certain each student has the correct booklets.

Say and demonstrate:

Check to make sure that your name is on the front cover of both the test booklet and the answer booklet.

When all students are ready, say:

I will now distribute scratch/grid paper to be used with this module of the Algebra I Spring 2015 Exam.

Distribute scratch/grid paper. When all students are ready, say:

Now we are ready to begin Algebra I—Module 2. Carefully follow the directions, and give this exam your best effort. Open your test booklet to page 2. Fold your test booklet back so that only page 2 is showing. In the middle of the page is a box labeled "ATTENTION." Read the paragraph inside this box now.

Pause for students to read the paragraph. Then say:

Are there any questions about this paragraph?

Answer all questions. When all students are ready, say:

Turn to page 21 in your test booklet. Fold your test booklet back so that only page 21 is showing.

Pause while students find the correct page in their test booklets. Make sure all students have folded their test booklets back so that only page 21 is showing. When all students are ready, say:

Look at the directions on page 21. Read the directions silently as I read them aloud.

On the following pages of this test booklet are the Keystone Algebra I Exam questions for Module 2.

Formulas that you may need to solve questions in this module are found on page 23 of this test booklet. You may refer to the formula page at any time during the exam.

You may use a calculator on this module. When performing operations with π (pi), you may use either calculator π or the number 3.14.

Are there any questions?

Answer all questions. When all students are ready, say:

Continue to read the directions on page 21 silently as I read them aloud.

There are two types of questions in each module.

Multiple-Choice Questions

These questions will ask you to select an answer from among four choices.

- ***First read the question and solve the problem on scratch paper. Then choose the correct answer.***
- ***Only one of the answers provided is correct.***
- ***If none of the choices matches your answer, go back and check your work for possible errors.***
- ***Record your answer in the Algebra I answer booklet.***

Say:

Are there any questions?

Answer all questions. When all students are ready, say:

Continue to read the directions on page 21 silently as I read them aloud.

Constructed-Response Questions

These questions will require you to write your response.

- ***These questions have more than one part. Be sure to read the directions carefully.***
- ***You cannot receive the highest score for a constructed-response question without completing all the tasks in the question.***
- ***If the question asks you to show your work or explain your reasoning, be sure to show your work or explain your reasoning. However, not all questions will require that you show your work or explain your reasoning. If the question does not require that you show your work or explain your reasoning, you may use the space provided for your work or reasoning, but the work or reasoning will not be scored.***
- ***All responses must be written in the appropriate location within the response box in the Algebra I answer booklet. Some answers may require graphing, plotting, labeling, drawing, or shading. If you use scratch paper to write your draft, be sure to transfer your final response to the Algebra I answer booklet.***

Are there any questions?

Answer all questions. When all students are ready, say:

Continue to read the directions on page 21 silently as I read them aloud.

If you finish early, you may check your work in Module 2 only.

- ***Do not look back at the questions in Module 1 of your exam materials.***
- ***After you have checked your work, close your exam materials.***

You may refer to this page at any time during this portion of the exam.

Are there any questions?

Answer all questions. When all students are ready, say:

Now turn to pages 22 and 23 of your test booklet.

Pause while students turn the page in their test booklet. When all students are ready, say:

On page 22 of your test booklet is the *General Description of Scoring Guidelines* for use with Algebra I constructed-response questions. This is an example of the scoring guidelines that professional scorers will use to evaluate your responses to constructed-response questions for Algebra I. You may refer to these scoring guidelines at any time while responding to a constructed-response question for Algebra I. Are there any questions?

Answer all questions. When all students are ready, say:

On page 23 of your test booklet is the formula sheet for use with the Algebra I Spring 2015 Exam. The same formula sheet can be found on pages 16 and 22 of your answer booklet. You may use these formulas to solve questions on this exam. You may refer to the formula page at any time during the test. Are there any questions?

Answer all questions. When all students are ready, say:

We are now ready to start Module 2. Turn to page 24 in your test booklet and page 17 in your answer booklet. Look at the GO ON arrow on the bottom of each page. The GO ON arrow indicates that you are not yet finished with Module 2 and you are to continue on to the next page. Follow all GO ON arrows and directions that tell you which questions are in your test booklet and which questions are in your answer booklet. At the end of Module 2, you will see a STOP sign in your test booklet and a STOP sign in your answer booklet. Make sure you continue to respond to questions until you see the STOP sign in both your test booklet and your answer booklet.

Remember to complete questions 1 through 27 in Module 2 and to mark only one correct answer for each question in your answer booklet. Make sure that you have completely erased wherever you have changed an answer or made a stray mark in your answer booklet. Then close your answer booklet and place it inside your test booklet so I will know you have finished. I will collect your exam materials when you finish. You may read or sit quietly until the rest of the class completes Module 2. Are there any questions?

Answer all questions. When all students are ready, say:

You may begin.

While students are taking the exam, be available as a resource. Do not give any individual or group help that might suggest the correct answer to a question. Do not communicate to a student that the student should "check" an answer or has answered an item incorrectly. You may, however, provide clarification of exam directions. The Exam Directions are printed in Appendix D of this manual. They may be repeated to students as needed during the administration.

Sometimes a word of encouragement is all that is needed to help a student continue to work. Encourage students to try all of the tasks (questions) and to complete the exam.

The testing time for this module is estimated at 75 minutes, but the actual administration time may vary. Collect exam materials when students are finished testing rather than keeping them closed on the students' desks. Since each student is to be provided sufficient time to finish the exam, additional time may be allowed on an individual basis if one or more students are continuing to make reasonable progress on the exam. End the session only when all students have completed all questions or when you determine that additional time is not necessary. For more information about Extended Exam Time, see Part II of this document. When you have confirmed that approximately five minutes remain in the exam time for the group not yet finished with this exam module, say:

You have about five minutes to complete Module 2. Make sure that you have completely erased wherever you have changed an answer or made a stray mark in your answer booklet.

Allow time for students to erase wherever necessary. When all students are ready, say:

Close your test booklet and answer booklet.

Place your answer booklet inside the test booklet. I will now collect your scratch/grid paper.

Collect all scratch/grid paper at this time. Used scratch/grid paper should be returned to the School Assessment Coordinator and kept in a secure location until it can be destroyed. All calculators used during the exam must be cleared of any information entered during this module. **Note:** If students used school-provided calculators, also collect the calculators.

Say:

> **This concludes the Algebra I Spring 2015 Exam. I will now collect your test booklet and answer booklet.**

Collect the booklets in a systematic fashion, making sure that answer booklets have been placed inside the test booklets.

Return all materials (test booklets, answer booklets, and used scratch/grid paper) immediately to the School Assessment Coordinator for secure overnight storage. **Note:** Do NOT review student responses to test questions for completeness or accuracy. Do NOT review answer booklets for stray marks.

Go on to read Part V: After Exam Administration found on the next page of this manual.

AFTER TESTING IS COMPLETE

After testing is complete:

- Make sure student identification information is complete and correct on all booklets. Make sure the name on the test booklet and the answer booklet correspond for each student.
- If a student answer booklet has a barcode label with a colored stripe [a District/School Label], make sure that applicable portions of the front cover and page 2 of the answer booklet are completed with the circles filled in. (See your School Assessment Coordinator for questions or further direction.)
- If a student used any accommodation listed on page 3 of the answer booklet during the administration of the exam, make sure that applicable portions of page 3 of the answer booklet are completed with the circles filled in. (See your School Assessment Coordinator for questions or further direction.)
- Do **not** check documents for content, accuracy, completeness, or stray marks.

RETURN MATERIALS

Exam materials must be kept secure. All materials, including any unused materials, related to the administration of this exam must be returned to the School Assessment Coordinator.

Return all exam materials to the School Assessment Coordinator for secure storage. This includes used and unused test booklets and answer booklets, this manual, and used scratch/grid paper. All exam materials must be returned to the School Assessment Coordinator immediately at the end of the exam session.

Reminder: All used answer booklets returned to Data Recognition Corporation for processing **must** have a barcode label [District/School or Student Precode or Do Not Score] affixed to the front cover of the answer booklet. Do **not** affix a barcode label to any unused answer booklets.

Remember: Every Test Administrator involved in the administration of this Keystone Exam must sign and date a *Test Administrator/Proctor Test Security Certification*. When a Test Administrator signs and dates the Test Security Certification, that person certifies that all security measures have been followed for this Keystone Exam administration. Test Administrators should return the signed and dated *Test Administrator/Proctor Test Security Certification* to the School Assessment Coordinator upon completion of the last testing session.

If an exam security violation is suspected, contact the School Assessment Coordinator or the Pennsylvania Department of Education immediately.

Note: The School Assessment Coordinator has all information on returning exam materials to Data Recognition Corporation (DRC).

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ETHICAL STANDARDS OF TEST ADMINISTRATION

Before Test Administration:

DO…

- Communicate to students, parents, and the community what the test does and does not measure, when and how it will be administered, and how the results will be used.
- Maintain a positive attitude about testing.
- Teach to the Pennsylvania Core Standards.
- Review skills, strategies, and concepts previously taught.
- Integrate teaching of test-taking skills with regular classroom instruction and assessment. Examples of test-taking skills include responding to both multiple-choice and constructed-response (open-ended) items.
- Be sure that students testing online have prior experience with the online practice test that models the testing mode (online) and its tools.
- Use any test preparation documents provided by the Pennsylvania Department of Education including *Item and Scoring Samplers* and *General Scoring Guidelines*.
- Read the *Directions for Administration Manual*.
- Follow test security and administration guidelines.
- Consider having a teacher, other than the teacher of record, administer the assessment to a particular group of students. If local circumstances do not allow that option, assign a Proctor in the classroom with the Test Administrator.
- Schedule the assessment.
- Include all students in the appropriate assessment.
- Attend the annual training for the administration of the assessments in order to be properly informed of the procedures to follow. This training includes understanding test security and the confidential and proprietary nature of the documents.
- Make contingency plans for unexpected disruptions during testing. All school personnel must know what to do in the event of a fire alarm, bomb threat, HAZMAT incident, unruly student, etc.
- Remove or disable monitoring software (spyware) from computers, iPads, and Chromebooks to be used for testing.
- Cover or remove from classrooms or hallways all instructional materials that could aid students in answering test items.
- Make sure the testing environment is comfortable and has appropriate lighting.
- Ensure students are seated at the correct workstation for an online test administration.
- Review the Code of Conduct for Test Takers with students.
- Review the Calculator Policy. Clear the memory and all stored programs before and after the calculators are used for a test.
- Make sure calculators (other than calculators provided within the online testing engine) meet the requirements of the Calculator Policy.
- Know the required accommodations for each student with an IEP or 504 Service Plan and for each English Language Learner being assessed.
- Review with students the possible local sanctions the district will enforce for student misconduct (e.g., cheating and recording test questions).

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DO NOT…

- Teach students a test-taking technique that would require them to bubble more than one response to a test question and then return and erase all but one response.
- Review student test booklets except for purposes as stated in the *Directions for Administration Manual* and any of the accommodations guidelines documents. Knowledge or review of test content is not necessary for valid test administration and is prohibited.

  Note: Interpreters may have access to test materials three days prior to test administration to prepare for accurate interpretation of the test.
- Reveal any part of secure copyrighted tests to students.
- Copy or otherwise reproduce any part of secure tests.
- Review and/or provide answers to test questions to students.
- Possess unauthorized copies of state tests.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

<u>During Test Administration:</u>

DO…

- Follow test security and administration guidelines.
- Continually move around the testing site to ensure students are adhering to the instructions given.
- During active monitoring ensure that students are working in the correct section and that they are bubbling in answers in the correct section of the answer sheet for the section of the test booklet in which they are working. Be cautious in redirecting or assisting students that you are not violating test security by coaching (see DO NOT list on the next page).
- Make sure students are supervised at all times during testing and all breaks. This supervision requirement includes those students who need additional time to complete any test session.
- Escort all students and carry all secure testing materials to alternate testing sites for extended time, etc.
- Maintain a positive attitude about testing.
- Make sure that sections/modules are started and completed in the same day.
- Account for all test booklets and answer booklets and keep them in a secure location.
- Keep voice inflections neutral if an allowable or required accommodation is to read portions of the test aloud.
- Minimize distractions, including intercom announcements.
- Place a "**Testing—Do Not Disturb**" sign on doors where testing is occurring.
- Collect cell phones, smart phones, and other unauthorized electronic devices as students enter the testing site.
- Report testing irregularities/security breaches to the School Assessment Coordinator, principal, or the Pennsylvania Department of Education.

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DO NOT…

- Leave students unattended with testing materials or permit any student to leave the testing site with testing materials for any reason.
- Permit students to look ahead to another section or module of the test before being instructed to do so, or allow students to look back in a test booklet once a test section or module has been completed.
- Discuss, disseminate, or otherwise reveal contents of the test to anyone.
- Possess secure test materials at any time other than during the actual administration of the test. Test Administrators should be given the secure materials immediately prior to the administration of the test, and the materials must be counted and collected by the School Assessment Coordinator immediately after the testing session ends each day.
- Coach or provide feedback to students (e.g., answer any questions pertaining to the content of the test, review rough drafts, or give feedback of any kind including indicating to students any items that need a second look). This prohibition includes, but is not limited to, a Personal Care Aid (PCA), Therapeutic Support Staff (TSS), or any other one-on-one aide who is assigned to a student.
- Define or clarify a word.
- Read aloud any portion of the Literature Assessment.
- Read aloud the passages, multiple-choice questions or answer choices, or short-answer questions in Sections 2, 3, or 4 of the PSSA English Language Arts assessment.
- Read aloud any part of a mathematics item that will cue the correct answer or provide a hint for the test taker.
- Return a test booklet to any student after it has been turned in to the Test Administrator except for make-up sessions for absences and for students who go to another testing site for extended time.
- Alter, influence, or interfere with a test response in any way, fill in any unanswered item, or instruct the student to do so.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

<u>After Test Administration:</u>

DO…

- Follow test security and administration guidelines.
- Maintain a positive attitude about testing.
- Collect all scratch paper or rough drafts at the end of each test session, and return them to the School Assessment Coordinator to be destroyed.
- Return all secure testing materials to the School Assessment Coordinator immediately after the testing session each day.
- Account for all test booklets and answer booklets daily, and keep them in a secure location.
- Transcribe exact student responses, including incorrect responses, when an alternate test format (such as Braille or large print) has been used or when a student's answer booklet has been damaged.
- Clear the memory of calculators after each testing session.
- Pack and ship the secure testing materials to the testing contractor.
- Sign the appropriate Test Security Certification, and return it to the appropriate individual as directed.

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DO NOT…

- Discuss, disseminate, or otherwise reveal the contents of the test to anyone.
- Keep/save, copy, reproduce, or use any test, test item, specific test content, or examinee responses to any item or any section of a secure test in any manner inconsistent with the instructions provided by and through the Pennsylvania Department of Education.
- Review student responses in the answer booklet.
- Review test booklets containing the test items.
- Alter, influence, or interfere with a test response in any way, fill in any unanswered item, or instruct the student to do so.
- Discuss or provide feedback regarding test items.
- Copy or reproduce any portion of the secure test materials or provide answer keys.
- Erase or change student answers.
- Make false or misleading statements about assessment results, including inappropriate interpretations, inaccurate reports, or unsubstantiated claims.
- Erase stray marks or darken bubbles.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

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CODE OF CONDUCT FOR TEST TAKERS

DO…

- Get a good night's sleep.
- Eat a good breakfast.
- Listen to, read, and follow all directions given.
- Ask questions if you do not understand the directions.
- Read each question carefully, especially multiple-choice items that ask for the "best answer." Also, be sure to read any open-ended items and writing prompts carefully before responding.
- Be careful when marking your answers so that you do not skip spaces or fill in the wrong sections.
- Make sure to completely fill in the bubble for the answer you select and erase completely any answers you change.
- Keep your eyes on your own test.
- Try to answer each test item.
- Check that you have completed all the test items in the test section before closing your test booklet or submitting your final responses online.
- Report any suspected cheating to your teacher or principal.

DO NOT…

- Bring notes with you to the test.
- Bring any electronic devices (e.g., cell phones, smart phones, etc.) other than an approved calculator, if applicable, to the test.
- Share a calculator with others.
- Use the bubbles in the answer booklet to either eliminate possible incorrect answers or possible correct answers. Mark only the bubble for the one correct answer you have chosen.
- Talk with others about questions on the test during or after the test.
- Take notes about the test to share with others.
- Leave an online test session until the session is complete or until instructed to do so.

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Spring 2015 Keystone Exam Security Certification

(Test Administrator and Proctor)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, I completed the Pennsylvania State Test Administration Training, and I understand that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have not removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction. I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have not provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees.

I understand that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

Administrator/Proctor Name	Administrator/Proctor Signature	Date of Signature

ALGEBRA I EXAM DIRECTIONS

Below are the exam directions available to students in their test booklets. These directions may be used to help students navigate through the exam.

Formulas that you may need to solve questions in this module are found on page 5 [or 21] of this test booklet. You may refer to the formula page at any time during the exam.

You may use a calculator on this module. When performing operations with π (pi), you may use either calculator π or the number 3.14.

There are two types of questions in each module.

Multiple-Choice Questions

These questions will ask you to select an answer from among four choices.

- First read the question and solve the problem on scratch paper. Then choose the correct answer.
- Only one of the answers provided is correct.
- If none of the choices matches your answer, go back and check your work for possible errors.
- Record your answer in the Algebra I answer booklet.

Constructed-Response Questions

These questions will require you to write your response.

- These questions have more than one part. Be sure to read the directions carefully.
- You cannot receive the highest score for a constructed-response question without completing all the tasks in the question.
- If the question asks you to show your work or explain your reasoning, be sure to show your work or explain your reasoning. However, not all questions will require that you show your work or explain your reasoning. If the question does not require that you show your work or explain your reasoning, you may use the space provided for your work or reasoning, but the work or reasoning will not be scored.
- All responses must be written in the appropriate location within the response box in the Algebra I answer booklet. Some answers may require graphing, plotting, labeling, drawing, or shading. If you use scratch paper to write your draft, be sure to transfer your final response to the Algebra I answer booklet.

If you finish early, you may check your work in Module 1 [or Module 2] only.

- Do not look ahead at the questions in Module 2 [or back at the questions in Module 1] of your exam materials.
- After you have checked your work, close your exam materials.

You may refer to this page at any time during this portion of the exam.

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PENNSYLVANIA CALCULATOR POLICY

If a student chooses to use a calculator (other than the online options) on the Keystone Exams or PSSA in sections where the calculator is permitted, the student must adhere to the guidelines listed below. It is incumbent upon the School Assessment Coordinator to ensure that all calculator policies are implemented and followed, including making sure calculators have no programs stored in their memory other than those that are factory installed. Please note that if a student wants to restore the deleted programs, the student will need to back up these programs prior to the assessment. In addition, the memory must be cleared on the calculator following each test session of the assessment.

The following are **not** permitted for the PSSA or Keystone Exams:

- Noncalculators such as cell phones, smart phones, PDAs, laptops, tablets, pocket organizers, etc.
- Calculators with infrared, Wi-Fi, Bluetooth, or other beaming or wireless capabilities, unless the beaming or wireless capabilities are disabled
- Calculators with QWERTY keyboards, typewriter-like keyboards, or keypads (e.g., Dvorak)
- Calculators with built-in Computer Algebra Systems (CAS)
- Calculators that make noise, have paper tape, need to be plugged in, or talk; these specific calculators can only be used as a required accommodation as stated in the *Accommodations Guidelines*
- Calculators shared by students during a test session
- Any and all nonfactory programs or information stored in the calculator

This calculator policy is intended to be a general description of what is not allowed. It is not meant to be an exhaustive list of specific calculators, devices, or technologies that cannot be used on the PSSA or Keystone Exams. Please note that as technology changes, this policy may also change.

KEYSTONE
ALGEBRA I

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SPRING 2015
KEYSTONE EXAMS
ALGEBRA I

DIRECTIONS FOR ADMINISTRATION MANUAL

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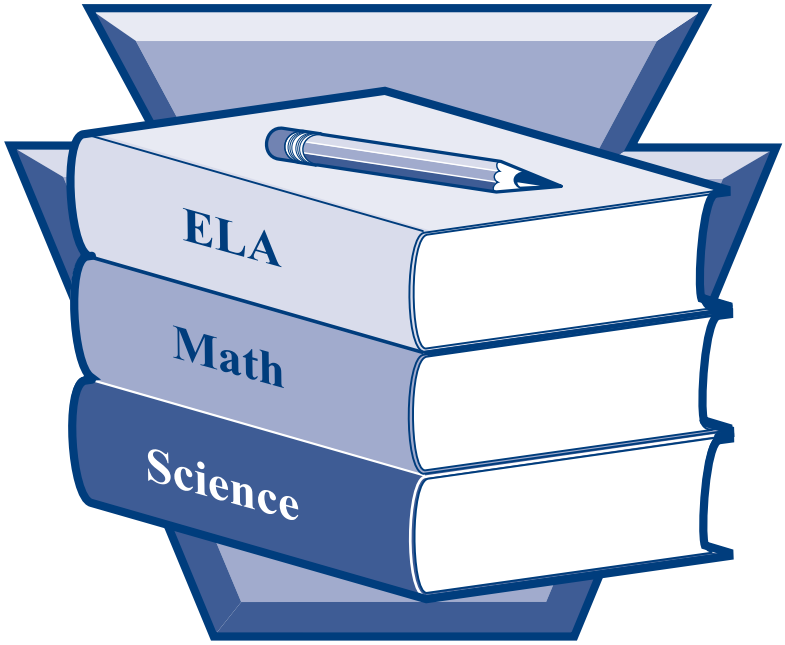


2015

Pennsylvania System of School Assessment

Handbook for Assessment Coordinators

TABLE OF CONTENTS

NEW THIS YEAR

1. PIMS

The PIMS student data DRC will receive for PSSA reporting will indicate a student's enrollment status on the last day of each subject-specific testing window (i.e., the student's district/school of residence and Full Academic Year status for each subject). Accordingly, PDE's attribution rules have been established to follow these subject-specific testing windows. Therefore, a student is to be attributed to the school and/or district in which he is enrolled on the last day of each subject-specific testing window, not necessarily the last day of the entire PSSA testing window (which was the previous PSSA attribution rule). Please see page 10 for more information on how to handle student withdrawal and enrollment during the specific testing windows.

IMPORTANT REMINDERS

1. LATE RETURN OF TEST MATERIALS

All PSSA materials must be returned in accordance with the dates provided in this handbook. All PSSA answer booklets must arrive at DRC by the final processing date to be included in 2015 reporting. UPS pickups must occur in accordance with the established timelines, and absolutely no later than May 8 to ensure that your materials arrive prior to the close of answer booklet processing. Failure to return your PSSA answer booklets in the required timeline can negatively affect PSSA and accountability reporting. The exclusion of any students in accountability reporting because of an LEA's failure to return answer booklets within the established timeline will be reported to and researched by the Pennsylvania Department of Education.

2. CODE OF CONDUCT

The Code of Conduct for Test Takers, found in Appendix D of this manual, provides requirements that students should follow before, during, and after each assessment. This code of conduct must be reviewed with all students in advance of the testing day. Prior to starting the assessment, students will be required to indicate that they understand the Code of Conduct for Test Takers that was reviewed with them by their Test Administrators (or teachers). It is important that Test Administrators are prepared to answer any questions about the Code of Conduct so that all students can acknowledge their understanding of the requirements.

3. SCORING GUIDELINES

To give students easier access to the rubrics that are used to score their open-ended responses, the subject-specific Scoring Guidelines will be presented as separate handouts rather than printed in the back of the test booklets. The Scoring Guidelines will be printed and packaged separately by subject and grade (when necessary) and will include all applicable rubrics—the mathematics reference sheets for grades 4–8 will also include formula sheets. The *Directions for Administration Manuals* provide clear instructions for the distribution and collection of the Scoring Guidelines. Schools may make copies if additional handouts are needed.

4. TEST SECURITY CERTIFICATIONS

Any individual who handles secure assessment materials must sign the Test Security Certification. All certifications must be signed after the assessments have been administered and must be retained for three years by the Chief School Administrator. The Test Security Certifications can be found in Appendix E of this handbook. For additional information, see page 23.

5. MATERIALS RECEIPT NOTICE AND MATERIALS ACCOUNTABILITY FORM

All assessment coordinators are required to enter the date **secure** materials arrive at the district/school using the Materials Receipt Notice in eDIRECT. For more information, please refer to page 3 of this handbook.

Each district is responsible for completing the Materials Accountability Form in eDIRECT. The assessment coordinator must indicate the number of booklets being returned to DRC and record any discrepancies. For more information, please refer to page 37 of this handbook.

PART I – GENERAL ASSESSMENT INFORMATION

1. ADMINISTRATION MANUALS

Building Principals, District Assessment Coordinators, and School Assessment Coordinators who coordinate the administration of the assessments must become familiar with this handbook and the *Directions for Administration Manuals*. The *Directions for Administration Manuals* are mode (i.e., online or paper) specific. Manuals will be provided to school entities based on whether students will be participating in the PSSA via either online testing or paper/pencil testing.

The purpose of this handbook is to provide guidelines and procedures for online testing and paper/pencil testing. Additional information associated with utilizing the eDIRECT system for online testing can be found in the *eDIRECT Test Setup User Guide* which can be found at https://pa.drcedirect.com. Click on Documents under the General Information tab. Select 'General Testing Information' under Administration, select 'User Guide' under Document Type, and click Show Documents.

Note: For testing sites that receive their materials directly from Data Recognition Corporation (e.g., ship-to-school districts, IUs, charter schools, non-public and private schools, and other special sites); the School Assessment Coordinator fulfills the responsibilities of the District and School Assessment Coordinator as outlined in this handbook.

Schools may make copies (in full or in part) of this handbook and the *Directions for Administration Manuals*. PDF versions of these documents can be found in eDIRECT and also on the PDE website at www.education.state.pa.us. Click on State Assessment System on the home page next to the large green check mark, then Pennsylvania System of School Assessment (PSSA).

2. TESTING WINDOWS FOR 2015

Materials for the assessments will be delivered according to the schedule below. Instruct personnel who are responsible for receipt of the shipments to contact you as soon as the shipments arrive. (Avoid the common error of having shipments placed in the book storage area or the supply room without the assessment coordinator's knowledge.) Boxes can be identified by a fluorescent label that reads "Test Materials Enclosed: Open Immediately and Inventory."

By March 16	Manuals (all subjects) arrive at districts/schools
By March 30	Administrative and secure materials (all subjects) arrive at districts/schools
April 13 – 17	**ENGLISH LANGUAGE ARTS TESTING WINDOW**
	English Language Arts materials picked up by ***April 22***
April 20 – 24	**MATHEMATICS TESTING WINDOW**
	Mathematics materials picked up by ***April 29***
April 27 – May 1	**SCIENCE TESTING WINDOW**
	Science materials picked up by ***May 6***
May 4 – 8	**MAKE-UP TESTING WINDOW FOR ALL SUBJECTS**
	ALL make-up materials picked up by ***May 8***

3. MATERIALS RECEIPT NOTICE

Boxes should be opened immediately to inventory the contents. If not inventoried centrally, boxes should be distributed intact to schools, allowing enough time for the School Assessment Coordinator to inventory the materials. District Assessment Coordinators (or School Assessment Coordinators that receive materials directly from DRC) are required to enter the date secure materials arrive at the district/school using the Materials Receipt Notice in eDIRECT. All District Assessment Coordinators have access to the Materials Receipt Notice and are responsible for assigning permissions to School Assessment Coordinators (if appropriate).

After logging in to eDIRECT, click on Receipt Notice under the Materials tab on the left menu. Select the appropriate Administration and then District and School; click Show. Clicking the complete button certifies that the school listed has received and inventoried its secure testing materials and that any discrepancies from the packing list have been reported to DRC.

NOTE: All secure materials must be returned to DRC. Any materials that are not returned to DRC or accounted for on the school's Materials Accountability Form will be reported to the Pennsylvania Department of Education.

4. ADDITIONAL MATERIALS

If additional materials are needed, the School Assessment Coordinator should request them from the District Assessment Coordinator. Additional materials must be requested through eDIRECT at https://pa.drcedirect.com. All District Assessment Coordinators have access to the Additional Materials Request and are responsible for assigning permissions to School Assessment Coordinators (if appropriate).

After logging in to eDIRECT, click on Additional Materials under the Materials tab on the left menu. Select the appropriate Administration and then District and School. Click the Add Order button to see the materials available to order. Fill in the amount of materials needed in the Request Quantity box, then click the Submit button. **When ordering additional materials, please enter the exact number needed. DRC will determine final counts and pack sizes.**

This system allows for all users with proper permission to see orders that have been placed. To search or view orders, click on Additional Materials under the Materials tab on the left menu. Select the appropriate Administration and then District and School. Select 'All' under Status and then click the Find Orders button. All orders for that School will be displayed with the current status. Materials ordered from DRC after 2:00 p.m. EST will be shipped on the following business day. All materials must be ordered four days prior to the start of a testing window in order to ensure delivery prior to the start of testing. If additional Braille material is needed, please call DRC Customer Service at 1-800-451-7849.

5. SCHOOL ASSESSMENT COORDINATOR ORIENTATION

Every District Assessment Coordinator must train School Assessment Coordinators prior to the School Assessment Coordinator training the Test Administrators. The following topics must be included in the training:

1. The district assessment schedule
2. Directions in this handbook; emphasizing
   - **a)** student participation;
   - **b)** requirements for completing demographic and accommodations information for all participating students;
   - **c)** barcode labels (for paper testers, every used answer booklet must have a label applied to the front cover);
   - **d)** required PAsecureID lists; and
   - **e)** Test Security Certifications
3. Procedures for distribution and collection of assessment materials, including Test Tickets for online testers
4. Directions in the *eDIRECT Test Setup User Guide*, if testing online
5. Test Administrator training

6. School Assessment Coordinator responsibility for the security of assessment materials
7. Distribution of parent information
8. A complete review of test security

School Assessment Coordinators should be given ample time to distribute the *Directions for Administration Manual*s to Test Administrators and to schedule an orientation session within the two weeks prior to the assessment window.

6. TEST ADMINISTRATOR ORIENTATION

Any person who functions as a Test Administrator must complete the PSSA and Keystone Exams Test Administration online training module at www.pssatraining.com. This interactive course is designed as an individual, one-to-one training for Test Administrators and is a key component of the training that School Assessment Coordinators are required to perform as outlined in this manual. School Assessment Coordinators must ensure that their Test Administrators register and complete this training annually prior to administering the PSSA or Keystone Exams.

At least one week prior to the scheduled assessment dates, School Assessment Coordinators **must** conduct a training session for Test Administrators and Proctors. Qualified teachers, counselors, administrators, and paraprofessionals employed by the school district may act as Test Administrators. Student teachers may be present during the administration of the assessments as part of their professional experience; however, they may **not** be either Test Administrators or Proctors. In this training session, the following topics must be included:

1. **Assessment Schedule**—Be certain that Test Administrators and Proctors know the assessment schedule.
2. **Administration Preparation**—Test Administrators and Proctors must receive and study the *Directions for Administration Manual*s and the Ethical Standards of Test Administration (found in Appendix B) prior to training.
3. **Students with Special Needs**—Explain which students are to be included in the assessment and what special accommodations may be provided for these students (see "Participation Guidelines for All Assessments" starting on page 7 of this handbook).
4. **Assessment Conditions**—Remind Test Administrators and Proctors the importance of good assessment conditions (e.g., a comfortable, quiet room) and a positive approach to the assessment.
5. **Special Instructions**—Remind Test Administrators and Proctors that all paper testers must use a No. 2 pencil when responding to the assessment. Also, all demographic data must be coded using a No. 2 pencil.
6. **Cell Phones**—All cell phones, smart phones, and other prohibited electronic devices are to be collected as students enter the testing site. To ensure students (and parents/guardians) are aware of this policy, school districts and schools should distribute to parents/guardians the letter found in Appendix A before testing.

   The consequences for using and/or having a cell phone or other electronic device during the test administration includes:
   - a Do Not Score Label will be placed on the student's answer booklet and the student must retake the assessment during the same administration testing window in order to receive a score;
   - the phone or electronic device will be confiscated and in the presence of the parent or guardian, the cell phone or other electronic device will be viewed to ensure that no information or material regarding the assessment is present;
   - the student will be disciplined and that discipline will vary depending on whether test material has been compromised; and
   - the parents and students may be responsible for the cost of replacing compromised items.

   District personnel, school personnel, and students must understand that the integrity of the test cannot be compromised.

7. **Use of Calculators**—Except for the Non-Calculator section of the PSSA Mathematics assessment, calculators may be used for any part of the following assessments as long as the Pennsylvania Calculator Policy (found in Appendix C) is followed:
   - Remaining sections of the PSSA Mathematics assessment
   - PSSA Science assessment
8. **Use of Dictionaries, Thesauruses, Spell- or Grammar-Checkers**—Make sure all Test Administrators and Proctors are aware that the use of these items is not permitted on any section of the PSSA.

   Note: As an accommodation for English Language Learners, word-to-word dictionaries that translate a native language to English (or English to a native language) without definitions or pictures are allowed on the mathematics and science assessments only.
9. **Classroom Displays**—Explain that only the *General Description of Scoring Guidelines* for all content areas and the mathematics formula sheets may be displayed in the testing room. The subject-specific scoring guidelines and formula sheets are printed as separate documents for easy student reference. They can also be found in eDIRECT and the PDE website at www.education.state.pa.us. Click on State Assessment System on the home page next to the large green check mark, then Pennsylvania System of School Assessment (PSSA).
10. **Barcode Labels**—Emphasize the important aspects of barcode label use for paper testers (see "Labeling Answer Booklets" starting on page 12 of this handbook).
11. **Make-up Sessions**—Clarify the school entity's make-up procedures (see "Make-up Sessions" on page 36 of this handbook for complete instructions).
12. **Scratch Paper**—Remind Test Administrators and Proctors that scratch paper must be provided to students for use during the assessments. Blank graph and grid paper are allowed. All scratch paper must be removed from the answer booklets by the students. Collect all scratch paper at the end of each test session and return to the School Assessment Coordinator to be destroyed.
13. **Response Space**—Emphasize that students are limited to the response space provided in the answer booklets or in the online test engine (INSIGHT). Additional pages/booklets will not be scored.
14. **Code of Conduct**—Remind Test Administrators to review these requirements (found in Appendix D of this manual) with all students in advance of the testing day. Prior to starting the assessment, students will be required to indicate that they understand the Code of Conduct for Test Takers that was reviewed with them by their Test Administrators (or teachers). It is important that Test Administrators are prepared to answer any questions about the code of conduct so that all students can acknowledge their understanding of the requirements.
15. **Security**—Emphasize that all test materials, including test booklets, answer booklets, test tickets, and content in the online test must be kept secure at all times prior to, during, and after the assessment, and that completed booklets must be kept secure.

    To prevent any suspicion of testing anomalies, PDE strongly encourages school entities not to allow teachers to be Test Administrators and/or Proctors of their own students. As such, it is recommended that other teachers be used as Test Administrators and/or Proctors, or that a Proctor be in the testing room with the teacher if the teacher acts as the Test Administrator of his/her own class.

    In collaboration with the Bureau of Special Education, the following guidance is provided: A separate Test Administrator is required for test settings where an educational sign language interpreter has been assigned to interpret allowable Keystone and PSSA test material for a student(s). The School Assessment Coordinator must ensure that educational sign language interpreter receives assessment training. The interpreter must sign the Confidentiality Agreement found in the *Accommodations Guidelines* and the General Test Security Certification found in Appendix E. Before signing the certification, cross out the word "reviewed" in the third paragraph.

7. INFORMATION FOR ONLINE TESTERS

The School and District Assessment Coordinators involved with online testing should refer to the *eDIRECT Test Setup User Guide* and the grade/subject-specific *Online Directions for Administration Manual*s. These documents contain specific information related to using the eDIRECT system to set up students for online testing and managing student test tickets. The user guide and the *Online Directions for Administration Manual*s are available in eDIRECT. Click on Documents under the General Information tab. Select the appropriate Administration and select 'Manuals' under Document Type.

Other information related to online testing is also available in eDIRECT, including online testing tutorials and the Online Tools Training.

- **PA Online Tutorials**

  The PA Online Tutorials have been created for each assessment and are designed to be used by students at all grade levels. The tutorials use pictures, motion, and sound to present visual and verbal descriptions of the properties and features of the PA Online Assessment System. To view the tutorials:

  Go to eDIRECT: https://pa.drcedirect.com/.
  Under Test Setup on the left navigation pane, click on General Information.
  Go to the Test Tutorials tab.
  Click on the play button to view the tutorials.

- **PA Online Tools Training (OTT)**

  The PA Online Tools Training (OTT) is designed to provide an introductory experience using the online assessment software in preparation for taking the PSSAs. This allows students to become familiar with testing on a computer and allows them to experiment with the features available during an actual test. Two versions of the OTT are available – a public version and a secure version. The secure version is automatically downloaded when the District Technology Coordinator downloads the testing software. To view the public version:

  Go to eDIRECT: https://pa.drcedirect.com/.
  From the bottom of the home page, select Online Tools Training Software Download – Windows or Mac.
  Follow the onscreen instructions to start the OTT.
  The username and password is contained in the log in screen.
  Note: If a student needs to practice with the audio or color accommodations, add "audio" or "color" after the username (i.e., math3audio).

- **Technology User Guide**

  The *Technology User Guide* is available for the District Technology Coordinator. This user guide provides detailed assistance for downloading the testing software.

  Go to eDIRECT: https://pa.drcedirect.com/.
  Under General Information on the left navigation pane, click on Documents.
  Select 'General Testing Information' under Administration and 'Technology' under Document Type.

District Assessment Coordinators should consult with their District Technology Coordinator for further details about setting up online testing in the school/district.

PART II – PARTICIPATION GUIDELINES FOR ALL ASSESSMENTS

1. STUDENT PARTICIPATION IN THE ASSESSMENT

With only a few very specific exceptions, the following students must participate.

- All public school students enrolled in grades 3–8 are required to participate in the 2015 English Language Arts PSSA or the Pennsylvania Alternate System of Assessment (PASA).
- All public school students enrolled in grades 3–8 are required to participate in the 2015 Mathematics PSSA or the Pennsylvania Alternate System of Assessment (PASA).
- All public school students enrolled in grades 4 and 8 are required to participate in the 2015 Science PSSA or the Pennsylvania Alternate System of Assessment (PASA).
- Participation by students in non-public schools is voluntary.

2. PARTICIPATION WITH ACCOMMODATIONS

All students with disabilities, except those participating in the Pennsylvania Alternate System of Assessment (PASA), must participate in the 2015 Pennsylvania System of School Assessments. These students should be provided with the same allowable accommodations in the state assessment environment as provided for in their 22 PA Code Chapter 14 Individualized Education Program (IEP) or their 22 PA Code Chapter 15 Service Agreement regarding their instruction. For more information, refer to the *Accommodations Guidelines* found in eDIRECT. Click on Documents under the General Information tab on the left menu. Select 'General Testing Information' under Administration and 'PDE Procedures and Guidelines' under Document Type. This document can also be found on the PDE website at www.education.state.pa.us. Click on State Assessment System on the home page next to the large green check mark, then Pennsylvania System of School Assessment (PSSA).

- **Braille and large-print** versions of the assessment will be available for students with visual impairments. These versions are available in paper versions only.
  - Students who use the Braille or large-print versions must have all of their answers (multiple-choice and open-ended) transcribed by the School Assessment Coordinator or designee into a Form 1 answer booklet (using a No. 2 pencil only). Additional Form 1 booklets for transcription will be provided with the Braille and large-print versions for this purpose. These booklets are identified as packs of 1. If a Form 1 scannable-booklet pack is not received, please use another Form 1 answer booklet from the school's additional materials.
  - The School Assessment Coordinator or designee should not make corrections of student work. No corrections are allowed for spelling, punctuation, or grammar.
  - Student responses in Braille or large-print booklets that are not transcribed into a Form 1 answer booklet will not be scored. The answer booklet that has been used for transcription purposes must have a Student Precode Label or a District/School Label properly affixed.
  - All Braille and large-print booklets are secure materials and must be returned to DRC.
- **Audio** versions of the Mathematics and Science assessments are available for students with IEPs needing this accommodation. The audio versions are available **online only.** Within eDIRECT, this accommodation must be selected for the student prior to the student being added to a test session. The test ticket must display this accommodation to ensure that the student is setup properly within the online testing tool. For additional information, please refer to the *eDIRECT Test Setup User Guide*.

- **Color Chooser and Color Contraster** accommodations are available with the online assessments for students who need color overlay accommodations. Within eDIRECT, this accommodation must be selected for the student prior to the student being added to a test session. The test ticket must display this accommodation to ensure that the student is setup properly within the online testing tool. For additional information, please refer to the *eDIRECT Test Setup User Guide.*

See the "Accommodations" section on page 18 of this handbook for additional information.

3. PARTICIPATION IN THE PENNSYLVANIA ALTERNATE SYSTEM OF ASSESSMENT

All students must participate in either the PSSA or the Pennsylvania Alternate System of Assessment (PASA) for mathematics, reading, and science. For more information on PASA, please go to the following website: http://www.pasadigital.com.

If a student has an IEP and is eligible to participate in the PASA, school personnel do not need to return PSSA assessments to DRC for the student. Students responding to the PASA should be provided with an alternative learning environment during the PSSA sessions.

Please review the following eligibility criteria for participation in an alternate assessment. Students who meet all six of the criteria may be excused from the Pennsylvania System of School Assessments and must be administered the PASA for mathematics, reading, and science. A student who meets these criteria cannot be eligible for the PSSA in one subject and an alternate assessment in another subject. The Pennsylvania Department of Education is required by the Individuals with Disabilities Education Act (IDEA) to monitor the inclusion of students with disabilities in the statewide assessments.

Criteria for Participation in the Pennsylvania Alternate System of Assessment
(Whether or not a student meets the following criteria must be determined by the student's IEP team.)

Criterion 1:	The student is in grade 3, 4, 5, 6, 7, or 8; and
Criterion 2:	The student has a very severe cognitive disability; and
Criterion 3:	The student requires very intensive instruction to learn; and
Criterion 4:	The student requires very extensive adaptations and supports in order to perform and/or participate meaningfully and productively in the everyday life activities of integrated school, home, community, and work environments; and
Criterion 5:	The student requires very substantial modification of the general education curriculum; and
Criterion 6:	The student's participation in the general education curriculum differs very substantially in form and/or substance from that of most other students (i.e., requires modified objectives, materials, and/or activities)

Important Reminder: No more than 1% of a district's percentage of Advanced/Proficient scores in a grade span may come from PASA results for accountability purposes. PASA results in excess of 1% will be counted as Not Proficient for purposes of accountability.

4. PROCEDURES FOR NON-ASSESSED STUDENTS

For a non-assessed student taking a paper assessment, use the "Non-Assessed Students" grid on page 1 of the answer booklet and darken the bubble next to the reason the student did not participate. For online testers, non-assessed information must be provided in eDIRECT (Test Setup > Students). Refer to the *eDIRECT Test Setup User Guide* for more information.

The non-assessed information on the answer booklet or in eDIRECT does not override student responses. If a student attempts all sections of a subject, the student's responses will be scored.

Students not participating in the assessment must be coded under one or more of the following categories:

- **Student had a recent medical emergency:** This applies only to rare circumstances in which a student cannot take or finish taking the assessment during the entire testing window, including make-up dates, due to a recent significant medical emergency. For example, this might include a situation in which a student is recovering from a recent car accident. In these situations, the student has remained enrolled at the school, yet the circumstances might prohibit him or her from participating in the assessment during the testing window.

  Concussion: If a student has been diagnosed with a concussive injury and there is medical documentation within 2 weeks of the start of the testing window that states the student may not participate in standardized testing, school personnel must select "Student had a recent medical emergency." In all other instances involving concussive injuries and student nonparticipation, the student should be coded as "Other."

The "recent medical emergency" option allows schools to omit such students when calculating their participation rates. This will ensure that schools whose accountability status might be affected by such situations will not be improperly identified for improvement. Keep in mind that if a student is receiving education services (school enrollment, hospital, treatment facility, homebound, etc.) during the testing window, the student must be given the opportunity to participate in the PSSAs at the location they are receiving their educational services.

- **Student had an extended absence for the entire testing window:** If a student is absent from school for an extended period that continues beyond the last day of the PDE-established testing window, school personnel must select "Student had an extended absence for the entire testing window."

  Schools must make every effort to ensure that all students who experience absences during the testing window are able to participate in the assessments during the school's make-up sessions. Students who are non-assessed due to an extended absence will have a negative effect on the school's participation rate and can potentially have a negative impact on the school's accountability status.

- **Student had a parental request for exclusion from the assessment:** Section 4.4 of Chapter 4 of the State Board of Education regulations provides for the right of any parent/guardian to excuse their child from the state assessment if, upon inspection of the testing materials, they find the assessment to be in conflict with their religious beliefs. This is the only basis for a parent/guardian to excuse his or her child from the statewide assessments.
  - Two weeks prior to each testing window, assessments will be available for review by parents and guardians. The assessment must be reviewed on district property and district personnel must be present at all times. Districts must provide a convenient time for the review. This may include an evening review time, if requested. Proper security and confidentiality of the assessment must be maintained at all times. District personnel may remove the prompt seal from one copy of an ELA booklet to facilitate a review of the ELA assessment.
  - Sites testing only online should contact DRC to order a set of paper assessments for the purposes of parental review. These booklets must be returned to DRC following the return instructions outlined in this handbook.
  - Parents and guardians must sign the **Parent Confidentiality Agreement**. A copy of this should be locally maintained. (Do not send this statement to PDE or DRC.) Parents and guardians may not photocopy, write down, or in any other manner record any portion of the assessments, including directions. The Parent Confidentiality Agreement can be found in Appendix F of this handbook.
  - If after reviewing the test parents/guardians find the test to be in conflict with their religious beliefs and wish their student(s) to be excused from the test, the parents/guardians must provide a written request that states the objection to the Superintendent or Chief Executive Officer.
  - If the student is excused from the assessment due to parental or guardian request, school personnel must provide an alternative learning environment for the student during the assessment and select "Student had a parental request for exclusion from the assessment."
  - Please be aware that students who do not participate in the assessment due to parental request will negatively affect the school's participation rate and can potentially have a negative impact on the school's accountability status.

- **Other:** Although there is no other apparent reason for student non-participation in the assessment, this category is provided for the rare exception. The most notable rare exception is student refusal to participate at the time of testing. Refusal represents a defiant act on the student's part despite school personnel's every effort to obtain compliance. If you have exhausted all options and believe you have a case that fits into this category, select "Other." Indicating that a student did not participate in the assessments due to "other" reasons will negatively affect the school's participation rate and can potentially have a negative impact on the school's accountability status.

5. OTHER ASSESSMENT INFORMATION

This grid can be found on page 2 of the answer booklet for any student taking a paper/pencil assessment. If the student is testing online, this information must be provided in eDIRECT (Test Setup > Students).

- **Student is court/agency placed (not foster care):** Court/agency-placed students are required to participate in the assessments regardless of whether the student has an IEP or not. All students who have been court or agency placed into a non-public setting (e.g., PRRI or other juvenile delinquency institution, mental health, drug and/or alcohol treatment facility) are required to participate in the assessments. This does not apply to foster care placement.
  - School personnel must identify a court/agency-placed student by selecting "Student is court/agency placed (*not foster care*)" in the "Other Assessment Information" section of the answer booklet or under "Testing Codes" in eDIRECT. Do not select "Other" in the "Non-Assessed Students" grid for these students.
  - **Court/Agency-placed information is only captured on the answer booklets or in eDIRECT and is not collected from PIMS.**
  - Students attending alternative education programs, IU programs, or Approved Private Schools are placed by the school or district, not by a court or agency; therefore, these students should not be identified as court/agency placed.
- **Student was absent without make-up:** If a student is absent for any sections of a subject and is unable to make up the incomplete section(s), select the appropriate information in the "Other Assessment Information" section.
  - It is important to indicate if a student was absent without make-up, as not doing so will result in the student's test being scored and reported under the assumption that the student simply did not attempt to participate in all sections of the assessment.
  - Students who are absent without make-up will negatively affect the school's participation rate and can potentially have a negative impact on the school's accountability status.

6. STUDENT WITHDRAWAL/ENROLLMENT DURING THE TESTING WINDOW

PDE has established separate testing windows for English Language Arts, Mathematics, and Science that correspond to student data being pulled from PIMS on the last day of each subject's testing window (excluding the make-up window). The purpose is to ensure that each student can be reported at the district/school of residence in which he/she was enrolled on the last day of each subject-specific window, including the student's appropriate Full Academic Year status for each subject. Accordingly, all students are to be attributed to the school and/or district in which they are enrolled on the last day of each testing window. For the vast majority of students, their districts/schools of residence will not change between the assessments. However, to account for student transfers and enrollment changes that occur within the entire PSSA testing window, please follow the guidelines outlined below.

If a student completed an entire assessment but withdrew prior to the end of a subject-specific testing window, return the used answer booklet to DRC to be scored. If the student tested online and the results have been submitted, no further action is needed. The student's record should then be attributed to the district and school to which he/she transferred if the student's new enrollment occurred before that subject's testing window closed. Please contact DRC for further instructions if a student withdrew during a testing window but did not transfer to a new school prior to the end of that testing window.

- If a student completed the English Language Arts assessment in one district, but withdraws prior to April 17, 2015, the student's record must be attributed to the district and school to which he/she transferred.
- If a student completed the Mathematics assessment in one district, but withdraws between April 20 and April 24, 2015, the student's Mathematics record must be attributed to the district and school to which he/she transferred. The ELA record will remain at the site in which he/she was enrolled on April 17.
- If a student completed the Science assessment in one district, but withdraws between April 27 and May 1, 2015, the student's Science record must be attributed to the district and school to which he/she transferred. The ELA record will remain at the site in which he/she was enrolled on April 17. The Math record will remain at the site in which he/she was enrolled on April 24.

If a school receives a new student prior to the close of the subject-specific testing window, the new school has the responsibility to test the student if he/she has not already completed the assessment. The new school also has the responsibility to complete the necessary research to avoid the unfair burden of re-testing a student who may have completed the assessment in its entirety. Any student who enrolls after the close of a subject-specific testing window is not to be administered that assessment because the PDE-established testing window for the subject will have already passed (regardless of the make-up window).

Districts and schools will have an opportunity to perform attributions during the Online Attribution System window in June of 2015. It is the responsibility of both the sending site and the receiving site to verify that student records have been properly attributed.

In all cases of enrollment during the testing window, the school that receives the transferred student's score (whether through attribution or by administering the assessment) should be aware that the new student does not meet the Full Academic Year requirement for the school and will not count in the school's accountability performance calculation. Schools should never attribute the records of transfer students back to their previous districts if the students were enrolled in the new school on the last day of the subject-specific testing windows. Note: The student's record must properly identify that the student's enrollment in the new school started after October 1, 2014.

If a student did not complete an entire assessment before withdrawing, or if a student transferred out of the Commonwealth of Pennsylvania, place a Do Not Score Label on the student's answer booklet before returning it to DRC. If the student began an online assessment and withdraws, contract DRC for assistance on removing the student's assessment.

7. HOME EDUCATION STUDENTS

If the supervisor of a home education program requests that a student take the PSSA, the school district must allow the student to take the assessment at the school building the home education *(home-schooled)* student would normally attend or at another central location agreed to by the school district and the supervisor of the home education program.

Supervisors of home education programs who plan to request that a student take the PSSA with accommodations or the PASA should be aware that certain procedures and timelines must be adhered to before any student is eligible to do so, regardless of whether the student is educated at the public school or is home educated. According to law, it could take several months for the determination to be made that a student is eligible for administration of the PSSA with accommodations or the administration of the PASA.

Information about home education in Pennsylvania, including the Pennsylvania law on home education and related statutes, regulations, frequently asked questions (and answers), and a list of home education organizations serving Pennsylvania families, is available on PDE's website at www.education.state.pa.us (keyword search "home education").

Note: For students taking a paper assessment, a district/school label must be affixed to the used answer booklet in order for the booklet to be scored. If a student is a full-time home education student, "student is home-schooled and assessed at parental request" must be bubbled on the student's answer booklet (Item 5-option 6 on page 2 of the answer booklet) or selected in eDIRECT (Test Setup > Students). This information is not collected from PIMS.

8. TESTING OF SUSPENDED AND EXPELLED STUDENTS

Students who have been suspended from daily classroom attendance, but remain on the school's enrollment, should be administered the assessments. The location of the testing (at a school within the district or via homebound instruction) is a district decision. If the district chooses not to test the suspended student, a paper booklet must be returned and coded as non-assessed due to extended absence (which will negatively impact the school's accountability participation calculation).

Students who have been expelled from school and who have been completely removed from the district's enrollments do not need to be administered the assessments. However, if the student remains on the district's enrollment after the expulsion (e.g., the student is placed in an alternate education facility), it is the district's responsibility to ensure that the student is tested.

PART III – LABELING ANSWER BOOKLETS

1. OVERVIEW OF BARCODE LABELS

Student Precode Labels, District/School Labels, and Do Not Score Labels will be provided for use on all 2015 PSSA answer booklets. The labels are intended to increase the accuracy of information collected from the booklets. With the exception of students participating in the PASA, all enrolled students must have an answer booklet with a Student Precode Label or a District/School Label or an online test returned to DRC.

DRC's booklet receiving system is driven by barcodes. Barcodes help DRC identify and sort documents for processing. The four types of barcodes are:

- **BLANK**—DRC has preprinted a "blank" barcode on the cover of every answer booklet. A "blank" barcode indicates that the document has not been used and should not be processed.
- **STUDENT PRECODE**—DRC uses data received from the Pennsylvania Information Management System (PIMS) to produce Student Precode Labels. The labels contain barcodes that indicate the answer booklet should be processed and scored for the student whose name is printed on the label. These labels eliminate the need to hand bubble the student's name, birth date, PAsecureID, and demographic items 1–7 on page 2 of the answer booklet. **If you receive a label for a student who is no longer enrolled or is testing online, that label should be discarded.**
- **DISTRICT/SCHOOL**—If a student does not have a Student Precode Label, school personnel must use a District/School Label and hand bubble all demographic information on pages 1 and 2 of the answer booklet. The labels contain barcodes with district/school-specific information that indicates the document should be processed and scored for the student whose information is bubbled on the booklet.
- **DO NOT SCORE**—These labels contain barcodes that indicate the answer booklets should NOT be processed. Answer booklets that have a Do Not Score Label will be handled as if they are blank.

General Instructions for Using Barcode Labels

- District/School Labels and Do Not Score Labels are not grade or subject specific and can be used on any PSSA answer booklet.
- Before affixing any label to an answer booklet, check the label to ensure that the information is correct.
- Schools should destroy Student Precode Labels or District/School Labels that contain inaccurate information.
- School personnel must affix the appropriate label to each answer booklet that will be used by a student.
- Place the label in the box located in the lower left corner on the cover of each student's answer booklet.
- Do not remove any label that has been affixed to an answer booklet; this will damage the booklet. Instead, the label must be covered with another label of the appropriate type.
- Do not write on the labels. Do not correct information on a label.
- **Do not use labels from another school or a previous exam.** If you need more labels, submit an Additional Materials Request in eDIRECT.

2. STUDENT PRECODE LABEL INSTRUCTIONS

Most testing sites will receive Student Precode Labels that are linked to individual student demographic information and district/school information in PIMS. Student Precode Labels were created directly from a PIMS report and are not created through test sessions in eDIRECT system. It is important that school personnel make sure the readable information printed on the label is correct.

- Testing sites will receive up to three sets of Student Precode Labels *(depending on what grades are tested at the school)*. Each set of Student Precode Labels will be separated by a slip-sheet that identifies the assessment for which the labels should be used.
  - The first set will include students in grades 3–8 and are intended for use on students' PSSA ELA booklets.
  - The second set will include students in grades 3–8 and are intended for use on students' PSSA mathematics booklets.
  - The third set will include students in grades 4 and 8 and are intended for use on students' PSSA science booklets.

- If a student's name, PAsecureID, or birth date is incorrect, the label should not be used. Use a District/School Label in its place and bubble the student's name, birth date, and PAsecureID exactly as it appears in PIMS.
  - Student name, PAsecureID, and birth date are matching criteria between the precode snapshot and the reporting snapshot. If a student record is uploaded to the precode snapshot with a different name than the reporting snapshot (i.e., printed on the Student Precode Label), DRC cannot update any of the student's identification or demographic information for final PSSA and accountability reporting. The student will retain whatever demographic information was associated with his/her PAsecureID in the precode snapshot.

- If a student is using a Student Precode Label, the information needed for pages 1 and 2 of the answer booklet is embedded in the barcode on the label; therefore, these items should not bubbled. Items 8–11 on page 3 of the answer booklets need to be completed by school personnel for all assessed students, if applicable. See page 18 for more instructions regarding the accommodations on page 3 of the answer booklet.

- It is essential for assessment coordinators to verify that the student demographic information in PIMS is correct.

- **All embedded Student Precode Label information will supersede any bubbling on page 1 or page 2 of the answer booklet.** Any student information changes or demographic changes made by writing on a Student Precode Label or by bubbling page 1 or page 2 of the answer booklet WILL NOT change the PIMS information embedded in the Student Precode Label.

- If a Student Precode Label is destroyed, school personnel must use a District/School Label in its place and bubble pages 1 and 2 of the answer booklet.

- If a student's score should be attributed to a site other than what appears on the Student Precode Label, the label should be used and school personnel must enter the attribution information in DRC's online Attribution System (June 2015).

3. DISTRICT/SCHOOL LABEL INSTRUCTIONS

All sites will receive District/School Labels that contain district/school-specific information only. District/School Labels must be used when Student Precode Labels are not available. When using District/School Labels, school personnel must bubble pages 1 and 2 of the answer booklets and all applicable items on page 3.

- District/School Labels have a stripe across the top of the label.
- When using District/School Labels, it is imperative that the student's name, birth date, and PAsecureID are bubbled exactly as it appears in PIMS. All other applicable demographic information on page 2 of the answer booklet should also be completed in the event that the student-identifying information provided on the booklet does not match to a PIMS record.
- If a student is using a District/School Label and needs to have his or her score attributed to a site other than what appears on the District/School Label, school personnel must enter the attribution information in DRC's online Attribution System (June 2015).
- **Do not use labels from another school.** If you need more labels, submit an Additional Materials Request in eDIRECT.

4. DO NOT SCORE LABEL INSTRUCTIONS

Do Not Score Labels are supplied for use on answer booklets that are defective and cannot be scored or answer booklets that should not be scored. Always place the Do Not Score Label directly over any Student Precode Label or District/School Label that was originally affixed to the answer booklet.

Use the Do Not Score Labels when the following has occurred:

- A used answer booklet is torn, soiled, or defective. When a student has used a booklet and it becomes torn, soiled, or is found to be defective (e.g., missing pages) the student's responses must be transcribed into a new booklet of the **same form designation** and a Do Not Score Label affixed to the defective booklet. If a student becomes ill on an answer booklet, transcribe the responses into a new booklet, record the security number found on the back of the soiled booklet, and securely destroy the soiled booklet. **Make sure this information is recorded on the Materials Accountability Form found in eDIRECT.**
- A student uses two booklets. Submit one booklet for scoring and return the other booklet with a Do Not Score Label (the student's responses must be transcribed from one booklet into the other).
- A Student Precode Label (for a student who withdrew prior to the testing window) or District/School Label is inadvertently affixed to a blank/unused booklet (a blank/unused booklet does not have any bubbles marked or any student responses). Affix a Do Not Score Label over the incorrect label.
- A student has been completely removed from the school's enrollment on or before the end of the testing window **and** the student **did not** complete the assessment. Affix a Do Not Score Label over the incorrect label. Please refer to page 10 for information regarding students who complete the assessment and transfer to a new school during the PDE-established testing window.

Do not use Do Not Score Labels for the following types of booklets:

- Blank/unused booklets—there is a **preprinted** "BLANK" barcode in the box located in the lower left corner on the cover of the answer booklet to indicate that the booklet is blank/unused. For **unused** answer booklets, a Do Not Score Label does not need to be affixed to these "BLANK" barcodes.
- Booklets for students who are designated as non-assessed and have been coded as such on page 1 of the answer booklet. These booklets must have a Student Precode Label or District/School Label affixed to the front cover.

PART IV – COMPLETING STUDENT INFORMATION

Federal and state accountability measures require the collection of specific student data at the time of testing.

1. PAPER/PENCIL TESTING

Name

Students taking a paper assessment using a District/School Label, must complete the Name grid on page 1 of the answer booklet.

Birth Date and PAsecureID Grids

The **Birth Date** grid on page 2 of the answer booklet must be completed for all students using a District/School Label by darkening the appropriate month of the student's birth date, followed by writing the two-digit day and year in the boxes provided and darkening the corresponding bubbles below.

All public school students have a **PAsecureID**. The PAsecureID grid on page 2 of the answer booklet must be completed for all students using District/School Labels by writing the students' state-assigned, ten-digit PAsecureIDs in the boxes provided and darkening the corresponding bubbles.

If the district does not have a PAsecureID for a student, please follow the instructions below. Questions regarding PAsecureIDs can be e-mailed to RA-PAsecureIDHelp@state.pa.us.

- If a student is home-schooled, the grid should be left blank.
- If a student transferred from another district within the state, the new district can access the PAsecureID website to look up the student's PAsecureID.
- If a student is new to the state or previously attended a private school, the district can access the PAsecureID website and enter the student's information to have a PAsecureID assigned.

Demographics

To ensure student privacy and data accuracy for the assessments, this information must be reported by school personnel on the answer booklet after testing is completed.

If a student testing with a paper assessment is using a Student Precode Label, the information needed for pages 1 and 2 of the answer booklet is embedded in the barcode on the label; therefore, these items should not be completed by hand. Students with District/School Labels must have pages 1 and 2 completed by school personnel prior to administering the assessment.

Completing Items 1–7 on Page 2 of the Answer Booklet

Item 1 Gender

Indicate whether the student is Male or Female.

Item 2 Race/Ethnicity (*indicate only one*)

Indicate the ethnicity with which the student most closely identifies. You must choose only one. If a student should be counted in more than one racial category, choose *"Two or more races."*

Item 3 Student's current enrollment status initially started after October 1, 2014 (*mark all that apply, if any*):

- ○ **in the school of residence** – Student's current enrollment in this school started after October 1, 2014.

To be considered enrolled in the school for a full academic year, a student must have been continuously enrolled in the school from at least October 1, 2014, to the last day of the PDE-established testing window. Scores for students not enrolled in the school for the full academic year will not be included in the school's accountability performance calculation.

Note: Alternative education sites only select this item if the student entered his/her school of residence after October 1, 2014.

- ○ **in the district of residence** – Student's current enrollment in this district started after October 1, 2014.

The same rules previously described for the school of residence apply to the district of residence bubble. Scores for students not enrolled in the district for the full academic year will not be included in the district's accountability performance calculation.

- ○ **as a Pennsylvania resident** – Student became a Pennsylvania resident after October 1, 2014.

School personnel should complete this item if the student moved to Pennsylvania after October 1, 2014. It is possible that a student may have moved into your school or district from another Pennsylvania school, but enrolled in the previous Pennsylvania school after October 1, 2014, and was not a Pennsylvania resident prior to that date. School personnel are urged to check students' records carefully.

Item 4 Student's current enrollment status initially started after October 1, 2013, but on or before October 1, 2014 (*mark all that apply, if any*):

- ○ **in the school of residence** – Student's current enrollment in this school started after October 1, 2013, but on or before October 1, 2014.
- ○ **in the district of residence** – Student's current enrollment in this district started after October 1, 2013, but on or before October 1, 2014.

This item does not apply to normal progression from school to school within a district (i.e., school changes that occur in the course of regular advancement from one grade to the next). Therefore, a student who moves from an elementary to a middle school due to class advancement should not have this field marked.

Item 5 Mark all of the following that apply, if any:

- ○ **Student has an IEP (*not Gifted*)** – Student has an IEP and has a disability but is not gifted. This demographic item pertains to a student's IEP status at the time of testing.

It is recognized that gifted students, while not having a diagnosed disability, have an IEP. The data collected in response to this item are intended to identify ONLY those students with IEPs who have disabilities. Therefore, if a gifted student has an IEP, but does NOT have a disability, DO NOT select this item.

- ○ **Student has exited an IEP program within the past 2 years** – Student exited an IEP program between April 17, 2013–April 17, 2015. (The end date is based on the last day of the ELA testing window for the 2015 PSSA.)

This information is being collected to allow the flexibility of including these students in the IEP subgroup for accountability calculations.

- ○ **Student participates in Title I program** – All Title I students.

Title I is a federally funded supplemental education program that provides financial assistance to LEAs to improve educational opportunities for educationally deprived children. Title I programs are designed to help children meet the state content and performance standards in reading, language arts, and mathematics. Title I students are not excluded from the PSSA.

- **Student receives Migrant Education Program services** – All students identified as receiving Migrant Education Program services by the Pennsylvania Department of Education, Division of Student Services.

This division of PDE is responsible for compiling and distributing an official list of students eligible for Migrant Education Program services. Only personnel from this division can identify students receiving these services. The official list is distributed to district superintendents and building principals. Please see the Migrant Education Program portion of the PDE website for more information.

- **Student is classified as economically disadvantaged** – All students who meet the district's economically disadvantaged criteria.

Students are commonly classified as economically disadvantaged if they qualify for free or reduced lunch; however, other criteria used by the district may be substituted.

- **Student is home-schooled and assessed at parental request** – A home-schooled student is being assessed at your testing facility at parental request.

A home-schooled student is not to be considered as enrolled in a school program, and the student's scores will not be included in the district or school results for accountability calculations.

If a student is a full-time home education student, "Student is home-schooled and assessed at parental request" must be indicated in eDIRECT or on the answer booklet regardless of the type of label used. This information is not collected from PIMS. If a student is partially enrolled at a public school for his/her education, do not indicate that the "student is home-schooled and assessed at parental request."

- **Student attends this school as part of a foreign exchange program** – Student attends your school as part of a foreign exchange program.

Foreign exchange students must participate in the PSSA. Only the student's participation counts for purposes of accountability calculations.

Item 6 Student's English Language Learner (ELL) status is as follows (*indicate only one, if any*):

- **ELL and enrolled in a U.S. school after April 11, 2014** (previous enrollment in Puerto Rico is not considered as enrollment in U.S. schools).

Participation is mandatory for the mathematics and science assessments, and optional for the ELA assessment for students identified as English Language Learners who are in their first year of enrollment in a U.S. school. April 11, 2014, (the last day of the 2014 PDE-established reading testing window) should be used as the enrollment date to identify students in their first year of enrollment in U.S. schools.

The scores for these students will not be used for accountability, but their participation in math and ELA (if attempted) is used in the calculation of the accountability participation rate.

If an ELL student does not participate in the ELA assessment due to first year of enrollment in a U.S. school, a booklet must still be returned.

- If the student does not have a Student Precode Label, the reason for non-participation must be reflected on page 2 of the answer booklet (item 6 – option 1) or in eDIRECT by indicating "[Student is] ELL and enrolled in a U.S. school after April 11, 2014."
- If the student has a Student Precode Label, verify that the student's initial enrollment dates are correct in the Pennsylvania Information Management System (PIMS).

Note: This exemption can only be used for a student one time. For example, if an ELL student enrolls in a U.S. school for the first time in 3rd grade, that student is exempt from taking the 3rd-grade ELA assessment due to his/her first year of enrollment in a U.S. school status. If this same student withdraws and leaves the U.S. after the assessment, and re-enrolls in a U.S. school in the 5th grade, he/she is no longer considered in his/her first year of enrollment in U.S. schools and is required to take the assessment.

- ○ **ELL and enrolled in a U.S. school on or before April 11, 2014.**

All students identified as English Language Learners who have completed at least one year of enrollment in a U.S. school must participate in all assessments.

- ○ **Exited an ESL/bilingual program and in the first year of monitoring.**
- ○ **Exited an ESL/bilingual program and in the second year of monitoring.**
- ○ **Former English Language Learner and no longer monitored.**

The last three ELL demographic items have been included as a means for PDE to monitor the progress of students who have exited ESL/bilingual programs and are in the various stages of monitoring. Please check your students' records carefully so the most accurate information is reported.

For more information on ELL, refer to the *Accommodations Guidelines for English Language Learners* found in eDIRECT and also on the PDE website at www.education.state.pa.us.

Item 7 Student is currently in ESL instruction and has the following Title III status (*indicate only one, if any*):

Students who are English Language Learners (ELL) are eligible to receive supplemental instruction and/or services funded by Title III. Districts/schools can apply for the Title III funding, which is a federally funded supplemental program that concentrates on delivering educational language instructional programs and/or other services to students who have a primary language other than English. Districts may use Title III funding for professional development; therefore, an ELL student (in an ESL instructional program) can indirectly receive Title III funding via the instructor's professional development. Students who fall into this classification should be marked as "Title III served." There are two categories for Title III students.

- ○ **Title III served**

Mark this when the ELL student is eligible for and receiving supplemental instruction and/or services, directly or indirectly (as previously described), through district/school Title III funded programs.

- ○ **Title III not served**

This should be marked for either of the following scenarios:

- ELL student is eligible for supplemental instruction and/or services through district/school Title III-funded programs, but is not currently receiving said services.
- ELL student is eligible for supplemental instruction and/or services, but the district/school has not received Title III funding.

Note: *One of the first two options in item 6 must be selected in conjunction with the Title III options in item 7. Indicating that a student is Title III (served or not served) confirms that the student is ELL and in ESL instruction.*

2. ONLINE TESTING

Students testing online who do not have student data loaded into eDIRECT must have demographic information completed in eDIRECT (Test Setup > Students). Detailed instructions for completing demographic information for students testing online can be found in the *eDIRECT Test Setup User Guide*.

3. ACCOMMODATIONS

When an accommodation is used by a student taking a paper/pencil assessment, the Accommodations Section on page 3 of the answer booklet must be completed regardless of the label that was used. Students testing online must have accommodation information completed in eDIRECT (Test Setup > Students). Detailed instructions for completing accommodation information for online students can be found in the *eDIRECT Test Setup User Guide*.

A student's use of an accommodation is not collected from any other source for reporting. If a school wishes to use an accommodation that is not listed, a documented request must be made to the Pennsylvania Department of Education. DRC cannot authorize the use of accommodations. For more information on accommodations, refer to the *Accommodations Guidelines* found in eDIRECT and the PDE website at www.education.state.pa.us.

Item 8 Student used the following Presentation Accommodations (*mark all that apply, if any*):

- ○ **Braille format** (Paper only) – Student used a Braille version of the assessment.
- ○ **Large-print format** (Paper only) – Student used a large-print version of the assessment.

Students who use the Braille or large-print versions must have all of their answers transcribed into a Form 1 answer booklet. Additional Form 1 booklets for transcription are provided with the Braille and large-print versions for this purpose. These booklets are identified as packs of 1.

- ○ **Computer Assistive Technology—does not apply to online testing (*PDE must approve the program and all functions*)** – Student used a PDF version of the assessment provided on a secure CD. This accommodation is intended for those students with a severe disability that precludes them from accessing the assessment through the online testing system and the hard copy test booklet.
- ○ **Some test items/questions read aloud** (Mathematics and Science) – Student had some test items/questions read aloud. Any student may request the read aloud of a word, phrase, or test item on the mathematics and science assessments.
- ○ **Some language items/writing prompts/text dependent analysis prompts read aloud** (ELA only) – Student had some language items/writing prompts/text dependent analysis prompts read aloud.
- ○ **All test items/questions read aloud** (Mathematics and Science) – Student had the entire assessment read aloud. However, there are items for which reading the item aloud (questions and/or answer options) would cue the correct answer. It is not permissible to read aloud the part or parts of an item for which the correct answer would be cued. For example, when an item asks students to identify a symbol, only the words and numbers may be read aloud, not the symbols. Also, when a student is asked to identify a shape, the names of the shapes may not be read aloud.
- ○ **All language items/writing prompts/text dependent analysis prompts read aloud** (ELA only) – Student had all the language items/writing prompts/text dependent analysis prompts read aloud.

Read-aloud Accommodation Guidelines for Operational Assessments can be found in eDIRECT and the PDE website at www.education.state.pa.us. Click on State Assessment System on the home page next to the large green check mark, then Pennsylvania System of School Assessments (PSSA).

- ○ **Test items/questions signed** (Mathematics and Science) – Student used an interpreter/translator to sign test items/questions.
- ○ **Language items/writing prompts/text dependent analysis prompts signed** (ELA only) – Student used an interpreter/translator to sign language items/writing prompts/text dependent analysis prompts.
- ○ **Test items/questions interpreted for ELL** (Mathematics and Science) – Student used an interpreter/translator to present test items/questions.
- ○ **Language items/writing prompts/text dependent analysis prompts interpreted for ELL** (ELA only) – Student used an interpreter/translator to present language items/writing prompts/text dependent analysis prompts.
- ○ **Amplification device** – Student used an amplification device (e.g., hearing aid, personal sound amplifier).
- ○ **Magnification device** – Student has a documented need for magnification and used a magnification device (e.g., CCTV, hand held magnifier, online magnifier tool). Do not select if a student simply used the online magnification tool as an available test feature.
- ○ **Color overlay** (Paper only) – Student used a color overlay, background, or contrast.

- **Other (*noise buffers, whisper phone, etc., as indicated in Accommodations Guidelines or a unique accommodation as approved by PDE*)** – Student used any other device or visual organizer during the assessment. Some may require a separate setting.
- **Audio** (Online only) – Student used the text-to-speech software to have the mathematics and/or science assessment read aloud.
- **Color Chooser** (Online only) – Student used the Color Chooser to change the background color.
- **Contrasting Text Chooser** (Online only) – Student used the Contrasting Text Chooser to change the text color or background color.

Item 9 Student used the following Setting Accommodations (*mark all that apply, if any*):

- **Hospital/home setting** – Student completed the assessment at a hospital or at home.
- **One-on-one setting** – Student completed the assessment in a one-on-one setting.
- **Small group setting** – Student completed the assessment in a small group.
- **Other (*as indicated in Accommodations Guidelines or approved by PDE*)** – Student completed the assessment in a separate or unique setting.

Item 10 Student used the following Response Accommodations (*mark all that apply, if any*):

- **Test administrator marked multiple-choice responses at student's direction** – Student dictated multiple-choice responses to a Test Administrator. Responses must be marked verbatim into student's online test or answer booklet.
- **Test administrator scribed open-ended responses at student's direction** – Student dictated open-ended responses to a Test Administrator. Responses must be scribed verbatim into student's online test or answer booklet.
- **Test administrator transcribed student responses (*per Accommodations Guidelines*)** – Student marked responses in anything other than the answer booklet being returned for scoring. Responses must be transcribed verbatim into student's online test or answer booklet.
- **Qualified interpreter translated, transcribed, and/or scribed student's signed responses** – Student used an interpreter to sign responses to a Test Administrator. Responses must be scribed verbatim into student's answer booklet.
- **Qualified interpreter translated, transcribed, and/or scribed ELL student responses (*per Accommodations Guidelines*)** – Student used an interpreter/translator to respond to a Test Administrator. Responses must be scribed verbatim into student's answer booklet.
- **Keyboard, word processor, or computer—does not apply to online testing (*per Accommodations Guidelines*)** – Student used a keyboard, word processor, or computer with the paper test booklet. Responses that are written or typed must be transcribed verbatim into student's answer booklet.
- **Brailler/Note taker (*per Accommodations Guidelines*)** (Paper only) – Student used a Brailler/Note taker. Responses must be transcribed verbatim into student's answer booklet.
- **Augmentative communication device** – Student used any device to aid in communication. Responses must be transcribed into student's answer booklet.
- **Audio recording of student responses (*per Accommodations Guidelines*)** – Student used a tape/CD/electronic recorder (with NO speech recognition) to record responses. Responses must be transcribed verbatim into student's answer booklet and the recording must be permanently deleted. If an audio recording is used for writing items, the student must transcribe his/her own responses.

- **Computer Assistive Technology—does not apply to online testing (*PDE must approve the program and all functions*)** – Student dictated text into the computer or gave commands to the computer using Computer Assistive Technology software with the paper test booklet. Responses must be transcribed verbatim into student's answer booklet.
- **Translation dictionary for ELL student** – Student used a non web-based word-to-word translation dictionary without definitions or pictures.
- **Other (*special paper, etc., as indicated in Accommodations Guidelines or a unique accommodation as approved by PDE*)** – Student used special paper (e.g., blank graph paper, large-squared paper) during the assessment.

Item 11 Student used the following Timing Accommodations (*mark all that apply, if any*):

- **Extended time** – Student required more time than the rest of the regular testing group or required scheduled extended time.
- **Frequent breaks** – Student required frequent breaks within a regularly scheduled test session. Students must be monitored during all breaks.
- **Changed test schedule** – Student required the assessment to be administered on a different day or time for medical or learning needs. No single section may be administered over more than one day.
- **Other (*as indicated in Accommodations Guidelines or approved by PDE*)** – Student required a unique timing accommodation.

Local Student ID Grid, Optional Field, and Supplemental Data Field Grid

- The Local Student ID grid is provided to allow districts/schools the option to continue the use of the Local Student ID.
- The Optional Field is provided to allow districts/schools the option to measure information specific to the district/school. Each district/school may choose to gather information based on a specific need in the district/school and would code this field accordingly. If the district/school is not interested in gathering additional information, this field may be left blank.
- The Supplemental Data Field will only be used in the event that a determination is made that the demographic information already contained in the answer booklets has overlooked an element that should be considered for reporting requirements. This field will be used if districts/schools are instructed to do so by DRC or PDE.

4. TRANSCRIBING

Student responses that are marked or written in anything other than the answer booklet being returned for scoring must be transcribed into an answer booklet of the correct form designation. Typewritten pages, separate handwritten pages, and large-print answer booklets will not be processed for scoring. Using a No. 2 pencil, responses (multiple-choice and open-ended) must be transcribed by the School Assessment Coordinator or designee exactly as the student has recorded. No corrections are allowed for spelling, punctuation, or grammar.

Multiple-choice items should be transferred first. For mathematics and science constructed-response items, transfer the student's responses, including any work done to achieve the responses, exactly as written. For drawings or figures the student made, copy the drawings or figures onto the correct space in the answer booklet. For ELA, transfer the student's responses exactly—letter for letter, punctuation mark for punctuation mark, word for word—taking care to replicate misspelled words, all uppercase/lowercase letters, and all spacing and paragraphing in the student's original responses.

PART V – TEST SECURITY

The PSSAs rely on the measurement of individual achievement. Any deviation from procedures meant to ensure validity and security (e.g., group work, teacher coaching, teaching or release of any PSSA items, use of old Pennsylvania assessments as preparation tools) is strictly prohibited and will be considered a violation of test security. District/school personnel with access to the assessment materials must not discuss, disseminate, or otherwise reveal the contents to anyone. (This prohibition excludes the *PSSA Item and Scoring Samplers* available on PDE's website.)

Any action by a professional employee or commissioned officer that is willfully designed to divulge test questions, falsify student scores, or compromise the integrity of the state assessment system will be subject to disciplinary action under the Professional Educator Discipline Act, 24 P.S. § 2070.1a *et seq*, including a private reprimand, a public reprimand, a suspension of their teaching certificate(s), a revocation of their teaching certificate(s), and/or a suspension or prohibition from being employed by a charter school.

Avoid inappropriate test-taking strategies – Every answer booklet will be processed by scanners that detect all pencil marks. As such, it is not appropriate to have students taking a paper assessment eliminate answers by striking through an answer bubble or by bubbling multiple answers and later erasing. Likewise, students should not make any extraneous marks in the answer booklet (e.g., crossing out answers believed to be incorrect). Students must mark their final response in the answer booklet. Students must not discuss, disseminate, or otherwise reveal the assessment content to others.

Test Administrators must report testing irregularities/security breaches to the School Assessment Coordinator, principal, or the Pennsylvania Department of Education. The School Assessment Coordinator must report the testing irregularities/security breaches to the District Assessment Coordinator. The District Assessment Coordinator must report any suspected violations of testing protocol to the Pennsylvania Department of Education immediately. Allegations should be referred to: 00testing@psupen.psu.edu or by phone at 717-787-4234.

PDE has DRC (the test contractor) prepare a report on excessive logins by the same student to an online assessment. Please keep a record of system failures such as the loss of the internet, etc., in the event an excessive login report is questioned regarding any of your students.

Refer to the Ethical Standards of Test Administration found in Appendix B of this handbook. Also refer to the Test Security Policy found in eDIRECT. Click on Documents under the General Information tab on the left menu. Select 'General Testing Information' under Administration and 'PDE Procedures and Guidelines' under Document Type.

1. SECURE STORAGE

All paper answer and test booklets and test tickets for online assessments must be kept in a predetermined, locked, secure storage area at both the district and school levels. Secure materials must never be left unattended or in open areas. Test Administrators must not be given access to secure test materials before the administration day. Instead, Test Administrators should be given access to secure test materials on the morning of test administration.

- The *Directions for Administration Manual*s are not considered secure test materials and should be provided to Test Administrators prior to the assessment for review.
- All testing materials must be returned immediately to the predetermined, locked, secure storage area after testing is completed for the day. Materials must be kept secure after testing and prior to shipping to DRC.
- Please refer to the *eDIRECT Test Setup User Guide* for information on security associated with online testing.

2. TEST SECURITY CERTIFICATIONS

It is required that each District Assessment Coordinator, School Assessment Coordinator, Principal, Test Administrator, Proctor, and any individual who handles secure assessment materials sign a Test Security Certification. The Test Security Certifications must be signed **after** the assessments have been administered either online or paper.

- The **District Assessment Coordinator Test Security Certification** is provided in Appendix E of this handbook. Each District Assessment Coordinator is responsible for photocopying and signing the Certification after the end of the testing window. This Certification will cover security for all assessments administered during the testing window. The executed Test Security Certification for District Assessment Coordinators must be retained for three years by the Chief School Administrator. The signed Test Security Certifications should not be returned to Data Recognition Corporation.

- The **School Assessment Coordinator and Principal Test Security Certification** can be found in Appendix E of this handbook. This Certification will cover security for all assessments administered during the testing window. The School Assessment Coordinator and Principal Test Security Certification must be signed and dated by the School Assessment Coordinator and Principal after the end of the testing window. It is the responsibility of the District Assessment Coordinator to obtain the School Assessment Coordinator's and Principal's signature and return the form to the Chief School Administrator who must retain the Certifications for three years. The signed Test Security Certifications should not be returned to Data Recognition Corporation.

- The **Test Administrator and Proctor Test Security Certification** is provided in Appendix E of this handbook. This Certification will cover security for all assessments administered during the testing window. Prior to the administration of the assessment, the School Assessment Coordinator must distribute copies of this certification to all Test Administrators and Proctors involved in the administration of the PSSA. Prior to receiving any assessment materials or participating in the administration of the PSSA in any way, the Test Administrator must read and understand the Test Administrator and Proctor Test Security Certification. Upon completion of the assessment administration, the signed form must be returned to the School Assessment Coordinator.

- The **General Test Security Certification** is provided in Appendix E of this handbook. This Certification is for any individual (custodian, secretary, etc.) who will handle secure assessment materials during the testing window and who is not covered by any of the other certifications. The executed General Test Security Certification must be retained for three years by the Chief School Administrator. The signed Test Security Certifications should not be returned to Data Recognition Corporation.

If an individual does not execute the appropriate Test Security Certification, the Chief School Administrator must provide the Department of Education's Bureau of Assessment and Accountability with a written explanation of the reason or reasons why the Certification was not executed. The explanation must be provided within five days of the refusal and must include a description of the action taken by the Chief School Administrator in response to the failure to execute the Test Security Certification.

The written explanation should be sent to rayyoung@pa.gov or to:

Ray A. Young
Chief, Division of Instructional Quality
333 Market Street – 3rd Floor
Harrisburg, PA 17126

PART VI – RECEIPT AND DISTRIBUTION OF MATERIALS

1. DISTRICT AND SCHOOL COORDINATOR CHECKLISTS

The following checklists are general guidelines of critical dates by which an activity should take place. As a reminder, schools that receive materials directly from DRC should use both checklists.

District Assessment Coordinator's Checklist for the 2015 PSSA Administration		
_____	Receive Shipment I from DRC	March 16, 2015
_____	Distribute Shipment I to School Assessment Coordinators	March 18, 2015
_____	Read the *Handbook for Assessment Coordinators*	March 19, 2015
_____	Distribute parent/guardian flyers in newsletter or mail	March 19, 2015
_____	Conduct orientation session for School Assessment Coordinators	by March 23, 2015
_____	Receive Shipment II from DRC	March 30, 2015
_____	Distribute Shipment II to School Assessment Coordinators	March 30, 2015
_____	Request additional materials (if needed)	March 30–May 7, 2015
_____	PSSA English Language Arts Assessment Window	April 13–17, 2015
_____	Inventory English Language Arts materials returned by schools	April 20, 2015
_____	Return English Language Arts materials to DRC	April 22, 2015
_____	PSSA Mathematics Assessment Window	April 20–24, 2015
_____	Inventory Mathematics materials returned by schools	April 27, 2015
_____	Return Mathematics materials to DRC	April 29, 2015
_____	PSSA Science Assessment Window	April 27–May 1, 2015
_____	Inventory Science materials returned by schools	May 4, 2015
_____	Return Science materials to DRC	May 6, 2015
_____	ELA, Math, and Science Make-Up Window (if needed)	May 4–8, 2015
_____	Inventory and return ALL secure assessment materials to DRC	May 8, 2015

School Assessment Coordinator's Checklist for the 2015 PSSA Administration		
_____	Receive and inventory Shipment I	March 18, 2015
_____	Distribute the *Directions for Administration Manuals* to appropriate personnel	March 19, 2015
_____	Distribute parent/guardian flyers in newsletter or mail (if assigned to do so by the district)	March 19, 2015
_____	Read the *Handbook for Assessment Coordinators* and the *Directions for Administration Manuals*	March 23, 2015
_____	Attend School Assessment Coordinator orientation	by March 23, 2015
_____	Receive and inventory Shipment II	March 30, 2015
_____	Request additional materials (if needed)	March 30–May 7, 2015
_____	Conduct orientation session for Test Administrators	by April 6, 2015
_____	Assist and supervise Test Administrators during the ELA assessments	April 13–17, 2015
_____	Inventory, package, and return ELA materials to the District Assessment Coordinator	April 17, 2015
_____	Assist and supervise Test Administrators during the Math assessments	April 20–24, 2015
_____	Inventory, package, and return Math materials to the District Assessment Coordinator	April 24, 2015
_____	Assist and supervise Test Administrators during the Science assessments	April 27–May 1, 2015
_____	Inventory, package, and return Science materials to the District Assessment Coordinator	May 1, 2015
_____	Assist and supervise Test Administrators during the ELA, Math, and Science make-up assessments	May 4–8, 2015
_____	Package and return all make-up materials and any other secure assessment materials to the District Assessment Coordinator	May 8, 2015
_____	Destroy handbooks, administration directions, and scratch paper	May 13, 2015

2. RECEIPT OF MATERIALS

For the spring 2015 assessments, materials for all subjects will arrive at the same time in two separate shipments. Districts and schools should be prepared to receive, store, and distribute the volume of boxes associated with the multiple assessments. For ship-to-district sites, school boxes are provided for each participating school. If not inventoried centrally, the boxes should be sent to the schools as soon as they have been received. A copy of each school's packing list is contained in the district administrative materials. Ship-to-school and other special sites receive both district and school materials.

Shipment I will contain this handbook and the *Directions for Administration Manuals*. School Assessment Coordinators should be given ample time to distribute the *Directions for Administration Manuals* to Test Administrators. This should be done as soon as the manuals are received to allow time for the Test Administrators to study them prior to an orientation session.

Shipment II contains the secure assessment booklets, precode labels, *Online Directions for Administration Manuals*, and all Spanish materials. If this shipment is not received by March 30, 2015, District Assessment Coordinators (or School Assessment Coordinators at ship-to-school districts) should contact DRC directly by calling a DRC Customer Service Representative at 1-800-451-7849.

Note: DRC will be providing precode labels for all students regardless of whether they are testing online. If a student is testing online, the precode label can be discarded. A booklet does not need to be returned for a student completing an online assessment.

- Inventory the materials carefully and immediately upon receipt. If more materials are needed:
  - **Ship-to-district sites** must contact their District Assessment Coordinator immediately. District Assessment Coordinators must complete an Additional Materials Request in eDIRECT.
  - **Ship-to-school sites** must complete an Additional Materials Request in eDIRECT.
  - For more details on completing an Additional Materials Request, see page 3 of this handbook.
- **Be sure to save the box(es) in which the materials were sent.** They will be used to return the materials after the assessments. (If a box is damaged, or if all materials do not fit into the original box(es), a box similar in size and strength from the school may be substituted.)
- After inventorying Shipment II, store all materials in a predetermined, locked, secure storage area.
- Complete the Materials Receipt Notice in eDIRECT (see page 3).

SHIPMENT I MATERIALS (for all assessments)

DISTRICT—ADMINISTRATIVE MATERIALS

- Copies of School Packing List(s)—one per school
- School Box Range Sheet—indicates the number of boxes packaged for each school in the district for ship-to-district sites
- *Handbook for Assessment Coordinators*—this manual
- Grade-specific paper/pencil *Directions for Administration Manual*s

SCHOOL—MANUALS

- *Handbook for Assessment Coordinators*—this manual
- Grade-specific paper/pencil *Directions for Administration Manual*s

SHIPMENT II MATERIALS (for all assessments)

DISTRICT—ADMINISTRATIVE AND RETURN MATERIALS

- School Box Range Sheet—indicates the number of boxes packaged for each school
- DRC Return Shipment Labels
- UPS Return Shipment (RS) Labels
- Plastic Return Shipment Bags—used to package answer booklets for return to DRC
- Plastic ties—for sealing Plastic Return Shipment Bags
- Grade-specific *Online Directions for Administration Manual*s (if testing online)

SCHOOL—ADMINISTRATIVE MATERIALS

- Security Checklist
- School Packing List
- *Supplementary Information for Assessment Coordinators and Administrators*
- Student Precode Labels, District/School Labels, and Do Not Score Labels
- Spanish-translation *Directions for Administration Manuals* (when applicable)
- Grade-specific *Online Directions for Administration Manuals* (if testing online)

SCHOOL—SECURE PSSA MATERIALS

English Language Arts

- Grade 3 ELA booklets—shrink-wrapped in packs of 17 and presented as a combined test/answer booklet
- Grade 3 ELA scoring guidelines—shrink-wrapped in packs of 20
- Grades 4–8 ELA test and answer booklets—shrink-wrapped in packs of 17

  Note: The test booklets and answer booklets will be shrink-wrapped together by form designation (i.e., a Form 1 test booklet will always be followed by a Form 1 answer booklet).
- Grade 4 ELA scoring guidelines—shrink-wrapped in packs of 20
- Grade 5 ELA scoring guidelines—shrink-wrapped in packs of 20
- Grade 6 ELA scoring guidelines—shrink-wrapped in packs of 20
- Grade 7 ELA scoring guidelines—shrink-wrapped in packs of 20
- Grade 8 ELA scoring guidelines—shrink-wrapped in packs of 20
- Shrink-wrapped large-print ELA test and answer booklets (per grade level, if applicable)
- Shrink-wrapped Braille ELA booklets (per grade level, if applicable)
- Shrink-wrapped Form 1 ELA test and answer booklets for transcription (per grade level, only provided with large-print and Braille booklets)

Mathematics

- Grade 3 mathematics booklets—shrink-wrapped in packs of 17 and presented as a combined test/answer booklet
- Grade 3 mathematics scoring guidelines—shrink-wrapped in packs of 20
- Rulers for grade 3 students to answer PSSA mathematics questions
- Grades 4–8 mathematics test and answer booklets—shrink-wrapped in packs of 17

  Note: The test booklets and answer booklets will be shrink-wrapped together by form designation (i.e., a Form 1 test booklet will always be followed by a Form 1 answer booklet).
- Protractors for grade 4 students to answer PSSA mathematics questions
- Grade 4 mathematics scoring guidelines/formula sheets—shrink-wrapped in packs of 20
- Grade 5 mathematics scoring guidelines/formula sheets—shrink-wrapped in packs of 20
- Grade 6 mathematics scoring guidelines/formula sheets—shrink-wrapped in packs of 20
- Grade 7 mathematics scoring guidelines/formula sheets—shrink-wrapped in packs of 20
- Grade 8 mathematics scoring guidelines/formula sheets—shrink-wrapped in packs of 20
- Shrink-wrapped Spanish-translation test and answer booklets (per grade level, if applicable)
- Spanish-translation scoring guidelines/formula sheets (per grade level, if applicable)

- Shrink-wrapped large-print mathematics test and answer booklets (per grade level, if applicable)
- Shrink-wrapped Braille mathematics booklets (per grade level, if applicable)
- Shrink-wrapped Form 1 mathematics test and answer booklets for transcription (per grade level, only provided with large-print and Braille booklets)
- Red stickers to seal the mathematics, non-calculator items in Section 1 (grades 4–8 only)

Science

- Grades 4 and 8 science test and answer booklets—shrink-wrapped in packs of 17

  Note: The test booklets and answer booklets will be shrink-wrapped together by form designation (i.e., a Form 1 test booklet will always be followed by a Form 1 answer booklet).
- Scoring Guidelines—shrink-wrapped in packs of 20
- Shrink-wrapped Spanish-translation test and answer booklets (per grade level, if applicable)
- Spanish-translation scoring guidelines (per grade level, if applicable)
- Shrink-wrapped large-print science test and answer booklets (per grade level, if applicable)
- Shrink-wrapped Braille science booklets (per grade level, if applicable)
- Shrink-wrapped Form 1 science test and answer booklets for transcription (per grade level, only provided with large-print and Braille booklets)

3. DISTRIBUTION OF ASSESSMENT MATERIALS

All assessment booklets are in shrink-wrapped packages. Where applicable, answer booklets are packaged together with the test booklets. For all assessments, test and answer booklets have been spiraled in a predetermined sequence in each shrink-wrapped pack. The spiraling process ensures an equal distribution opportunity for each form within a classroom. Under no circumstances should you arrange the booklets by form designation prior to distribution.

Each shrink-wrapped package has a range sheet that identifies the quantity of booklets and the range of security numbers it contains. These range sheets can be used to inventory the booklets without opening the packages. In most cases, the School Assessment Coordinator will be responsible for assigning secure ranges of materials for Test Administrators. It is vital that everyone understand the importance of assigning materials by security range. The shrink-wrapped packages may be broken open to assemble proper quantities for each Test Administrator. Shrink-wrapped packages should only be opened at the school level and should not be opened until school personnel are ready to affix barcode labels, no more than one week prior to the start of a testing window.

On the days of an assessment, distribute the correct booklets needed for that day's assessment to each Test Administrator as recorded on the Security Checklist. In addition, each Test Administrator should be given at least one extra assessment booklet to use as a sample, as the *Directions for Administration Manual*s may instruct the Test Administrators to use a sample booklet for demonstration. All assessment materials should be returned as soon as possible on each day of an assessment.

If the school has students testing online, test tickets will be distributed to each student. These test tickets are secure materials and must be managed during distribution to the students. The test tickets are generated and printed from eDIRECT. For more information on how to print and distribute the test tickets, see the *eDIRECT Test Setup User Guide*.

After all testing is complete for an assessment, be sure Test Administrators return **all** materials to the School Assessment Coordinator, including used and unused test and answer booklets, test tickets, the *Directions for Administration Manual*s, and scratch paper.

4. PROCEDURES FOR ASSIGNING BOOKLETS USING SECURITY NUMBERS

The Security Checklist should be used as a tool to account for the secure materials as they are distributed to the Test Administrators and to monitor the materials as they are returned by the Test Administrators. Account for any difference between the number of materials distributed and the number returned by noting the reason on the Security Checklist. **Any discrepancies that are not resolved before materials are returned to the District Assessment Coordinator must be noted on the Materials Accountability Form found in eDIRECT.** No one is permitted to retain any assessment booklets for any reason after all testing and make-ups are complete.

The Security Checklist should not be returned to DRC. Instead, keep this list on file after you return materials to DRC. If DRC determines that a site has not returned all materials from one of the assessments, the Security Checklist may help the site locate the missing document(s).

5. PAsecureID LIST

The Pennsylvania Department of Education requires that all School Assessment Coordinators generate a list(s) of students by PAsecureID to show all students taking the PSSA for both online and paper. All lists must be retained at the district/school for three years and must be available when requested by PDE.

Each list should indicate which students are being assessed by which Test Administrator. The list should include the school name, Test Administrator, PAsecureID, grade, subject being administered, and year. Below is a sample layout.

School Name	Test Administrator	PAsecureID	Grade Tested	Subject	Year
PA School	Mr. Trenholm	1234567890	8	Math	2015
PA School	Mr. Trenholm	1234567890	8	ELA	2015
PA School	Mr. Trenholm	1234567890	8	Science	2015
PA School	Mr. Trenholm	4567891230	8	Math	2015
PA School	Mr. Trenholm	4567891230	8	ELA	2015
PA School	Mr. Trenholm	1122334455	8	Science	2015

PART VII – PREPARATION AND MANAGEMENT OF THE ASSESSMENTS

1. SCHEDULING THE ASSESSMENT

PDE provides the flexibility for districts to choose specific testing dates that work within the PDE-established testing windows. However, **every LEA is required to provide PDE with the specific dates and mode (online or paper/pencil) it has selected for administering the PSSAs**. Each LEA will receive an e-mail from DRC Customer Service with a link to a survey that will be used to collect this information. LEAs are required to submit this information for each of their schools.

It is important to establish an assessment schedule prior to testing. For the ELA assessment, the first administration must not be scheduled before April 13, 2015. With the exception of make-ups, all ELA assessments must be completed by April 17, 2015. The mathematics assessment must not be scheduled before April 20, 2015, and must conclude (with the exception of make-ups) on April 24, 2015. The science assessment must not be scheduled before April 27, 2015, and must conclude (with the exception of make-ups) on May 1, 2015.

When possible, the first days of the PDE-established testing window should be used for administering the assessment. Scheduling the assessment to occur at the beginning of the window will allow the school more flexibility if any unusual circumstances delay the anticipated start date. It may be advisable to postpone the assessment if a large percentage of the school population is absent on any selected day or days, or if a disruption or event (such as a bomb threat, fire in the school, plumbing or heating problems, death of a classmate, etc.) may have caused a level of distress that could result in students performing below their capabilities. District personnel are urged to keep the best interests of the students in mind when making a determination to reschedule assessment dates. Administering the assessment in the early portion of the assessment windows should eliminate most scheduling problems.

The assessments should be given in regular classroom settings, but other settings may be used based on school needs and available facilities. Appropirate test conditions optimize the chance for greater accuracy of the performance. To the extent possible, all students participating in a subject/grade-specific assessment in a school should begin the paper/pencil administration at the same time. Staggered start times may be necessary for students testing online due to availability of computers, iPads, and/or Chromebooks.

Students may request extended time if they indicate that they have not completed the task. Such requests should be granted if the Test Administrator finds the request to be educationally valid. Not permitting ample time for students to complete the assessment may impact student and school performance. Students requiring time beyond the majority of the student population may be allowed to continue immediately following the regularly scheduled session in another setting. Students should not be permitted to continue a section of the assessment after a significant lapse of time from the original session. **Any student granted an extended assessment period must have this information gridded in his or her answer booklet on page 3 or in eDIRECT for students testing online.**

2. ADMINISTERING THE ENGLISH LANGUAGE ARTS PSSA

The English Language Arts assessment consists of a total of four sections. Each section should be scheduled as one assessment session; however, testing sites can make the final determination whether multiple sections can be administered in the same testing session, as long as the sections are administered in the sequence in which they are printed in the test booklets. In all cases, individual assessment sections must be completed within one school day. Any student requesting additional time should be allowed the extra time. See page 18 for more information concerning accommodations.

With the exception of grade 3, each student will have one test booklet and one answer booklet; the grade 3 assessment is presented in one combined test and answer booklet.

- Answer booklets contain space for recording answers to the multiple-choice, selected-response, and constructed-response questions. Each student must use the same test booklet and answer booklet for all sections of the assessment. Because there are multiple forms at each grade level, **it is imperative that students are provided a test booklet and an answer booklet with the same form designation**. For example, if a student is assigned a Form 3 test booklet, that student must be assigned a Form 3 answer booklet.

- **Under no circumstances should you attempt to match forms by the security barcode printed on the back of the booklets.** The only match between test and answer booklets is the form designation printed on the front cover of each booklet. Failure to ensure that students have the same form of the test booklet and answer booklet may adversely affect district, school, and student results.

The following chart outlines the PSSA English Language Arts assessment schedule guidelines and estimated times for each section for each grade.

SUGGESTED ASSESSMENT TIMES FOR PSSA ELA (IN MINUTES)							
	Grade	**3**	**4**	**5**	**6**	**7**	**8**
Section 1 ELA: Writing	Number of Items	20 MC 1 CR	20 MC 1 CR	20 MC 1 CR	20 MC 1 CR	20 MC 1 CR	20 MC 1 CR
	Student Testing Time	55 to 65	55 to 65	55 to 65	55 to 65	55 to 65	55 to 65
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	70 to 85	70 to 85	70 to 85	70 to 85	70 to 85	70 to 85
Section 2 ELA: Reading	Number of Items	12 MC/SR 1 CR	22 MC/SR 0 CR	23 MC/SR 0 CR	23 MC/SR 0 CR	22 MC/SR 0 CR	22 MC/SR 0 CR
	Student Testing Time	40 to 50	60 to 70	65 to 75	65 to 75	60 to 70	60 to 70
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	55 to 70	75 to 90	80 to 95	80 to 95	75 to 90	75 to 90
Section 3 ELA: Reading	Number of Items	16 MC/SR 1 CR	16 MC/SR 1 CR	16 MC/SR 1 CR	16 MC/SR 1 CR	16 MC/SR 1 CR	16 MC/SR 1 CR
	Student Testing Time	45 to 55	70 to 80	70 to 80	70 to 80	70 to 80	70 to 80
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	60 to 75	85 to 100	85 to 100	85 to 100	85 to 100	85 to 100
Section 4 ELA: Reading	Number of Items	12 MC/SR 1 CR	7 MC/SR 1 CR	6 MC/SR 1 CR	6 MC/SR 1 CR	7 MC/SR 1 CR	7 MC/SR 1 CR
	Student Testing Time	40 to 50	50 to 60	45 to 55	45 to 55	50 to 60	50 to 60
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	55 to 70	65 to 80	60 to 75	60 to 75	65 to 80	65 to 80
	Grade	**3**	**4**	**5**	**6**	**7**	**8**

MC refers to multiple-choice questions.
SR questions are selected-response questions.
CR (constructed-response) questions include writing prompts, short-answer questions, and text-dependent analysis questions.

3. ADMINISTERING THE MATHEMATICS PSSA

The mathematics assessment consists of a total of three sections. Each section should be scheduled as one assessment session; however, testing sites can make the final determination whether multiple sections can be administered in the same testing session, as long as the sections are administered in the sequence in which they are printed in the test booklets. In all cases, individual assessment sections must be completed within one school day. Any student requesting additional time should be allowed the extra time. See page 18 for more information concerning accommodations.

With the exception of grade 3, each student will have one test booklet and one answer booklet; the grade 3 assessment is presented in one combined test and answer booklet. Students in grades 4–8 will receive one red sticker. One ruler will be supplied for each student in grade 3. One protractor will be supplied for each student in grade 4. Any student taking the online assessment will not need a physical ruler or protractor; these tools are provided as resources on the testing software. For more information on how to use these tools, see the *Online Directions for Administration Manuals*. Students may practice using the online tools by accessing the Online Tools Training and Tutorials.

- Answer booklets contain space for recording answers to the multiple-choice and open-ended questions. Each student must use the same test booklet and answer booklet for all sections of the assessment. Because there are multiple forms at each grade level, **it is imperative that students are provided a test booklet and an answer booklet with the same form designation**. For example, if a student is assigned a Form 3 test booklet, that student must be assigned a Form 3 answer booklet.

- **Under no circumstances should you attempt to match forms by the security barcode printed on the back of the booklets.** The only match between test and answer booklets is the form designation printed on the front cover of each booklet. Failure to ensure that students have the same form of the test booklet and answer booklet may adversely affect district, school, and student results.

- At the beginning of Section 1 of the grades 4–8 mathematics assessment, students are NOT permitted to use a calculator. Students will use the red stickers provided to seal the cover page through page 6 of the test booklets upon completion of the non-calculator mathematics items. For the remaining mathematics sections of the assessment, students are permitted to use their own calculators or ones that the school might provide. See page 5 for more information concerning allowable calculator use. For students testing online, the calculator in the testing software will not be accessible during the non-calculator items. If the online calculator is not going to be used by a student, then it is the responsibility of the Test Administrator to make sure that the physical calculator is not given to the students until after the non-calculator items have been completed.

The following chart outlines the PSSA Mathematics assessment schedule guidelines and estimated times for each section for each grade.

SUGGESTED ASSESSMENT TIMES FOR PSSA MATHEMATICS (IN MINUTES)							
	Grade	**3**	**4**	**5**	**6**	**7**	**8**
Section 1 Mathematics	Number of Items	24 MC 2 OE	24 MC 2 OE	24 MC 2 OE	24 MC 2 OE	24 MC 2 OE	24 MC 2 OE
	Student Testing Time	55 to 65	55 to 65	55 to 65	55 to 65	55 to 65	55 to 65
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	70 to 85	70 to 85	70 to 85	70 to 85	70 to 85	70 to 85
Section 2 Mathematics	Number of Items	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE
	Student Testing Time	50 to 60	50 to 60	50 to 60	50 to 60	50 to 60	50 to 60
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	65 to 80	65 to 80	65 to 80	65 to 80	65 to 80	65 to 80
Section 3 Mathematics	Number of Items	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE	24 MC 1 OE
	Student Testing Time	50 to 60	50 to 60	50 to 60	50 to 60	50 to 60	50 to 60
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20
	Administration Time (Total Time)	65 to 80	65 to 80	65 to 80	65 to 80	65 to 80	65 to 80
	Grade	**3**	**4**	**5**	**6**	**7**	**8**

MC refers to multiple-choice questions.
OE questions are open-ended questions.

4. ADMINISTERING THE SCIENCE PSSA

The science assessment consists of two sections at grades 4 and 8. Each section should be scheduled as one assessment session; however, testing sites can make the final determination whether multiple sections can be administered in the same testing session, as long as the sections are administered in the sequence in which they are printed in the test booklets. In all cases, individual assessment sections must be completed within one school day. Any student requesting additional time should be allowed the extra time. See page 18 for more information concerning accommodations.

- Answer booklets contain space for recording answers to the multiple-choice and open-ended questions. Each student must use the same test booklet and answer booklet for all sections of the assessment. Because there are multiple forms at each grade level, **it is imperative that students are provided a test booklet and an answer booklet with the same form designation**. For example, if a student is assigned a Form 3 test booklet, that student must be assigned a Form 3 answer booklet.
- **Under no circumstances should you attempt to match forms by the security barcode printed on the back of the booklets.** The only match between test and answer booklets is the form designation printed on the front cover of each booklet. Failure to ensure that students have the same form of the test booklet and answer booklet may adversely affect the district and school results.

The following chart outlines the PSSA Science assessment schedule guidelines and estimated times for each section for each grade.

SUGGESTED ASSESSMENT TIMES FOR SCIENCE (IN MINUTES)			
	Grade	**4**	**8**
Section 1	Number of Items	34 MC 3 OE	35 MC 3 OE
	Student Testing Time	45 to 55	50 to 60
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20
	Administration Time (Total Time)	60 to 75	65 to 80
Section 2	Number of Items	34 MC 3 OE	35 MC 3 OE
	Student Testing Time	45 to 55	50 to 60
	Administrative Time (Pre-test & Post-test)	15 to 20	15 to 20
	Administration Time (Total Time)	60 to 75	65 to 80
	Grade	**4**	**8**

MC refers to multiple-choice questions.
OE questions are open-ended questions.

5. PARENT/GUARDIAN NOTIFICATION OF THE ASSESSMENTS

A sample parent/guardian flyer that covers all the assessments has been included in Appendix A of this handbook to use as is or to revise to suit your needs. This information must be distributed to the parent or guardian of each student enrolled in your school(s) about three weeks prior to the assessment.

A parent letter regarding electronic devices has also been included in Appendix A. PDE strongly encourages districts to distribute this letter as a means to ensure that all students and parents/guardians fully understand the policy regarding electronic devices in the testing rooms.

Please note that the district or school is responsible for duplicating the flyers. Copies are not provided, except for the samples in this handbook. If a district newsletter is regularly published, include the information in the newsletter. However, if history indicates that parents/guardians do not regularly read the newsletter, direct mail may ensure delivery to parents and guardians.

6. PREPARING STUDENTS FOR THE ASSESSMENT

Inform students of the scheduled assessment sessions in advance, perhaps at the time the informational flyers are sent to parents/guardians. Explain to the students why they are being given the assessments and how the results will be used. Usually, students can sense the importance the Test Administrator places on the assessment and their performance may be affected accordingly. Students should realize that doing their best is important to them as well as to the future of the school and its programs. They may also be informed that their parents/guardians and teachers will be receiving the results. However, no assessment situation should be unduly stressful for students.

Inform students of the following:

- They are permitted to use scratch paper.
- They are **not** permitted to use ink pens.
- They may use their own calculators (or school-supplied, if applicable) for the science assessment and most of the mathematics assessment. (Please refer to Calculator Policy found in Appendix C.)

In addition, PDE encourages districts to inform students BEFORE TESTING of the locally determined ramifications/ sanctions for student misconduct during the PSSAs. This includes, but is not limited to, sanctions associated with

- cheating and
- sharing and/or reproduction of test content.

School/district personnel must discuss the Code of Conduct for Test Takers with all students prior to the scheduled assessment time. It is essential that students understand the importance of each point in the code of conduct before testing begins. (Please refer to Appendix D of this handbook.)

7. PREPARING THE CLASSROOM PRIOR TO THE ASSESSMENT

Good organization of assessment materials and well-executed procedures will make the administration proceed smoothly. During the assessment sessions, keep disturbances to a minimum. One way to do this is to put a sign on the door(s) to the classroom to indicate that an assessment session is taking place. A quiet, calm atmosphere is essential for concentration on the task. Extra sharpened pencils should be available to students. Do not permit students to sharpen pencils during the assessment sessions as this may be disruptive to other students.

Remove or cover all classroom instructional materials that may affect the validity of the PSSA. For example, posters about math rules or times tables should be covered or removed from the room on the assessment days.

DO NOT DISPLAY:

- vocabulary words and/or definitions
- examples of problems or answers
- instructions on how to use a calculator
- tips on how to write responses and/or solve problems
- illustrations or drawings of geometric shapes, algebraic equations, graphs, or number lines

8. MANAGING EXTENDED ASSESSMENT SESSIONS

Students should complete all tasks to the best of their ability; however, not all students will finish the assessment sections at the same time. Use the flexibility of the time limits to the students' advantage. Students should not feel rushed and no student should be penalized because he or she works slowly. It is equally important; however, that a student not be given an opportunity to waste time. Students should close their booklets when they have finished the section of the assessment in which they were working. Test Administrators must collect test materials when students are finished. Students who finish early may sit quietly or read for pleasure until all students have finished.

Students with special requirements (i.e., physical, visual, auditory, or learning disabilities as defined by their IEPs or service contracts) and students who work slowly may require extended time. Special assessment situations should be arranged for these students. Requests for extended time should be granted if the Test Administrator finds the request to be educationally valid. Students should be permitted to continue immediately following the regularly scheduled session in another setting. Any student granted an extended assessment period must have this information selected in his or her answer booklet on page 3 or in eDIRECT for students testing online.

When allowing extended assessment sessions for a portion of the student population:

- **Do not** allow students to attend a lunch period with other students if the lunch period occurs between the original session and the extended session.
- **Do not** allow students to attend any classes between the original session and the extended session.
- **Do not** allow any overnight extensions.
- **Do not** allow students to return to an unfinished section after indicating they have completed that section.
- **Do not** allow the extended session to be administered without monitoring. It is the School Assessment Coordinator's responsibility to make arrangements for a Test Administrator to monitor extended sessions.

9. MANAGING DAMAGED ANSWER BOOKLETS

If a student receives an answer booklet with damaged or missing pages, replace the booklet with an answer booklet **of the same form designation** and allow the student to continue working. If the student has already begun one or more sections of the assessment, he or she should start working in the new booklet at the point where the defect was discovered and use the new booklet for the remainder of the assessment. After the assessment has been completed, school personnel must transcribe all of the student's responses from the defective booklet into the undamaged answer booklet. **Do not insert pages from one answer booklet into another.** Multiple documents and loose pages returned for one student will not be scored.

Write "DEFECTIVE" on the damaged answer booklet and apply a Do Not Score Label over the existing label on the front cover of the damaged booklet. Return the damaged booklet with the rest of the school's answer booklets.

10. MAKE-UP SESSIONS

If a student is absent during a testing session, he or she should resume or begin the assessment in the same section as the rest of the testing population upon return. The section that was missed due to absence can be made up in a separate session. If multiple sections are missed, the make-up session(s) must follow the order of the booklet.

- A separate window has been established to facilitate make-up testing (May 4–8, 2015); however, schools should administer make-ups as needed throughout the entire PSSA testing window. In all cases, schools should follow the procedures established by their district when scheduling make-up testing.
- If a school receives a new student during the make-up window, no assessments should be administered to the student—the PDE-established windows for each subject will have already passed.
- If a student becomes ill (as determined by a school nurse, health room aide, principal, etc.) during the administration of a section of the assessment and the student is unable to complete the section, the student may complete that section during a make-up session upon return to school, starting with the item the student was completing when the illness occurred. The student **must** be monitored closely so that responses to previous items **cannot** be changed.

PART VIII – RETURN OF ASSESSMENT MATERIALS

In the interest of test security it is of the utmost importance that the District Assessment Coordinator, School Assessment Coordinator, and persons responsible for handling test materials can account for these materials at all times and return all materials as directed in this section.

Failure to account for and/or return assessment materials constitutes a potential breach in security, the consequences of which can be severe, up to and including remuneration should it be determined loss of or misappropriation of materials has compromised the integrity of test items.

As soon as the majority of a school's testing population has completed an assessment, School Assessment Coordinators should be prepared to box and deliver their school's test materials to DRC. Only enough materials should be retained to account for make-ups and new enrollments.

- If materials are returned to DRC from the district, School Assessment Coordinators are responsible for initiating the early return of answer booklets via an expedited return-plan established by the district. Clear communication and a predefined process are essential to the success of this initiative.
- If materials are returned to DRC directly from the school, School Assessment Coordinators are responsible for packaging and shipping the materials directly to DRC.
- All secure materials—test booklets, answer booklets, large-print booklets, Braille booklets, and Spanish booklets—must be returned to DRC.
- Computer files from students who used a keyboarding accommodation must be permanently deleted. The typed/word-processed output must be securely destroyed after it has been transcribed into an answer booklet.
- If a student is testing online, Test Tickets need to be returned to the School Assessment Coordinator. More information on how to handle Test Tickets can be found in the *eDIRECT Test Setup User Guide*.
- **PDE's policy states that the test must be administered to any student who enrolls during the PDE-established testing window. Therefore, schools must retain enough testing materials at the school to accommodate new enrollments and make-up sessions.** This remaining box of answer booklets should be forwarded to the District Assessment Coordinator on the last day of the testing window.

1. MATERIALS ACCOUNTABILITY FORM

Each district is responsible for completing the Materials Accountability Form in eDIRECT. This form may be updated throughout the testing window, but it MUST be completed by the end of the testing window when all materials have been returned to DRC.

The Materials Accountability Form can be found in eDIRECT. All District Assessment Coordinators have access to the Materials Accountability Form. The District Assessment Coordinator is responsible for assigning permissions to School Assessment Coordinators, as needed. After logging in, click on Accountability Form under the Materials tab on the left menu. Then select the appropriate Administration and click Show.

- The "Returned to DRC" column must be completed for all listed materials. District Assessment Coordinators and School Assessment Coordinators are accountable for returning all booklets that were received. Any missing materials and/or materials that are returned late are considered a breach of test security.
- Materials received through an Additional Material Request should be included in the "Returned to DRC" columns.
- All discrepancies between the number of booklets shipped and the number of booklets returned to DRC should be documented in the "Record reasons for discrepancies here" portion of the form.

Note: Sites that are only testing students online and did not order accommodated forms (e.g., Braille, large-print, or Spanish) will not complete a Materials Accountability Form.

2. PACKAGING MATERIALS FOR RETURN TO DISTRICT

The following process should serve as a guideline for School Assessment Coordinators when packaging materials for return to their District Assessment Coordinator.

1) Verify that all used answer booklets have a barcode label (District/School, Student Precode, or Do Not Score) affixed to the front cover of the answer booklet.

2) Verify that all responses for participating students using accommodations have been properly transcribed into the form-appropriate scannable answer booklet.

3) After inventorying all materials, use the online Materials Accountability Form to record the number of answer booklets and test booklets your school is returning. This form is available in eDIRECT. (See page 37.)

4) Separate all answer booklets from test booklets. Make sure there are no answer booklets "tucked" inside a test booklet.

- "Tucked" answer booklets may not be detected during booklet check-in at DRC, which could impact student and school reporting.

5) Place all answer booklets in the boxes that you saved from DRC's original shipment.

- DRC does not require that the answer booklets are sorted by class or grade within the school boxes, only that answer booklets are boxed separately from test booklets.
- Make-up materials can be returned in one box if the total quantity for all subjects is small enough to fit into a single box.

6) Immediately return the boxes of answer booklets to your District Assessment Coordinator, retaining enough materials at the school through the end of the testing windows to account for make-ups and new enrollments.

7) Box all test booklets and unopened packs of shrink-wrapped materials separately from the answer booklets in the remaining boxes that you saved from DRC's original shipment.

8) Send all the Test Security Certifications for the School Assessment Coordinator, Principal, Test Administrators, Proctors, and any other individuals to the District Assessment Coordinator for delivery to the Chief School Administrator for filing. Do not return the Certifications to DRC.

9) Retain the electronic or hard copies of the PAsecureID lists. These lists of PAsecureIDs should remain on file with the school/district for three years. Do not return these lists to DRC.

10) Do not return the *Handbook for Assessment Coordinators*, the *Directions for Administration Manuals*, or scratch paper. Please follow instructions from the District Assessment Coordinator for the destruction of these materials.

3. PACKAGING MATERIALS FOR RETURN TO DRC

The following process should serve as a guideline for District Assessment Coordinators when packaging materials for return to DRC. For schools that return materials directly to DRC, the coordinator is also responsible for the packaging steps described in the preceding section.

1) Condense school boxes whenever possible. DRC does not require that the assessment booklets are sorted by school within the district boxes, only that the answer booklets are boxed separately from the test booklets.

2) Send all the Test Security Certifications to the Chief School Administrator for filing. Do not return the Certifications to DRC.

3) Place all answer documents into one of the protective DRC return shipment bags. Seal the bag tightly using one of the plastic ties provided. All answer documents must be placed into a DRC Return Shipment Bag. After the booklets have been placed into a DRC Return Shipment Bag, place the filled bag into a DRC box. Test Booklets and unopened packages do not require plastic bags and can be placed directly into the DRC box.

4) Use filler (e.g., crumpled paper or bubble wrap) to make sure that test materials do not shift during transport.

5) Close the boxes by folding the flaps to cover the previous shipping labels. The A and B printed on the flaps should be exposed.

6) Securely tape all boxes using heavy-duty shipping tape. It is recommended that you **use at least three strips of tape across both the top and the bottom of the box** to ensure the contents are secure during shipping.

7) Affix a DRC Return Shipment Label (Answer Booklets or Test Booklets and Unopened Packages) to the top of the box flap labeled A. For sites with very small quantities, both answer booklets and test booklets can be returned in the same box. Use both types of DRC Return Shipment Labels when returning answer booklets and test booklets in the same box.

   Note: DRC Return Shipment Labels are not subject specific and can be used to return any PSSA materials.

8) Affix a UPS Return Shipment Label to the top of the box flap labeled B. DRC and district addresses have been preprinted on the label.

   Note: UPS RS Labels are not subject specific and can be used to return any PSSA materials.

9) Record the UPS Tracking Number for each package, noting the assessment for which they were used. Please keep the number(s) for future reference to document the materials returned to DRC.

10) Keep the boxes in a secure location until they are given to the UPS driver.

11) Schedule a pick-up with UPS as soon as schools begin the early return of answer booklets.

12) Schedule a pick-up with UPS for the test booklets to occur no later than three business days after the close of each assessment window.

- **English Language Arts**, by April 22, 2015
- **Mathematics**, by April 29, 2015
- **Science**, by May 6, 2015
- **ALL Make-Up Materials**, by May 8, 2015

Important Note: All PSSA answer booklets must arrive at DRC by the final processing date to be included in 2015 reporting. UPS pickups must occur in accordance with the established timelines, and absolutely no later than May 8 to ensure that your materials arrive prior to the close of answer booklet processing (May 13.) Failure to return your PSSA answer booklets in the required timeline can negatively affect PSSA and accountability reporting. The exclusion of any students in accountability reporting because of an LEA's failure to return answer booklets within the established timeline will be reported and researched by the Pennsylvania Department of Education.

If the district office does not have a daily, scheduled **UPS pickup, call UPS at 1-866-857-1501** to arrange for materials pickup. Specify that you are using pre-paid, UPS ground return service labels. You must call at least one day prior to the day on which you will ship your materials.

Please refer to the diagram below for further clarification on how to package return materials to DRC.

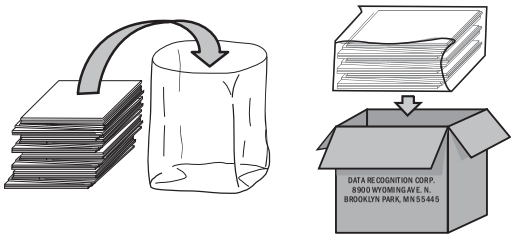
Final District Assessment Coordinator Checklist for Returning Test Materials to DRC

BAGGING, BOXING, PACKING, LABELING, AND TAPING INSTRUCTIONS

IMPORTANT: Use this checklist <u>in addition to</u> the step-by-step instructions for packaging secure answer and test booklets. After verifying the return of each school's materials, use this checklist to prepare each box for shipment to DRC.

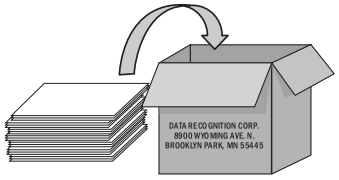
- ☐ Pack test materials in boxes provided by DRC. Place answer booklets within the protective, plastic DRC return shipment bags.
- ☐ Seal each DRC return shipment bag containing answer booklets tightly using one of the plastic ties provided.

Boxes containing answer booklets



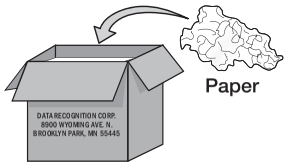
Answer booklets should be placed into a DRC return shipment bag. Seal the DRC return shipment bag and place it in the DRC box. This includes used and unused Answer Booklets.

Boxes containing test booklets and unopened packages

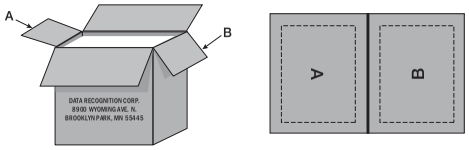


Test Booklets and unopened packages for all subjects do not need to be returned in a DRC return shipment bag. These packages can be placed directly into the DRC box.

- ☐ Boxes of answer booklets do not need to be sorted by school, subject, or class. Condense the answer booklets to fill the boxes to the top. Fill any empty space in the boxes with crumpled paper or bubble wrap to ensure that test material does not shift during transit.



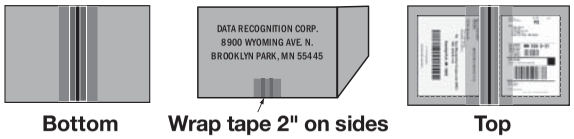
- ☐ Fold the flaps with old shipping labels first to expose the A and B flaps.



- ☐ Affix a DRC return label of the appropriate color to flap A and verify that each label has the correct district/ school name and address. Boxes containing answer booklets should have a **lilac** label; boxes containing test booklets and unopened packages should have a **white** label.

- ☐ Affix a UPS label to flap B.

- ☐ Tape boxes securely by using three (3) pieces of packing tape on **BOTH** the top and bottom. Overlap the tape, and make sure it wraps around the sides at least 2 inches.



Part VIII

Appendix A:

Information for Parents or Guardians

pennsylvania
DEPARTMENT OF EDUCATION

Dear Parent/Guardian:

In an era of cell phones, smartphones and other electronic devices which can easily photograph and instantly share photographs, confidential and secure test materials can be easily compromised. Not only is it expensive to replace a compromised test item, the material contained in the PSSA and Keystone Exams is copyrighted property of the Commonwealth of Pennsylvania. Copying or duplicating the material from the assessment, including the taking of a photograph, is a violation of the federal Copyright Act. Penalties for violations of the Copyright Act may include the cost of replacing the compromised test item(s) or fines of no less than $750 up to $30,000 for a single violation. 17 U.S.C. § 101 *et seq*.

In order to ensure reliable test results and to avoid the cost of replacing test items, the Department of Education requires schools to set rules and take certain steps to protect test materials. One step or rule required in all schools is that electronic devices are not permitted at test sites. Electronic devices include cell phones, smartphones, E-readers, Nooks, Kindles, iPads, iPods, tablets, camera-ready devices, and any other electronic device which can be used to photograph or duplicate test materials, access the internet and/or communicate with others during the administration of the PSSA or Keystone Exams. Please speak with your child and let him or her know that the possession and/or use of a cell phone or other electronic device during the administration of the PSSA or Keystone Exams will result in certain consequences.

If a student is discovered using and/or having a cell phone or other electronic device in his or her possession during the administration of the PSSA or Keystone Exams, you will be contacted by the school. Students that ignore this directive will be subject to the school's discipline policy and the Department of Education's requirement that the student's test will not be scored and the student will be required to retake the entire exam. In addition, the electronic device will be held by school staff and the device's stored photographs will be searched. School staff will also ask for permission to search other functions of the electronic device. If a photograph of the PSSA or Keystone Exam is discovered or if permission to search other functions of the electronic device is refused, the device will be held by the school staff and, because the Pennsylvania Department of Education holds the copyright to all material contained within the PSSA and Keystone Exams, the Pennsylvania Department of Education will be contacted.

If, after testing is complete and test materials have been returned, it is discovered that a student used and/or had a cell phone or other electronic device in his or her possession during the administration of the test, the school's discipline policy will be followed and the student's scores will be invalidated.

Bureau of Assessment and Accountability
Department of Education | 333 Market Street | Harrisburg, PA 17126 | 717-783-6788 | www.education.state.pa.us

Frequently Asked Questions

Information for Parents or Guardians

Pennsylvania System of School Assessment (PSSA)

English Language Arts Assessment, April 13–17, 2015
Mathematics Assessment, April 20–24, 2015
Science Assessment, April 27–May 1, 2015

GENERAL INFORMATION ABOUT THE PSSA

Which schools participate?

All school districts and charter schools participate in the assessments. Nonpublic schools may also participate on a voluntary basis.

Which students take the assessments?

Except for a very few students who meet specific criteria for participation in an alternate assessment, all students are included in the assessments as outlined below:

ELA & Mathematics – Grades 3, 4, 5, 6, 7, and 8
Science – Grades 4 and 8

Who decided what the assessment should measure?

Groups of educators from all levels of education in Pennsylvania chose the areas of knowledge upon which the assessment is based. The groups included teachers, supervisors, curriculum directors, and college specialists. They also reviewed, edited, and approved the test items.

Who administers the assessment?

Each school chooses the person(s) who will administer the assessment. In most cases, these are the students' teachers, who are often helped by the principal or a guidance counselor.

How are the results reported?

Two copies of the individual student report for all assessments will be sent to the school districts and charter schools for distribution to parents, teachers, guidance counselors, and/or principals. The state will not receive any report with individual names included.

School-level reports will be used for curricular and planning purposes. School districts and charter schools may publish the results of PSSA testing for each school. The state will also release school-by-school assessment data.

May parents see the assessments?

Parents and guardians may review the assessments by making arrangements with the School Assessment Coordinator once the assessments arrive at the school. Confidentiality agreements must be signed, and no copies of the assessments or notes about assessment items will be permitted to leave the school.

If after reviewing the test parents/guardians find the test to be in conflict with their religious belief and wish their student (s) to be excused from the test, the parents/guardians must provide a written request that states the objection to the Superintendent or Chief Academic Officer.

INFORMATION ABOUT THE ENGLISH LANGUAGE ARTS ASSESSMENTS (grades 3–8)

How long does the assessment take?

The entire English Language Arts assessment takes approximately three to four hours to complete. Your school district should inform you about the assessment schedule.

What does the assessment include?

Each student completes four sections of questions for the English Language Arts assessment. Some portions will be the same for all students, and some will consist of different groups of questions.

What types of questions are on the assessment?

Students respond to three types of questions: multiple-choice, selected-response, and constructed-response. In a multiple-choice question, the correct answer is chosen from four options. Selected-response questions have two parts, and students select one or more answers for each part. Constructed-response questions require students to compose their responses. These include a writing prompt, short-answer questions (grade 3 only), and text-dependent analysis questions (grades 4–8 only). The writing prompt requires students to compose a response using one of three modes (narrative, informative/explanatory, or opinion in grades 3–5 and narrative, informative/explanatory, or argumentative in grades 6–8). Short-answer questions require students to compose a brief response to support their answer. For the text-dependent analysis question, students analyze a text and use evidence from the passage to compose an essay.

How are written responses to open-ended items scored?

The written responses for English Language Arts are scored by evaluators trained in applying a pre-determined scoring system. For short-answer questions, scores are based on content only. Spelling and

punctuation are not included as part of the scoring process. For writing prompts, scores are determined using a holistic scoring guideline that includes composition skills as well as conventions. Responses to text-dependent analysis questions are scored based on content and conventions.

What is assessed in English Language Arts?

The English Language Arts assessment addresses six major reporting categories as well as two text types. Students respond to standalone multiple-choice items assessing language and a writing prompt. Additionally, students read a number of passages from literature and informational genres and respond to questions about these passages that indicate both comprehension and reading skills and their analysis and interpretation of different types of texts.

INFORMATION ABOUT THE MATHEMATICS ASSESSMENT (grades 3–8)

How long does the assessment take?

The entire mathematics assessment takes approximately three to four hours to complete. Your school district should inform you about the assessment schedule.

What do the assessments include?

Each student completes three sections of questions for the mathematics assessment. Some portions will be the same for all students, and some will consist of different groups of questions.

What types of questions are on the assessments?

Students respond to two types of questions: multiple-choice and open-ended. In a multiple-choice question, the correct answer is chosen from the four presented options, while open-ended questions require students to compose their responses. Open-ended questions generally require students to provide detail in support of their answers (such as showing or describing the steps performed to complete a calculation).

How are written responses to open-ended items scored?

The written responses for mathematics open-ended items are scored by evaluators trained in applying a pre-determined scoring system. In mathematics, score are based on content only. Spelling and punctuation are not included as part of the scoring process.

What is assessed in Mathematics?

The mathematics assessment addresses five major reporting categories across four clusters. The reporting categories assessed and the proportion of items in each reporting category vary by grade level. As a part of the assessment of Cluster A, Numbers and Operations, students in grades 4-8 respond to a section of items in which a calculator is not permitted. Open-ended items require the students to show all of their work (calculations, graphs, drawings, etc.) and/or to explain in writing how they solved the problems.

INFORMATION ABOUT THE SCIENCE ASSESSMENT (grades 4 and 8)

How long does the assessment take?

The entire science assessment takes approximately two to four hours to complete. Your school district should inform you about the assessment schedule.

What does the assessment include?

Students in grades 4 and 8 complete two sections of questions for the science assessment. Some portions will be the same for all students, and some will consist of different groups of questions.

What types of questions are on the assessment?

Students respond to two types of questions: multiple-choice and open-ended. In a multiple-choice question, the correct answer is chosen from the four presented options, while open-ended questions require students to compose their responses. At grade 8, the science assessment also includes science scenarios.

What is a science scenario?

A science scenario contains text, graphics, charts, and/or tables, and uses these elements to describe the results of a class project, an experiment, or other similar research. Students use the information found in a science scenario to answer multiple-choice questions.

How are the written responses to open-ended items scored?

The written responses for science open-ended items are scored by evaluators trained in applying a pre-determined scoring system. In science, scores are based on content only. Spelling and punctuation are not included as part of the scoring process.

What is assessed in science?

The science assessment addresses the four major reporting categories: The Nature of Science, Biological Sciences, Physical Sciences, and Earth and Space Sciences. The proportion of items devoted to each reporting category varies within a grade level. Each reporting category includes certain Assessment Anchors and Eligible Content.

Appendix B:

Ethical Standards of Test Administration

ETHICAL STANDARDS OF TEST ADMINISTRATION

Before Test Administration:

DO…

- Communicate to students, parents, and the community what the test does and does not measure, when and how it will be administered, and how the results will be used.
- Maintain a positive attitude about testing.
- Teach to the Pennsylvania Core Standards.
- Review skills, strategies, and concepts previously taught.
- Integrate teaching of test-taking skills with regular classroom instruction and assessment. Examples of test-taking skills include responding to both multiple-choice and constructed-response (open-ended) items.
- Be sure that students testing online have prior experience with the online practice test that models the testing mode (online) and its tools.
- Use any test preparation documents provided by the Pennsylvania Department of Education including *Item and Scoring Samplers* and *General Scoring Guidelines*.
- Read the *Directions for Administration Manual*.
- Follow test security and administration guidelines.
- Consider having a teacher, other than the teacher of record, administer the assessment to a particular group of students. If local circumstances do not allow that option, assign a Proctor in the classroom with the Test Administrator.
- Schedule the assessment.
- Include all students in the appropriate assessment.
- Attend the annual training for the administration of the assessments in order to be properly informed of the procedures to follow. This training includes understanding test security and the confidential and proprietary nature of the documents.
- Make contingency plans for unexpected disruptions during testing. All school personnel must know what to do in the event of a fire alarm, bomb threat, HAZMAT incident, unruly student, etc.
- Remove or disable monitoring software (spyware) from computers, iPads, and Chromebooks to be used for testing.
- Cover or remove from classrooms or hallways all instructional materials that could aid students in answering test items.
- Make sure the testing environment is comfortable and has appropriate lighting.
- Ensure students are seated at the correct workstation for an online test administration.
- Review the Code of Conduct for Test Takers with students.
- Review the Calculator Policy. Clear the memory and all stored programs before and after the calculators are used for a test.
- Make sure calculators (other than calculators provided within the online testing engine) meet the requirements of the Calculator Policy.
- Know the required accommodations for each student with an IEP or 504 Service Plan and for each English Language Learner being assessed.
- Review with students the possible local sanctions the district will enforce for student misconduct (e.g., cheating and recording test questions).

DO NOT…

- Teach students a test-taking technique that would require them to bubble more than one response to a test question and then return and erase all but one response.
- Review student test booklets except for purposes as stated in the *Directions for Administration Manual* and any of the accommodations guidelines documents. Knowledge or review of test content is not necessary for valid test administration and is prohibited.

  Note: Interpreters may have access to test materials three days prior to test administration to prepare for accurate interpretation of the test.
- Reveal any part of secure copyrighted tests to students.
- Copy or otherwise reproduce any part of secure tests.
- Review and/or provide answers to test questions to students.
- Possess unauthorized copies of state tests.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

<u>During Test Administration:</u>

DO…

- Follow test security and administration guidelines.
- Continually move around the testing site to ensure students are adhering to the instructions given.
- During active monitoring ensure that students are working in the correct section and that they are bubbling in answers in the correct section of the answer sheet for the section of the test booklet in which they are working. Be cautious in redirecting or assisting students that you are not violating test security by coaching (see DO NOT list on the next page).
- Make sure students are supervised at all times during testing and all breaks. This supervision requirement includes those students who need additional time to complete any test session.
- Escort all students and carry all secure testing materials to alternate testing sites for extended time, etc.
- Maintain a positive attitude about testing.
- Make sure that sections/modules are started and completed in the same day.
- Account for all test booklets and answer booklets and keep them in a secure location.
- Keep voice inflections neutral if an allowable or required accommodation is to read portions of the test aloud.
- Minimize distractions, including intercom announcements.
- Place a "**Testing—Do Not Disturb**" sign on doors where testing is occurring.
- Collect cell phones, smart phones, and other unauthorized electronic devices as students enter the testing site.
- Report testing irregularities/security breaches to the School Assessment Coordinator, principal, or the Pennsylvania Department of Education.

DO NOT…

- Leave students unattended with testing materials or permit any student to leave the testing site with testing materials for any reason.
- Permit students to look ahead to another section or module of the test before being instructed to do so, or allow students to look back in a test booklet once a test section or module has been completed.
- Discuss, disseminate, or otherwise reveal contents of the test to anyone.
- Possess secure test materials at any time other than during the actual administration of the test. Test Administrators should be given the secure materials immediately prior to the administration of the test, and the materials must be counted and collected by the School Assessment Coordinator immediately after the testing session ends each day.
- Coach or provide feedback to students (e.g., answer any questions pertaining to the content of the test, review rough drafts, or give feedback of any kind including indicating to students any items that need a second look). This prohibition includes, but is not limited to, a Personal Care Aid (PCA), Therapeutic Support Staff (TSS), or any other one-on-one aide who is assigned to a student.
- Define or clarify a word.
- Read aloud any portion of the Literature Assessment.
- Read aloud the passages, multiple-choice questions or answer choices, or short-answer questions in Sections 2, 3, or 4 of the PSSA English Language Arts assessment.
- Read aloud any part of a mathematics item that will cue the correct answer or provide a hint for the test taker.
- Return a test booklet to any student after it has been turned in to the Test Administrator except for make-up sessions for absences and for students who go to another testing site for extended time.
- Alter, influence, or interfere with a test response in any way, fill in any unanswered item, or instruct the student to do so.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

<u>After Test Administration:</u>

DO…

- Follow test security and administration guidelines.
- Maintain a positive attitude about testing.
- Collect all scratch paper or rough drafts at the end of each test session, and return them to the School Assessment Coordinator to be destroyed.
- Return all secure testing materials to the School Assessment Coordinator immediately after the testing session each day.
- Account for all test booklets and answer booklets daily, and keep them in a secure location.
- Transcribe exact student responses, including incorrect responses, when an alternate test format (such as Braille or large print) has been used or when a student's test booklet has been damaged.
- Clear the memory of calculators after each testing session.
- Pack and ship the secure testing materials to the testing contractor.
- Sign the appropriate Test Security Certification, and return it to the appropriate individual as directed.

DO NOT…

- Discuss, disseminate, or otherwise reveal the contents of the test to anyone.
- Keep/save, copy, reproduce, or use any test, test item, specific test content, or examinee responses to any item or any section of a secure test in any manner inconsistent with the instructions provided by and through the Pennsylvania Department of Education.
- Review student responses in the answer booklet.
- Review test booklets containing the test items.
- Alter, influence, or interfere with a test response in any way, fill in any unanswered item, or instruct the student to do so.
- Discuss or provide feedback regarding test items.
- Copy or reproduce any portion of the secure test materials or provide answer keys.
- Erase or change student answers.
- Make false or misleading statements about assessment results, including inappropriate interpretations, inaccurate reports, or unsubstantiated claims.
- Erase stray marks or darken bubbles.
- Assist in, direct, aid, counsel, encourage, or fail to report any of the actions prohibited in this section.

Appendix C:

Pennsylvania Calculator Policy

PENNSYLVANIA CALCULATOR POLICY

If a student chooses to use a calculator (other than the online options) on the Keystone Exams or PSSA in sections where the calculator is permitted, the student must adhere to the guidelines listed below. It is incumbent upon the School Assessment Coordinator to ensure that all calculator policies are implemented and followed, including making sure calculators have no programs stored in their memory other than those that are factory installed. Please note that if a student wants to restore the deleted programs, the student will need to back up these programs prior to the assessment. In addition, the memory must be cleared on the calculator following each test session of the assessment.

The following are **not** permitted for the PSSA or Keystone Exams:

- Noncalculators such as cell phones, smart phones, PDAs, laptops, tablets, pocket organizers, etc.
- Calculators with infrared, Wi-Fi, Bluetooth, or other beaming or wireless capabilities, unless the beaming or wireless capabilities are disabled
- Calculators with QWERTY keyboards, typewriter-like keyboards, or keypads (e.g., Dvorak)
- Calculators with built-in Computer Algebra Systems (CAS)
- Calculators that make noise, have paper tape, need to be plugged in, or talk; these specific calculators can only be used as a required accommodation as stated in the *Accommodations Guidelines*
- Calculators shared by students during a test session
- Any and all nonfactory programs or information stored in the calculator

This calculator policy is intended to be a general description of what is not allowed. It is not meant to be an exhaustive list of specific calculators, devices, or technologies that cannot be used on the PSSA or Keystone Exams. Please note that as technology changes, this policy may also change.

Appendix D:

Code of Conduct for Test Takers

CODE OF CONDUCT FOR TEST TAKERS

DO…

- Get a good night's sleep.
- Eat a good breakfast.
- Listen to, read, and follow all directions given.
- Ask questions if you do not understand the directions.
- Read each question carefully, especially multiple-choice items that ask for the "best answer." Also, be sure to read any open-ended items and writing prompts carefully before responding.
- Be careful when marking your answers so that you do not skip spaces or fill in the wrong sections.
- Make sure to completely fill in the bubble for the answer you select and erase completely any answers you change.
- Keep your eyes on your own test.
- Try to answer each test item.
- Check that you have completed all the test items in the test section before closing your test booklet or submitting your final responses online.
- Report any suspected cheating to your teacher or principal.

DO NOT…

- Bring notes with you to the test.
- Bring any electronic devices (e.g., cell phones, smart phones, etc.) other than an approved calculator, if applicable, to the test.
- Share a calculator with others.
- Use the bubbles in the answer booklet to either eliminate possible incorrect answers or possible correct answers. Mark only the bubble for the one correct answer you have chosen.
- Talk with others about questions on the test during or after the test.
- Take notes about the test to share with others.
- Leave an online test session until the session is complete or until instructed to do so.

Appendix E:

PSSA Test Security Certifications

2015 PSSA Test Security Certification

(District Assessment Coordinator)

pennsylvania
DEPARTMENT OF EDUCATION

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, all individuals involved in the handling of assessment materials and/or the administration of the assessment received instruction regarding test security protocols and procedures. Additionally, prior to the administration of the assessment, any individual who administered and/or proctored the assessment completed the Pennsylvania State Test Administration Training and all School Assessment Coordinators were trained on the Test Accountability and Security information contained in the *Handbook for Assessment Coordinators*. Furthermore, prior to the administration of the assessment, all individuals involved in the handling and/or administration of the assessment and all individuals who had access to any assessment materials were informed that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education. These individuals were made aware that they were neither to review, discuss, disseminate, describe, or otherwise reveal the contents of the assessment to anyone nor were they to remove any assessment materials from the school building. They were also made aware that they were not to keep, copy, reproduce, release, or use any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education.

Prior to the administration of the assessment, all individuals involved in the handling and/or administration of the assessment received instruction that all assessment materials, including all assessment booklets and other materials containing secure assessment questions and student responses, were to be kept secure and precisely accounted for in accordance with the procedures specified in the *Handbook for Assessment Coordinators*. Further, prior to the administration of the assessment, all individuals who assisted in the administration of the assessment and all individuals who had access to the secure assessment materials were made aware that they were not to in any manner alter or cause the alteration of any examinee response, assessment booklet, or papers used by examinees.

All assessment materials received from DRC have been used and secured in accordance with the directions contained in the *Handbook for Assessment Coordinators*.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I am not aware that any individual has reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have neither removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction nor am I aware that any individual has removed any assessment materials from the school building unless specifically authorized to administer the assessment to a student on homebound instruction.

I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I am not aware that any individual has kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have neither provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question nor am I aware that any individual has provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees. I am not aware that any other individual has altered or has caused to have altered any examinee response in any manner.

I understand that I am responsible for the secure administration of the assessment in my school district and for the return of all secure assessment material that was received from DRC and that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

Assessment Coordinator Name	Assessment Coordinator Signature	Date of Signature

2015 PSSA Test Security Certification

(School Assessment Coordinator and Principal)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, all individuals involved in the handling of assessment materials and/or the administration of the assessment received instruction regarding test security protocols and procedures. Additionally, prior to the administration of the assessment, any individual who administered and/or proctored the assessment completed the Pennsylvania State Test Administration Training. Furthermore, prior to the administration of the assessment, all individuals involved in the handling and/or administration of the assessment and all individuals who had access to any assessment materials were informed that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education. These individuals were made aware that they were neither to review, discuss, disseminate, describe, or otherwise reveal the contents of the assessment to anyone nor were they to remove any assessment materials from the school building. They were also made aware that they were not to keep, copy, reproduce, release, or use any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education.

Prior to the administration of the assessment, all individuals involved in the handling and/or administration of the assessment received instruction that all assessment materials, including all assessment booklets and other materials containing secure assessment questions and student responses, were to be kept secure and precisely accounted for in accordance with the procedures specified in the *Handbook for Assessment Coordinators*. Further, prior to the administration of the assessment, all individuals who assisted in the administration of the assessment and all individuals who had access to the secure assessment materials were made aware that they were not to in any manner alter or cause the alteration of any examinee response, assessment booklet, or papers used by examinees.

All assessment materials received from DRC have been used and secured in accordance with the directions contained in the *Handbook for Assessment Coordinators*.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I am not aware that any individual has reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have neither removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction nor am I aware that any individual has removed any assessment materials from the school building unless specifically authorized to administer the assessment to a student on homebound instruction.

I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I am not aware that any individual has kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have neither provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question nor am I aware that any individual has provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response. I am not aware that any other individual has altered or has caused the alteration of any examinee response in any manner.

I understand that I am responsible for the secure administration of the assessment in my school(s) and for the return of all secure assessment material that was received from DRC and that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

Name	Signature	Date of Signature

pennsylvania
DEPARTMENT OF EDUCATION

2015 PSSA Test Security Certification

(Test Administrator and Proctor)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, I completed the Pennsylvania State Test Administration Training, and I understand that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have not removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction. I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have not provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees.

I understand that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

Administrator/Proctor Name	Administrator/Proctor Signature	Date of Signature

pennsylvania
DEPARTMENT OF EDUCATION

2015 PSSA Test Security Certification

(General)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

I understand that all assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education.

I have neither reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone nor have I removed any assessment materials from the school building. I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner. I have not provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees.

I understand that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

_____	_____	_____
Name	Signature	Date of Signature

Appendix F:

Parent Confidentiality Agreement

pennsylvania
DEPARTMENT OF EDUCATION

Parent Confidentiality Agreement

In accordance with 22 Pa. Code § 4.4 and to ensure the security and confidentiality of the assessment, when any individual inspects a Pennsylvania System of School Assessment pursuant to 22 Pa. Code §§ 4.4 and 4.5, the individual must attest to the following:

As a parent of a student who will sit for a Pennsylvania System of School Assessment (PSSA) during the current school year, I understand that I have the right to review the relevant PSSA and that maintaining the validity of the assessment is of the utmost importance. I further understand that all PSSA, including the content contained in each test booklet and answer booklet, are the secure, propriety property of the Commonwealth of Pennsylvania, Department of Education (PDE). Therefore, I agree not to discuss, disseminate, or otherwise reveal the content of the assessment materials to anyone, including my own child(ren).

I understand that violation of these terms could result in personal liability for damages caused by a breach of test security, including but not limited to liability and/or costs associated with any of the following: retesting students; recalculating student/school/school district achievement data; developing/producing new test materials to replace compromised test materials; and investigations relating to the breach of test security.

I further understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Name (Print): _____

Signature: _____ Date: _____

Witnessed by: _____ Date: _____

2015
Handbook For Assessment Coordinators

M55043800169001

The state assessment is administered by the Bureau of Assessment & Accountability, Pennsylvania Department of Education (PDE), 333 Market Street, Harrisburg, PA 17126-0333 [(717) 705-2343, fax (717) 783-6642, TDD (717) 783-8445]. The assessment contractor is Data Recognition Corporation (DRC). DRC can be reached by calling toll-free 1-800-451-7849, by emailing pacustomerservice@datarecognitioncorp.com, or by faxing 1-763-268-3008 or 1-763-268-3031.

Classroom Diagnostic Tools Interactive Reports 2014–2015

Updated October 2014

PA Customer Support Team
Phone: 1-(888)-551-6935
Email: PAcustomerservice@datarecognitioncorp.com

TABLE OF CONTENTS

GENERAL INFORMATION

INTRODUCTION

The Classroom Diagnostic Tools (CDT) are a set of online assessments designed to measure specific student strengths, weaknesses, skills, and knowledge throughout the school year to help guide instruction and remediation. The online assessments are available for students in grades six through high school and are fully aligned with the Standards Aligned System (SAS). The assessments are based on content covered by the Keystone Exams and the Pennsylvania System of School Assessments.

A key component of the CDT is the Interactive Reports, which enable users to receive customizable reports for individual students or groups of students. The Interactive Reports also provide dynamic links to instructional resources in SAS based on students' performances on the CDT.

This *User Guide* provides information about how users of the CDT can acquire proper access to the Interactive Reports, along with detailed instructions for using these reports once students begin to take the CDT assessments.

KEY DATES

Description	Date Available
PA Online Assessments Software Update Release	August 18, 2014
Release of the CDT 2014–2015 Administration	August 25, 2014
Release of CDT 2014–2015 Interactive Reports	August 25, 2014
End of Test Window for 2014–2015	July 31, 2015

CUSTOMER SERVICE SUPPORT

Assistance is available Monday through Friday (exclusive of holidays), 8:00 AM–5:00 PM Eastern Standard Time, by contacting Data Recognition Corporation's Pennsylvania Customer Service Team at (888) 551-6935 or by email at PAcustomerservice@datarecognitioncorp.com.

ACCESS INTERACTIVE REPORTS ON PA eDIRECT

The Interactive Reports system is Web-based and uses the Web browser currently installed on your computer. The Interactive Reports system is accessed via the PA eDIRECT Web site https://pa.drcedirect.com and requires a PA eDIRECT account.

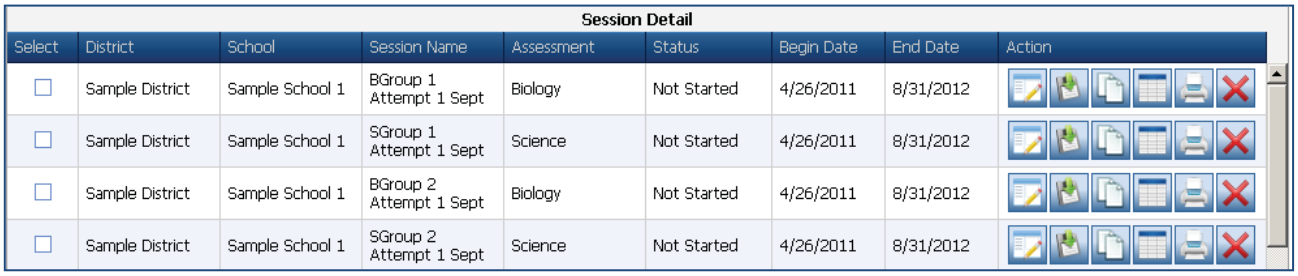
This section of the *User Guide* provides information about how to access the Interactive Reports system and how to use its components. The Interactive Reports system is for viewing and analyzing student assessment results after students have completed diagnostic testing using the CDT system. Please refer to Appendix B: "Roles and Responsibilities" and Appendix C: "Manage PA eDIRECT Users" in this *User Guide* for detailed information about which functionalities various users should have access to within the system.

INSTRUCTIONS

Throughout the eDIRECT system there are built-in instructions for how to use the system. Anytime you see +Instructions, click on the plus sign, and the instructions will expand.

GRID FUNCTIONALITY

Throughout the PA eDIRECT system, anytime a grid is displayed, it is organized and arranged based on default settings. The information displayed in the grid can be rearranged either by clicking on a column header to re-sort the data based on the column selected, or by clicking on and dragging the column to a new position so that the order in which the columns are displayed is changed.



Session Detail

Select	District	School	Session Name	Assessment	Status	Begin Date	End Date	Action
☐	Sample District	Sample School 1	BGroup 1 Attempt 1 Sept	Biology	Not Started	4/26/2011	8/31/2012	
☐	Sample District	Sample School 1	SGroup 1 Attempt 1 Sept	Science	Not Started	4/26/2011	8/31/2012	
☐	Sample District	Sample School 1	BGroup 2 Attempt 1 Sept	Biology	Not Started	4/26/2011	8/31/2012	
☐	Sample District	Sample School 1	SGroup 2 Attempt 1 Sept	Science	Not Started	4/26/2011	8/31/2012	

Sample eDIRECT Grid

MAP CONFIGURATIONS

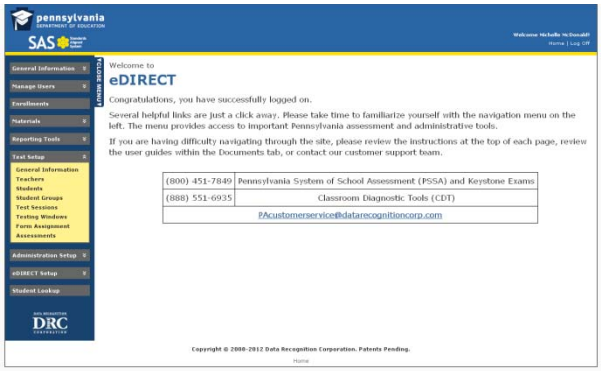
The Interactive Reports are displayed as map configurations. A valid map configuration must be selected based on the assessment that was administered. Please refer to the chart below for the available map configuration for each assessment.

Note: When Test Sessions are created by content area and assessment, students are assigned to the appropriate assessment by their grade level when they are uploaded (e.g., sixth grade students in Literature will start with grade 6 items). However, students in Grades 3-5 should be assigned to the Grades 3-5 assessment in order to view the appropriate Lower Grades Map Configuration.

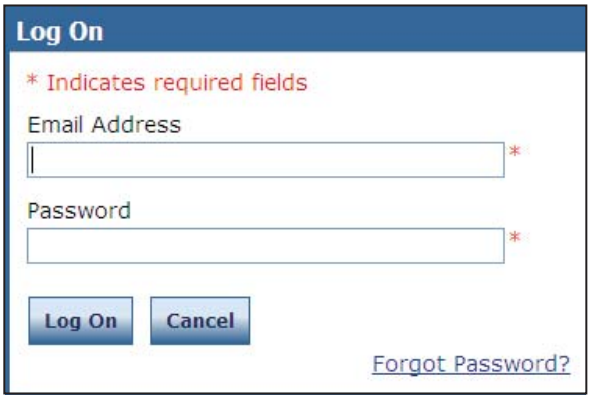
Content Area	Assessment	MAP Configuration
Mathematics	Math Grades 3-5	Mathematics Grade 3 Lower Grades
Mathematics	Math Grades 3-5	Mathematics Grade 4 Lower Grades
Mathematics	Math Grades 3-5	Mathematics Grade 5 Lower Grades
Mathematics	Mathematics	Mathematics Grade 5
Mathematics	Mathematics	Mathematics Grade 6
Mathematics	Mathematics	Mathematics Grade 7
Mathematics	Mathematics	Mathematics Grade 8
Mathematics	Algebra I	Algebra I
Mathematics	Algebra II	Algebra II
Mathematics	Geometry	Geometry
Literacy	Reading Grades 3-5	Reading Grade 3 Lower Grades
Literacy	Reading Grades 3-5	Reading Grade 4 Lower Grades
Literacy	Reading Grades 3-5	Reading Grade 5 Lower Grades
Literacy	Reading/Literature	Reading Grade 5
Literacy	Reading/Literature	Reading Grade 6
Literacy	Reading/Literature	Reading Grade 7
Literacy	Reading/Literature	Reading Grade 8
Literacy	Reading/Literature	Literature
Literacy	Writing Grades 3-5	Writing Grade 3 Lower Grades
Literacy	Writing Grades 3-5	Writing Grade 4 Lower Grades
Literacy	Writing Grades 3-5	Writing Grade 5 Lower Grades
Literacy	Writing/English Composition	Writing Grade 5
Literacy	Writing/English Composition	Writing Grade 6
Literacy	Writing/English Composition	Writing Grade 7
Literacy	Writing/English Composition	Writing Grade 8
Literacy	Writing/English Com position	English Composition
Science	Science Grades 3-5	Science Grade 3 Lower Grades
Science	Science Grades 3-5	Science Grade 4 Lower Grades
Science	Science Grades 3-5	Science Grade 5 Lower Grades
Science	Science Grades 3-5	Science Grade 3–5
Science	Science	Science Grade 5
Science	Science	Science Grade 6
Science	Science	Science Grade 6–8
Science	Science	Science Grade 7
Science	Science	Science Grade 8
Science	Science	Science High School
Science	Biology	Biology
Science	Chemistry	Chemistry

LOG ONTO EDIRECT

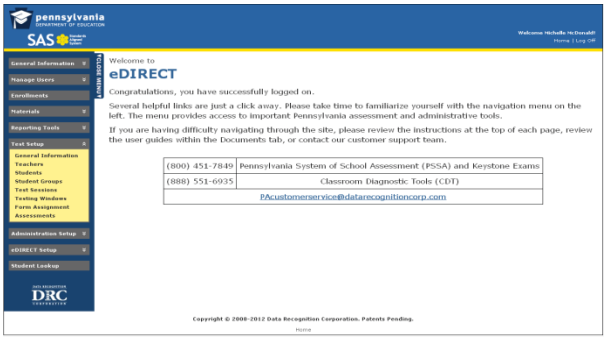
1. Open your Internet Browser.
2. Enter the Web address: https://pa.drcedirect.com



3. Click on the Log On link in the upper right-hand corner of the screen.
4. Enter your email address and password in the text boxes, and click on the **Log On** button. You will receive a temporary password via a system-generated email notifying you that your account has been activated. Use this temporary password to log on to the system for the first time. If you do **NOT** log on to the system within ten (10) days of receiving the temporary password, your account will be made inactive and the password will no longer work.



5. Once you have successfully logged on, a welcome/home screen will appear.



6. Click on **Reporting Tools** in the menu on the left side of the screen and then **Interactive Reports**.

SELECTING SEARCH CRITERIA FOR INTERACTIVE REPORTS

The existing Interactive Reporting navigation has changed due to the addition of the Historical Data Search – getting to the interactive maps is now a two-step process. If you only select the required fields (designated by a red asterisk) of Administration, District, and School, you will be brought to the Individual Map tab and a second set of search criteria. You can then select a specific student and a Map Configuration, which enables you to view the Individual or Learning Progression Map for that student.

Instructions for District Users:

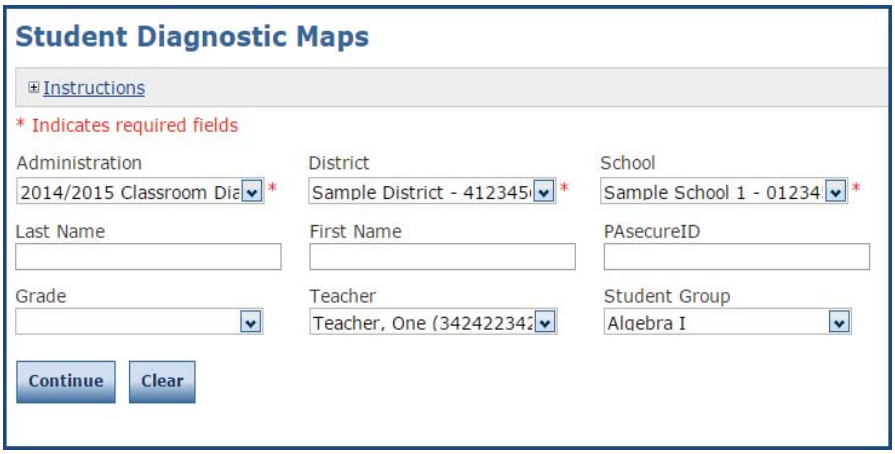
1. Select the **School.**
2. Click on the **Continue** button.

Instructions for School Users:

1. Select the **School.**
2. Click on the **Continue** button.

Instructions for Teachers:

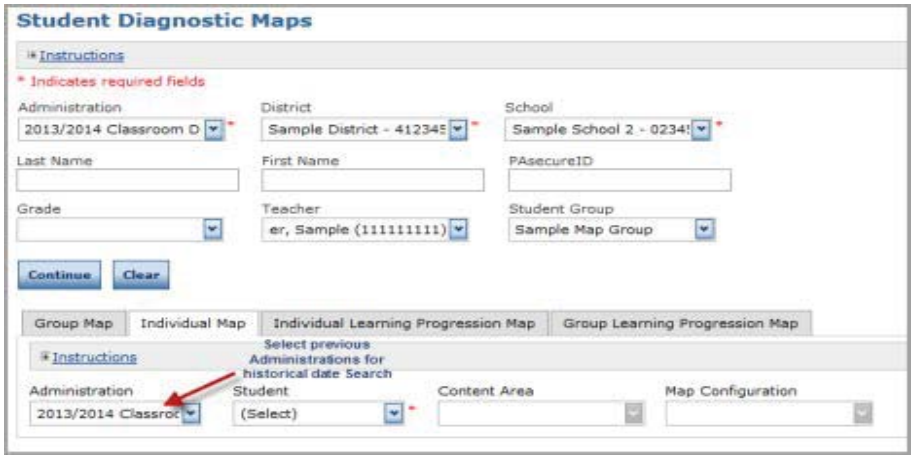
1. Select the **Student Group** to go directly to Group Maps instead of Individual Maps.
2. Leave **Student Group** blank and click on **Continue** button to go directly to Individual Maps.



If you would like to change any of the search filters click on the **Clear** button.

Additional search criteria will expand to fill the screen when the **Continue** button is clicked and collapse the eDIRECT menu to the left. To expand the eDIRECT menu, click on the **Open Menu** link on the upper left of the screen.

1. Once you click on the **Continue** button additional search criteria displays.
2. Select the required fields of **Student** and **Map Configuration** to display Individual Map for *current* Administration.
3. To display Historical Data Search use drop down to select previous Administration for Student and Map Configuration selected.
4. To go immediately to the Group Map select **Teacher** and **Student Group** in upper search criteria and click **Continue**.

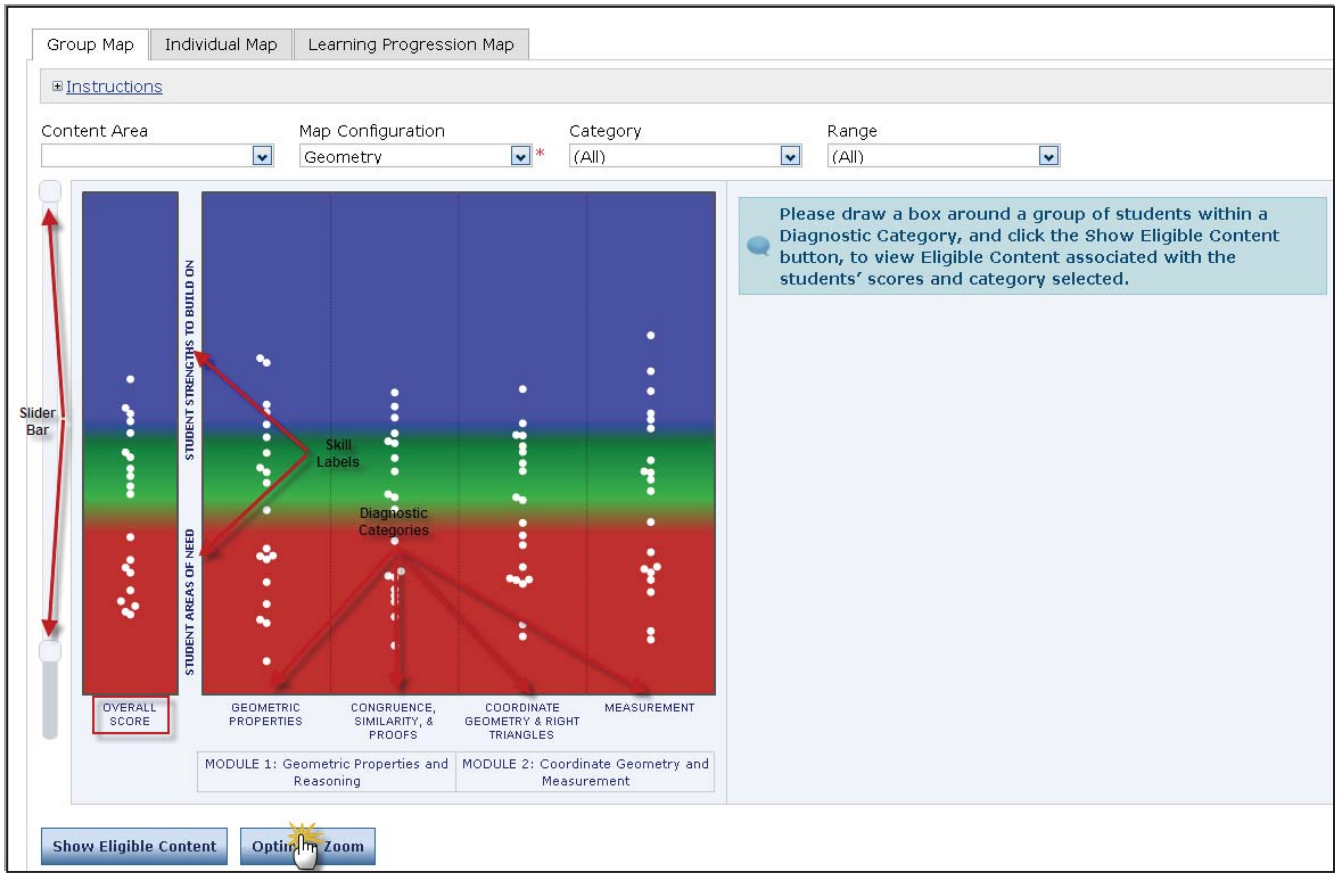


Note: If there is no data for the map after you click on the **Continue** button and select the additional criteria for the Individual Map, Group Map, or Learning Progression Map a message will appear that will indicate there is no data available for the map configuration selected. See the "Map Configurations" section of this *User Guide* (page 3) for additional information.

GROUP MAP

The Interactive Reports use colors to indicate relative ***Strengths to Build On*** and ***Areas of Need***. Each descriptor correlates with a color range on the scale: Green/Blue = Strengths to Build On; Red = Areas of Need.

- Each white dot on the Group Map represents a single student score.
- Only students within the Student Group with scores will appear as white dots on the map.
- All dots represent the most recent assessment score for each student within the Student Group selected.
- The Group Map is intended to provide general assessment information based on a group of student scores within a Diagnostic Category. For a specific description of the Eligible Content assessed during an individual student's test, please refer to the "Learning Progression Map" section of this *User Guide* (page 15).



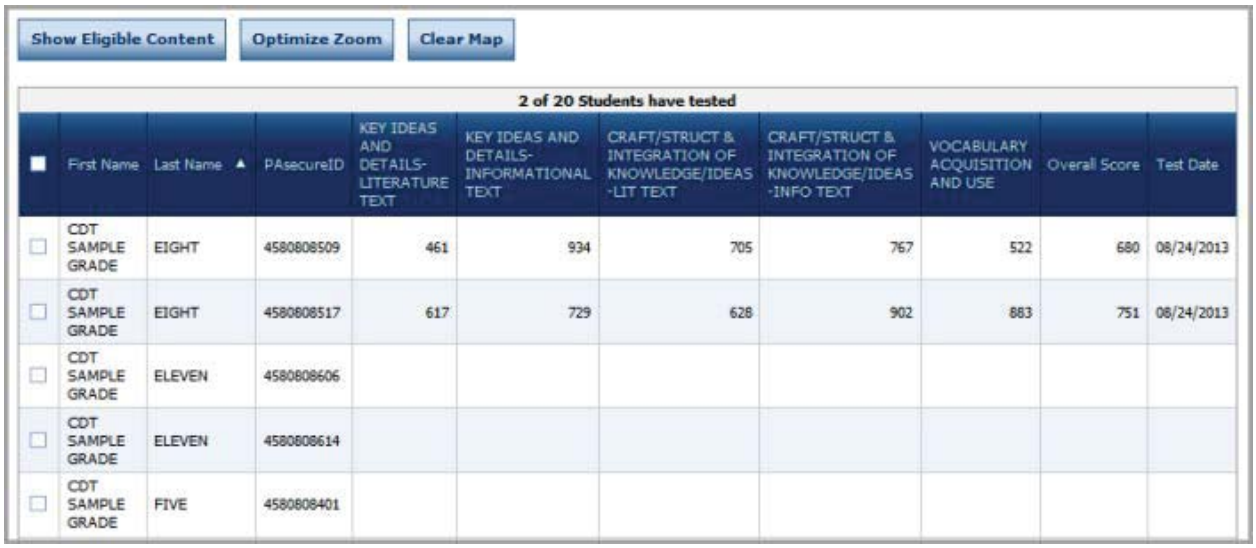
Initially, the Group Map shows the entire vertical scale (zoomed all the way out). Click on the **Optimize Zoom** button to zoom to the portion of the scale that includes the highest and lowest scores available based on the search criteria selected. The area in between the slider bars indicates what portion of the total scale is currently being displayed.

Slider Bar—To adjust the map focus, use the upper and lower sliders on the bar to the left of the map. The area between the sliders is the area of the scale displayed on the map.
Skill Labels—These identify the area on the scale above which are **Student Strengths to Build On** and below which are **Student Areas of Need**.
Diagnostic Categories—These appear below each of the columns at the bottom of the map.
Hover Over—Hover over a white dot to view a pop-up of the Name, PAsecureID, Test Date, and Score.

Group Map Grid—This appears below the map and provides a complete list of the students within the selected Student Group.

Fields included in the grid:

- First Name, Last Name, and PAsecureID
- Student scores within Diagnostic Categories
- Overall Score
- Test Date



Show Eligible Content | Optimize Zoom | Clear Map

2 of 20 Students have tested

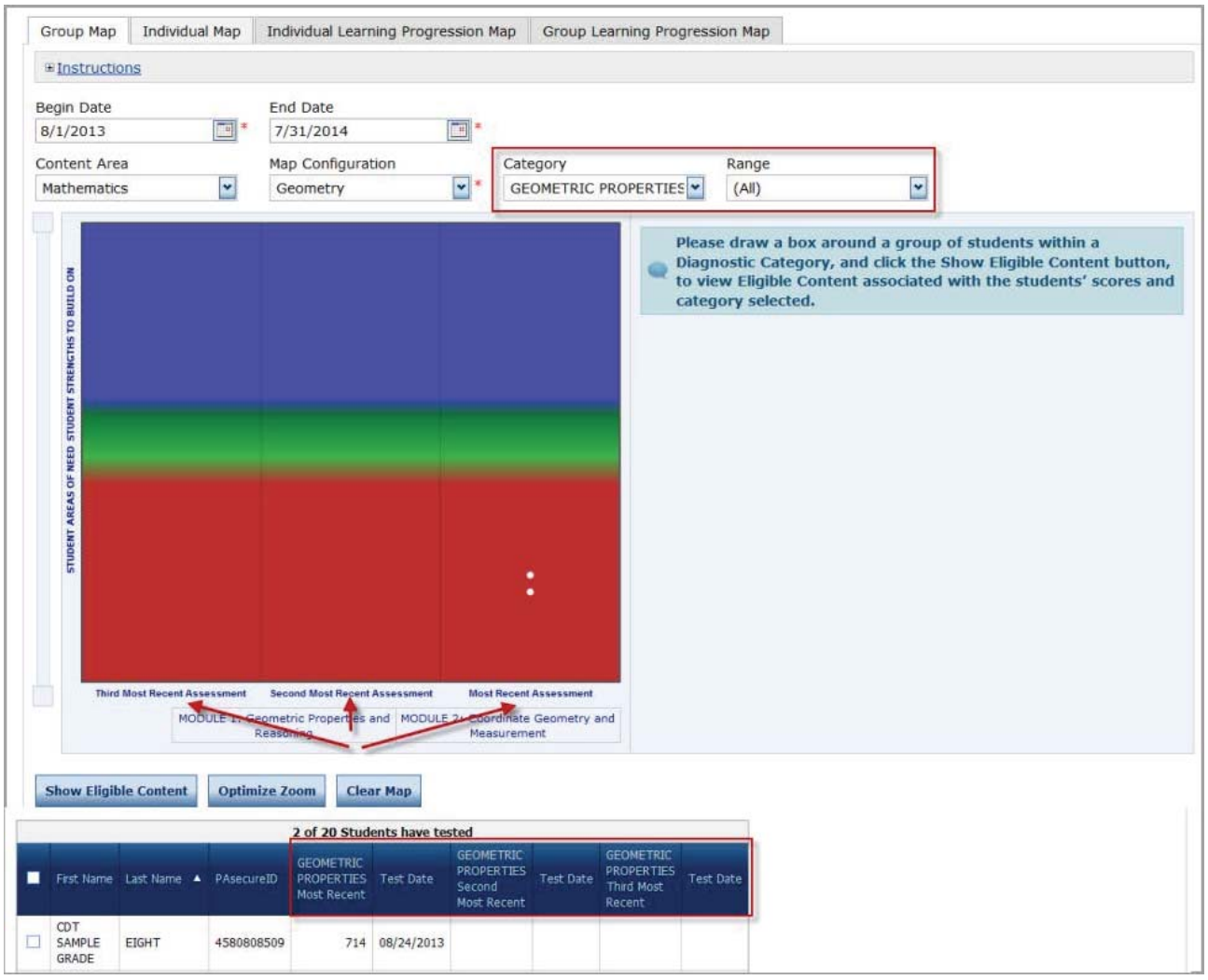
First Name	Last Name ▲	PAsecureID	KEY IDEAS AND DETAILS-LITERATURE TEXT	KEY IDEAS AND DETAILS-INFORMATIONAL TEXT	CRAFT/STRUCT & INTEGRATION OF KNOWLEDGE/IDEAS -LIT TEXT	CRAFT/STRUCT & INTEGRATION OF KNOWLEDGE/IDEAS -INFO TEXT	VOCABULARY ACQUISITION AND USE	Overall Score	Test Date
CDT SAMPLE GRADE	EIGHT	4580808509	461	934	705	767	522	680	08/24/2013
CDT SAMPLE GRADE	EIGHT	4580808517	617	729	628	902	883	751	08/24/2013
CDT SAMPLE GRADE	ELEVEN	4580808606							
CDT SAMPLE GRADE	ELEVEN	4580808614							
CDT SAMPLE GRADE	FIVE	4580808401							

Group Map Grid

Individual Student Select—Click on a white dot in any one of the columns to connect all of the scores for an individual student across Diagnostic Categories. The selected student's dots will turn black and the student's information will be gray-highlighted in the Group Map Grid.

Category Filter—Select a single Diagnostic Category from the **Category** drop-down menu at the top of the map to show student scores for a single category across multiple assessments.

Range Filter—To select either the **Student Strengths to Build On** or **Student Areas of Need** portions of the scale, use the **Range** drop-down menu at the top of the map.



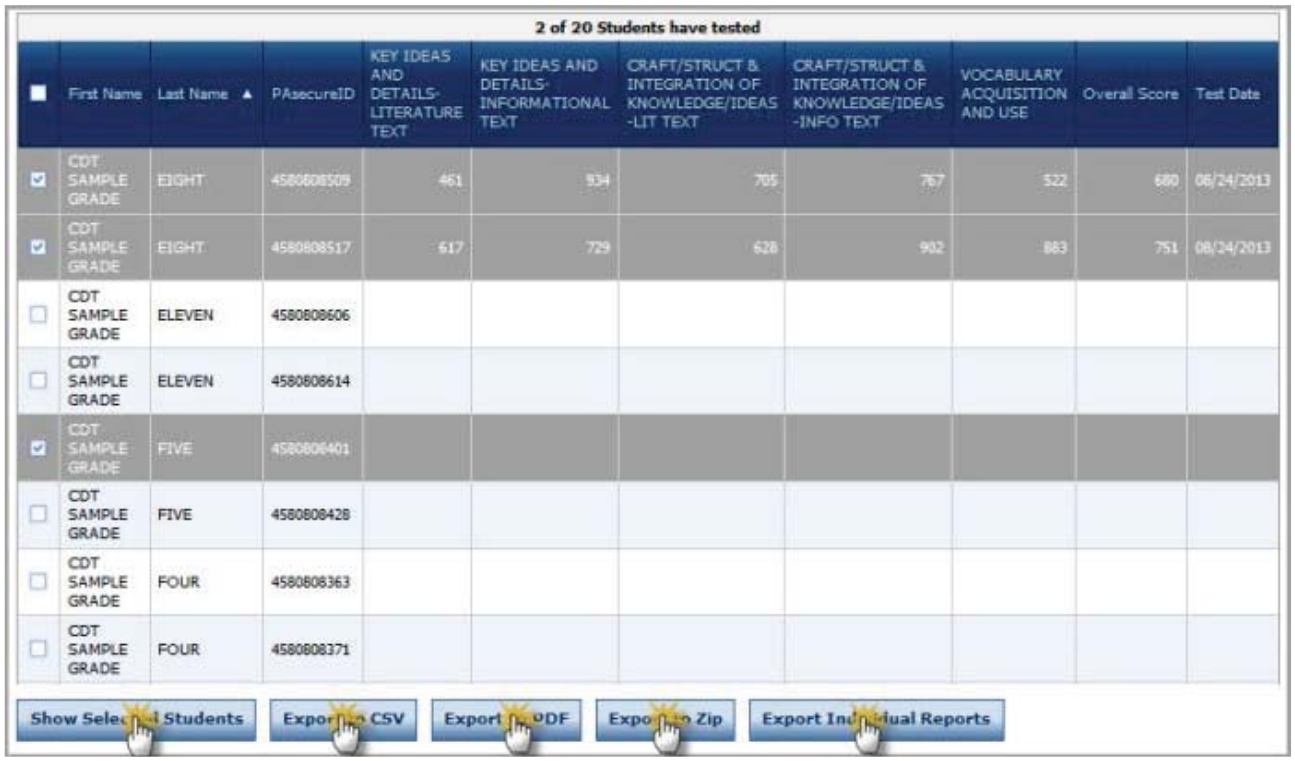
Show Selected Students—To display ONLY specific students on the map, check the box next to those students in the Group Map Grid and click on the **Show Selected Students** button. The new map generated will ONLY include the students who were represented as white dots in the previous map view. Those students will have the boxes next to their names checked in the Group Map Grid.

Export to CSV—Click on the **Export to CSV** button at the bottom of the Group Map Grid to export map data to a CSV-formatted table.

Export to PDF—Click on the **Export to PDF** button at the bottom of the Group Map Grid to export a PDF image of the current view of the map, search criteria, and the Group Map Grid. Instructional Enrichment will only appear in the PDF if individual students and **Show Eligible Content** have been selected. The Instructional Enrichment will appear in the bar to the right of the map.

Export to Zip—Click on the ***Export to Zip*** button at the bottom of the Group Map Grid to export map data to a Zip File.

Export Individual Reports—Click on the ***Export Individual Reports button*** at the bottom of the Group Map Grid to export the Individual Reports.



2 of 20 Students have tested

	First Name	Last Name ▲	PAsecureID	KEY IDEAS AND DETAILS-LITERATURE TEXT	KEY IDEAS AND DETAILS-INFORMATIONAL TEXT	CRAFT/STRUCT & INTEGRATION OF KNOWLEDGE/IDEAS -LIT TEXT	CRAFT/STRUCT & INTEGRATION OF KNOWLEDGE/IDEAS -INFO TEXT	VOCABULARY ACQUISITION AND USE	Overall Score	Test Date
☑	CDT SAMPLE GRADE	EIGHT	4580808509	461	934	705	767	522	680	08/24/2013
☑	CDT SAMPLE GRADE	EIGHT	4580808517	617	729	628	902	883	751	08/24/2013
☐	CDT SAMPLE GRADE	ELEVEN	4580808606							
☐	CDT SAMPLE GRADE	ELEVEN	4580808614							
☑	CDT SAMPLE GRADE	FIVE	4580808401							
☐	CDT SAMPLE GRADE	FIVE	4580808428							
☐	CDT SAMPLE GRADE	FOUR	4580808363							
☐	CDT SAMPLE GRADE	FOUR	4580808371							

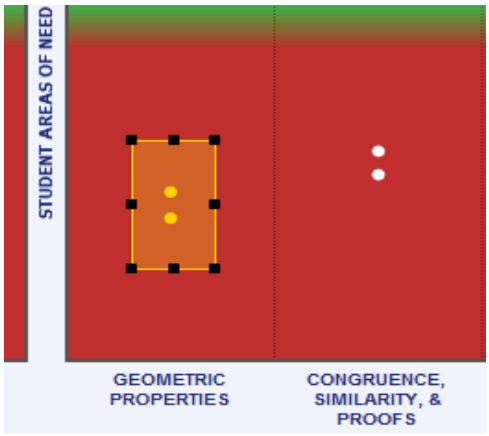
Show Selected Students | Export to CSV | Export to PDF | Export to Zip | Export Individual Reports

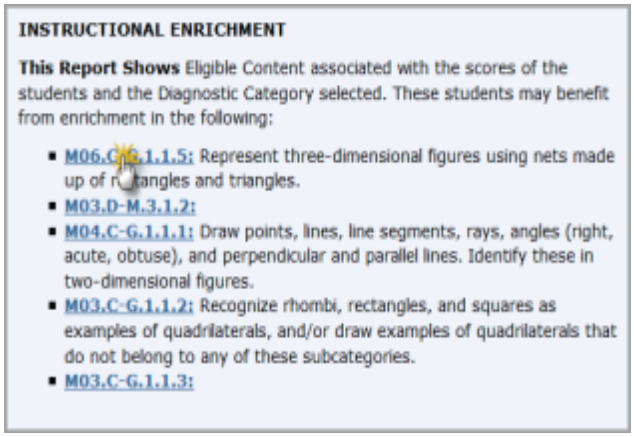
Group Map Grid

VIEW ELIGIBLE CONTENT & ACCESS SAS MATERIALS AND RESOURCES:

Multiple Students—To select multiple students within one of the Diagnostic Categories, follow these steps:

1. Draw a box around a group of students by holding the mouse button down while dragging the cursor (pointer) across the dots to be selected.
2. Click on the **Show Eligible Content** button.
3. The selected students' dots will turn yellow and will be yellow-highlighted in the Group Map Grid.
4. A list of Eligible Content for the Diagnostic Category, associated with the range of scores for the students selected, will appear to the right of the map.
5. Click on any one of the Eligible Content codes to launch into the Standards Aligned System (SAS) Web site and gain access to all curriculum and resources available for the Eligible Content selected.



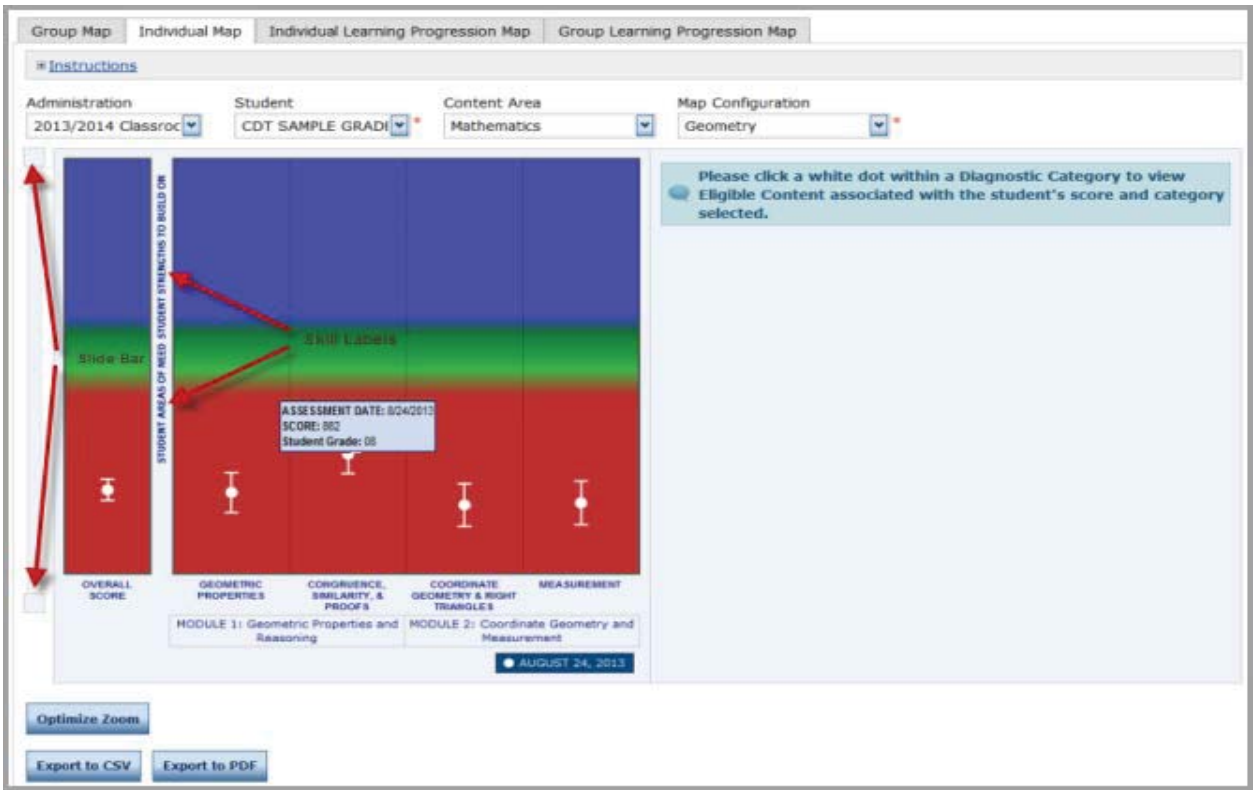


Note: Teachers with Standards Aligned System (SAS) accounts should make sure their user account email address for eDIRECT is the same as the email address they use for their SAS account. This will allow automatic sign-in to the Teacher Tool Box in SAS whenever the Interactive Reports system interfaces with SAS.

INDIVIDUAL MAP

- The Individual Map has the ability to show the three most recent assessments that apply to the map configuration selected for an individual student.
- A white dot indicates the most recent, a black triangle the second most recent, and a gray diamond the third most recent.
- The lines extending above and below each mark indicate the standard error. The standard error range is used when comparing scores from different assessments to determine whether the differences are significant. The standard error range of total scores is smaller because the scores are based on more test items than the scores in Diagnostic Categories.
- The Individual Map is intended to provide general Instructional Enrichment (a set of Eligible Content) based on a student's score within a Diagnostic Category. For a specific description of the Eligible Content assessed during a student's test, please refer to the "Learning Progression Map" section of this *User Guide* (page 15).

Initially, the Individual Map shows the entire vertical scale (zoomed all the way out). Click on the **Optimize Zoom** button to zoom to the portion of the scale that includes the highest and lowest scores available based on the search criteria selected. The area in between the slider bars indicates what portion of the total scale is currently being displayed.



Student Filter—Click on the **Student** drop-down menu to select a student. When a new student is selected, the map will refresh.

Slider Bar—To adjust the map's focus, use the upper and lower sliders on the bar to the left of the map. The area between the sliders is the area of the scale that is displayed on the map.

Skill Labels—These identify the area on the scale above which are **Student Strengths to Build On** and below which are **Student Areas of Need**.

Diagnostic Categories—These appear below each of the columns at the bottom of the map.

Hover Over—Hover over the dot in the middle of the white, grey, or black line to view a pop-up of the Assessment Date and Score.

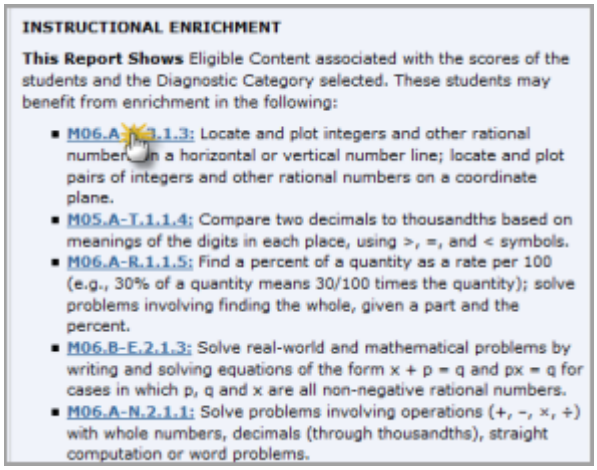
Export to PDF—Click on the **Export to PDF** button to export a PDF image of the current view of the map, search criteria, and Instructional Strategies. Instructional Strategies will only appear in the PDF if **Show Eligible Content** has been selected. They will appear in the bar to the right of the map.

Export to CSV—Click on the **Export to CSV** button to export map data to a CSV-formatted table.

VIEW ELIGIBLE CONTENT & ACCESS STANDARDS ALIGNED SYSTEM (SAS) MATERIALS AND RESOURCES:

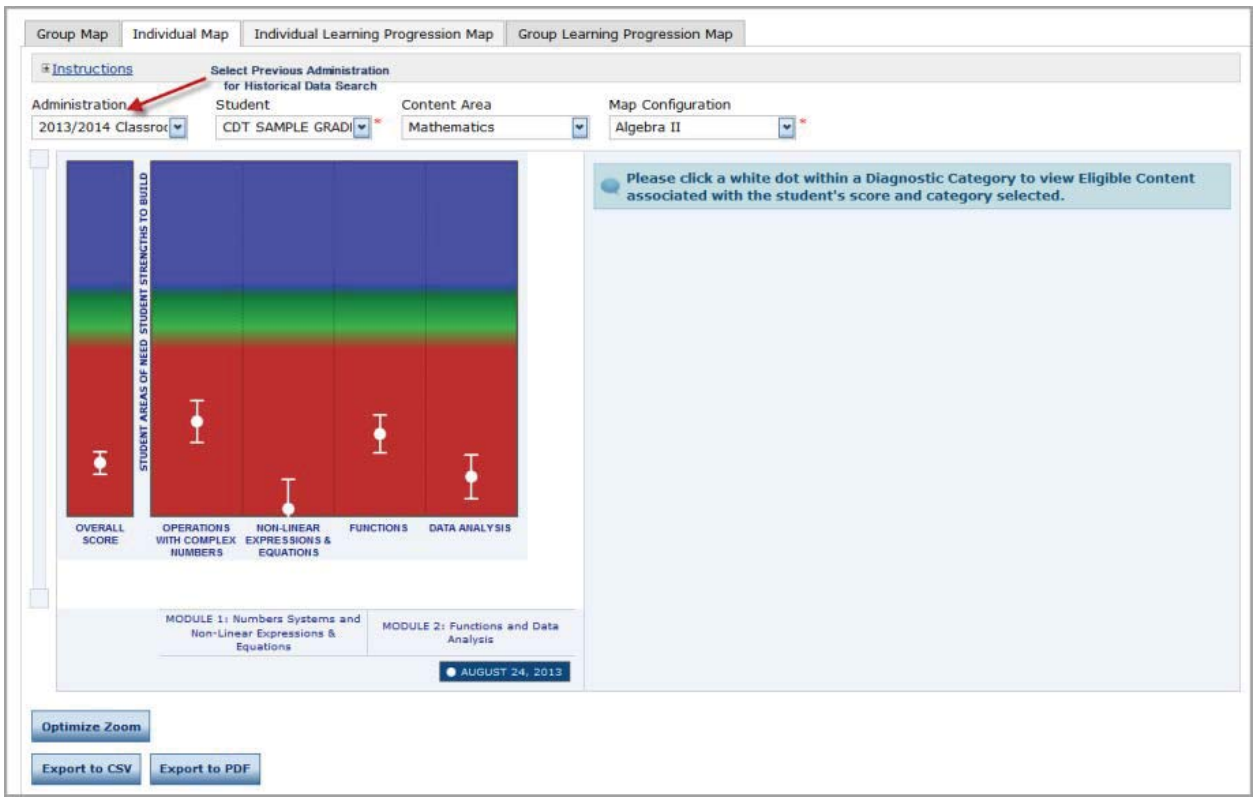
Note: Eligible Content and links to SAS materials and resources are only provided in reference to a student's most recent test scores (white dots).

1. Click a white dot within one of the Diagnostic Categories.
2. The list of Eligible Content for the Diagnostic Category, associated with the student's score, will appear to the right of the map.
3. Click on any one of the Eligible Content codes to launch into the Standards Aligned System (SAS) Web site and gain access to all curriculum and resources available for the Eligible Content selected.



HISTORICAL DATA SEARCH

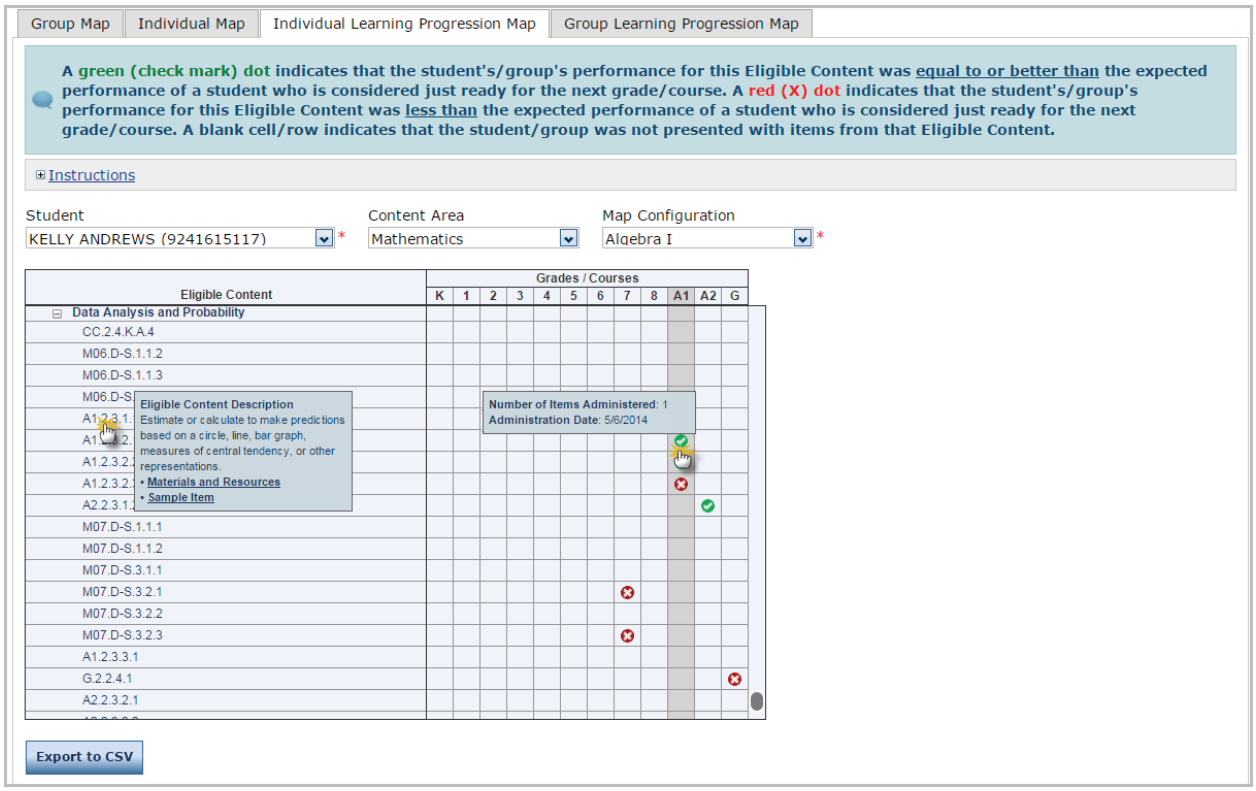
- The Historical Data Search is only available for Individual Students and not Student Groups.
- To see a student's scores from a previous Administration select the Administration in the search criteria directly above the Individual Map.
- Populate the required fields of Student and Map Configuration
- If there is data available for a student in a previous Administration the Individual Map will display.
- If there is no data available, a message will appear letting you know there is no data available for the Map Configuration selected for that student.



INDIVIDUAL LEARNING PROGRESSION MAP

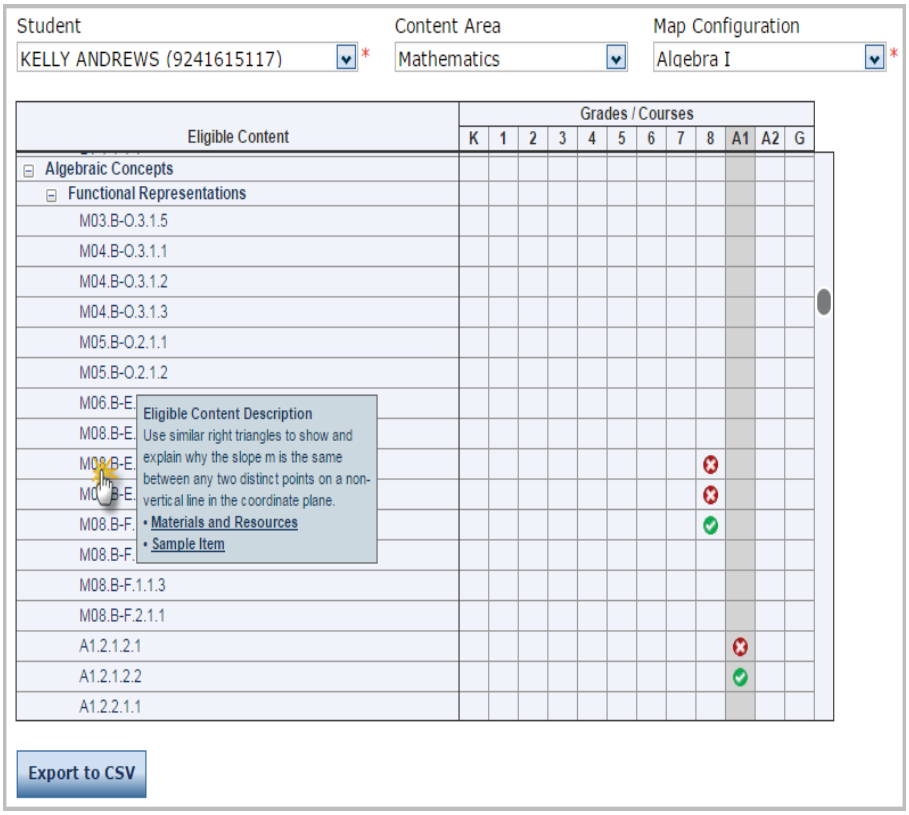
- The Learning Progression Map is a graphical representation about how learning may typically move toward increased understanding over time based on Eligible Content.
- Each dot (green or red) represents the Eligible Content in a subject's domain and subdomain and for a specific grade level or course.
- The grade/course is highlighted based on the map configuration selected.
- The initial view of the Learning Progression Map will automatically expand all domains and subdomains that contain Eligible Content on which a student was assessed.
- All Learning Progression domains and subdomains can be expanded or collapsed.
- Use the scroll bar to view all Eligible Content.

A ***green*** dot indicates that the student was presented with at least one test item for the Eligible Content and was successful, possibly indicating "Student Strengths to Build On."
A ***red*** dot indicates that the student was presented with at least one test item from the Eligible Content and was unsuccessful, possibly indicating "Student Areas of Need."
A ***blank square*** represents Eligible Content that is available, but the student was not presented with any test items from that Eligible Content.



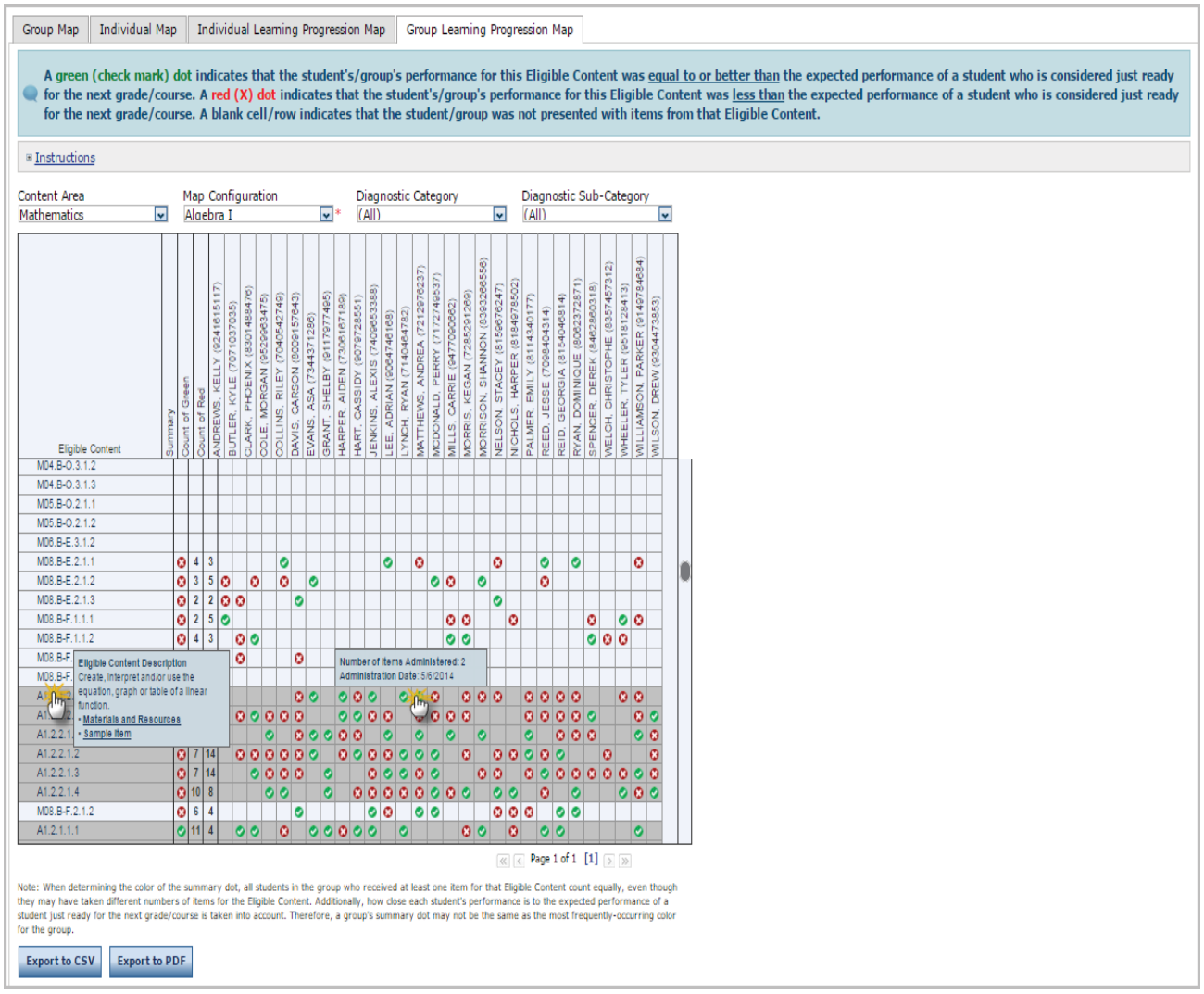
VIEW ELIGIBLE CONTENT & ACCESS SAS MATERIALS AND RESOURCES AND SAMPLE ITEMS:

1. Hover over any of the Eligible Content until a pop-up appears.
2. Use the mouse to move the pointer into the pop-up and click on the **Materials and Resources** link to launch the Standards Aligned Systems (SAS) Web site and to view materials and resources aligned to the Eligible Content. Voluntary Model Curriculum (VMC) Units and Lesson Plans aligned to the Eligible Content selected will be the first listed among the variety of materials and resources presented in the list of SAS options, if a VMC unit for the Eligible Content is currently available in SAS.
3. Click on the **Sample Item** link within the pop-up to view a sample test item representative of the Eligible Content selected. Sample items are of an average difficulty level compared to the set of items aligned to an Eligible Content; the specific item(s) presented to the student may be more or less difficult compared to the sample item displayed.



GROUP LEARNING PROGRESSION MAP

- The Group Learning Progression Map displays all Eligible Content for the specified content area.
- Enables teachers and administers to view the learning progression map at a classroom level.
- Each dot (green or red) represents an item(s) that was presented to the student.
- The Eligible Content rows are highlighted based on the map configuration selected.
- Use the scroll bar to view all Eligible Content.



Note: When determining the color of the **summary dot**, all students in the group who received at least one item for that Eligible Content count equally, even though they may have taken different numbers of items for the Eligible Content. Additionally, how close each student's performance is to the expected performance of a student just ready for the next grade/course is taken into account. Therefore, a group's summary dot may not be the same as the most frequently-occurring color for the group.

DETERMINE INSTRUCTIONAL PLAN FOR STUDENT(S)

ACCESSING MATERIALS AND RESOURCES ON SAS

There are several ways to access materials and resources from the Standards Aligned System (SAS) directly from the Interactive Reports:

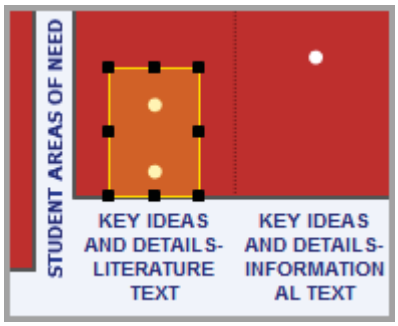
- from the Group Diagnostic Report,
- from the Individual Diagnostic Report, or
- from the Learning Progression Maps.

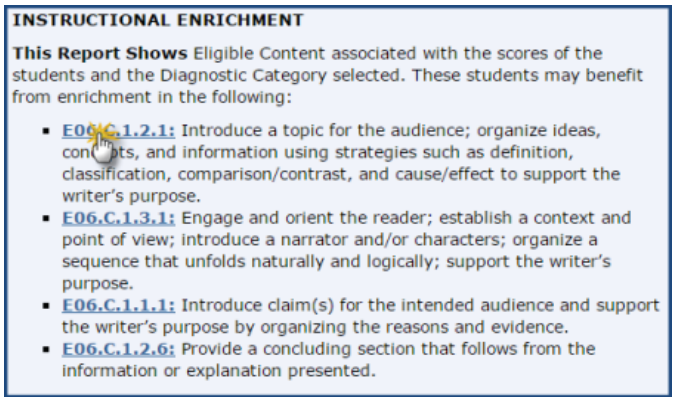
Note: Teachers with Standards Aligned System (SAS) accounts should make sure their user account email address for eDIRECT is the same as the email address they use for their SAS account. This will allow automatic sign-in to the Teacher Tool Box in SAS when an Eligible Content code is selected.

VIEW ELIGIBLE CONTENT & ACCESS MATERIALS AND RESOURCES FROM THE GROUP DIAGNOSTIC REPORT:

Multiple Students—To select multiple students within one of the Diagnostic Categories, follow these steps:

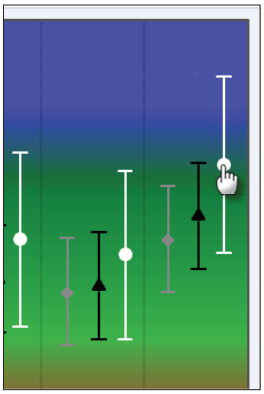
1. Draw a box around a group of students by holding the mouse button down while dragging the cursor (pointer) across the dots to be selected.
2. Click on the **Show Eligible Content** button.
3. The selected students' dots will turn yellow and will be yellow-highlighted in the Group Map Grid.
4. A list of Eligible Content for the Diagnostic Category associated with the range of scores for the students selected will appear to the right of the map.
5. Click on any one of the Eligible Content codes to launch into the Standards Aligned System (SAS) Web site and gain access to all curriculum and resources available for the Eligible Content selected.

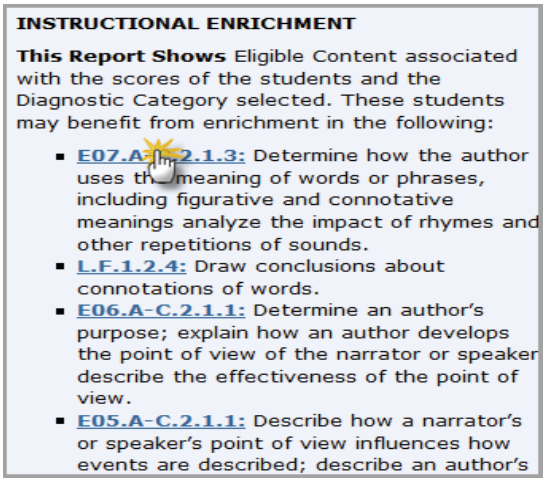




VIEW ELIGIBLE CONTENT & ACCESS MATERIALS AND RESOURCES FROM THE INDIVIDUAL DIAGNOSTIC REPORT:

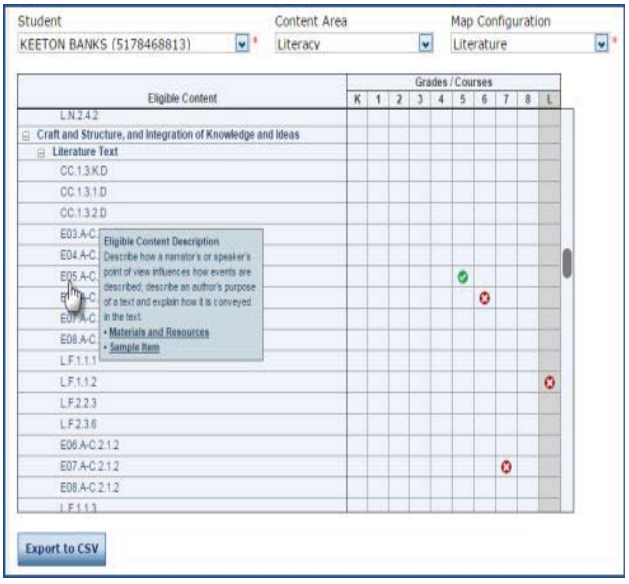
1. Click on a white dot within one of the Diagnostic Categories.
2. The list of Eligible Content for the Diagnostic Category associated with the student's score will appear to the right of the map.
3. Click on any one of the Eligible Content codes to launch into the Standards Aligned System (SAS) Web site and gain access to all curriculum and resources available for the Eligible Content selected.





VIEW ELIGIBLE CONTENT & ACCESS MATERIALS, RESOURCES, AND SAMPLE ITEMS FROM THE LEARNING PROGRESSION MAP:

1. Hover over a desired dot until a pop-up appears.
2. Click on the **Materials and Resources** link within the pop-up to launch the SAS Web site and view materials and resources aligned to the Eligible Content. Voluntary Model Curriculum (VMC) Units and Lesson Plans aligned to the Eligible Content selected will be the first listed among the variety of materials and resources presented in the list of SAS options, if a VMC unit for the Eligible Content is currently available in SAS.
3. Click on the **Sample Item** link to view a sample test item representative of the Eligible Content selected. Sample items are of an average difficulty level compared to the set of items aligned to an Eligible Content; the specific item(s) presented to the student may be more or less difficult compared to the sample item displayed.



ADDITIONAL RESOURCES

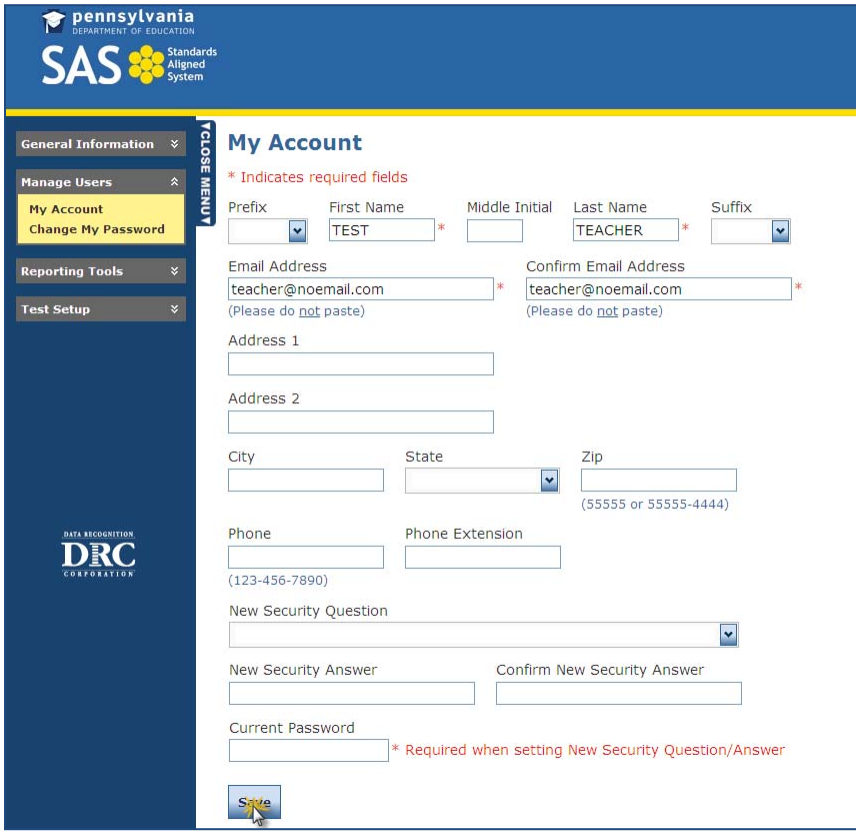
If you have any questions, please review the support documentation and training resources that are available on PA eDIRECT/General Information/Documents at https://pa.drcedirect.com.

DRC PA CUSTOMER SERVICE TEAM	
Phone	(888) 551-6935
Email	PAcustomerservice@datarecognitioncorp.com
Fax	(763) 268-2567
Hours	Monday–Friday (exclusive of holidays) 8:00 AM–5:00 PM Eastern Standard Time

APPENDIX A: MANAGE YOUR PA eDIRECT ACCOUNT

MY ACCOUNT

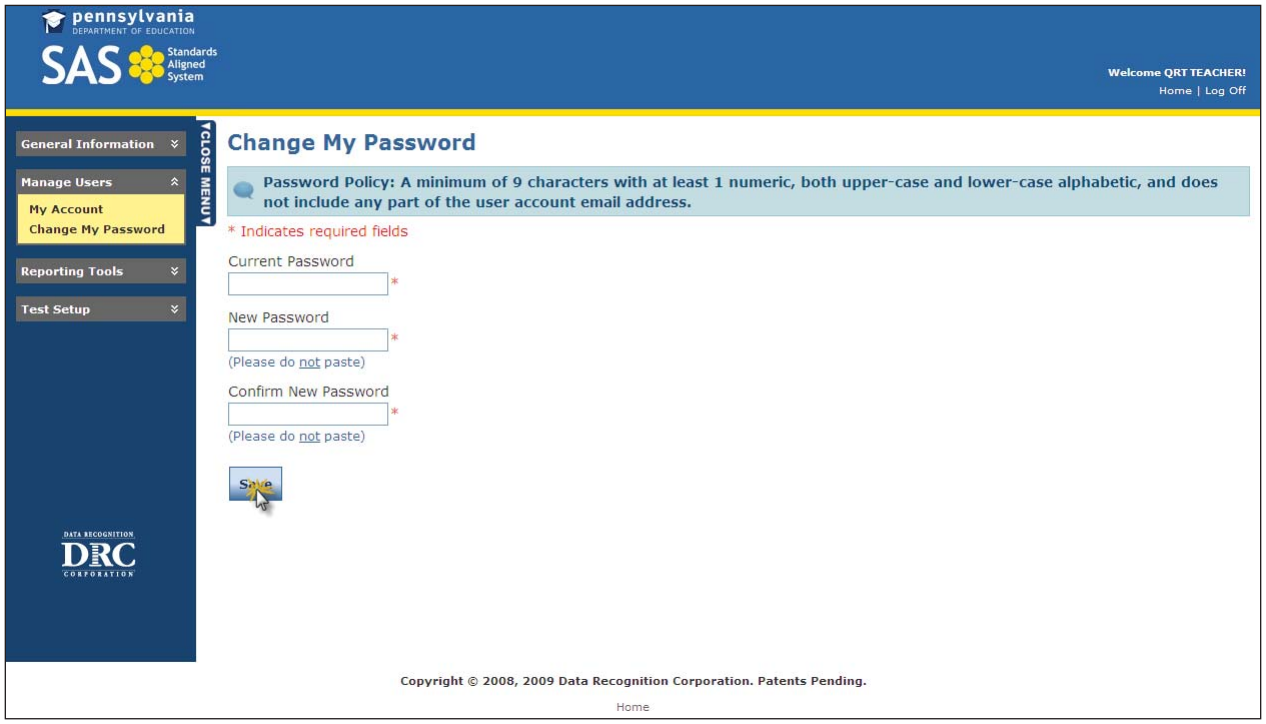
1. On the left hand side of the box, expand the **Manage Users** menu to display user account tools.
2. To update your personal information, click on **My Account**.
3. Click on **Save** upon completion.



My Account Page

CHANGE MY PASSWORD

1. To change your password, click on **Change My Password** under **Manage Users**. Note the **Password Policy** in the blue header.
2. Click on **Save** upon completion.



Change Password Page

APPENDIX B: ROLES AND RESPONSIBILITIES

This section outlines the roles and responsibilities for the District Assessment Coordinators (DACs), School Assessment Coordinators (SACs), Teachers, and Test Administrators (TAs) as they relate to the Classroom Diagnostic Tools (CDT) Interactive Reports. As detailed in this section, the DAC is responsible for setting up all SACs at schools within the district that will be participating, and in turn the SACs are responsible for setting up all the Teachers and TAs within the school that will be participating.

Though the CDT Interactive Reports system allows for the DAC and SACs to have many of the same responsibilities, it is flexible enough to allow for the DAC to be more restrictive of the SACs' access and rights in the system.

Note: For information about assigning permissions and roles and responsibilities related to the administration of the Classroom Diagnostic Tools (CDT) assessments please refer to the *Classroom Diagnostic Tools 2013–2014 User Guide*, available electronically on the PA eDIRECT Web site under **Documents.**

Data Recognition Corporation (DRC) PA Customer Service

Responsibilities:

- Set up all DACs and District Technology Coordinators whose first name, last name, and email address were provided via the PA eDIRECT Enrollment system, via PA Customer Service email or via the Classroom Diagnostic Tools 2013–2014 Registration Form.

DACs

Responsibilities:

- Verify their PA eDIRECT account has been set up appropriately, and contact DRC PA Customer Service if there are any issues.
- Verify and set up SAC PA eDIRECT user accounts appropriately.
- Provide training and support to SACs.

SACs

Responsibilities:

- Verify their PA eDIRECT account has been set up appropriately, and contact the DAC if there are any issues.
- Verify and set up Teachers' PA eDIRECT user accounts appropriately.
- Provide training and support to Teachers.
- Confirm all teachers utilizing the CDT Interactive Reports are listed as Teachers within the PA eDIRECT system; ensure email address within the system match email address associated with PA eDIRECT user accounts; and ensure Teachers and students are associated correctly via Student Groups in the system.

Teachers

Responsibilities:

- Verify their PA eDIRECT account has been set up appropriately, and contact the SAC if there are any issues.
- Verifying the SAC has correctly created Student Groups within the PA eDIRECT system, thereby ensuring Teachers have access to the appropriate student results within the Interactive Reports.
- Confirm their PA eDIRECT account and Standards Aligned System (SAS) account email addresses are the same.

TAs

Responsibilities:

Do not have a need to access CDT Interactive Reports.

APPENDIX C: MANAGE PA eDIRECT USERS

PA eDIRECT is a permissions-based system, meaning that users with administrative rights will need to select what role each person has and assign permissions to that individual accordingly. This allows the flexibility to have users with the same roles but different permissions.

Permissions must be assigned for the District Assessment Coordinators (DACs), School Test Coordinators (SACs), Teachers, and Test Administrators (TAs). Since DACs and SACs are responsible for adding and managing users within the PA eDIRECT system, DRC recommends that only DACs and SACs be granted administrative permissions.

If you are a DAC or an SAC who has been granted administrative permissions, you will have the ability to manage all user accounts within your district, including schools. The following table lists the actions that can be performed by clicking on **User Administration** under the **Manage Users** menu tab and selecting **Edit User**.

Actions		
Edit User		Update user contact information/profile. Set a new password.
Reset User		Reactivate a user account if it is inactive.
Inactivate		Inactivate a user account.

The **Profiles** tab allows an administrative user to update multiple user profiles at a time.

REQUIRED PERMISSIONS TO VIEW INTERACTIVE REPORTS AND HISTORICAL DATA SEARCH

To view the interactive diagnostic reports, the following permissions must be granted:

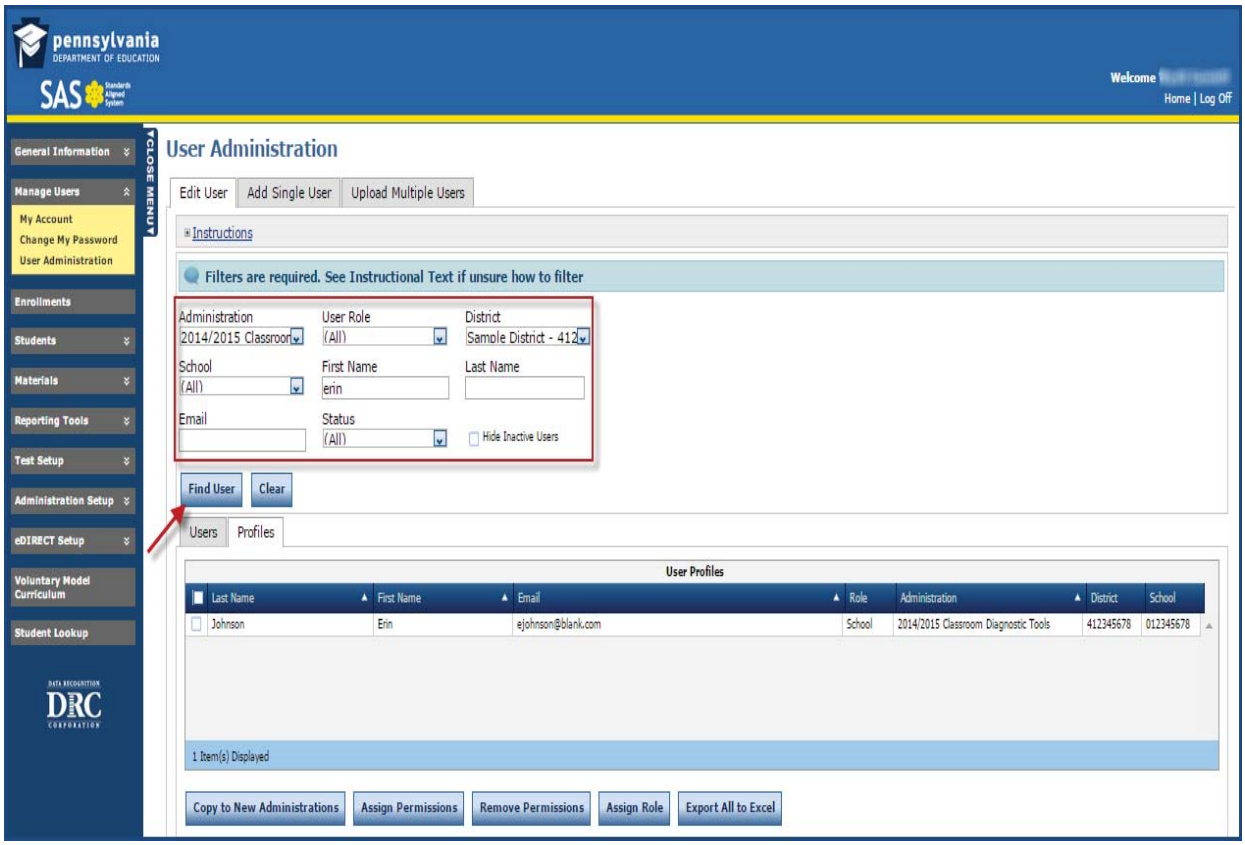
Reports—Diagnostic Reports

Teachers

1. Teachers must not only have PA eDIRECT user accounts, but they must also be in the Test Setup system and have students associated with them via Student Groups to access the Group Map.
2. The email address for a Teacher's Test Setup profile **MUST** match his/her PA eDIRECT user account email address.

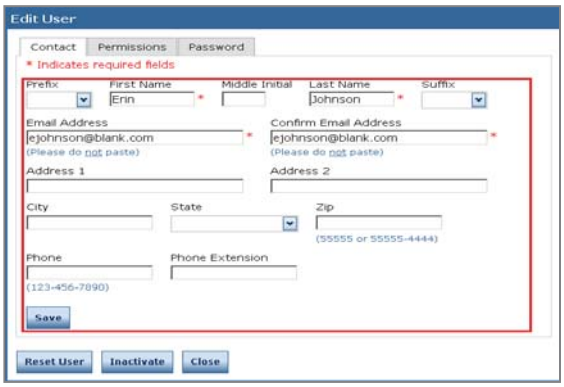
EDIT EXISTING USER

1. To edit an existing user, click on **User Administration.**
2. Enter the desired search criteria and click on **Find User**.
3. To reset a user's password, click on the **Reset Password**  icon.
4. To inactivate a user account, click on the **Inactivate**  icon.
5. To edit a user's contact info, permissions, or password, click on the **View/Edit**  icon.



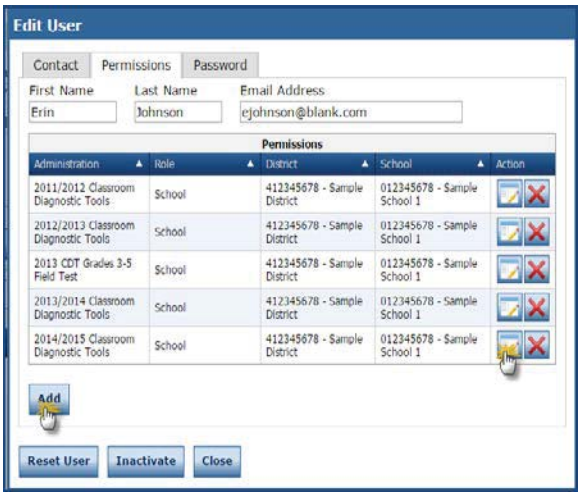
Edit Contact Information

1. To edit contact information, click on the **Contact Tab.**
2. Make the desired changes, and click on **Save.**



Edit User Permissions

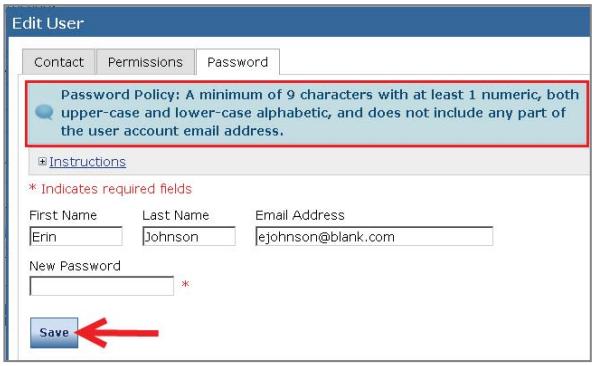
1. To edit a user's permissions, click on the **Permissions** tab.
2. To edit permissions of a current administration, click on the **View/Edit** icon  of the desired administration. (See the "Add Single New User" section of this *User Guide*.)
3. To remove an administration altogether, click on the **Delete**  icon.
4. To add permissions for a new administration, click on **Add.** (See the "Add Single New User" section of this *User Guide*.)



Set User Password

1. To manually set a user's password, click on the **Password** tab.
2. Set a new password in accordance with the **Password Policy** found in the blue header.
3. Click on **Save** upon completion.

NOTE: DRC representatives can reset passwords as needed.



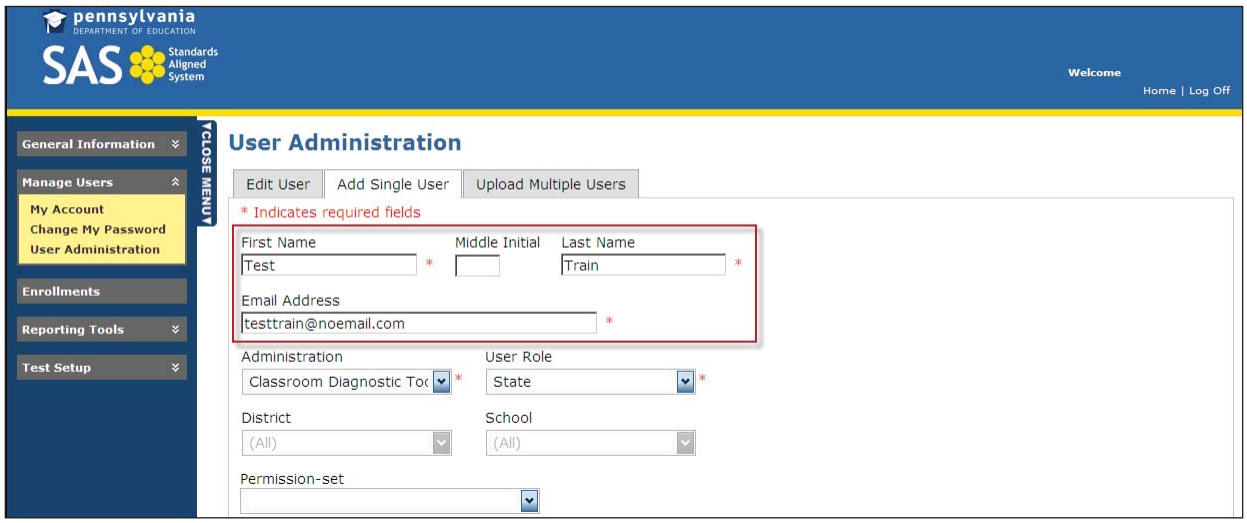
SETTING UP A NEW USER

Administrative users have the option to either set up users one at a time or to perform an upload of multiple users. An email will be sent to new users notifying them that an account has been created. They will be provided with a temporary password that they will use to log on to the system for the first time. If they do **NOT** log on to the system within ten (10) days of receiving their temporary password, their account will be made inactive, and the password will no longer work.

When an administrative user tries to add a new user who has an existing account, the system will generate a notification that an account exists and that the system was unable to add him/her as a new user. Instead, the user's permissions should be updated as needed.

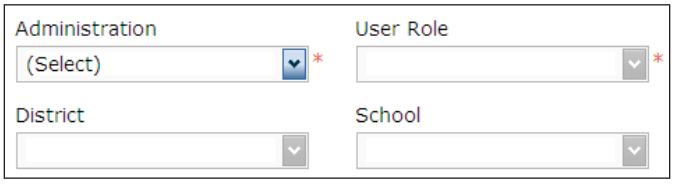
ADD SINGLE NEW USER

1. To add a new user, click on the **Add Single User** tab.

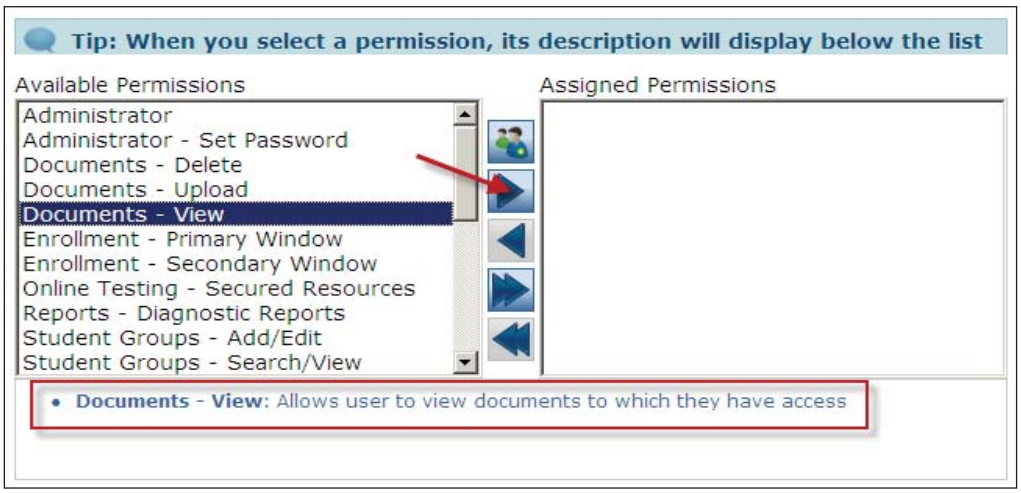


User Administration Page – Add Single User Tab

2. Enter required contact information.
3. Select Administration (if available).
4. Define User Role.
5. Select the appropriate District from the drop-down menu. Note that you will only have access to districts for which you have an account.
6. If you are adding a School User, please select the appropriate school from the drop-down menu for which the user should have an account. If a user works for multiple schools, you will need to manage that information in the **Profile** section under **Edit User**.



7. Select from the **Available Permissions** column, and then click on the **Add Selected**  icon.
    a. When permission is highlighted, its description will display below in blue.
    b. To duplicate the permission settings of a current user, select the **Clone**  icon.

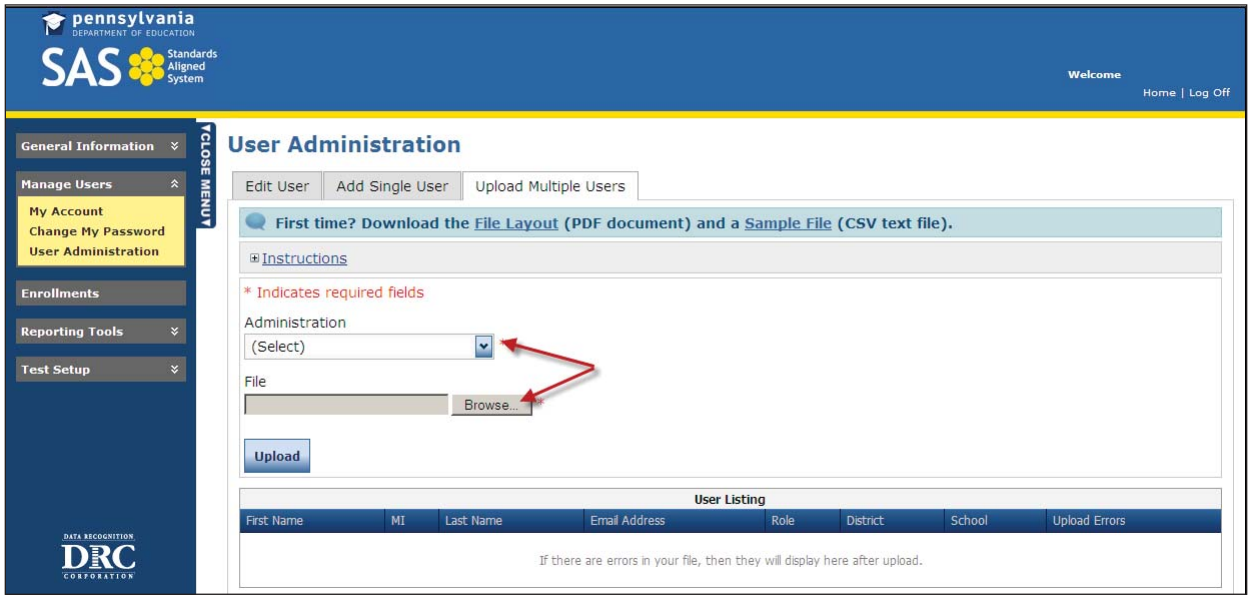


Inset of User Administration Page

8. Click on **Save**.
9. An email will be automatically generated and sent to the new user, informing him/her that an account has been created and including his/her username and temporary password.

UPLOAD MULTIPLE USERS

1. To upload multiple users, click on the **Upload Multiple Users** tab. Note that all users in a single upload must have the same permissions.



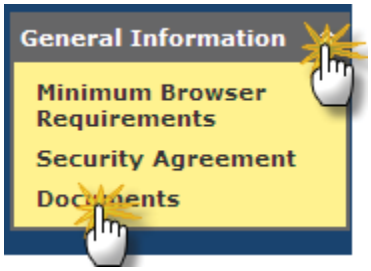
User Administration Page – Upload Multiple Users tab

2. Select the Administration (if available).
3. Click on **Browse** to attach your spreadsheet. For an example of the file layout, click on **File Layout** or **Sample File** in the blue header.
4. Click on **Upload.**
5. Define permissions for users. (See the "Add Single New User" section in this *User Guide*.)

APPENDIX D: ACCESSING DOCUMENTS ON eDIRECT

eDIRECT documents contain program information such as administration manuals, teacher instructions, or other documents for general use.

1. On the left-hand side of the box, expand the **General Information** menu to display system information.
2. To access **Documents**, simply click on the link.



APPENDIX E: EDIRECT MINIMUM SYSTEM REQUIREMENTS

MINIMUM WEB BROWSER REQUIREMENTS

- Microsoft Internet Explorer 7.0 through 9.0
- Mozilla Firefox 3.6
- Mozilla Firefox 6.0 or higher
- Apple Safari 4.0 or higher
- Any other Web browser compatible with these browsers

ADDITIONAL REQUIREMENTS

- Browser must support JavaScript
- Browser must accept session-based cookies

*Make sure firewalls allow emails from *XX***@datarecognitioncorp.com**

APPENDIX F: DIAGNOSTIC CATEGORIES

Assessment	Diagnostic Category	Module
Mathematics	NUMBERS & OPERATIONS	N/A
Mathematics	MEASUREMENT	N/A
Mathematics	GEOMETRY	N/A
Mathematics	ALGEBRAIC CONCEPTS	N/A
Mathematics	DATA ANALYSIS & PROBABILITY	N/A
Algebra I	OPERATIONS WITH REAL NUMBERS AND EXPRESSIONS	MODULE 1: Operations and Linear Equations & Inequalities
Algebra I	LINEAR EQUATIONS & INEQUALITIES	MODULE 1: Operations and Linear Equations & Inequalities
Algebra I	FUNCTIONS & COORDINATE GEOMETRY	MODULE 2: Linear Functions and Data Organization
Algebra I	DATA ANALYSIS	MODULE 2: Linear Functions and Data Organization
Geometry	GEOMETRIC PROPERTIES	MODULE 1: Geometric Properties and Reasoning
Geometry	CONGRUENCE, SIMILARITY, & PROOFS	MODULE 1: Geometric Properties and Reasoning
Geometry	COORDINATE GEOMETRY & RIGHT TRIANGLES	MODULE 2: Coordinate Geometry and Measurement
Geometry	MEASUREMENT	MODULE 2: Coordinate Geometry and Measurement
Algebra II	OPERATIONS WITH COMPLEX NUMBERS	MODULE 1: Numbers Systems and Non-Linear Expressions & Equations
Algebra II	NON-LINEAR EXPRESSIONS & EQUATIONS	MODULE 1: Numbers Systems and Non-Linear Expressions & Equations
Algebra II	FUNCTIONS	MODULE 2: Functions and Data Analysis
Algebra II	DATA ANALYSIS	MODULE 2: Functions and Data Analysis
Science	THE NATURE OF SCIENCE	N/A
Science	BIOLOGICAL SCIENCES	N/A
Science	PHYSICAL SCIENCES	N/A
Science	EARTH/SPACE SCIENCES	N/A
Biology	BASIC BIOLOGICAL PRINCIPALS/CHEMICAL BASIS FOR LIFE	MODULE 1: Cells and Cell Processes
Biology	BIOENERGETIC/HOMEOSTASIS AND TRANSPORT	MODULE 1: Cells and Cell Processes
Biology	CELL GROWTH AND REPRODUCTION/GENETICS	MODULE 2: Continuity and Unity of Life
Biology	THEORY OF EVOLUTION/ECOLOGY	MODULE 2: Continuity and Unity of Life

Assessment	Diagnostic Category	Module
Chemistry	PROPERTIES AND CLASSIFICATION OF MATTER	MODULE 1: Structure and Properties of Matter
Chemistry	ATOMIC STRUCTURE AND THE PERIODIC TABLE	MODULE 1: Structure and Properties of Matter
Chemistry	THE MOLE AND CHEMICAL BONDING	MODULE 2: The Mole Concept and Chemical Interactions
Chemistry	CHEMICAL RELATIONSHIPS AND REACTIONS	MODULE 2: The Mole Concept and Chemical Interactions
Reading/Literature	KEY IDEAS AND DETAILS- LITERATURE TEXT	N/A
Reading/Literature	KEY IDEAS AND DETAILS- INFORMATIONAL TEXT	N/A
Reading/Literature	CRAFT/STRUCT & INTEGRATION OF KNOWLEDGE/IDEAS- LIT TEXT	N/A
Reading/Literature	CRAFT/STRUCT & INTEGRATION OF KNOWLEDGE/IDEAS- INFO TEXT	N/A
Reading/Literature	VOCABULARY ACQUISITION AND USE	N/A
Writing/English Composition	QUALITY OF WRITING: FOCUS AND CONTENT	N/A
Writing/English Composition	QUALITY OF WRITING: ORANIZATION AND STYLE	N/A
Writing/English Composition	QUALITY OF WRITING: EDITING	N/A
Writing/English Composition	CONVENTIONS: SPELLING, CAPITALIZATION, AND PUNCTUATION	N/A
Writing/English Composition	CONVENTIONS: GRAMMAR AND SENTENCE FORMATION	N/A

DRC INSIGHT™
ONLINE LEARNING SYSTEM

TECHNOLOGY USER GUIDE
Pennsylvania Testing Programs

Data Recognition Corporation (DRC)
13490 Bass Lake Road
Maple Grove, MN 55311

PSSA/Keystone Exams: 1-800-451-7849
CDT: 1-888-551-6935
Fax: 763-268-3008 or 763-268-3031
Website: https://pa.drcedirect.com
Revision Date: March 25, 2015

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Contents

Contents

■ Installing and Configuring INSIGHT on iPad Devices

■ Installing and Configuring INSIGHT on Chromebook Devices

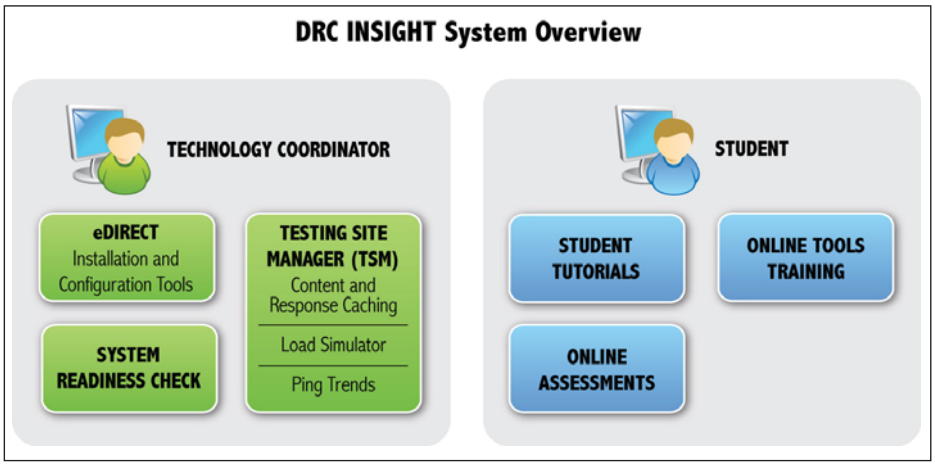
■ Working with INSIGHT

Introduction

DRC INSIGHT Online Learning System

The *DRC INSIGHT Technology User Guide* describes the components that make up the DRC INSIGHT Online Learning System, or DRC INSIGHT. DRC INSIGHT is a web-based, online interface used with a combination of software and hardware to provide a secure, online testing environment. It is a proven online testing system that successfully delivers secure statewide assessments, such as the Pennsylvania System of School Assessments (PSSA) and the Pennsylvania Keystone Exams.

DRC INSIGHT delivers assessments and related resources online for all content areas and grade levels, as it incorporates computerized testing, related resources, dynamic reporting, and a suite of educator tools. It consists of a software interface that is available from a secure web browser and the Testing Site Manager (TSM) to help manage network traffic, maintain connectivity, and handle bandwidth issues.



About This Guide

This user guide describes how to configure, install, manage, and troubleshoot DRC INSIGHT. It contains configuration and installation information for various environments, describes how to use DRC INSIGHT and its components, and provides tips and techniques for troubleshooting issues, as well as frequently asked questions (FAQs).

Audience and Prerequisites

This guide is designed primarily for the Technology Coordinators (TCs) who are responsible for setting up and managing online testing, and ensuring their systems work effectively and securely. TCs should be knowledgeable about the technical details of the Windows, Mac (OS X), iOS (iPad), and Chrome (Chromebook) operating systems, and have the necessary security privileges to perform the tasks discussed in this guide.

This guide is also designed to help Test Administrators (TAs), District Assessment Coordinators (DACs), and School Assessment Coordinators (SACs) use DRC INSIGHT more effectively.

Important Information

Important: Throughout this user guide, the Information icon (!) indicates important information or critical tips.

INSIGHT Web Browser and INSIGHT Server

The main component of DRC INSIGHT is the secure web browser testing interface installed on each testing device. This software communicates with the DRC INSIGHT server to provide online tools training and test questions to the test taker and to send responses to the DRC INSIGHT server, which stores them securely. Throughout this user guide, we refer to the secure web browser interface as simply INSIGHT.

System Readiness Check

The System Readiness Check runs when INSIGHT is installed or starts. It helps you configure the testing device and verify that it is ready to use for testing.

The eDIRECT System

eDIRECT is the distribution and administrative portion of the DRC INSIGHT Online Learning System.

- Technical users download INSIGHT, the TSM, and other software from eDIRECT to set up their testing environment.
- Administrative users use eDIRECT to create student records, test sessions, and test groups to help manage or monitor their testing environment and report the results.

The details of the eDIRECT system are covered in the eDIRECT user guides.

■ Testing Site Manager (TSM)

INSIGHT also provides the Testing Site Manager (TSM), a powerful, web-based application that provides caching and a software toolbox to help you plan, configure, and manage your online testing environment.

Usually, you install the TSM caching software on one or more strategic computers with sufficient bandwidth to help manage and streamline communication between the test devices and the DRC INSIGHT server. DRC strongly recommends the TSM caching software for maximum performance.

❑ Content and Response Caching

The TSM offers two types of caching—content caching for test content and response caching for student test responses. At test time, the TSM content caching software sends its cached test items to the testing devices. This content must be current in order for students to test.

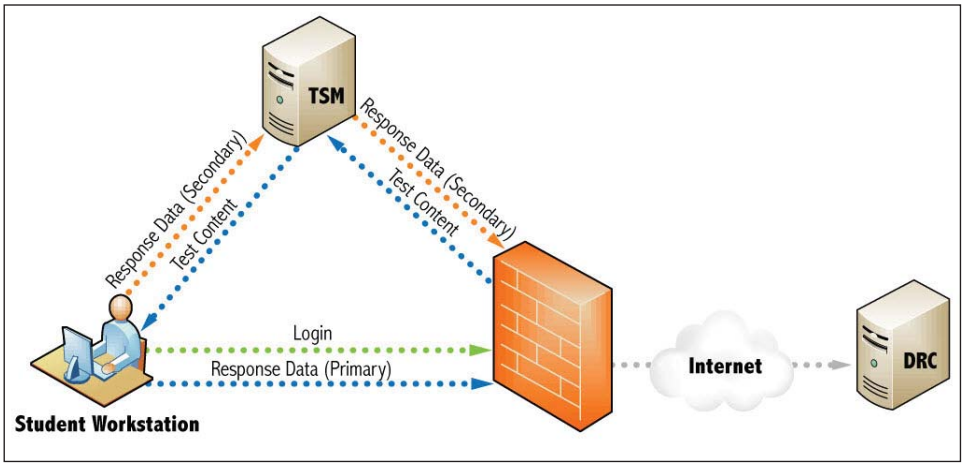


Figure: TSM Content and Response Caching

During testing, if the test computers cannot communicate with the DRC INSIGHT server, the response caching software buffers and stores their test responses. When the response caching software is communicating with DRC, it sends test responses to the DRC INSIGHT server every fifteen minutes. Even if DRC is not currently communicating with the testing computers, the test responses are still being stored on the TSM for transmission to DRC, so no responses are lost.

Important: TSM response caching is used *during* a test session—students cannot start a test session if there is no communication between the INSIGHT server and the testing device, or if there are unsent responses on the TSM.

❑ TSM Diagnostic Tools

In addition to content and response caching, the TSM offers powerful diagnostic software tools, including Load Simulation Tests and Ping Trend Graphs, to help sites prepare and manage their test environment.

■ Online Tools Training (OTT)

DRC INSIGHT's Online Tools Training (OTT) simulate online testing and allow students to practice using the testing interface's online tools.

- The OTT allows students to become familiar with the online test environment and the suite of online testing tools, such as the Line Guide tool and the Highlighting tool.
- The OTT contains sample test questions to help students become familiar with the tools and features available during online testing.

Note: It is important to install INSIGHT on the testing computers as early as possible to give students time to familiarize themselves with the INSIGHT test environment and the testing tools.

■ Tutorials

DRC offers optional online tutorials to help students become familiar with all aspects of online testing. After INSIGHT is installed, students can access the tutorials from a desktop shortcut.

■ Testing Accommodations

DRC INSIGHT also offers optional testing accommodations to help students test successfully.

Important: There is no separate installation for any accommodation and a TSM is required.

❑ Text-To-Speech (TTS)

Text-To-Speech (TTS) allows a student to hear the test recorded by a computer-simulated voice.

❑ Video Sign Language (VSL)

Video Sign Language (VSL) allows a student to see both the test instructions and the test content signed visually through an online video.

Notes

System Requirements and Testing Information

What's Covered in This Chapter

This chapter describes the specific hardware, software, network, and desktop requirements to configure INSIGHT, the Testing Site Manager (TSM), and automatic software updates.

This chapter also discusses tasks Technology Coordinators (TCs) perform to configure the INSIGHT software environment. TCs must configure INSIGHT to use with TSM systems and to connect directly to the DRC servers and databases through the Internet.

This user guide includes information about the operating systems, software, devices, and accommodations that work with INSIGHT and the TSM.

Pennsylvania Configuration Information

The specific technical information covered in this user guide for Pennsylvania is shown below. Use this information as reference throughout the user guide.

Operating Systems

Windows
Mac (OS X)
Linux
Apple iOS
Chrome OS

TSM and Other Options

Response Caching
Content Caching
Load Simulation Testing
Ping Trends

Accommodations

Text-To-Speech (TTS)
Video Sign Language (VSL)

Testing Checklist

The following is a checklist of the tasks TCs must successfully complete before and during testing to use INSIGHT and the TSM.

Before Testing

- ✓ Review this user guide.
- ✓ Uninstall the old TSM and INSIGHT software (if applicable) and install the new TSM and INSIGHT software (see the Installation chapters). Or, use automatic software updates (see "Automatic Software Updates" on page 26). Verify that you have the latest versions of the TSM and INSIGHT software.
- ✓ Start the TSM and 'name' it using following naming convention: *district+school+location in the building* (see "Using the TSM" on page 133).
- ✓ Complete a System Readiness Check on each testing computer (see "Using the System Readiness Check" on page 160).
- ✓ If you have students who will test using VSL, review "Video Sign Language (VSL) Configuration" on page 29.
- ✓ If you have students who will test using TTS, review "Text-To-Speech (TTS) Configuration" on page 32.

During Testing

- ✓ On the first day of testing, verify that all content, including TTS and VSL, displays a status of **Up to Date** in the TSM (see "Using the TSM" on page 133).
- ✓ During testing, monitor student responses on the TSM (see "Response Caching-Viewing Unsent Student Test Responses" on page 139 to ensure that the value for Unsent Tests is 0 [zero]).

At the End of the Test Administration

- ✓ Verify that all tests are completed.

  Important: At the end of the testing window, all of the submitted test responses are scored. At that time, all tests with a status of In Progress are changed to Complete in eDIRECT. This process, called "forced submit," verifies that all test results are accounted for. Each district involved in the assessment receives email notification from DRC before the process occurs.

- ✓ Verify that the value for Unsent Tests on each TSM is 0 (zero)—see "Response Caching-Viewing Unsent Student Test Responses" on page 139.

Pre-Testing Checklist for iPad and Chromebook Devices

The following is a checklist of items TCs must verify and complete before testing with iPads and Chromebooks.

- ✓ Ensure that the iPad or Chromebook device is connected to the correct Wi–Fi network.
- ✓ Ensure that the latest version of the DRC INSIGHT App is installed on each iPad or Chromebook device.
- ✓ Ensure that all iPad and Chromebook devices are fully charged or plugged in.
- ✓ Ensure that the iPad device's soft keyboard is set to English and that the Emoji keyboard is deleted.
- ✓ Manually pair one keyboard with one iPad device if you are using external Bluetooth keyboards. Remember to pair the keyboards as you configure each iPad to avoid confusion about which keyboard is associated with the iPad.

  An external Bluetooth keyboard is required for all tests containing open-ended items. An external keyboard is optional for tests containing multiple-choice items only (wired and wireless external keyboards are supported for iPad devices).
- ✓ Ensure that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are turned off on each iPad device.*
- ✓ Enable and activate Guided Access on each iPad device.*

  *Many Mobile Device Management (MDM) solutions can perform this task. If you must perform this task manually, see the following topics: "Installing INSIGHT Using an MDM Solution and Configuring It Manually" on page 91, "Working with Guided Access" on page 96, and "iOS 8-Predictive Text and the Emoji Keyboard" on page 97.

Installation Files

Different INSIGHT and TSM installations are available for each operating system. The following table lists the file(s) or URL for each type of installation and operating system.

Note: There is no separate installation for Text-To-Speech (TTS) or Video Sign Language (VSL), and no accommodation is supported in a Linux environment.

Table: INSIGHT and TSM Installation Files and Links

Installation	Operating System	File(s)/URL
INSIGHT	**Windows**	DRC_INSIGHT_Setup.msi
	Mac (OS X)	DRC_INSIGHT_Setup.pkg
	Linux	DRC_INSIGHT_Setup_amd64.deb (64-bit) DRC_INSIGHT_Setup_i386.deb (32-bit)
	Chrome OS	The INSIGHT App ID and URL is contained in the following text (.txt) file: https://pa-insight-client.drcedirect.com/Download/SecureBrowser/ChromeAppIDInfo.txt
	iOS	https://pa-insight-client.drcedirect.com/Download/SecureBrowser/INSIGHT.ipa https://pa-insight-client.drcedirect.com/Download/SecureBrowser/ManagedAppConfig.plist
TSM	**Windows**	TESTING_SITE_MANAGER_Setup.exe
	Mac (OS X)	TESTING_SITE_MANAGER_Setup.dmg
	Linux	TESTING_SITE_MANAGER_Setup.sh

INSIGHT System Requirements

This section covers the minimum and recommended requirements for INSIGHT on testing computers, including desktops, laptops, netbooks, and other devices, using the supported operating system platforms. The system requirements for testing with accommodations are higher than for standard testing. Refer to the detailed specifications in this section.

Important: The minimum level is a low compliance threshold—at this level, the software and/or hardware may not deliver an optimal student testing experience. Devices may struggle with memory and processing power, which can reduce responsiveness and increase response times during testing. DRC advises using the recommended level.

INSIGHT Requirements for Desktop, Laptop, and Netbook Computers

The table on the following page describes the minimum and recommended system requirements for desktop, laptop, and netbook computers. The following are some general notes about INSIGHT system requirements.

Windows

- For Windows users, DRC recommends Windows 7.
- For Windows 8 and other operating systems with touch-screen versions, only non-touch-screen versions are supported.
- INSIGHT supports both 32-bit and 64-bit versions of Windows.

Mac (OX S)

- For Mac installations, Mac Server software is not supported.

Linux

- For Linux installations, Ubuntu Server software is not supported.

Other

- Smart Board interfaces, which function as a touch-screen device, are not supported. If you are using a Smart Board, you may need to disable or uninstall it.
- The input device for testing must allow students to select/deselect; drag; highlight text, objects, and areas; enter letters, numbers, and symbols; and use the Shift, Tab, Enter, Delete, and Backspace keys.

INSIGHT Requirements for Desktop, Laptop, and Netbook Computers (cont.)

Table: INSIGHT Requirements for Desktop, Laptop, and Netbook Computers

Operating System	Minimum	Recommended
Windows • Windows XP • Windows Vista (TTS is not supported for Windows Vista) • Windows 7 • Windows 8 (including 8.1) non-touch-screen versions **Windows Server** • Windows Server 2003 • Windows Server 2008 • Windows Server 2012 **Note:** INSIGHT supports these versions of Windows and Windows Server with the most recent Service Pack.	Windows XP with the most recent Service Pack Microsoft discontinued support for Windows XP April 8, 2014, which presents security and support risks for schools that continue to use it (see "Support for Windows XP and Mac 10.6.8 (OS X)" on page 38).	Windows 7 or newer
Mac OS • OS X 10.6.8 • OS X 10.7 • OS X 10.8 • OS X 10.9 • OS X 10.10 **Note:** INSIGHT supports these versions of Mac OS X with the most recent software updates.	Mac OS 10.6.8 with the most recent software updates Apple discontinued support for Mac 10.6.8 in 2013, which presents security and support risks for schools that continue to use it (see "Support for Windows XP and Mac 10.6.8 (OS X)" on page 38).	Mac OS 10.7 or newer
Linux Ubuntu 12.04.1	Ubuntu 12.04.1, 32-bit and 64-bit with Gnome 3.4, Unity shell	Same
Memory	512 MB RAM	1 GB RAM or greater
Processor	1 GHz	1 GHz or faster
Disk Space	100 MB available	100 MB or more available
Screen Size	9.5 inches	13 inches or larger
Screen Resolution	1024 x 768	1024 x 768 or higher
Internet Connectivity	Computers must be able to connect to the Internet.	Computers connected to the Internet via wired networks.
Input Device Requirements	Keyboard, wired or wireless, including Bluetooth. To meet secure testing requirements, each Bluetooth or wireless keyboard must be configured to pair with only a single computer during testing.	
Other Devices	Standard interface devices such as mice, touchpads, headphones, microphones, earphones, and earbuds are supported.	

INSIGHT Requirements for iPad Devices

This section covers the minimum and recommended requirements for INSIGHT on iPad testing devices using the supported operating system.

Table: INSIGHT Requirements for iPad Devices

Operating System	Minimum	Supported/Recommended
Apple iOS	iOS 8.1.3 Requires an iPad 2 device or newer. iPad Air devices are supported. iPad mini devices are not supported. **Important:** • To distribute the INSIGHT App to iPad devices, you must use an MDM solution. • To mass configure the INSIGHT App for iPad devices, you must use an MDM solution that supports the Managed App Configuration feature. • You also can manually configure the INSIGHT App on each iPad. For more information, see "Distributing and Configuring INSIGHT to iPad Devices" on page 88.	iOS 8.1.3 iOS 8.2
Screen Size	A standard iPad 9.7" screen	A standard iPad 9.7" screen
Battery	A fully charged battery with a two-hour life	A device connected to a plugged-in power supply
Internet Connectivity	iPad devices must be able to connect to the Internet.	
Input Device Requirements	**Bluetooth Keyboard** To meet secure testing requirements, each Bluetooth keyboard must be configured to pair with only a single device during testing. **External Keyboard** An external wireless Bluetooth keyboard is required for all tests with open-ended items. External wired keyboards are supported for testing. **Internal Keyboard** The internal, virtual iPad keyboard is also supported.	
Other Devices Supported	Earphones, microphone, stylus	

INSIGHT Requirements for Chromebook Devices

This section covers the minimum and recommended requirements for INSIGHT on Chromebook testing devices using the supported operating system.

Important: Only non-touch-screen Chromebook devices are supported.

Table: INSIGHT Requirements for Chromebook Devices

Operating System	Minimum	Recommended
Chrome OS	The latest stable channel version of Chrome OS with a non-touch-screen Chromebook. **Important:** • To lock down the Chromebook device for test security, the Chromebooks must run on a level of Chrome that supports Single App Kiosk Mode. The DRC INSIGHT Chrome App requires Single App Kiosk Mode to launch and ensure a secure testing environment on Chromebook devices. See "Q1: Of the three secure testing scenarios provided by Google, which one did DRC select and why?" on page 193. • To distribute the INSIGHT App to Chromebook devices, you must have Google Apps for Education set up and have your devices enrolled in Chrome device management (allows you to manage multiple Chrome devices from a central console). See "Q3: Why does DRC require Google Apps for Education and the Google Administrator accounts?" on page 195 and "Example of Chromebook Setup and Configuration for INSIGHT" on page 111.	The latest stable channel version of Chrome OS with a non-touch-screen Chromebook.
Memory	512 MB RAM	1 GB RAM or greater
Processor	1 GHz	1 GHz or faster
Disk Space	100 MB available	100 MB or more available
Screen Size	9.5 inches or larger	13 inches or larger
Battery	A fully charged battery with a two-hour life	A device connected to a plugged-in power supply
Screen Resolution	1024 x 768	1024 x 768 or higher
Internet Connectivity	Chromebook devices must be able to connect to the Internet.	
Input Device Requirements	The built-in Chromebook keyboard and a mouse (recommended) or touchpad. The input device must allow students to select/deselect; drag; highlight text, objects, and areas; enter letters, numbers, and symbols, and press the Shift, Tab, Return, Delete, and Backspace keys.	
Other Devices Supported	Earphones, microphone, mouse	

■ The TSM

The TSM offers two types of caching: content caching for tests and test items, and response caching for student responses. With response caching, if the Internet connection to DRC fails, students can continue testing. When the TSM is communicating with DRC, it transmits its cached response information every fifteen minutes. If the TSM is not currently communicating with the testing computers, testing is halted until communication with the TSM is re-established.

DRC recommends using a TSM.

Important: A TSM is required for TTS and VSL.

❑ Benefits and Features

A TSM offers many benefits and features, including a typical reduction in bandwidth traffic of about 50% when downloading test content.

- You can install the TSM using an easy-to-use installation wizard (requires administrative rights).
- You can populate the TSM with test content using its content caching option. After the content is installed, updates to test content are automatically downloaded.

❑ Connection Information

A TSM can help students during exams.

- With no TSM, the testing computers submit answers directly to the DRC servers through the Internet. If that communication stalls because the Internet connection is congested, messages between the testing computers and DRC are delayed. If the delay is too long, the software stops testing and the student loses the connection.
- With a TSM, if the communication stalls because the Internet connection is congested, the testing computer sends its answers to the TSM response cache. Every fifteen minutes, the TSM attempts to automatically submit its collected test responses to DRC, which helps manage message traffic. You also can submit test responses manually.

❑ TSM Installation and the Number of Students Testing

As a general guideline, you can install the TSM software once for every 150 students that are testing at the same time (concurrently). This guideline is based on the following assumptions:

- The TSM software is configured for content and response caching.
- The TSM software is installed on a dedicated device.
- The TSM device and network meet the following specifications:
  - 4 GB of RAM
  - 2 x 2.4 GHz processors
  - 64-bit Windows operating system
  - 100 Mbps WAN or LAN data speed

Important: This is only a guideline. The number of TSMs required may differ based on the actual hardware and software specifications of the TSM device, the network speed, and the TSM caching options selected.

❑ iPads and Chromebooks and the TSM

A TSM is used primarily to cache and manage test content and responses. For various reasons, iPad and Chromebook devices do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine and connect to the TSM when you install INSIGHT on the iPad or Chromebook device.

For specific TSM installation instructions, refer to the appropriate installation chapter.

TSM Requirements

This section covers the minimum and recommended requirements for the TSM using the supported operating system platforms. The following table describes these requirements.

Note: A TSM is required for TTS and VSL, and there is no separate installation.

Table: System Requirements for the TSM

Operating System	Minimum	Recommended
Windows • Windows XP • Windows Vista (TTS is not supported for Windows Vista) • Windows 7 • Windows 8 and 8.1, non-touch-screen versions	Windows XP with the most-recent Service Pack Microsoft discontinued support for Windows XP April 8, 2014, which presents security and support risks for schools that continue to use it (see "Support for Windows XP and Mac 10.6.8 (OS X)" on page 38).	Windows 7 or newer
Windows Server • Windows Server 2003 • Windows Server 2008 • Windows Server 2012 **Notes:** • The TSM supports these versions of Windows and Windows Server with the most-recent Service Pack. • The TSM supports both 32-bit and 64-bit versions of Windows.	Windows Server 2003	Windows Server 2008 or newer
Mac OS • OS X 10.6.8 • OS X 10.7 • OS X 10.8 • OS X 10.9 • OS X 10.10 **Notes:** • The TSM supports these versions of Mac OS X with the most recent software updates. • For Mac installations, Mac Server software is not supported.	Mac OS 10.6.8 Apple discontinued support for Mac 10.6.8 in 2013, which presents security and support risks for schools that continue to use it (see "Support for Windows XP and Mac 10.6.8 (OS X)" on page 38).	Mac OS 10.7 or newer
Linux Ubuntu 12.04.1 **Note:** For Linux installations, Ubuntu Server software is not supported.	Ubuntu 12.04.1, 32-bit and 64-bit with Gnome 3.4, Unity shell	Same

TSM Requirements (cont.)

Item	Minimum	Recommended
Memory	1 GB	1 GB or more
Processor	1 GHz	1 GHz or faster
Disk Space	10 GB	10 GB or more
Screen Size	9.5 inches or larger	13 inches or larger
Screen Resolution	1024 x 768	1024 x 768 or higher
Internet Connectivity	Computers must be able to connect to the Internet.	Computers connected to the Internet via wired networks.
Accommodation **TTS** **Memory** **Processor** **Disk Space** **VSL** **Memory** **Processor** **Disk Space**	 1 GB RAM 1 GHz 10 GB available These TSM disk space requirements assume an average fixed-form item size of 2 MB and an average computer adaptive test (CAT) item pool size of 2 GB (shared across all CAT items). 1 GB RAM 1 GHz 20 GB available Because of the size of video files,VSL can increase storage needs an additional 10 GB. These TSM disk space requirements assume an average fixed-form item size of 2 MB and an average computer adaptive test (CAT) item pool size of 2 GB (shared across all CAT items).	 1 GB RAM or greater 1 GHz or faster 10 GB or more available 1 GB RAM or greater 1 GHz or faster 20 GB or more available

Automatic Software Updates

For online testing, both the INSIGHT software and the TSM software must be up to date. You can perform this task manually or automatically. You can use the System Readiness Check at any time to confirm that you have the latest version of the INSIGHT and/or TSM software (see "Using the System Readiness Check" on page 160).

Important: INSIGHT and TSM software updates are different than operating system updates. On testing days, testing devices should not be set to automatically update the operating system.

INSIGHT Software Updates

To specify that the INSIGHT software automatically update the testing devices, check the **Enable Automatic Update** checkbox on the INSIGHT Automatic Update dialog box during the INSIGHT installation process (see the Installation chapters). After installation, you can modify this setting by using the System Readiness Check (see "Setting DRC INSIGHT Properties" on page 169).

- If the Auto Updates feature is enabled, the software checks the version each time INSIGHT is launched, and provides the option to install any software updates.
- If the Auto Updates feature is not enabled, the software also checks the version when INSIGHT starts.
  - When a student attempts to log in to a test, the student is notified that they do not have the latest version of the software and cannot continue.
  - You must update the software manually by downloading the latest version from eDIRECT and reinstalling.

Update your software *before* testing begins to avoid delays.

Important: Updates do not require administrative rights, but you must have Write privileges to the installation folder.

TSM Software Updates

For a TSM machine, you can specify whether to have TSM software updates performed automatically, or to be notified when updates are available and install them manually. When you install a TSM, on the Automatic Update window you specify whether to enable notification of TSM software updates.

- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the TSM software manually.

Important: On the day of testing, confirm that the TSM software is up to date to ensure that students can test. For example, if the machine where the TSM is installed was turned off recently, it is possible that the TSM software is out of date.

Network Requirements for Testing Computers

This section describes various network considerations for online testing.

Network Connectivity

To ensure proper network connectivity for testing, keep the following information in mind:

- All testing computers should have access to the Internet and be able to access the DRC servers using HTTP/HTTPS protocols on ports 80 and 443.
- All firewalls at the testing computer and the network level should allow connectivity on ports 80 and 443.
- Make sure that you whitelist the URLs below on the content filtering systems or other proxy/firewall software that you use locally:

  http://pa-insight-client.drcedirect.com

  https://pa-insight.drcedirect.com

  https://wbte.drcedirect.com

  dtk.drcedirect.com 50.58.190.22 (for Chromebooks only)

- If your location uses an Internet connection idle timeout, please verify that the timeout limit is sufficient to allow students to complete testing.
- If your location uses screensavers, please verify that the timeout limit is sufficient to allow students to complete testing.
- DRC recommends allowing INSIGHT traffic to bypass your firewalls and proxies if possible. For more information, see "Question 1: I Don't Know What to Whitelist, Allow, or Unblock?" on page 199 in Appendix B.

Wireless Networking

INSIGHT supports wireless networks. However, sites may experience issues on less reliable wireless networks, or if too many students attempt to connect to a single access point. When you test load capacity in a wireless network, verify that your access points and network can handle the number of simultaneous users that will be testing. DRC recommends performing load testing in a wireless network (see "Load Simulation Testing" on page 149).

Desktop Monitoring

Important: If your testing location uses remote desktop monitoring software to monitor the computers that will be used for testing, you should **disable the monitoring software on these computers during test times to guarantee adequate security**.

The particular steps you need to take vary, depending on the monitoring software you are using and the operating system of the testing computer. If it is not feasible to disable your monitoring software, ensure that any staff members who can use the monitoring software refrain from using it during testing periods.

INSIGHT Bandwidth and Connectivity Requirements

To start a test, INSIGHT contacts DRC to log in. After a successful login, INSIGHT downloads the test from the DRC server (or the TSM if available). INSIGHT sends answers to DRC every time the page is changed (or to the TSM if communication with DRC is lost*).

- INSIGHT must maintain connectivity to the Internet or a TSM throughout the test.
- INSIGHT supports wireless networks.

*If a testing computer cannot communicate with DRC, the student cannot log on to start a test.

Bandwidth Calculation Guidelines

Bandwidth requirements and recommendations are based on the *actual amount of bandwidth available*. Even with a high-speed communication line, only part of the connection may be available for online testing due to Internet traffic. The greatest amount of bandwidth is required when students download tests.

Calculating Bandwidths

You can estimate bandwidth requirements by dividing the size of the test by your target wait time (the amount of time it should take the test to load).

The bandwidth calculations that follow are based on the following assumptions:

- A T1 line transfers data at 1.54 Mbps.
- The average test size is 2 MB (16 Mb).

  Note: VSL tests contain audio and video files. These files make the test size larger and the download time longer.
- Your target wait time to load a 2 MB test is 20 seconds.
- Approximately 80% of your total bandwidth is available for testing.
- All of your students load the test at the same time, instead of staggering log in attempts.

  Note: You can increase your capacity by increasing the wait time and staggering your log in attempts.

Bandwidth Required with no TSM

Each student requires 16 Mb/20 seconds, or .8 Mbps, so approximately two students at a time can load the test in 20 seconds (2 x .8 is just slightly more than 1.54). To have 12 students load their tests simultaneously within 20 seconds, you would need a total bandwidth of approximately 12 x .8 Mbps, or 9.6 Mbps.

Bandwidth Required with a TSM

With a TSM, many more students can load the test at a time. A TSM decreases your Internet bandwidth requirements because you can load the test from the TSM rather than from the DRC server, which greatly increases your capacity.

Important: The bandwidth calculation numbers are estimates. There are many variables, including network traffic, that can impact actual network performance.

Video Sign Language (VSL) Configuration

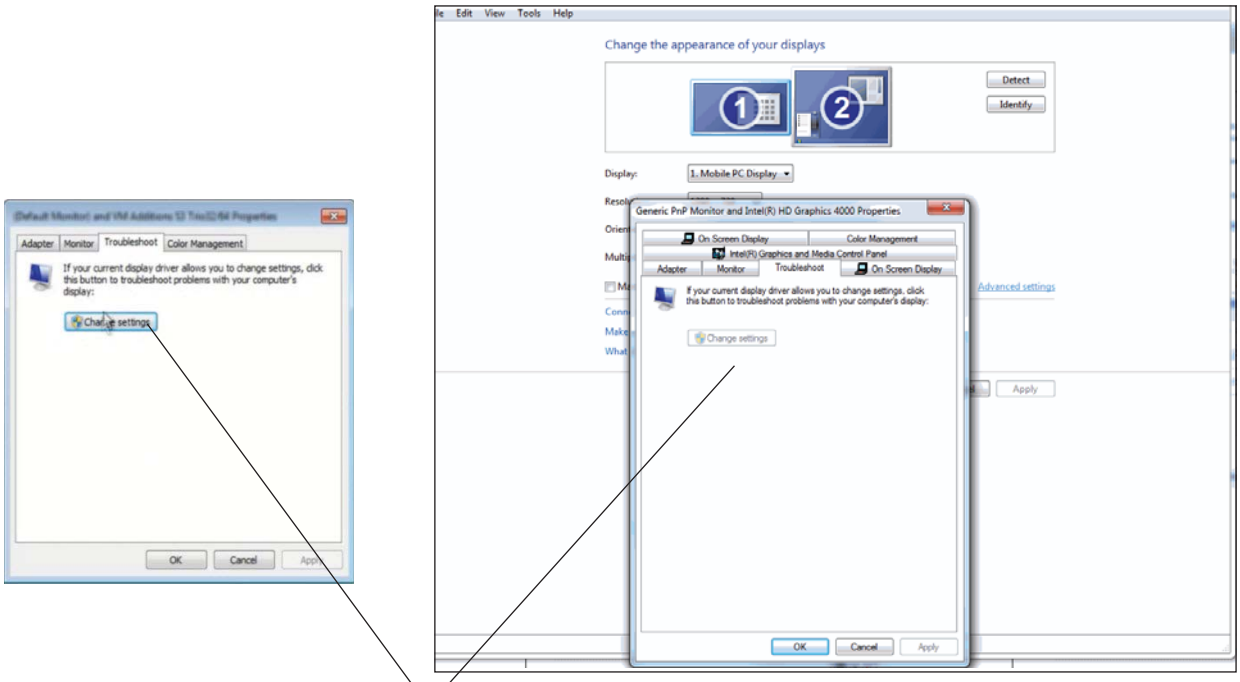
The hardware and software requirements differ for VSL.

- You can download the VSL content on any machine whose hardware meets the minimum VSL system requirements.
- VSL requires a TSM.
- VSL does not run on remote or virtual configurations.
- VSL runs on Windows XP, Windows 7, Windows 8 (non-touch-screen versions), and Mac OS X.
- VSL requires more memory for INSIGHT.
- VSL requires more disk space for the TSM than a standard configuration.

Changing the Monitor Display for VSL

After you have installed VSL, if the video looks pixelated or there is a semi-transparent grid or halo displaying over the video, you may need to change the testing computer's hardware acceleration setting from **None** to **Full**. Hardware acceleration uses the computer's hardware to perform certain tasks faster than is possible with software. This can cause smoother rendering of graphics and better application performance. The hardware accelerator is often described as either a graphics card or a video card.

Windows 7



1. To reset this setting on a Windows 7 computer, select **Control Panel–Display–Change Display Settings–Advanced settings–Troubleshoot** and click the **Change Settings** button.

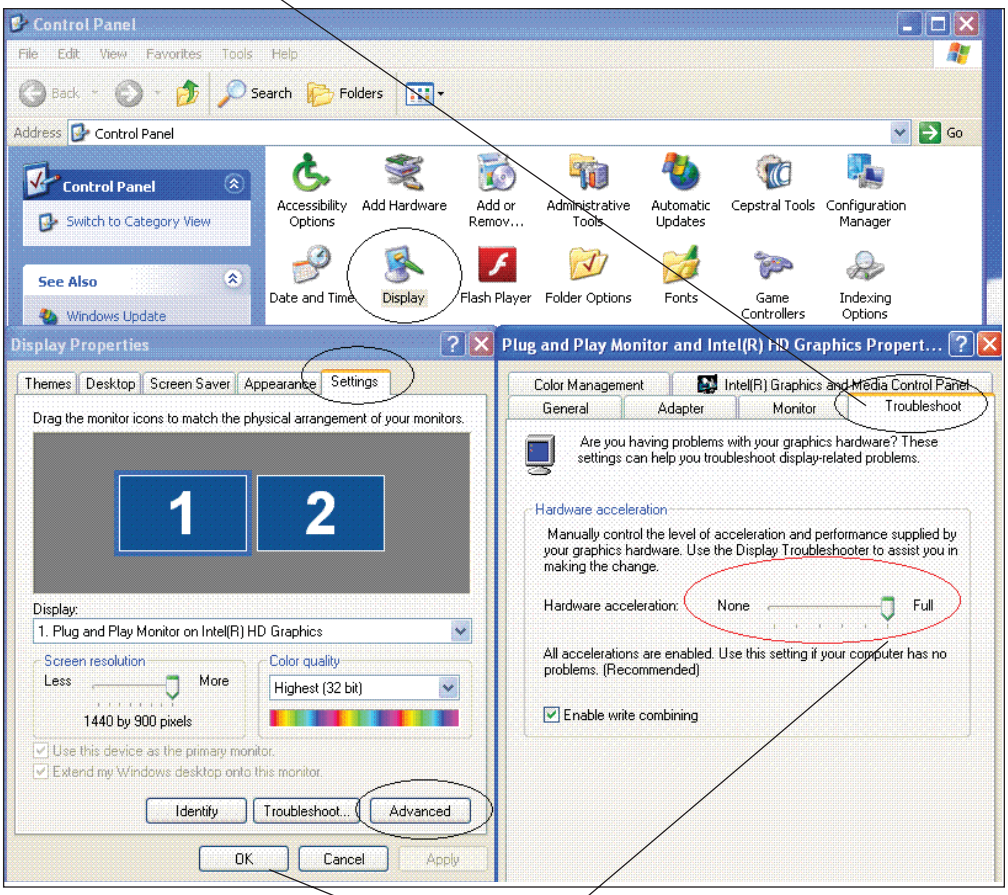
Note: If the Change Settings button is greyed out, you do not have the necessary permissions to change the setting.

2. The Display Adaptor Troubleshooter window displays. Move the Hardware acceleration slider to **Full** and click **OK**.

Changing the Monitor Display for VSL (cont.)

Windows XP

1. To reset this setting on a Windows XP computer, select **Control Panel–Display–Settings–Advanced–Troubleshoot**.



2. The Troubleshoot tab displays. Move the Hardware acceleration slider to **Full** and click **OK**.

Text-To-Speech (TTS) Configuration

The hardware and software requirements differ for TTS.

- Schools are responsible for supplying the headphones required for TTS.
- TTS requires a TSM with content caching and response caching.
- TTS does not run on remote or virtual configurations.
- TTS does not run on Windows Vista or Linux.

INSIGHT and Virtual or Remote Desktops

INSIGHT is a desktop-installed application that runs natively* on specific operating systems. To successfully launch and run INSIGHT, you must meet system requirements, such as operating system, processor, disk space, memory, Internet connectivity, screen resolution, and so forth.

As long as your site meets these requirements, you can run INSIGHT in a virtual or remote desktop environment. However, if your site uses virtual computing technology and runs INSIGHT on unsupported operating systems and/or devices, you must implement appropriate security measures to ensure that these virtual/remote desktops cannot access other applications during the administration of an online assessment.

**Running natively refers to running without external support, as opposed to running in an emulation.*

Kiosk Mode and Security

The risk of running INSIGHT on unsupported operating systems and devices in a virtual or remote desktop environment is the loss of built-in security. When INSIGHT runs on a supported device and operating system, its uses Kiosk Mode to "lock down" student access and prevent students from performing inappropriate testing activities, such as accessing the Internet.

INSIGHT's Kiosk Mode is not available for unsupported operating systems and devices. Sites using virtual computing technology for unsupported operating systems and devices must implement security measures to ensure that any virtual or remote desktops a student is using cannot access other applications while online assessments are being administered.

Native Operating Systems

The following table lists the supported operating systems on which INSIGHT runs natively, as well as unsupported operating systems.

Supported Operating Systems	Unsupported Operating Systems
• Windows XP* • Windows Vista • Windows 7 • Windows 8 (including 8.1)** • Windows Server 2003 • Windows Server 2008 • Windows Server 2012 • Mac (OS X) 10.6*, 10.7, 10.8, 10.9, 10.10 • Apple iOS • Google Chrome OS • Linux: Ubuntu 12.04 and 12.04.1	• Other versions of Microsoft Windows, Mac (OS X), and Linux • Google Android • Other UNIX variants

**See "Support for Windows XP and Mac 10.6.8 (OS X)" on page 38.*
***Only non-touch-screen versions of Windows are supported.*

Native Devices

INSIGHT also supports many types of computer devices. However, not all devices work with all operating systems and vice-versa. The following table lists the devices that can currently run INSIGHT-supported operating systems natively if they meet the minimum system requirements as well as unsupported devices.

Important: Except for iPads, only non-touch-screen versions of these devices are supported.

Supported Devices	Unsupported Devices
• Desktop Computers • Laptops • Netbooks • Servers • Chromebooks • iPads	• Phones • iPods • Other Tablets

Virtual Desktop Operating Systems

Beside the physical devices that host operating systems directly, virtual desktops can indirectly host some supported operating systems for INSIGHT. Typically, users access these virtual desktops from another operating system, on another device, across a network boundary. The following table lists the supported and unsupported operating systems for virtual or remote desktop sessions.

Supported Operating Systems	Unsupported Operating Systems
• Microsoft Windows • Mac (OS X) • Linux • nComputing vSpace	• Google Chrome OS • Apple iOS • Google Android • PCoIP

Virtual Desktop Devices

The device a student interacts with is actually a gateway to the virtual or remote desktop. However, the device may or may not be capable of supporting INSIGHT natively, or be able to run an operating system that INSIGHT supports. The following table lists the types of devices that can run the various operating systems that INSIGHT supports.

Supported Devices	Unsupported Devices*
• Desktop Computers • Laptops • Netbooks • Servers • Wyse Thin Clients and Wyse Zero Clients • nComputing Devices	• Chromebooks • Tablets • Convertible devices and hybrid devices • Phones • iPods • Other UNIX devices

Important: *Virtual desktop and remote desktop software can access supported operating systems. If you test using unsupported devices, ensure that students cannot access the Internet and other resources.

Windows 7 Desktop Font Size Requirements

The testing computers' font size settings must match the test settings to guarantee that line breaks and other items display correctly during testing. The following table shows the correct font size setting for testing and how to specify it for the Windows 7 operating system.

Operating System	Font Size Setting	How to Check or Change
Windows 7	100% (Custom DPI)	Select **Control Panel–Appearance and Personalization–Display–Set custom text size (DPI)**. When you click **Apply**, your new font size setting will be used in your Windows programs.

Enabling ClearType for Windows XP

For the secure browser to display screen font characters correctly on Microsoft Windows, ClearType should be turned on. ClearType is turned on by default for Windows Vista and Windows 7, but is turned off by default on Windows XP.

To turn on ClearType for screen fonts for Windows XP, perform the following steps:

1. Select **Start–Control Panel–Appearance and Themes–Display**.
2. On the Appearance tab, click **Effects**.
3. Select the **Use the following method to smooth edges of screen fonts** checkbox and click **ClearType** in the list.

ClearType Tools

The following Microsoft website provides tools to turn ClearType on or off and adjust the contrast:

http://www.microsoft.com/typography/cleartype/cleartypeactivate.htm

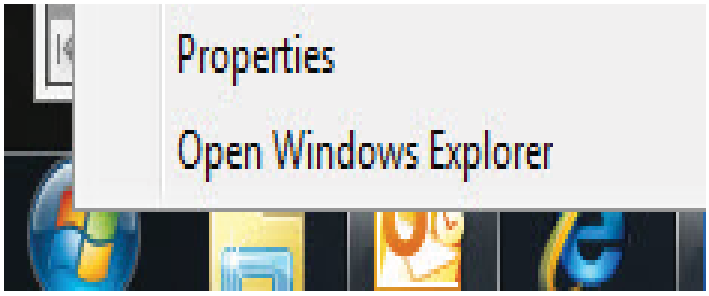
Windows 7/Windows XP Taskbar Security Requirement

During testing, each testing computer is locked down while INSIGHT is active to prevent the student from having access to outside information. For Windows 7 and Windows XP computers, you must be sure the **Auto-hide the taskbar** setting is turned off to secure the testing computer.

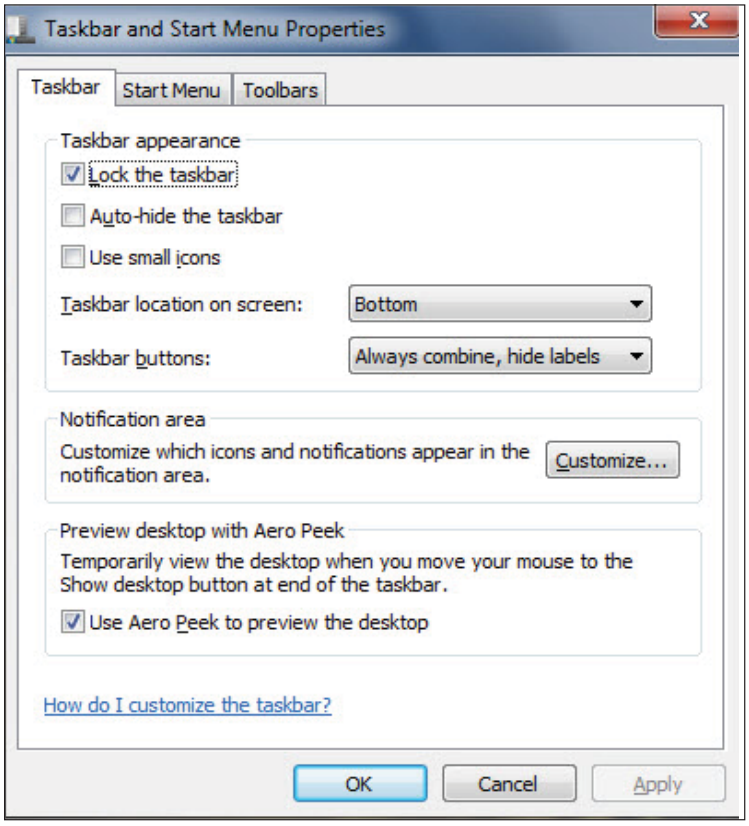
Windows 7

To turn off the **Auto-hide the taskbar** setting on a Windows 7 computer, perform the following steps:

1. Right-click on the Windows logo on the taskbar and select **Properties**.



2. From the Taskbar tab on the Taskbar and Start Menu Properties dialog box, uncheck the **Auto-hide the taskbar** checkbox (if it is checked).



3. Click **Apply** to verify your change and **OK** to save it.

Windows XP

To turn off the **Auto-hide the taskbar** setting on a Windows XP computer, perform the following steps:

1. Right-click on the taskbar and select **Properties**.
2. From the Taskbar tab on the Taskbar and Start Menu Properties dialog box, uncheck the **Auto-hide the taskbar** checkbox (if it is checked).

3. Click **Apply** to verify your change and **OK** to save it.

■ Support for Windows XP and Mac 10.6.8 (OS X)

Microsoft ended support for Windows XP on April 8, 2014 (see http://windows.microsoft.com/en-US/windows/end-support-help). Apple unofficially ended support for Mac OS X level 10.6.8 (Snow Leopard) in September of 2013.

When a vendor ends support for an operating system, the operating system no longer receives security updates, which can present both large and immediate security and support risks to its users.

To accomplish the dual goals of minimizing security risks to our clients while making necessary software changes, DRC has established a two-step support timeline for the transition away from Windows XP and Mac 10.6.8 to different operating system levels. DRC assumes no responsibility or liability for this transition or its outcome.

❑ Best Effort Support

Between now and September 1, 2015, DRC will offer "best effort" support for Windows XP and Mac 10.6.8. Best effort support means that the DRC Support team will help troubleshoot issues reported concerning Windows XP or Mac 10.6.8 and DRC software applications as best we can—DRC cannot guarantee a resolution.

If a bug is uncovered, DRC Support will report the issue to DRC Development. Again, we cannot guarantee a fix, software update, or resolution timeline for software fixes or updates. If DRC determines that an issue is related to a client's network, hardware, or third-party software, the client must obtain support directly from the software vendor or hardware manufacturer.

❑ End of Support

After September 1, 2015, DRC will not support Windows XP or Mac 10.6.8 and they will be restricted from use with the next release of DRC software applications. Restricted from use means that the next release of DRC software applications will no longer work with Windows XP or Mac 10.6.8.

As a result, DRC strongly recommends that all clients affected begin the migration away from Windows XP and/or Mac 10.6.8 as soon as possible to allow sufficient time for this process.

Windows Installation

What's Covered in This Chapter

This chapter describes the various methods of installing and uninstalling the Testing Site Manager (TSM) and INSIGHT on Windows operating systems. In addition, there are tips and techniques for troubleshooting TSM and INSIGHT installations.

The first part of this chapter provides basic information about installing and uninstalling a TSM and INSIGHT. Then, the chapter provides more advanced technical information about:

- Managing a TSM—starting, stopping, and uninstalling.
- Working with the TSM in a non-graphical (terminal) mode using Windows operating system commands.
- Uninstalling INSIGHT.

Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.
- Install the TSM *before* you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the testing computers that connect to it.

Quick Tour 1: Installing a TSM for Windows OS

This Quick Tour describes how to install a TSM for Windows. DRC provides an easy-to-use wizard to install the TSM software.

1. To launch the wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the **Testing Site Manager (TSM)** installer icon ( ) for Windows.

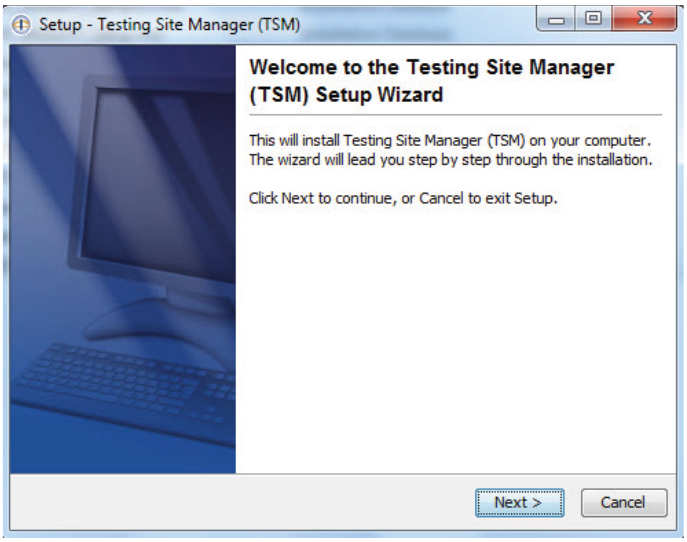
   At this time, you also may want to download the INSIGHT Secure Browser Installer for Windows.

   Note: If you have another version of the TSM installed, verify that you have the latest version (see "TSM Software Updates" on page 26 and "Uninstalling the TSM" on page 50).

2. After you download the installation program, click on **TESTING_SITE_MANAGER_Setup.exe** to launch the wizard and start the installation.

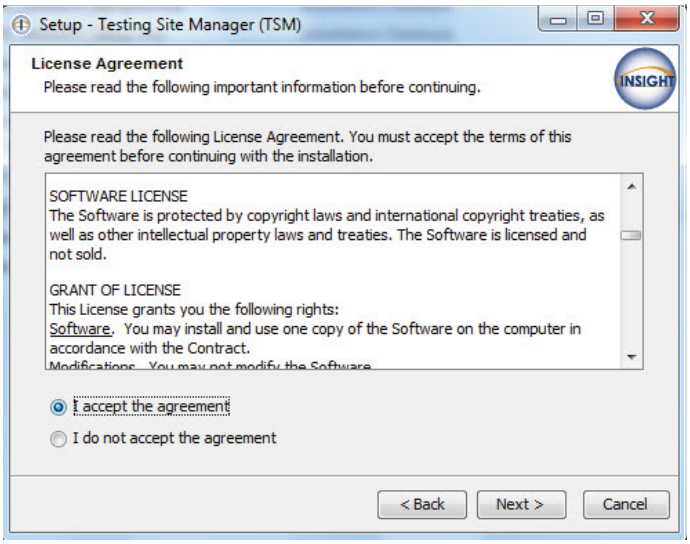
   The Welcome screen displays the Testing Site Manager (TSM) Setup Wizard. Click **Next** to continue.

   Note: On most installation windows, you have the option of clicking **Back** to return to the previous window or **Next** to proceed to the next window. Some windows display other options.



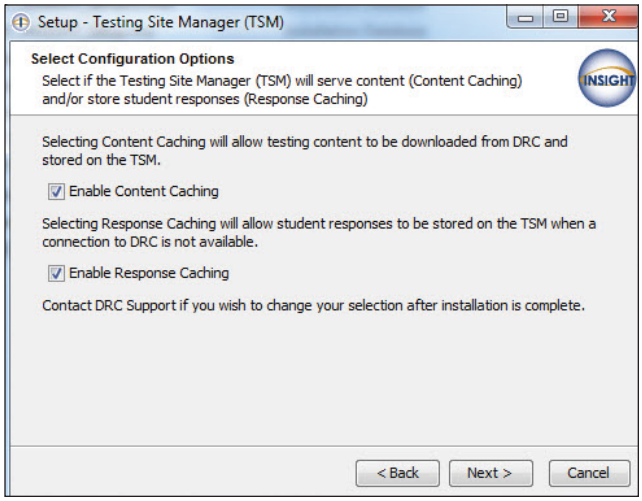
3. The DRC INSIGHT License Agreement window displays. To continue the installation, you should read the agreement and select the option **I accept the agreement**. (If you do not accept the agreement, the installation ends.)

   When the Next button becomes active, click **Next** to continue.



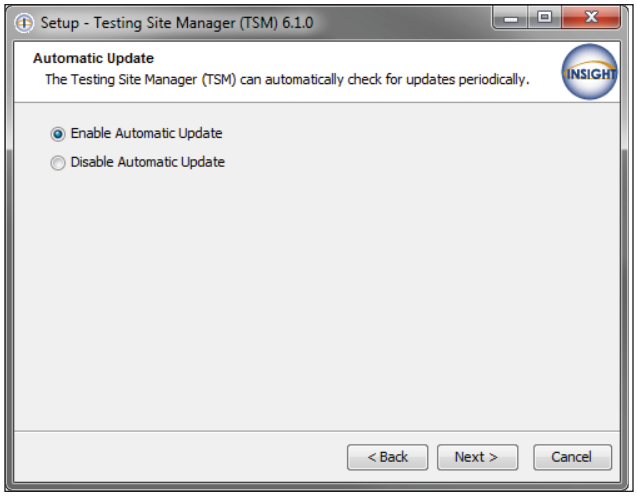
Quick Tour 1: Installing a TSM for Windows OS

4. The Select Configuration Options window displays. On this window you specify whether to enable content caching and/or response caching. The default values are to enable both types of caching. After you make your selections, click **Next** to continue.



Important: Install the TSM software on a computer that will be powered on when test content is automatically updated. If the computer is not on or is unavailable, it will not be updated. Whenever you restart a computer that has the TSM software installed, or anytime you plan to use the TSM for testing, verify that the TSM software and test content are up to date before you attempt to test (see "Content Caching" on page 136).

5. The Automatic Update window displays. On this window, specify whether to enable automatic TSM software updates.

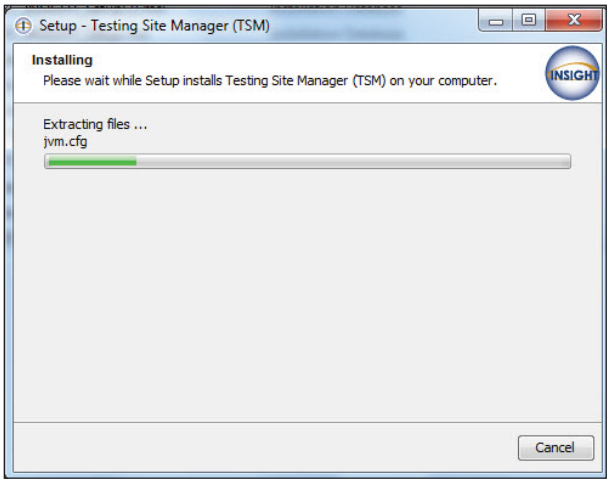


   - If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
   - If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the software manually.

Important: To change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the INSIGHT configuration properties for the testing computers that use the TSM (see "Setting DRC INSIGHT Properties" on page 169).

   Click **Next** to continue.

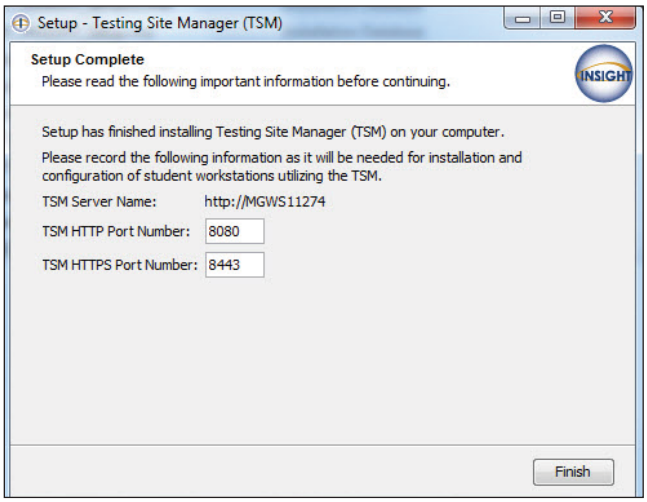
6. During the installation, a window displays to indicate the progress of the installation. If necessary, click **Cancel** to end the process.



Quick Tour 1: Installing a TSM for Windows OS

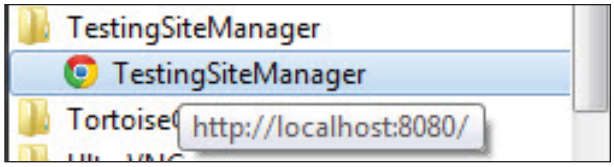
7. The Setup Complete window displays. **Record the TSM server name and port numbers—you need this information when you install INSIGHT.** You can change the port numbers from this window.

   The TSM HTTP Port Number is the port number for regular communication. **The TSM HTTPS Port Number is the port number for encrypted communication that the INSIGHT secure web browser uses**. Click **Finish** when you are ready.



   Important: To avoid conflicts, verify that no other device is using either port. For Windows 7, you can enter the command **netstat -a** from a command prompt to display the list of ports currently being used.

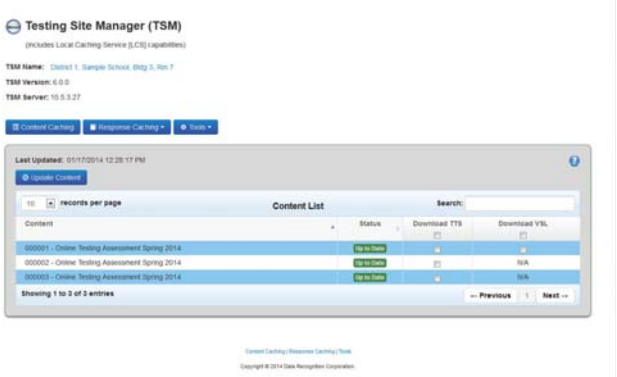
8. After the installation is complete, start the TSM from the Start menu by selecting **All Programs–TestingSiteManager–TestingSiteManager**.



   Note: When the TSM is first installed, the forms and items for all standard tests (no accommodations) are downloaded automatically. The TSM will not display until these forms and items are downloaded, which can take a few minutes.

9. When the Enter Testing Site Manager Name window displays, enter a name (up to 40 characters) that will help you remember the location of the TSM machine in the TSM Name field and click **Save**. DRC recommends that you include the district, school, and location (building and/or room number) of the TSM.

10. The TSM displays. If you specified Content Caching (Step 4), your test forms and items were downloaded with the TSM installation. If you are using accommodations, check the appropriate checkboxes to select the media content you need and click **Update Content** to load the latest test versions (see "Content Caching" on page 136).



    You are ready to install INSIGHT.

Quick Tour 2: Installing INSIGHT for Windows OS

This Quick Tour describes how to install INSIGHT for Windows. DRC provides an easy-to-use wizard to install the software.

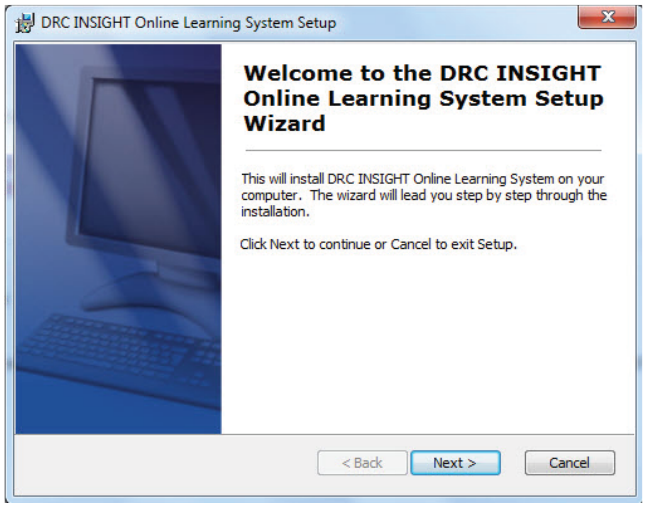
1. If the location used INSIGHT the previous year, verify that you have the latest version (see "INSIGHT Software Updates" on page 26 and "Uninstalling INSIGHT" on page 54).

   To launch the wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the DRC INSIGHT Windows Installer icon ( ).

2. After you have downloaded the installation program, click on the **DRC_INSIGHT_ Setup.msi** icon to start an installation.

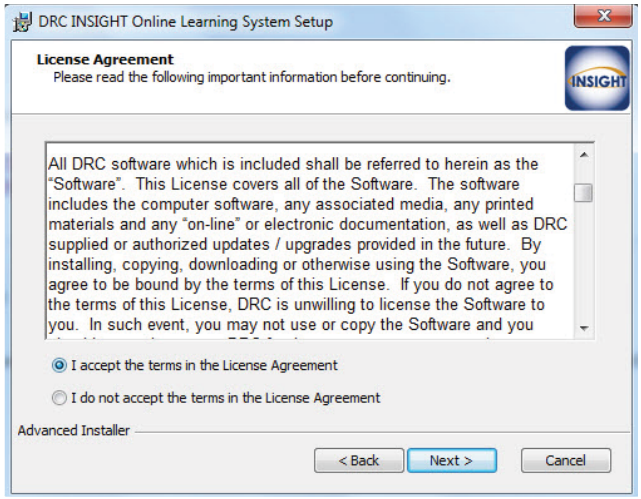
   The Welcome screen displays the DRC INSIGHT Online Learning System Setup Wizard. Click **Next** to continue.

   Note: On most installation windows, you can click **Back** to return to the previous window or **Next** to proceed to the next window. Some windows display other options.



3. The DRC INSIGHT License Agreement window displays. To continue the installation, read the agreement and select the option **I accept the agreement**. (If you do not accept the agreement, the installation ends.)

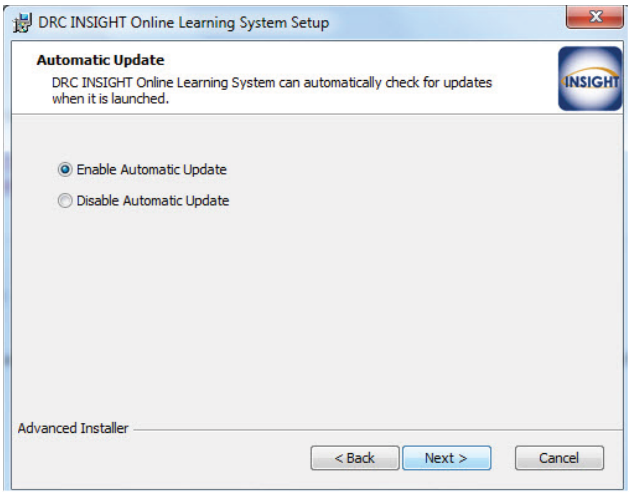
   Click **Next** to continue when the Next button is active.



Quick Tour 2: Installing INSIGHT for Windows OS

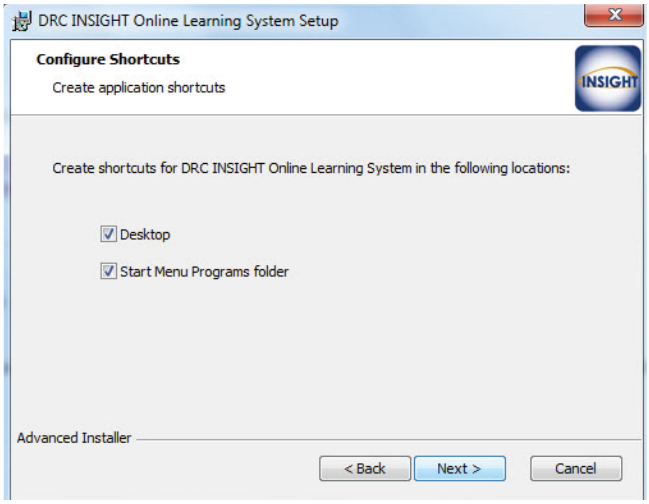
4. The Automatic Update window displays. You use this window to indicate whether to use automatic software updates. Select **Enable Automatic Update** to use automatic updates (recommended) or **Disable Automatic Update** to use manual updates.

   Click **Next** to continue.

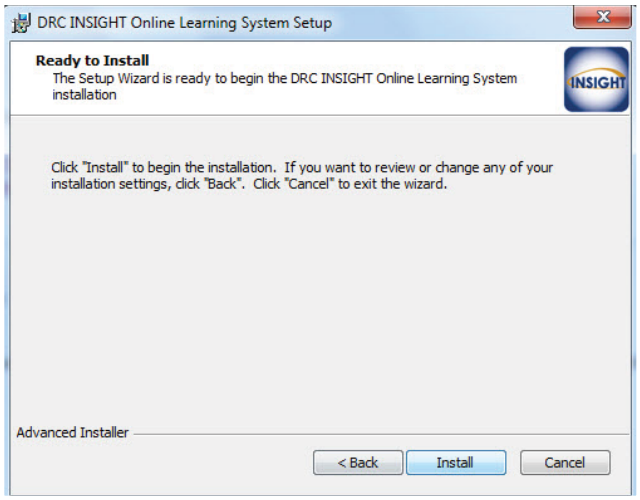


5. The Configure Shortcuts window displays. Use this window to indicate which shortcuts the installation process should create. DRC recommends that you select both shortcuts.

   After you have made your selections, click **Next** to continue.

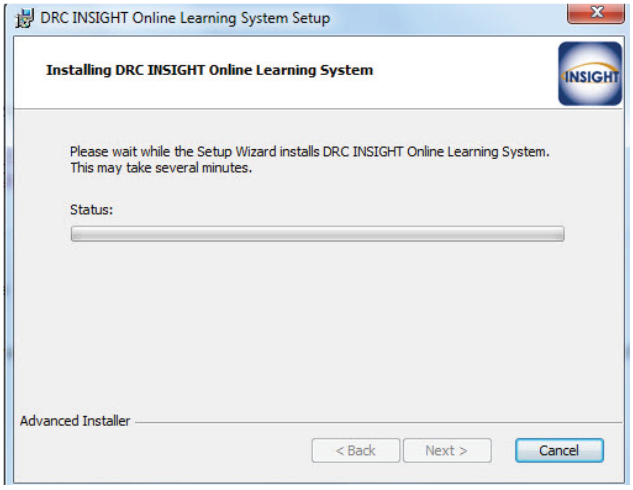


6. The Ready to Install window displays. Click **Back** to review or change your settings, **Install** to start the installation, or **Cancel** to cancel the process.



Quick Tour 2: Installing INSIGHT for Windows OS

7. While INSIGHT is being installed, a progress window indicates the state of the installation. If necessary, you can click **Cancel** to end the installation process.

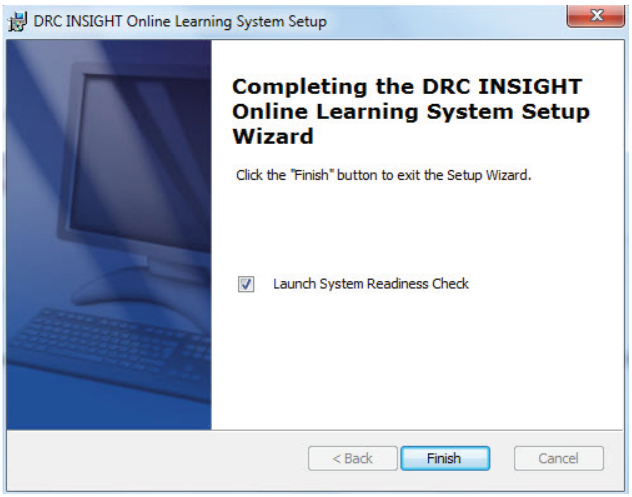


8. When the installation completes, the DRC INSIGHT Online Learning System Setup window displays indicating that INSIGHT is installed.

   You can specify whether to run the System Readiness Check (the default value).

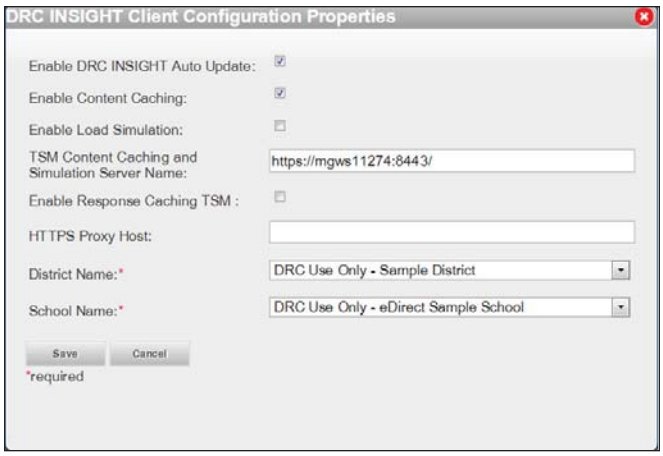
   The System Readiness Check verifies that the testing computer has sufficient screen resolution, Internet connectivity, memory (RAM), and other technical specifications needed to perform online testing (see "The System Readiness Check" on page 159).

   Make your selections and click **Finish** to end the installation process.



9. When the System Readiness Check launches, the System Information screen displays. You can see details about each test, execute the tests, and view the results (see "Using the System Readiness Check" on page 160).

   If you installed one or more TSMs, you can connect to your TSM machines (see Steps 10 and 11). Otherwise, go to Step 11.

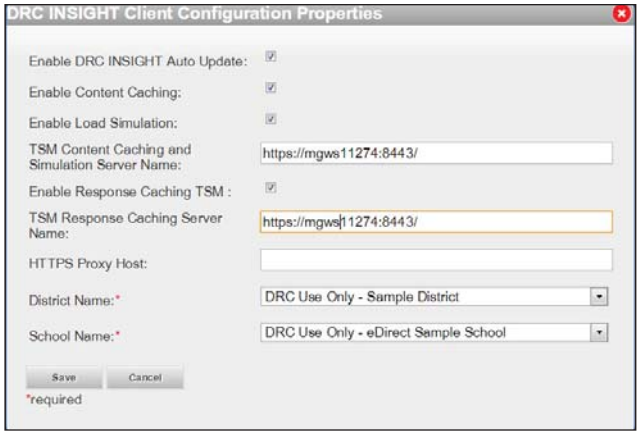


Quick Tour 2: Installing INSIGHT for Windows OS

10. To connect to a TSM, click **DRC Properties** to display the **DRC INSIGHT Client Configuration** window (see "Setting DRC INSIGHT Properties" on page 169 for details), enter your changes, and click **Save**.

- If you specified Content Caching, check **Enable Content Caching**.
- If you want to perform load simulation testing, check **Enable Load Simulation**.

  Enter the server name (or IP address) and port number of the TSM server in the **TSM Content Caching and Simulation Server Name** field.
- If you specified Response Caching, check **Enable Response Caching TSM** and enter the server name (or IP address) and port number of the TSM server in the TSM Response Caching Server Name field that displays (see "Quick Tour 1: Installing a TSM for Windows OS" on page 41, Step 7).



11. Select the district, and school for the testing computer (required) from the drop-down menus. This information is used for load simulation reports. Click **Save**.

12. Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click **Details** next to any test you need more information about (see "Resolving System Readiness Required Tests" on page 165). When ready, click **Exit**.

13. The installation adds one or more shortcuts based on what you specified in Step 5. Use the Online Assessments shortcut to sign in to the Online Tools Training (OTT) or to a test, using your INSIGHT log-in information. Use the Online Tutorials shortcut to access test tutorials.

Managing the TSM

This section describes how to install a TSM from the command line, how to start and stop a TSM from a command line, and how to remove a TSM.

Installing a TSM from the Command Line

You can install a TSM in the Windows environment using the command line interface instead of the graphical interface. This type of installation is useful to install the software in unattended mode, or to install it quickly on a number of computers.

To run the TSM installation in unattended mode, do the following:

1. Download the TSM setup command file, TESTING_SITE_MANAGER_Setup.exe, from eDIRECT to a directory or location that you specify.
2. Start a command prompt (**Start–Run–Cmd)**, navigate to the directory or location where the file was downloaded, and execute the TESTING_SITE_MANAGER_Setup command with the appropriate options (see below).

   TESTING_SITE_MANAGER_Setup -q

The following figure shows the list of setup options.

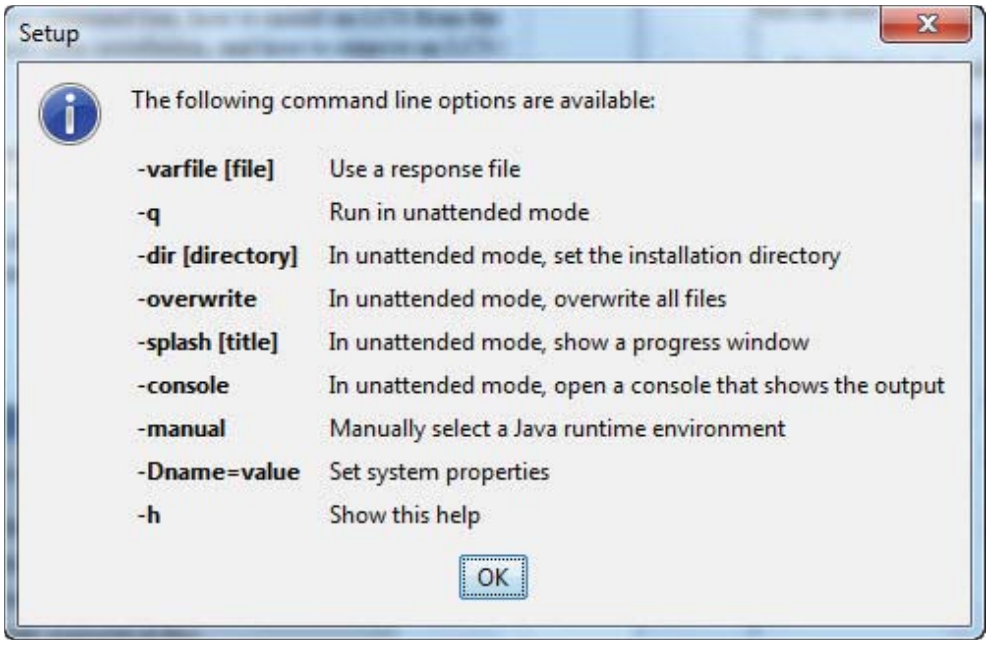
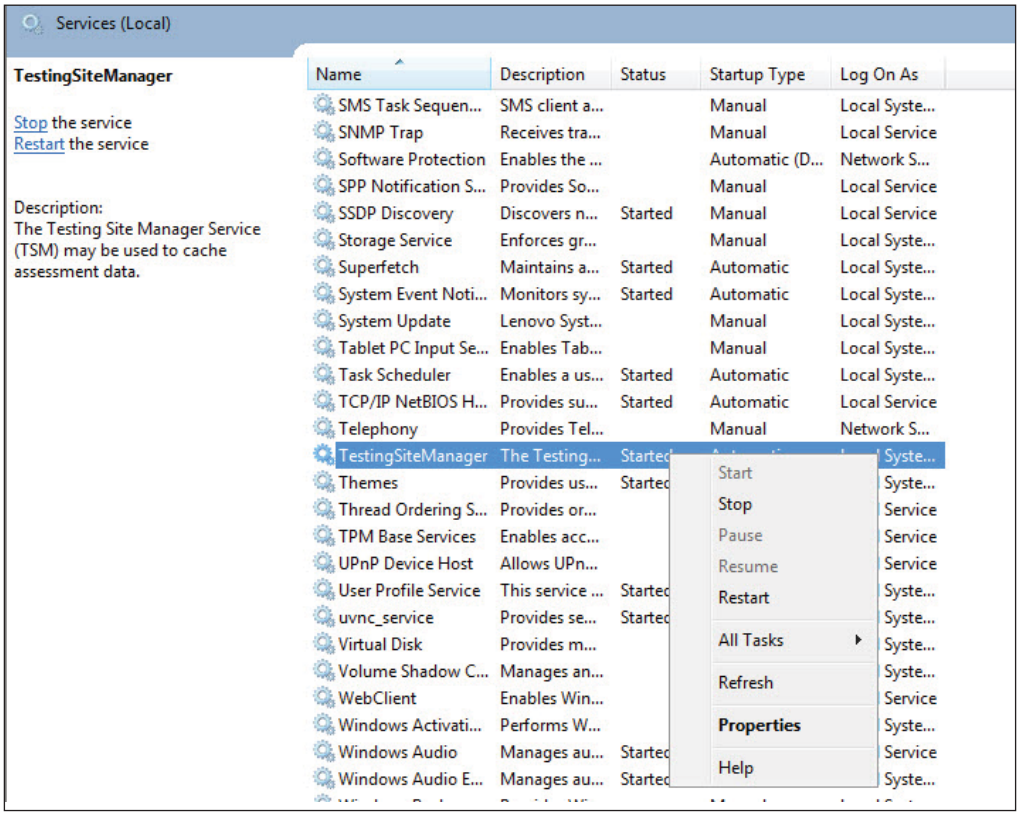


Figure: TSM Setup Command Options

Starting and Stopping the TSM

You can start and stop the TSM using the Control Panel.

1. For Windows 7, select **Control Panel–Administrative Tools–Services**.



2. The Services window displays. Select **TestingSiteManager**.
3. To stop the TSM, right-click and select **Stop**. To restart the TSM, right-click and select **Start**.

Uninstalling the TSM

You can uninstall (remove) the TSM using the Control Panel. If you want to uninstall the TSM, verify that there are no unsent responses. If there are, transmit them manually first. If the TSM has unsent stored responses, the uninstall won't finish (see "Response Caching-Viewing Unsent Student Test Responses" on page 139).

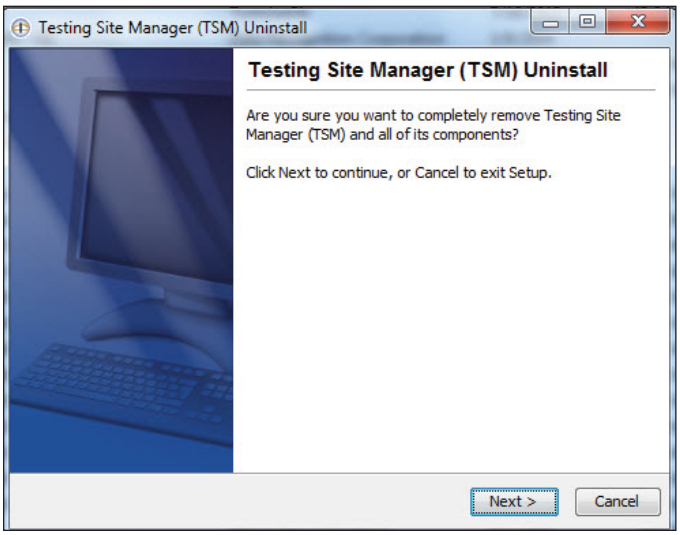
Note: If you are unable to remove a TSM, please contact DRC Technical Support.

Using the Control Panel

To uninstall the TSM using the Control Panel, do the following:

1. Select **Uninstall a Program** and select **Testing Site Manager (TSM) – PA**.
2. Right-click and select **Uninstall/Change**.

3. Click **Next** when the Testing Site Manager (TSM) Uninstall wizard displays. The wizard walks you through the process.



Managing INSIGHT

This section describes how to install INSIGHT from a command line, how to start and stop INSIGHT and the System Readiness Check, and how to uninstall INSIGHT.

Installing INSIGHT from a Command Line

To install INSIGHT from a command line, execute the INSIGHT setup command—**DRC_INSIGHT_Setup.msi**—using the specific options you want to use.

To display a list of the command line options, use the **/h** (help) parameter with the setup command by selecting **Run...** and specifying **DRC_INSIGHT_Setup.msi -h**.

The following figure shows a list of the standard options.

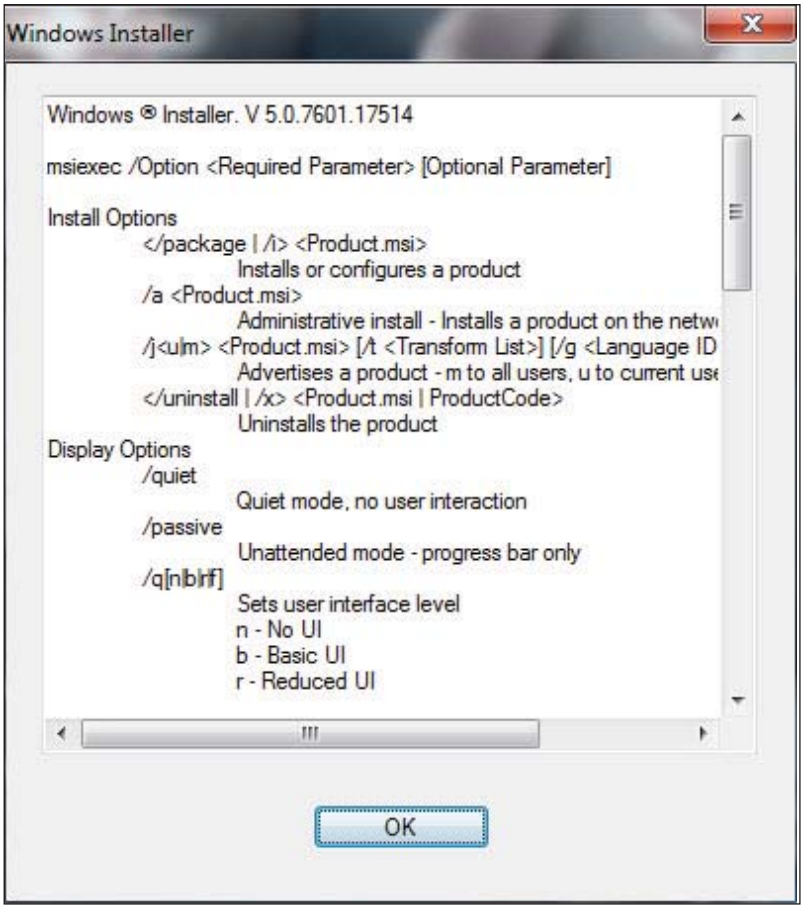


Figure: INSIGHT Setup Command Options

Refer to the *Windows Installer Software Development Kit (SDK)* for detailed information about the command line syntax.

INSIGHT Installation Program Options

The following table shows the custom properties that are available for the installation program.

Important: Ignore the ADMINID and ADMINNAME properties in the DRC Configuration.json file.

Property/Switch	Description	Default Value
AUTOUPDATEFLAG	Enables and disables the automatic update feature.	True
ENABLELCS	Enables and disables a TSM for response caching. If true, include the LCSURL property to specify the TSM that will perform response caching.	False
LCSURL	The URL and secure port of the TSM server that caches test responses. Replace **localhost** with the name or IP address of the TSM server.	https://localhost:8443/
LOADSIMULATIONENABLE	Specifies that load simulation testing is enabled for the testing computer. If true, include the CONTENTCACHEENABLE property set to true and the CONTENTCACHE property to specify the TSM that will perform load simulation tests. You also must specify DISTRICT_NAME, DISTRICTID, SCHOOL_NAME, and SCHOOLID.	True
DISTRICT_NAME*	The district name for load simulation testing.	None
DISTRICTID*	The district ID for load simulation testing.	None
SCHOOL_NAME*	The school name for load simulation testing.	None
SCHOOLID*	The school ID for load simulation testing.	None
CONTENTCACHEENABLE	Enables and disables a TSM for content caching. If true, include the CONTENTCACHE property to specify the TSM that will perform content caching.	False
CONTENTCACHE	The URL and secure port of the TSM server that caches test content and performs load simulation tests. Replace **localhost** with the name or IP address of the TSM server.	https://localhost:8443/
HTTPSPROXY	The URL and port of the proxy host server. Depending on your configuration, this URL can start with either http:// or https://.	Blank
/qn (/qb for Windows 8)	Runs the installation in silent mode.	NA

*Use the name and/or numeric code from the locations file located at **https://pa-insight.drcedirect.com/InsightClientRESTServices/ClientRESTService.svc/locations** (see below).

Using the Locations File

To locate names and IDs for districts and schools, do the following:

1. Paste the locations file link into a browser and open it (download the file into a text editor if necessary).
2. Search for the string **district_name** to locate the district name and ID (to the left).
3. Search for the string **school_name** to locate the school name and ID (see below).

{“**districtid**”:”88888”,”**district_name**”:”Sample District”,”schools”:{“**schoolid**”:”8888”,”**school_name**”:”Sample School”}

Installation Command Syntax and Example

The following is the syntax for the install program command:

DRC_INSIGHT_Setup.msi <*properties*> <*MSI switches*>

Note: All properties are passed in a *key=value* format (see the Example).

Example

The following example installs the software in silent mode (the /qn switch [/qb for Windows 8]). It specifies the TSM location for each type of caching—response and content, enables load simulation testing and automatic software updates, and specifies a school district, school, and proxy host.

Important: Do not copy and paste this information—it is meant as an example only.

msiexec /i DRC_INSIGHT_Setup.msi /qn CONTENTCACHEENABLE="true" LOADSIMULATIONENABLE="true" AUTOUPDATEFLAG="true" ENABLELCS="true" DISTRICT_NAME="""Sample District""" DISTRICTID="88888" LCSURL="https://10.3.97.11:8443/" CONTENTCACHE="https://10.3.97.11:8443/" SCHOOLID="8888" SCHOOL_NAME="""Sample School""" HTTPSPROXY="http://10.3.98.61:8081/"

Note: To see the other MSIEXEC properties and switches that you can use with the installation application, refer to the Microsoft Command Line options page.

Starting INSIGHT

You can start INSIGHT and the System Readiness Check from a testing computer using the desktop shortcut, the Windows Start menu, or the Windows Explorer. For Windows 7, start the Explorer and select the installation drive–**Program Files (x86)**–**PA Online Assessments**–**DRCInsight.exe** for INSIGHT, or **Readiness** for the System Readiness Check.

Stopping INSIGHT

If INSIGHT becomes unresponsive, you can stop it by using the Windows Task Manager. To start the Task Manager, press **Ctrl-Alt-Delete** and select **Task Manager** (see the figure).

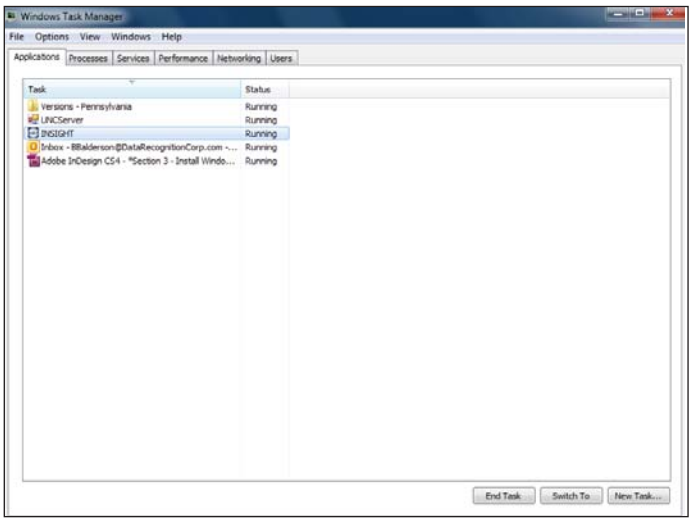


Figure: Task Manager – Windows 7 Environment

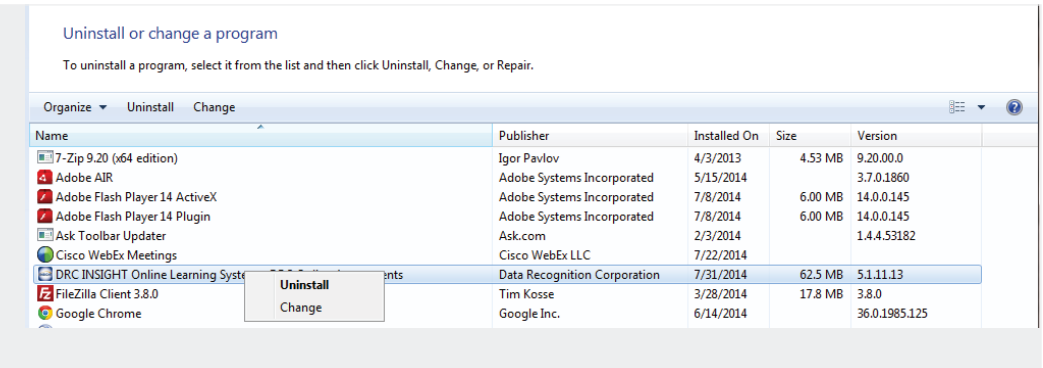
Uninstalling INSIGHT

You can uninstall (remove) INSIGHT from a Windows machine by using the Control Panel, the INSIGHT Uninstaller program, or the Start menu.

Note: If you cannot remove INSIGHT, please contact DRC Technical Support.

Using the Control Panel

To uninstall INSIGHT using the Control Panel, select **Uninstall a Program** and select **DRC INSIGHT Online Learning System–PA Online Assessments**, right-click and select **Uninstall**.



Using the Start Menu

To uninstall INSIGHT using the Start Menu, select **All Programs–PA Online Assessment System–DRC INSIGHT Uninstaller** and click **Yes** when the Windows Installer dialog box displays.

Mac (OS X) Installation

What's Covered in This Chapter

This chapter describes the installation process in a Mac (OS X) environment.

First, it provides basic information about installing and uninstalling a Testing Site Manager (TSM) and INSIGHT using the standard Mac graphical interface. Then, the chapter provides more advanced technical information about:

- Managing a TSM: starting, stopping, and uninstalling.
- Working with a TSM in a non-graphical (terminal) mode using Mac (OS X) operating system commands.
- Uninstalling INSIGHT.

Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.
- You should install the TSM *before* you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the testing computers that connect to it.

Quick Tour 3: Installing a TSM for Mac OS (OS X)

This Quick Tour describes how to install a TSM in the Mac (OS X) environment. DRC provides an easy-to-use wizard to install the TSM software.

1. To launch the wizard and start the installation, sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the **Testing Site Manager (TSM)** installer icon () for Mac OS. At this time, you also may want to download the Macintosh Installer for INSIGHT.

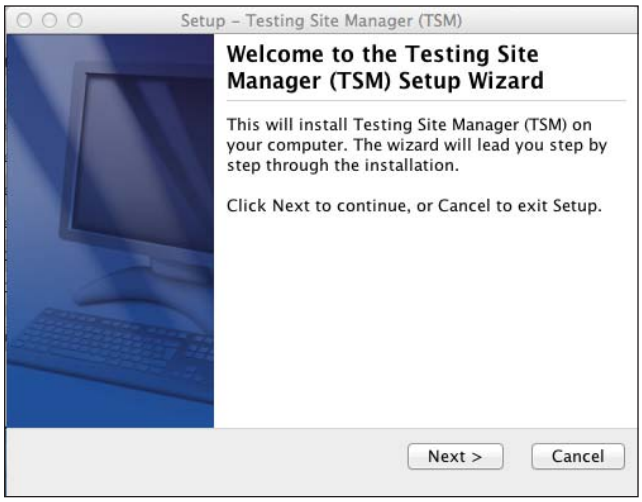
   Note: If you have another version of the TSM installed, verify that is the latest version (see "TSM Software Updates" on page 26 and "Uninstalling the TSM" on page 64).

2. After you have downloaded the installation program, double-click on the **TESTING_SITE_MANAGER_Setup.dmg** file and double-click on the **Testing Site Manager (TSM) Installer** to start the installation.

   Note: You must be a Mac System Administrator to install the TSM from this file.

3. The Welcome screen displays for the Testing Site Manager (TSM) Setup Wizard.

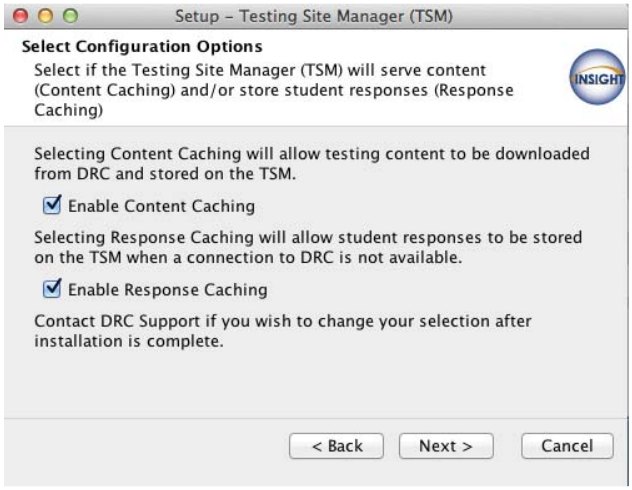
   Note: On most of the installation windows, you can click **Back** to return to the previous window, **Next** to proceed to the next window, and **Cancel** to cancel the installation. Click **Next** to continue.



4. The DRC INSIGHT License Agreement windows displays. Read the agreement and select the option **I accept the agreement**. When the Next button becomes active, click **Next** to continue.

Quick Tour 3: Installing a TSM for Mac OS (OS X)

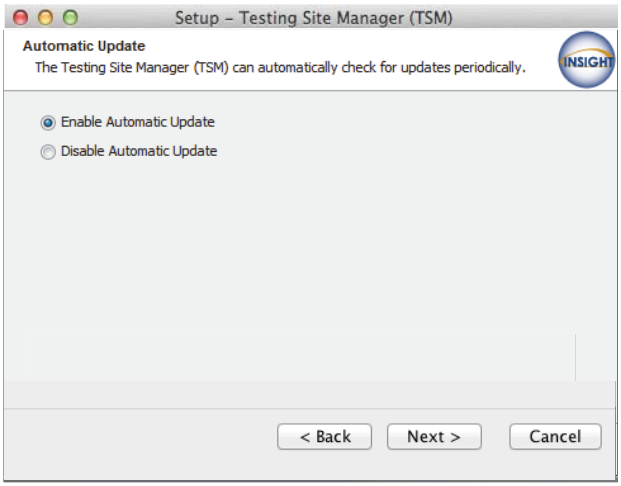
5. The Select Configuration Options window displays. On this window you specify whether to enable content caching and/or response caching. The default values are to enable both types of caching. After you make your selections, click **Next** to continue.



Important: Install the TSM software on a computer that will be powered on when the TSM software or test content is automatically updated. If the computer is not on or is unavailable, it will not be updated. Whenever you restart a computer that has the TSM software installed, or anytime you plan to use the TSM for testing, verify that the TSM software and test content are up to date before you attempt to test (see "Content Caching" on page 136).

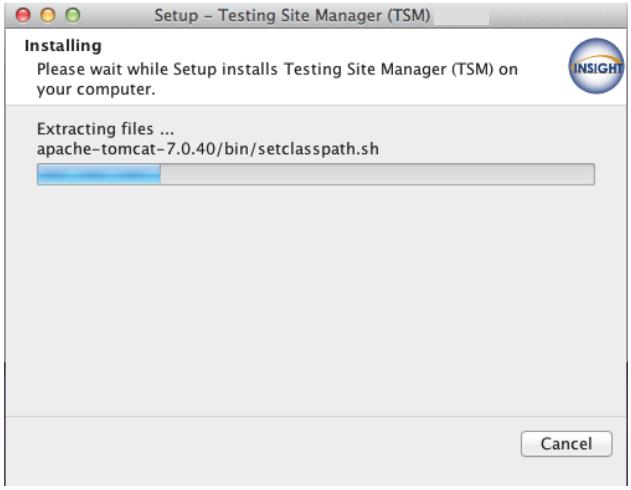
6. The Automatic Update window displays. On this window, specify whether to enable automatic TSM software updates.

- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the software manually.



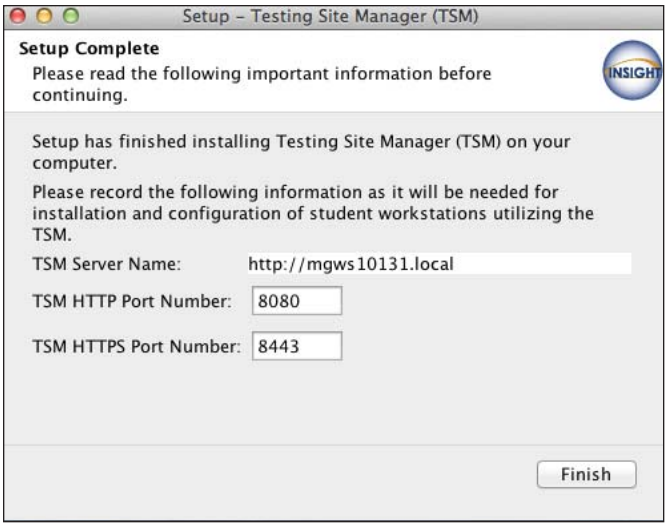
Important: To change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the INSIGHT configuration properties for the testing computers that use the TSM ("Setting DRC INSIGHT Properties" on page 169).

After you have made your selection, click **Next** to start the installation. During the installation, a window displays to indicate the progress of the installation. If necessary, you can click **Cancel** to end the installation process.



Quick Tour 3: Installing a TSM for Mac OS (OS X)

7. When the installation completes, the Setup Complete window displays. **Record the TSM server name and port numbers—you need this information when you install INSIGHT.** You can change the port numbers from this window.



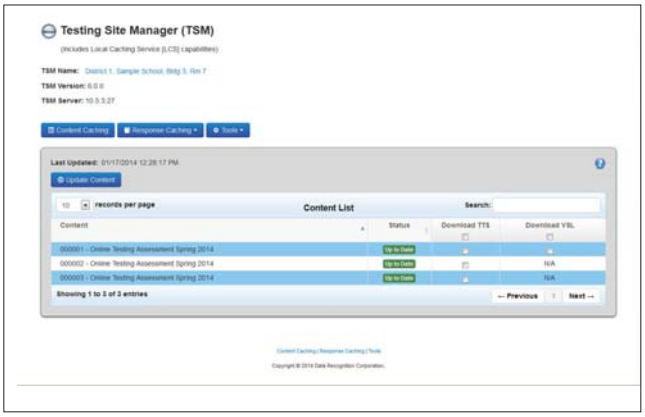
   - The TSM HTTP Port Number is the port number for regular communication.
   - **The TSM HTTPS Port Number is the port number for encrypted communication that the INSIGHT secure web browser uses**.

Important: To avoid conflicts, verify that no other device is using either port.

   Click **Finish** when you are ready.

8. Start the TSM by selecting **Applications–TestingSiteManager–TestingSiteManager.url**.

   Note: When the TSM is first installed, the forms and items for all standard tests (no accommodations) are downloaded automatically. The TSM will not display until these forms and items are downloaded, which could take a few minutes.



   When the **Enter Testing Site Manager Name** windows displays, enter a name in the TSM Name field to help you remember the location of the TSM machine. DRC recommends that you include the district, school, and location (building and/or room number) of the TSM. Click **Save**.

   Note: The name is limited to 40 characters with no special formatting requirements.

9. The TSM displays and you are ready to install INSIGHT. After installation is complete, select the **TESTING_SITE_MAN** volume from the desktop, right-click on it (**Ctrl-click**) and select **Eject "TESTING_SITE_MAN"** to unmount the volume and avoid potential conflicts with automatic updates.

Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

This Quick Tour describes how to install INSIGHT on a Mac. DRC provides an easy-to-use wizard to install the software.

1. If the location used INSIGHT the previous year, you should uninstall the old version of the software first (see "Uninstalling INSIGHT" on page 67).

   Download the dedicated installer for the Mac (OS X) operating system, DRC_INSIGHT_Setup.pkg, that DRC created. Sign in to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the DRC INSIGHT Macinstosh Installer icon ( ).

2. Double-click on the downloaded **DRC_INSIGHT_Setup.pkg** file to start the wizard.

   Note: You must be a Mac System Administrator to install INSIGHT.

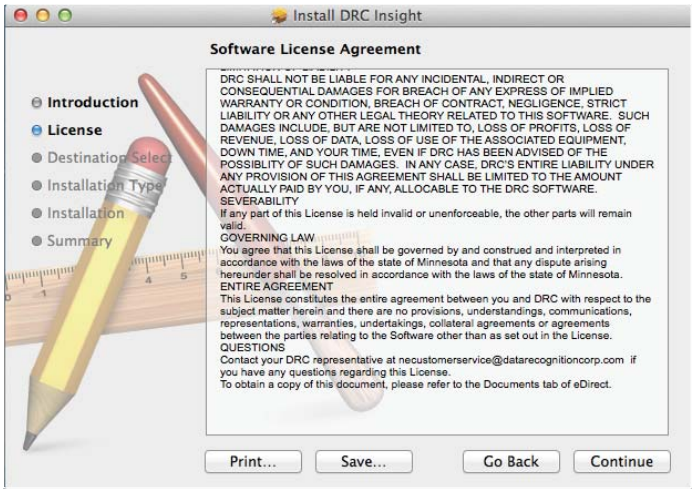
3. The Welcome screen for the DRC INSIGHT Online Assessments Installer displays.

   Note: On most installation windows, you can click **Go Back** to return to the previous window, **Continue** to proceed to the next window, or **Cancel** to cancel the installation. Some windows display other options.

   Click **Continue**.

4. The Software License Agreement window displays. You can read through the Agreement and select a different language from the Language drop-down menu.

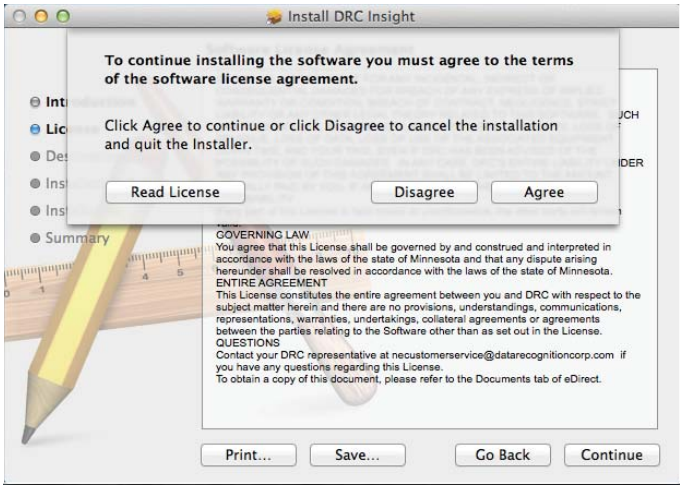
   To continue, scroll down and read the agreement and click **Agree**, or click **Save**.



Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

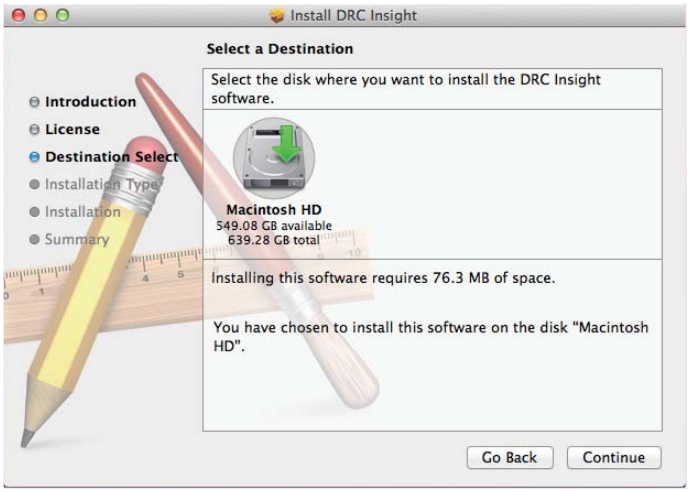
If you click **Continue** without reading the agreement or clicking **Save**, a window displays to verify your choice and explain the options.

To continue, click **Agree** and **Continue**.



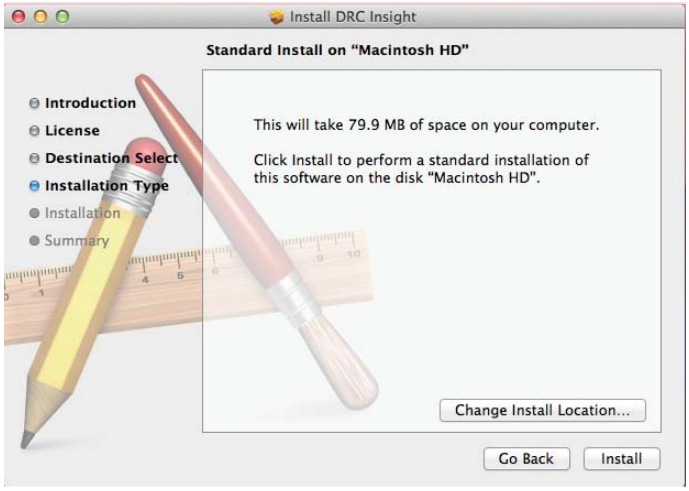
5. The Select Destination window displays, indicating the amount of disk space the installation will require.

   Click **Continue**.



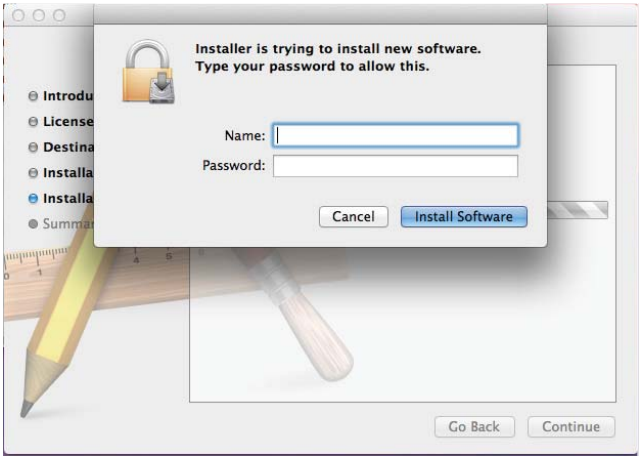
6. The Standard Install on "Macintosh HD" window displays. You can change the installation location, or use the default location.

   To use the default location, click **Install**.



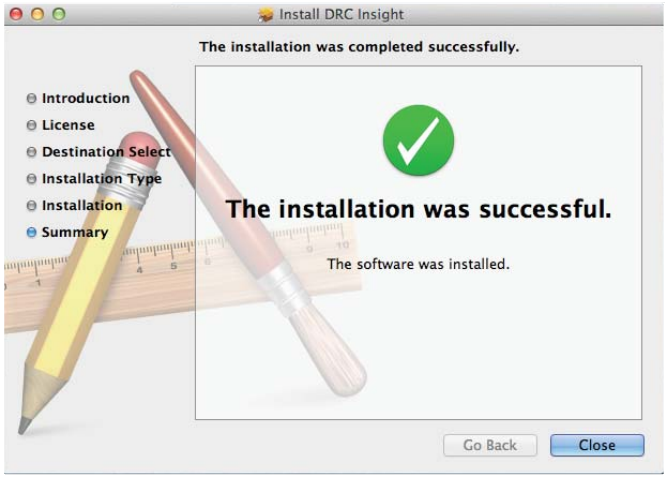
Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

The installation begins. You must be a Mac System Administrator to install INSIGHT.



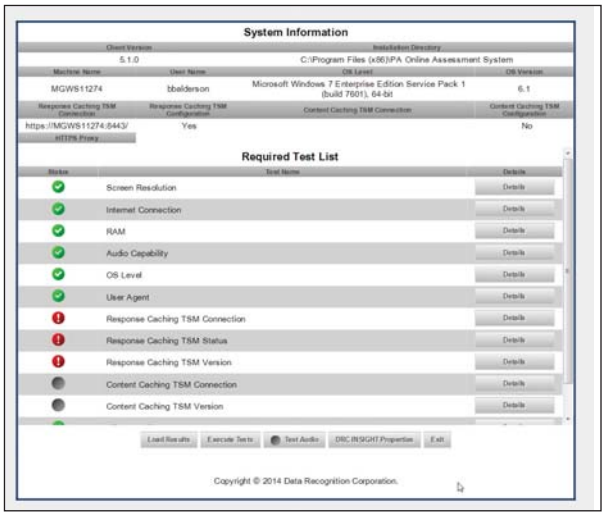
7. After the installation, a summary window indicates the status of the installation.

   If the installation was successful, click **Close**. Otherwise, if necessary, click **Go Back** to change your installation options.



8. When you click **Close**, the System Readiness Check automatically runs and the System Information page displays the results (see "The System Readiness Check" on page 159).

   If you installed one or more TSMs, you can connect to your TSM machines (see Steps 9 and 10). Otherwise, go to Step 10.

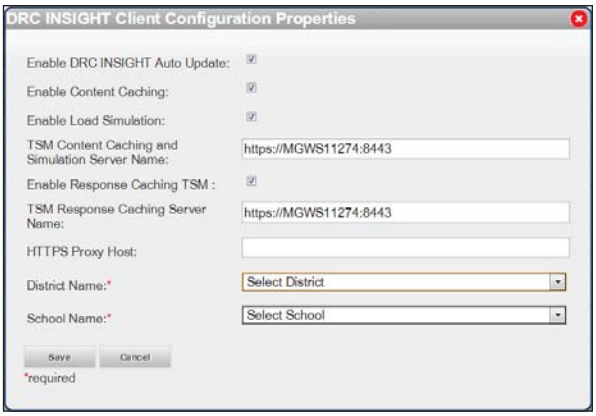


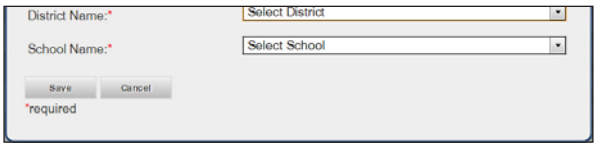
Quick Tour 4: Installing INSIGHT for Mac OS (OS X)

9. To connect to a TSM, click **DRC Properties** to display the **DRC INSIGHT Client Configuration** window (see "Setting DRC INSIGHT Properties" on page 169 for details), enter your changes, and click **Save**.

- If you specified Content Caching, check **Enable Content Caching**.
- If you want to perform load simulation testing, check **Enable Load Simulation**.

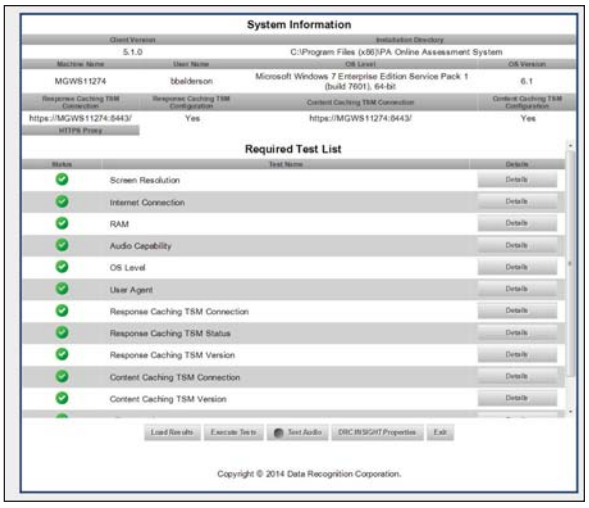
  Enter the server name (or IP address) and port number of the TSM server in the **TSM Content Caching and Simulation Server Name** field.
- If you specified Response Caching, check **Enable Response Caching TSM** and enter the server name (or IP address) and port number of the TSM server in the TSM Response Caching Server Name field that displays (see Step 7 of "Quick Tour 3: Installing a TSM for Mac OS (OS X)" on page 57).





10. Select the district, and school for the testing computer (required) from the drop-down menus. This information is used for load simulation reports. Click **Save**.

11. Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click the **Details** button next to any test that you need more information about (see "Resolving System Readiness Required Tests" on page 165). When you are ready, click **Exit**.



12. The installation adds two shortcuts to the desktop. Use the Online Assessments shortcut to sign in to the Online Tools Training (OTT), or to a test, using your INSIGHT log-in information. Use the Online Tutorials shortcut to access test tutorials.

Managing the TSM

This section describes how to start and stop a TSM from a command line, and how to uninstall a TSM.

Starting and Stopping the TSM

The TSM is a service that executes in the background without a standard graphical window. Technology Coordinators (TCs) should be familiar with starting and stopping the TSM with the TESTING_SITE_MANAGER script. You can use the **launchd** and **launchctl** commands to manage services. By default, the TSM is started after installation and launches anytime the computer is booted.

Uninstalling the TSM

You can uninstall (remove) the TSM by selecting **Applications–TestingSiteManager–Testing Site Manager (TSM) Uninstaller**. First, you must enter your Mac administrator login information. Then, when the Testing Site Manager (TSM) Uninstall wizard displays, click **Next**.

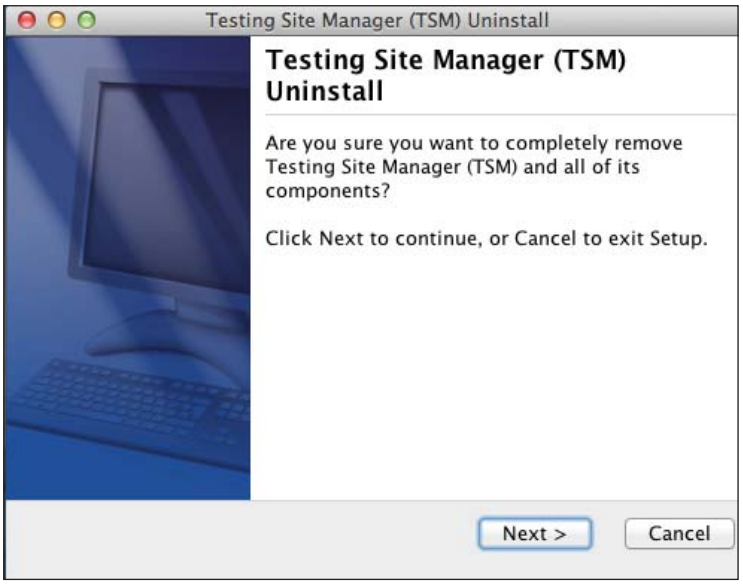


Figure: Uninstalling the TSM

Note: If you are unable to remove a TSM, please contact DRC Technical Support.

Managing INSIGHT

This section describes how to install INSIGHT from a command line, how to start and stop INSIGHT, and how to uninstall INSIGHT.

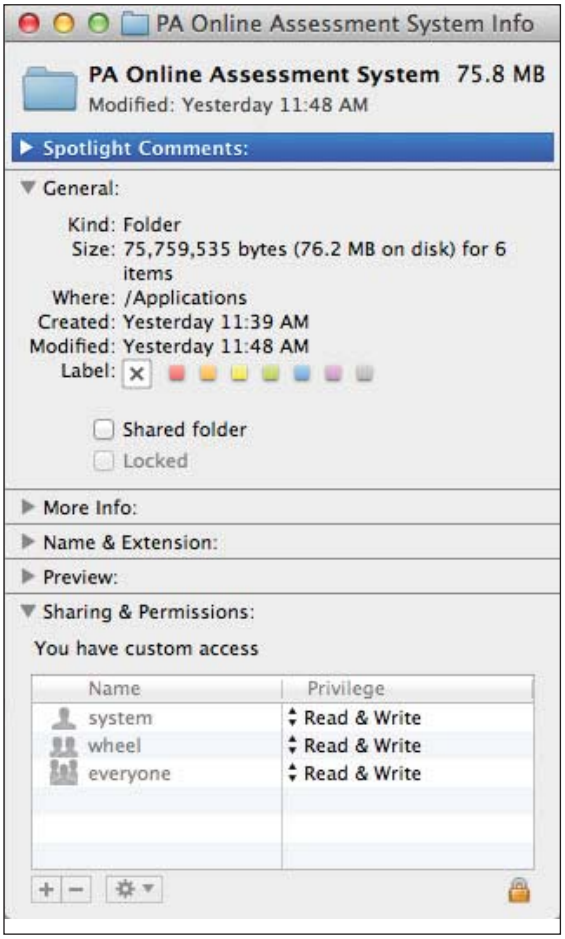
Installing INSIGHT Using a Software Deployment Tool

The following example shows how to install INSIGHT on a Mac using the Apple Remote Desktop™ software.

Note: The Apple Remote Desktop software was used for this example, but the process is similar with other software deployment tools.

1. Install and configure the INSIGHT secure browser on the computer from which you will be distributing the software (see "Quick Tour 4: Installing INSIGHT for Mac OS (OS X)" on page 60).

   Important: To ensure that testers can access the correct folders on the testing computers, you may need to adjust the permissions on the folders you will be copying before you distribute them to the testing computers (see the figure below).

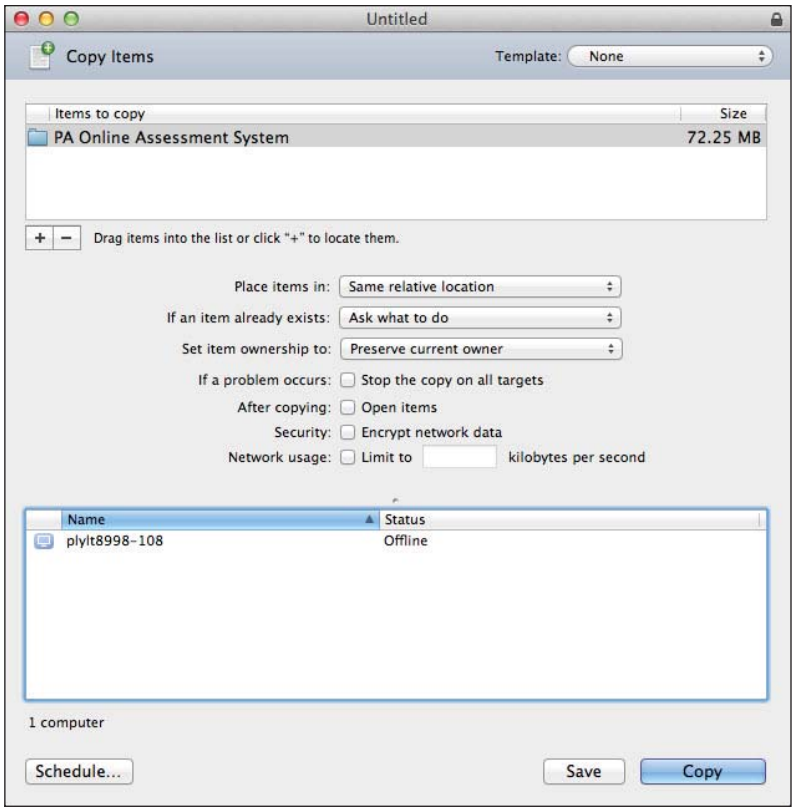


Installing INSIGHT Using a Software Deployment Tool (cont.)

2. Start Apple Remote Desktop and select the following directories in a Copy Items window from the Apple Remote Desktop administrator's computer.

   /Applications/PA Online Assessments

   Note: You may need to adjust the destination locations and permissions depending on student's permissions (see the figure below).



3. Copy the folders to your list of destination computers.
4. Verify the installation by running the Software Readiness Check on the computers where you installed the software. Select **PA Online Assessments– Readiness** from the Applications folder.

Starting INSIGHT

You can start INSIGHT from a testing computer by using the desktop shortcut created by the installer, or from the Applications folder by selecting **Applications–PA Online Assessments–DRCInsight**.

Stopping INSIGHT

If INSIGHT becomes unresponsive, the TC may need to stop it using the key combination, **Command–Q**.

Uninstalling INSIGHT

You can uninstall (remove) INSIGHT using the Applications folder. You also can run the uninstallation process silently.

Using the Applications Folder

You can uninstall (remove) INSIGHT by selecting **Applications–PA Online Assessments–DRC Uninstaller**. Click **OK** when the dialog box displays and enter your Mac administrator login information and click **OK**. The uninstaller automatically uninstalls the program.

Notes

Linux Installation

What's Covered in This Chapter

This chapter describes the installation process in a Linux environment.

First, it provides basic information about installing and uninstalling the Testing Site Manager (TSM) and INSIGHT using the standard Linux interface.

Note: You should install the TSM *before* you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.

Then, the chapter provides more advanced technical information about:

- Managing a TSM: starting, stopping, changing the default communication port, and uninstalling.
- Managing INSIGHT: starting, stopping, and uninstalling.
- Working in the terminal using Linux operating system commands.

Note: In this chapter, we assume that as an experienced Linux user you are familiar with Linux concepts such as Terminal mode, the Boot-Up Manager software, and the Ubuntu Software Center.

Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

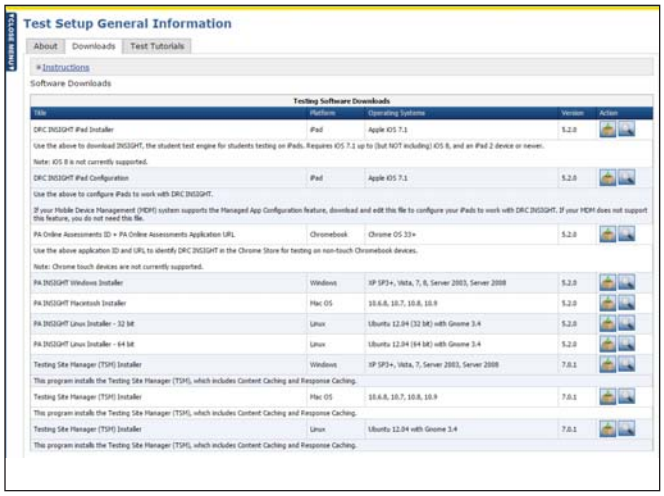
- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM, you may need to reconfigure the testing computers that connect to it.

Quick Tour 5: Installing a TSM for Linux

This Quick Tour describes how to install the Testing Site Manager (TSM) for Linux. DRC provides an easy-to-use Wizard to install the TSM software. In a Linux environment, you must enter a few commands before you can run the Wizard.

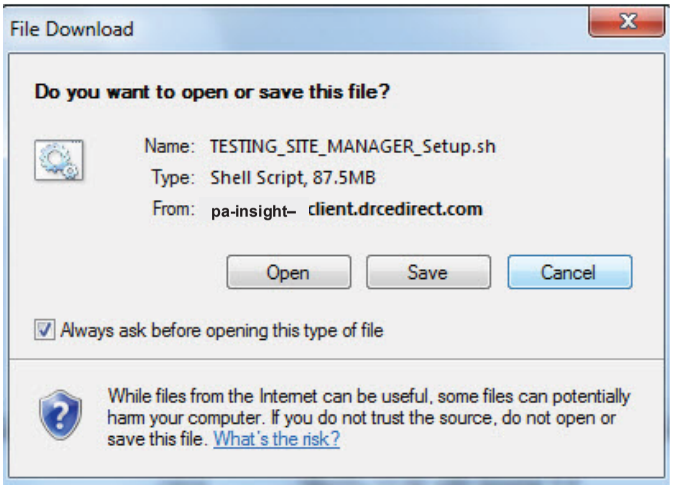
1. To launch the Wizard and start the installation, log on to eDIRECT and select **Test Setup–General Information–Downloads.**

   Note: If you have another version of the TSM installed, uninstall it before you install a new version (see "Uninstalling the TSM" on page 80).



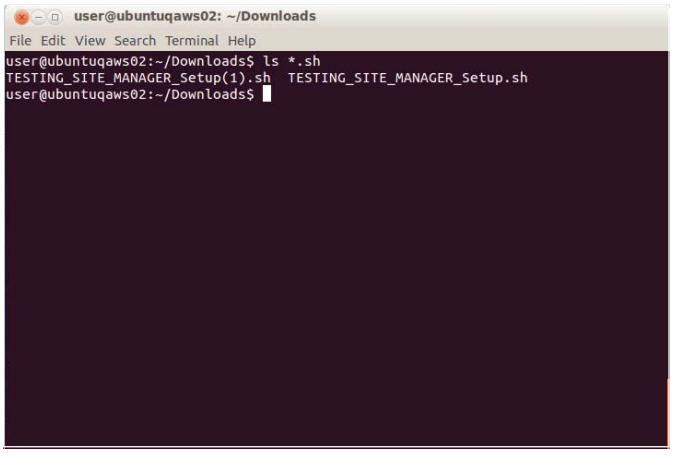
2. Click on the Testing Site Manager (TSM) installer icon ( ) for Linux to download the TSM setup shell file—**TESTING_SITE_MANAGER_Setup.sh**—to the Downloads directory on your testing computer.

   Note: Depending on the web browser you are using, a pop-up window may display. If it does, select **Save File** and click **OK**. Other browsers automatically download the installation file to your Downloads folder.



3. Start a terminal and navigate to your Downloads directory**.**

4. Use the **ls** command to verify that the TESTING_SITE_MANAGER_Setup.sh file is in the Downloads directory. If it is not there, download it again.



Quick Tour 5: Installing a TSM for Linux

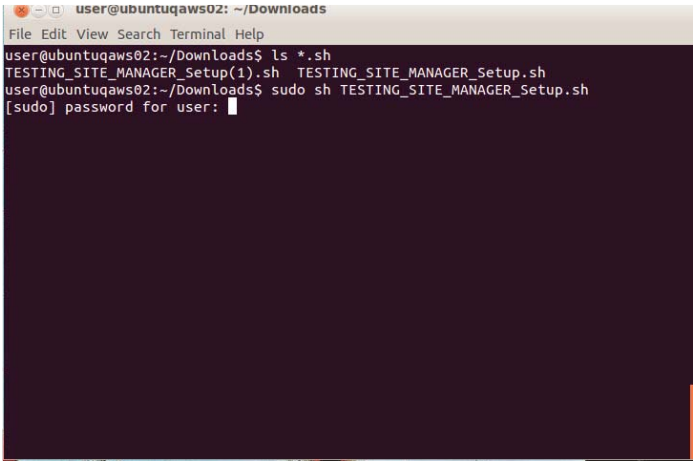
5. Enter the following command (all Linux commands are case-sensitive) to start the installation:

   sudo sh TESTING_SITE_MANAGER_Setup.sh

   The sudo command gives you temporary administrator privileges and allows you to run the shell file.

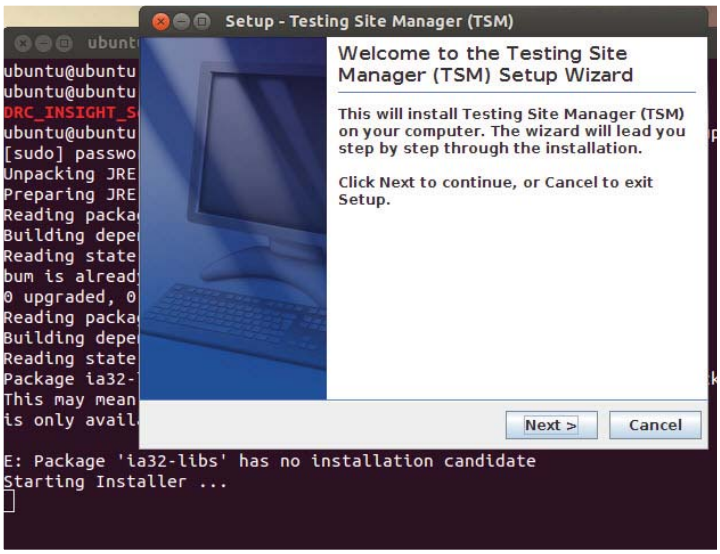
   If prompted, enter your administrator password at the prompt. Linux unpacks the shell file and launches the Wizard to start the installation. The installation program creates an application folder in the /opt or /usr/local directory.

   Note: On some 64-bit systems, you must install 32-bit Java libraries for the installation program to run. If you need to install these libraries, enter the command, **sudo apt-get install ia32-libs**



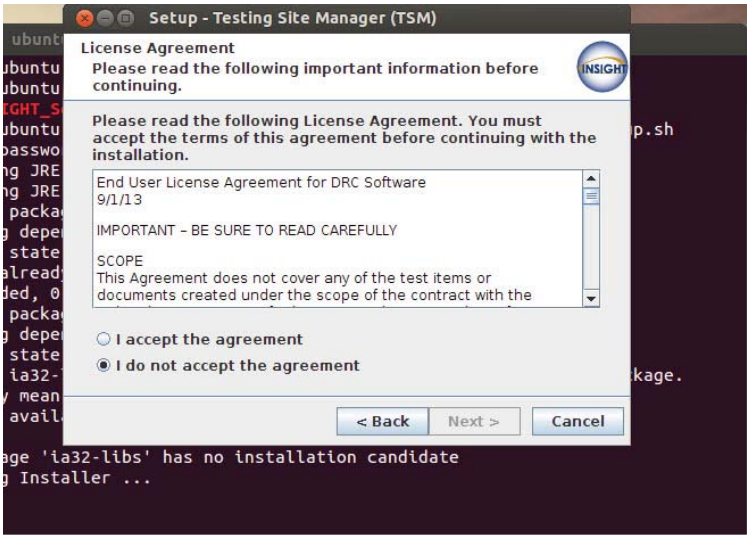
6. The Welcome screen displays for the DRC INSIGHT Testing Site Manager (TSM) Setup Wizard.

   Click **Next** to continue.



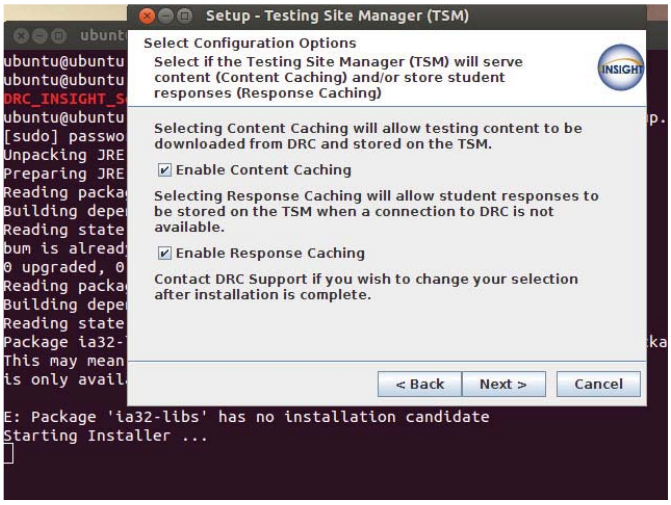
7. The DRC INSIGHT License Agreement window displays. To continue the installation, read the agreement and select it by choosing the option **I accept the agreement**. (If you do not accept the agreement, the installation ends.)

   When the Next button becomes active, click **Next** to continue.



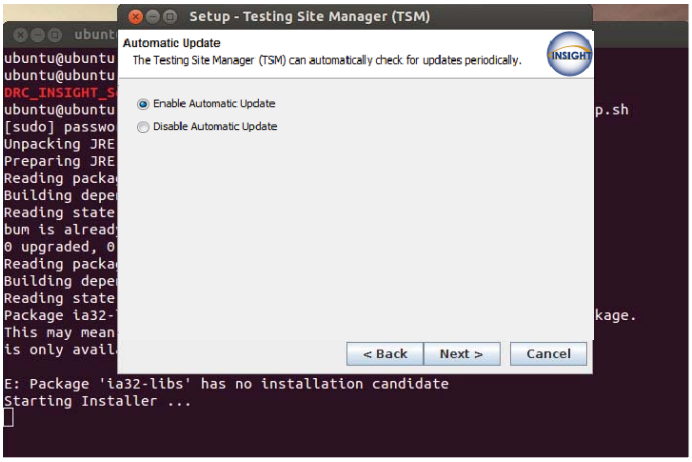
Quick Tour 5: Installing a TSM for Linux

8. The Select Configuration Options window displays. On this window you specify whether to enable content caching (test content) and/or response caching (test responses). The default values are to enable both types of caching. After you have made your selections, click **Next** to continue.



Important: If you use content caching, install the TSM software on a computer that will be available when test content is automatically updated. Whenever you restart a computer that has the TSM software installed, or anytime you plan to use the TSM for testing, verify that the TSM content is up to date before you attempt to test (see "Content Caching" on page 136).

9. The Automatic Update window displays. On this window, specify whether to enable automatic TSM software updates.



- If you select **Enable Automatic Update** (the default value), DRC updates the TSM software automatically.
- If you select **Disable Automatic Update**, DRC notifies you whenever an update to the TSM software is available and you must update the software manually.

After you have made your selection, click **Next** to continue.

Important: If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the INSIGHT configuration properties for the testing computers that use the TSM (see "Setting DRC INSIGHT Properties" on page 169).

Quick Tour 5: Installing a TSM for Linux

10. During the installation, a window displays to indicate the progress of the installation. If necessary, you can click **Cancel** to end the installation process.

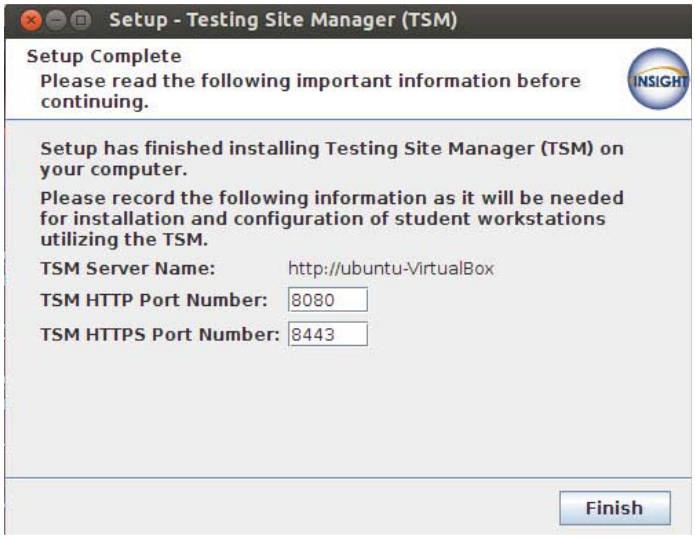
When the installation completes, the Setup Complete window displays.

Record the TSM server name and port numbers. You need this information when you install INSIGHT. You can change the port numbers from this window.

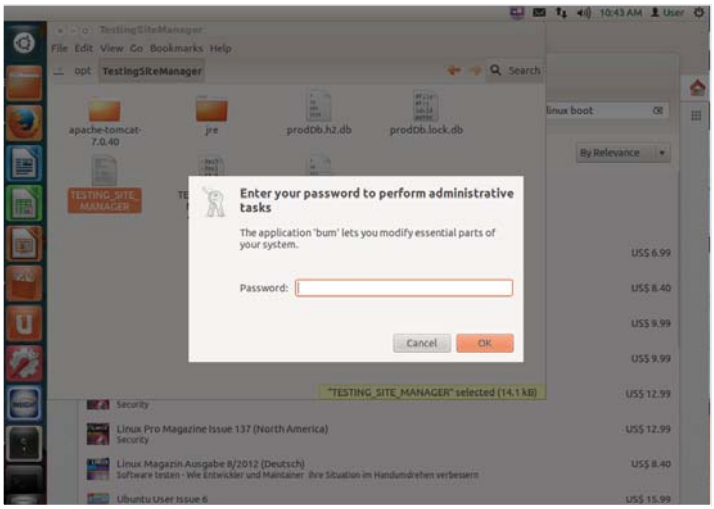
- The TSM HTTP Port Number is the port number for regular communication.
- The TSM HTTPS Port Number is the port number for encrypted communication that the INSIGHT secure web browser uses.

Important: To avoid potential conflicts, be certain no other device is using either port. You can change the port numbers from this window.

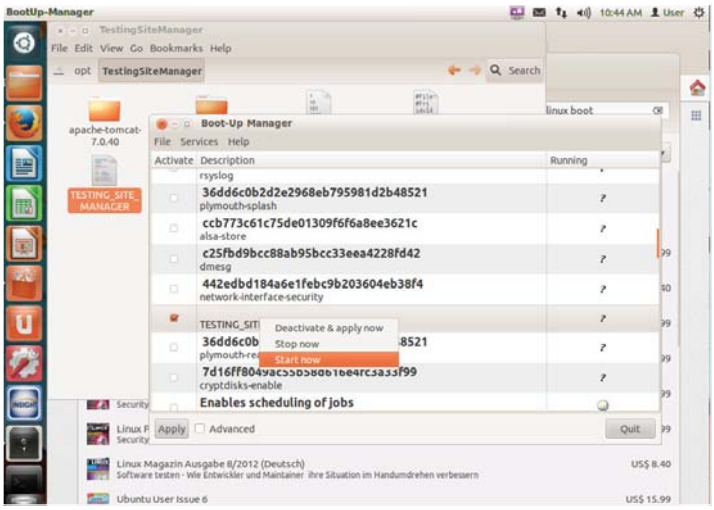
Click **Finish** when you are ready.



11. Open the Linux Boot-Up Manager. You may need to provide your administrator password.



12. Locate TESTING_SITE_MANAGER in the list, select it, right-click and select **Start Now**. When the Service started pop-up dialog displays, click **OK**.



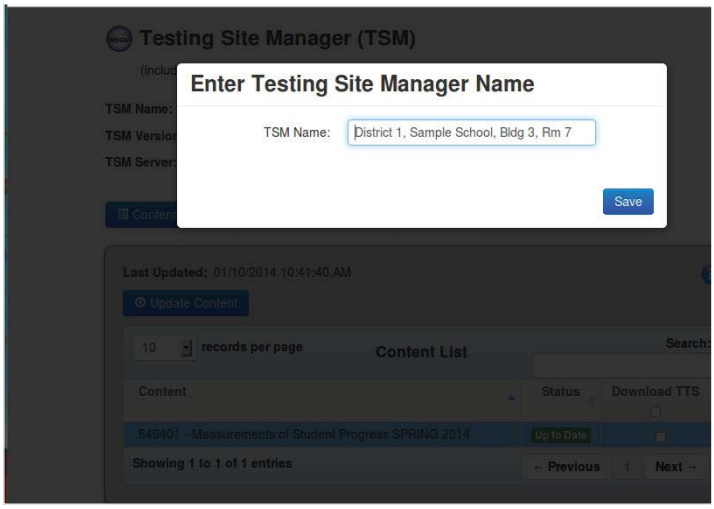
Quick Tour 5: Installing a TSM for Linux

13. Start a browser and enter the following address into the address bar of a web browser:

http://*servername*:8080/

Where *servername* is the TSM server Name from Step 10. In our example, it is **ubuntu-VirtualBox**.

Note: When the TSM is first installed, the forms and items for all tests are downloaded automatically. The TSM will not display until these forms and items are downloaded, which could take a few minutes.

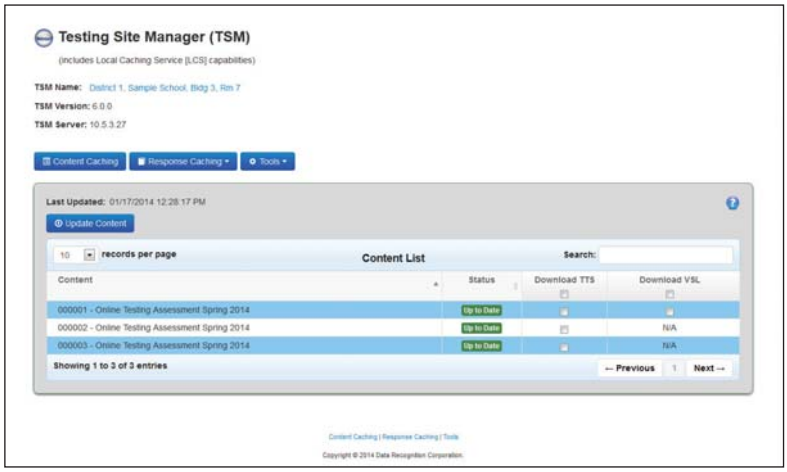


When the Enter Testing Site Manager Name windows displays, enter a name in the TSM Name field that will help you remember the location of the TSM machine and click **OK**.

The name you choose is limited to 40 characters and there are no special formatting requirements (see "Using the TSM" on page 133).

Note: DRC recommends that you include the district, school, and location (building and/or room number) of the TSM.

14. The TSM displays. If you specified Content Caching (Step 4), your test forms and items were downloaded with the TSM installation.



If you are using optional accommodations such as Text-to-Speech (TTS) or Video Sign Language (VSL), select the media content you need (the status of the corresponding test changes to Out of Date).

Click **Update Content** to load the latest test versions (see "Content Caching" on page 136). When the TSM updates the content cache, the Status field changes from Out of Date to Up to Date.

You are ready to install INSIGHT.

Quick Tour 6: Installing INSIGHT for Linux

This Quick Tour describes how to install the DRC INSIGHT Online Learning System for Linux. DRC provides an easy-to-use Wizard to install the INSIGHT software. In a Linux environment, you use the Ubuntu Software Center to run the Wizard.

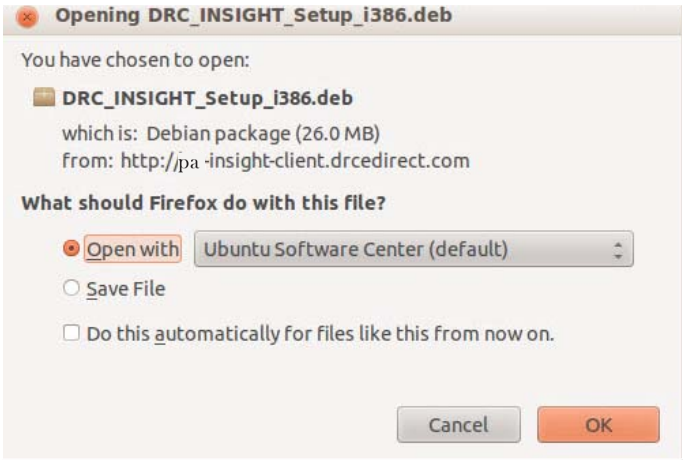
1. To launch the Wizard and start the installation, log on to eDIRECT, select **Test Setup–General Information–Downloads**, and click on the DRC Linux Installer icon () to download the INSIGHT setup file—**DRC_INSIGHT_Setup_i386.deb** (32-bit) or **DRC_INSIGHT_Setup_amd64.deb** (64-bit)—to the Downloads directory on your testing computer.

   If the location used INSIGHT the previous year, you should uninstall the old version of the software first (see "Uninstalling INSIGHT Using the Synaptic Package Manager" on page 83).

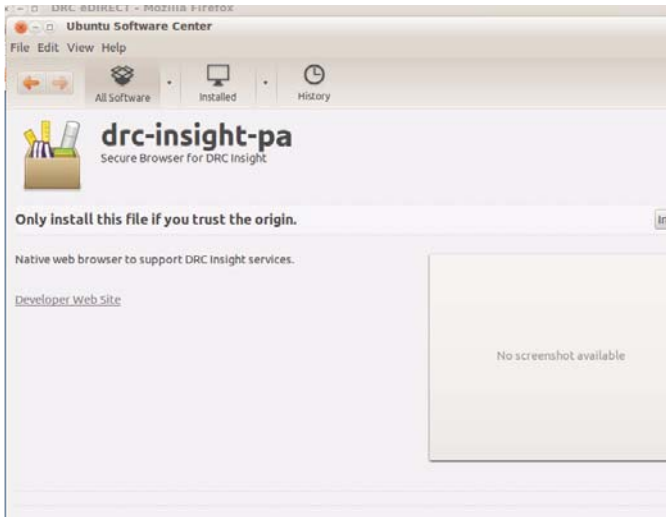
2. The Opening DRC_INSIGHT_Setup_i386.deb dialog box displays (for 32-bit machines). The file for 64-bit machines is DRC_INSIGHT_Setup_amd64.deb.

   Select **Open with Ubuntu Software Center (default)** if it is not selected and click **OK**.

   Note: Some browsers do not display a dialog box and load the installation file directly to your Downloads folder.

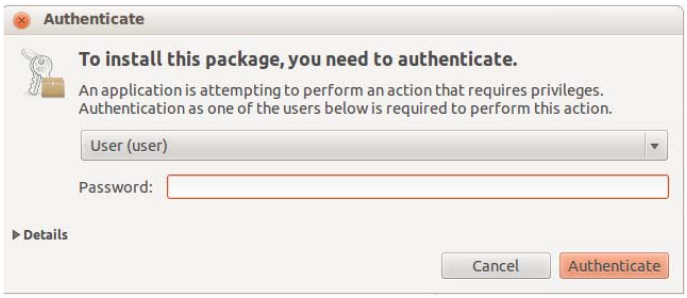


3. When the Ubuntu Software Center window displays, click **Install**.



Quick Tour 6: Installing INSIGHT for Linux

4. The Authenticate dialog box displays. Select your username from the drop-down menu, enter your password and click **Authenticate**.

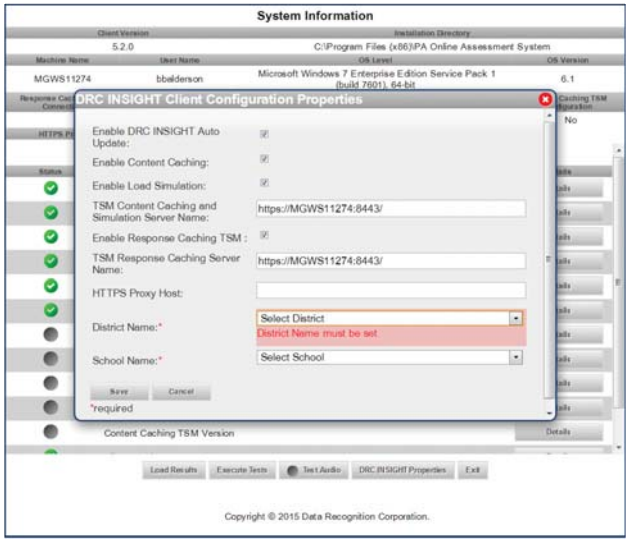


5. The DRC License Agreement window displays. Check the **I accept the License agreement** checkbox and click **Forward**. The INSIGHT installation starts.

6. When INSIGHT is successfully installed, the System Readiness Check displays. (You also can run the System Readiness Check by going to the Online Assessment System directory and clicking on **Readiness**.)

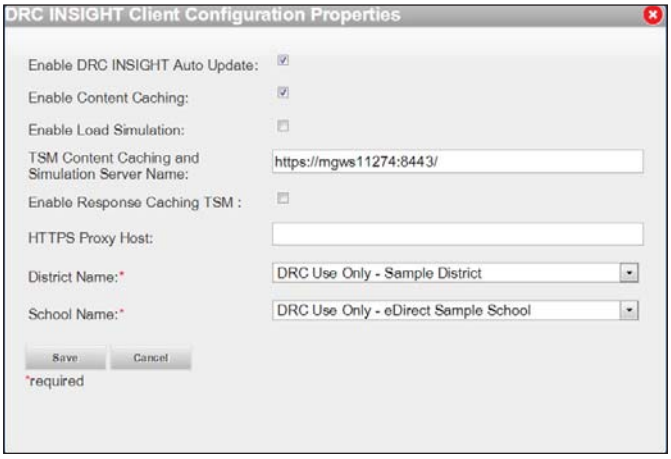
   To connect to a TSM, click **DRC Properties** to display the **DRC INSIGHT Client Configuration** window (see "Setting DRC INSIGHT Properties" on page 169 for details), enter your changes, and click **Save**.

   - If you specified Content Caching, check **Enable Content Caching** and enter the secure path to that TSM server.
   - If you will be using Load Simulation, check **Enable Load Simulation** and enter the secure path to that TSM server.
   - If you specified Response Caching, check **Enable Response Caching TSM** (see Step 10 of "Quick Tour 5: Installing a TSM for Linux" on page 71).



Quick Tour 6: Installing INSIGHT for Linux

7. Select your school district and school from the drop-down menus. This information is required and will be used for load simulation reports. Click **Save**.



8. Click **Execute Tests** to verify that the testing computer and any TSM(s) are configured correctly. Click the **Details** button next to any test that you need more information about (see "Resolving System Readiness Required Tests" on page 165).

9. The System Readiness Check runs and displays the results for the testing computer.

   You can click **Details** to view the details of a test, or click **Execute Tests** to rerun the tests (see "The System Readiness Check" on page 159)

   When you are ready, click **Exit**.

Managing the TSM

This section describes how to start and stop the TSM from a command line and how to remove a TSM.

Starting and Stopping the TSM from the Terminal

After the TSM software is installed, the Linux Administrator must start the associated service. The Linux Administrator can start or stop the TSM services in Terminal mode by using the start and stop commands as shown in the following example:

```
sudo /opt/TestingSiteManager/TESTING_SITE_MANAGER start

sudo /opt/TestingSiteManager/TESTING_SITE_MANAGER stop
```

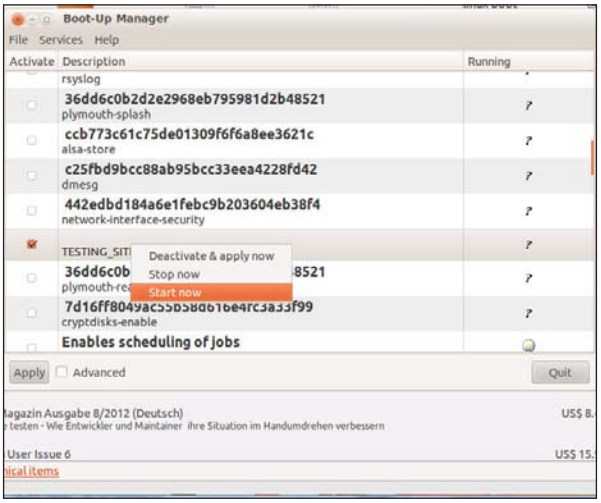
Starting and Stopping the TSM Using the Boot-Up Manager Software

A Linux Administrator also can use the Boot-Up Manager to stop or start a service, and define whether to launch a service automatically on startup.

> **Note:** The Boot-Up Manager software is installed automatically with the TSM. You also can install it from the Ubuntu Software Center, or by using the **apt-get install bum** command.

To start the TSM service, stop the TSM service, or launch the TSM service automatically at startup, do the following:

1. Start the Boot-Up Manager.
2. Locate **TESTING_SITE_MANAGER**.
3. Check the **Activate** checkbox to launch the service automatically on startup. To start or stop the service, right-click and select **Start now** or **Stop now**.



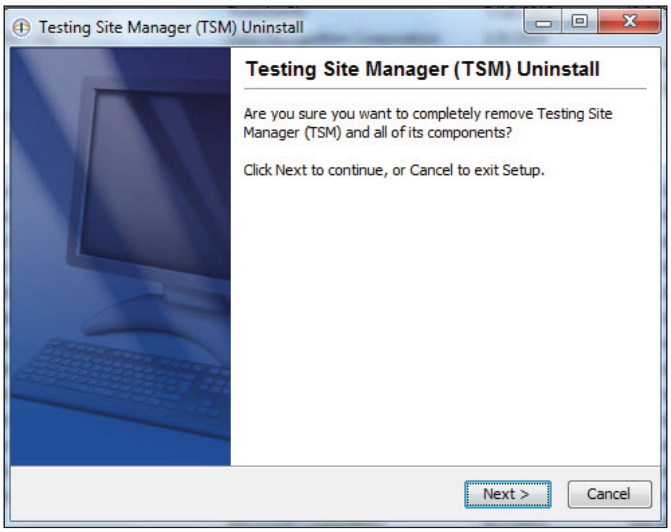
Uninstalling the TSM

Before you attempt to uninstall the TSM, verify that there are no unsent responses in the TSM. If there are any unsent responses, you cannot uninstall the TSM.

To uninstall the TSM, perform the following steps:

1. Start Terminal mode.
2. Navigate to the TSM directory, /opt/TestingSiteManager.
3. Enter the command **sudo sh uninstall**
4. Click **Next** when the Uninstall Wizard displays (see the figure), follow the prompts, and click **Finish** when you are done.

   Note: The uninstallation process may leave log or configuration files in the installation directory or the user home folder. You can ignore these files, or delete them using the **rm** command.



Uninstalling the TSM

Note: If you are unable to remove a TSM, please contact DRC Technical Support.

Managing INSIGHT

This section describes how to install INSIGHT from the terminal or command line, and how to uninstall INSIGHT using the Synaptic Package Manager or by command.

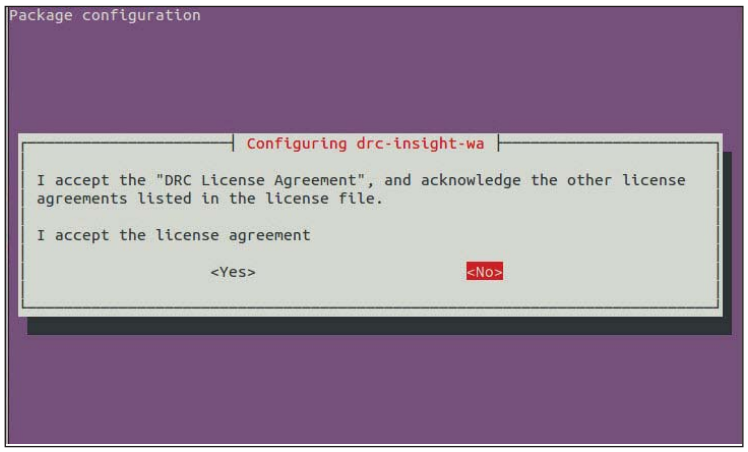
Installing INSIGHT Using the Terminal

To install INSIGHT in the Terminal, do the following:

1. Log on to eDIRECT, select **Test Setup–General Information–Downloads** and click on the Linux Installer icon to download the INSIGHT setup file—DRC_INSIGHT_Setup_i386.deb for 32-bit machines, or DRC_INSIGHT_Setup_amd64.deb for 64-bit machines—to your testing computer.

   Note: Depending on the web browser you are using, a pop-up window may display. If it does, click **Save File**. Other browsers automatically download the installation file to your Downloads folder.

2. Open the Terminal and navigate to your Downloads directory.
3. Enter the command **sudo dpkg -i DRC_INSIGHT_Setup_i386.deb** or **DRC_INSIGHT_Setup_amd64.deb** and press **Enter**.
4. Tab to the **Yes** field under I accept the license agreement and press **Enter**.



Installing INSIGHT from a Command Line

The INSIGHT installation places a silent install shell script (silent_installer.sh) in the install directory. You can use this file to silently install INSIGHT in a Linux environment. Move the silent installer to the directory where the installer is located.

INSIGHT Installation Program Options

The following table shows the custom properties available for the installation program

Property	Specifies	Description	Default Value
-l	LCSURL	The URL and secure port of the TSM server that caches test responses. Replace **localhost** with the name or IP address of the TSM server.	None
-p	HTTPs Proxy Host	The URL and secure port of the proxy host server.	None
-a	Auto update	Enables and disables the automatic update feature.	False
-d	District ID	Specifies the District ID for Load Simulation Testing. You must use the District ID code that DRC has listed for your site in the locations file.	None
-s	School ID	Specifies the School ID for Load Simulation Testing. You must use the School ID code that DRC has listed for your site in the locations file.	None
-c	Content Cache URL	The URL and secure port of the TSM server that caches test content and performs load simulation tests. Replace **localhost** with the name or IP address of the TSM server.	None
-u	Enables Content Caching	Enables and disables a TSM for content caching. If this is true, include the CONTENTCACHE property to specify the TSM that will perform content caching.	False
-i	Enables Content Cache for Load Simulation	Specified that load simulation testing is enabled for the testing computer. If this is true, include the CONTENT CACHE URL property to specify the TSM that will perform load simulation tests. You also must specify the District ID and School ID.	False

Installation Command Syntax and Example

The following is the syntax for the install program command:

silent_installer.sh <properties>

The following is an example of the command you would run using the terminal from the folder where both the install file and the silent_installer.sh file are located. The example installs the software in silent mode, specifies the TSM location for each type of caching—response and content, enables load simulation testing, specifies a school district ID, a school ID, enables automatic software updates, and specifies a proxy host.

sudo sh silent_installer.sh -l "https://responsetsm:8443" -p "https://proxyserver:34543" -a true -c "https://contenttsm:8443" -u true -i true -d 88888 -s 8883

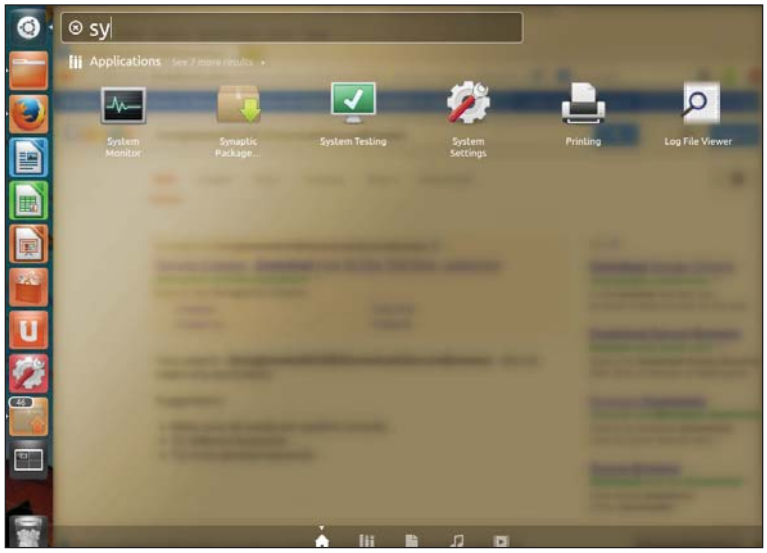
Uninstalling INSIGHT Using the Synaptic Package Manager

The Synaptic Package Manager is a graphical Linux tool to help you uninstall and remove software packages.

Note: You can install the Synaptic Package Manager by using the Ubuntu Software Center.

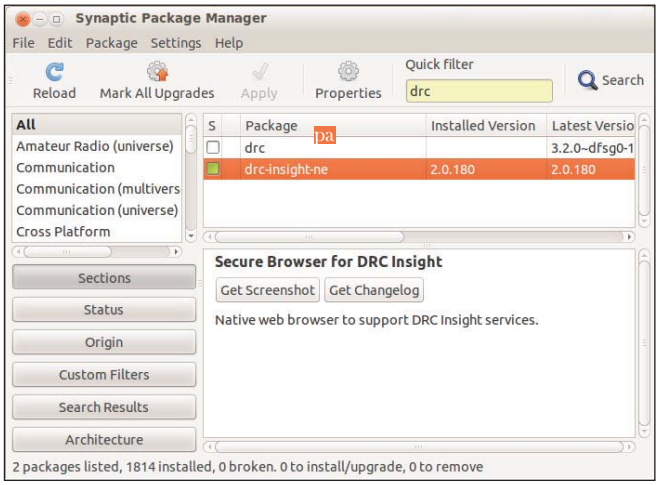
To uninstall INSIGHT, perform the following steps:

1. Start the Synaptic Package Manager by clicking on the **Synaptic Package Manager** icon in Applications.

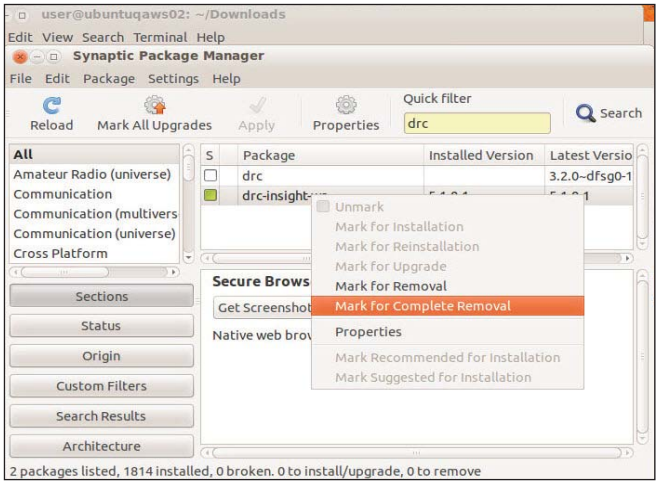


Uninstalling INSIGHT Using the Synaptic Package Manager (cont.)

2. From the Synaptic Package Manager, search for the string **drc** in the Quick Filter window.

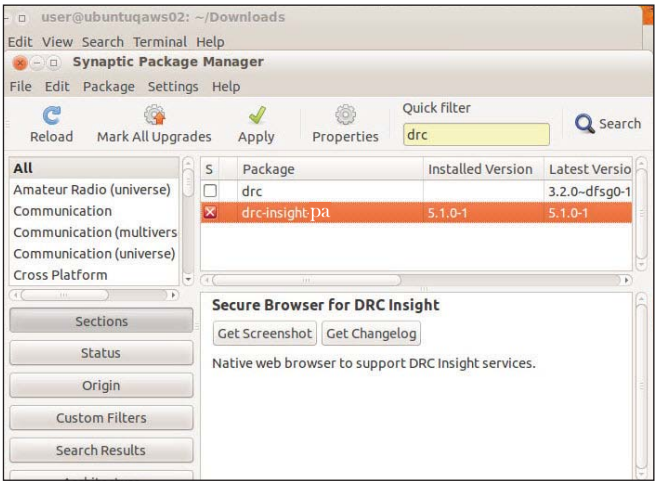


3. Select **drc-insight-pa** and right-click on it. In the drop-down menu that displays, select **Mark for Complete Removal**.

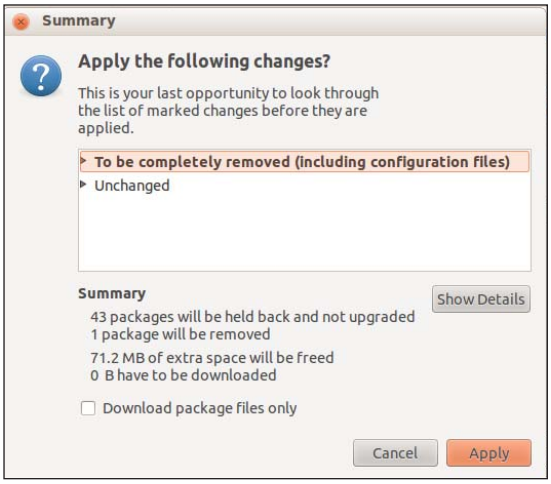


Uninstalling INSIGHT Using the Synaptic Package Manager (cont.)

4. A red icon with a white x inside of it displays next to drc-insight-pa. On the Synaptic Package Manager toolbar, click **Apply**.

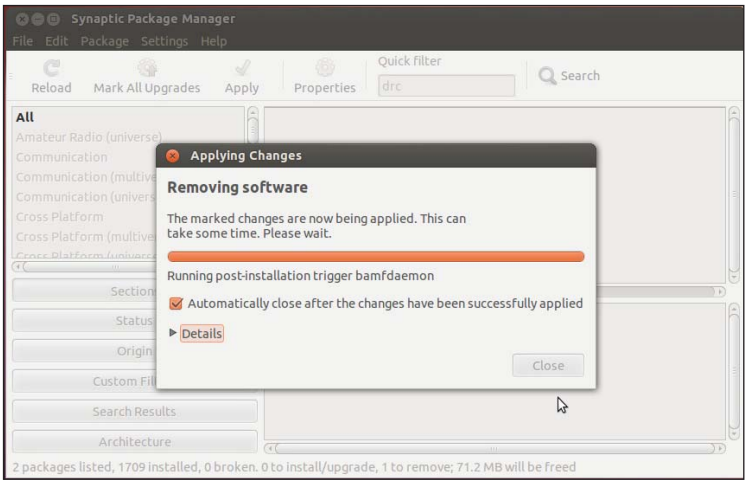


5. The **Apply the following changes?** dialog box displays. Select **To be completely removed (including configuration files)** and click **Apply**.



Uninstalling INSIGHT Using the Synaptic Package Manager (cont.)

6. The Synaptic Package Manager removes the INSIGHT software package (drc-insight-pa).



Note: After you are finished uninstalling INSIGHT, if you see any files or folders remaining that you want to remove, you can remove them using the **rm** command (see Cleanup below). If you have any questions, please contact DRC Technical Support.

Uninstalling INSIGHT Manually

In a Linux environment, the command line tool for adding, removing, and updating software packages is apt-get. To remove INSIGHT, you can use the following command in terminal mode:

sudo apt-get remove drc-insight-pa

Cleanup

The Linux apt-get uninstall may leave files behind, such as the drcconfiguration.json file. If this file still exists when you attempt a new installation, the settings for the new installation will not take effect. Use the following command from a Linux terminal to fully uninstall INSIGHT and remove its files.

sudo rm –rf /opt/PA\ Online\ Assessment\ System/

Note: For commands entered from a Linux terminal, the combination of backslash space (\ ) indicates a space.

Installing and Configuring INSIGHT on iPad Devices

What's Covered in This Chapter

This chapter describes the process of installing and configuring INSIGHT for iPad devices in an iOS environment. It provides detailed information about installing INSIGHT and configuring it to use the Testing Site Manager (TSM).

Distributing and Configuring INSIGHT to iPad Devices

There are two main parts to the process of setting up an iPad device to test with the INSIGHT App—distribution and configuration.

- To *distribute* (deploy) the INSIGHT App (DRC INSIGHT.ipa) you must use a Mobile Device Management (MDM) software tool.

  MDM software can secure, monitor, manage, and support mobile devices deployed across mobile operators, service providers, and enterprises.

- To *configure* the iPad to work with the INSIGHT App, you have two options:

  - *If your MDM software supports the Managed App Configuration feature*, you can use the MDM software to deploy the INSIGHT configuration file to all of the iPad devices. In other words, you can centrally configure multiple iPad devices using the MDM software.

    Using an MDM software tool with the Managed App Configuration feature is the preferred method of distributing the same configuration file to the iPads. It is easier and less error-prone to send the same TSM configuration to multiple iPads than to manually edit the configuration on each device.

  - *If your MDM software does not support the Managed App Configuration feature*, you can use the MDM software to distribute the INSIGHT App to the iPad devices, but you must manually configure each iPad by using the System Readiness Check.

Installing and Configuring INSIGHT Using an MDM Solution

To install INSIGHT on one or more iPads you must use MDM software. The process of installing and configuring INSIGHT on multiple iPads using an MDM solution is summarized below. This process assumes that you have already installed and set up an MDM solution and have enrolled all the iPads using the MDM tool.

Important: There are many versions of MDM software. To *deploy and configure* your DRC INSIGHT iPad software, your MDM software must support the Managed App Configuration feature (first introduced in iOS 7). This feature is necessary to perform Steps 2 and 3. Otherwise, you must configure your iPads manually.

1. **Configure the iPad Group**

   If your MDM software allows, within the MDM configure the iPad group to turn off Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization, and enable/activate Guided Access.

   Important: For iOS levels 8.1.3 and higher, Apple introduced configuration profile options to restrict access to spelling and definition features for supervised iPad devices. For these devices, you can use key values to disable access to definition lookup for highlighted words, spell check and auto-correction while typing, and predictive keyboard. For more information about using these options and key values with supervised devices, refer to http://support.apple.com/en-us/HT204271.

2. **Configure INSIGHT**

   Download the DRC INSIGHT executable (DRC INSIGHT.ipa) and configuration (ManagedAppConfig.plist) files from DRC eDIRECT and edit the configuration file to specify your TSM connection and other configuration information for the iPad group (see “Installing INSIGHT for iOS Using an MDM Solution” on page 93).

3. **Deploy INSIGHT**

   Deploy the DRC INSIGHT executable and edited configuration files to your iPads using your MDM software.

Installing and Configuring INSIGHT Using an MDM Solution (cont.)

4. Prepare the iPads for Testing

When you are ready to start testing, start the iPad and use **Settings–General–Keyboard** to verify that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are disabled. If they are not, disable them. Also verify that the English keyboard is the only keyboard that is active.

Verify that the Guided Access feature is on to put the iPad into Kiosk Mode (required for testing). If it is not, specify **Settings–General–Accessibility–Learning–Guided Access** to turn it on and select **Set Passcode** to set the passcode. If an external Bluetooth keyboard is required, pair the iPad with one. Launch the DRC INSIGHT App.

Note: To put the iPad into Kiosk Mode, Technology Coordinators must provide a numeric passcode. This same passcode information is necessary to exit the INSIGHT App during or after testing.

Installing INSIGHT Using an MDM Solution and Configuring It Manually

The process of installing INSIGHT using an MDM solution and configuring it manually is summarized below. This process assumes that you have already installed and set up the MDM software and have enrolled all the iPads using the MDM software.

1. **Configure the iPad Group**

   If your MDM software allows, configure the iPad group to turn off Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization, and enable/activate the Guided Access feature.

   Important: For iOS levels 8.1.3 and higher, Apple introduced configuration profile options to restrict access to spelling and definition features for supervised iPad devices. For these devices, you can use key values to disable access to definition lookup for highlighted words, spell check and auto-correction while typing, and predictive keyboard. For more information about using these options and key values with supervised devices, refer to http://support.apple.com/en-us/HT204271.

2. **Download the DRC INSIGHT Executable File**

   Download the DRC INSIGHT executable (DRC INSIGHT.ipa) file from DRC eDIRECT.

3. **Deploy INSIGHT**

   Deploy the DRC INSIGHT executable to your iPads using your MDM software.

4. **Configure INSIGHT Manually**

   Edit the configuration of each iPad device manually by using the System Readiness Check (see “Configuring an iPad Manually” on page 101).

5. **Prepare your iPads for Testing**

   When you are ready to start testing, start the iPad and use **Settings–General–Keyboard** to verify that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are disabled. If they are not, disable them. Also verify that the English keyboard is the only keyboard that is active.

6. Verify that Guided Access is on to put the iPad into Kiosk Mode (required for testing). If it is not, specify **Settings–General–Accessibility–Learning–Guided Access** to turn it on and select **Set Passcode** to set the passcode. If an external keyboard is required, pair the iPad with an external keyboard. Launch the DRC INSIGHT App.

   Note: To put the iPad device into Kiosk Mode, TCs must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing.

■ Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted) if you are using the machine IP address instead of the machine name to connect to the TSM. If the IP address of a TSM machine changes, you must reconfigure the testing devices that connect to that TSM.
- You should install the TSM *before* you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the testing devices that connect to it.

❑ iPads and the TSM

A TSM is used primarily to cache and manage test content and responses. For various reasons, iPad devices do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine and connect to the TSM when you install INSIGHT on the iPad device.

For specific TSM installation instructions, refer to the appropriate installation chapter.

Installing INSIGHT for iOS Using an MDM Solution

You install INSIGHT on one or more iPads using Mobile Device Management (MDM) software. To configure INSIGHT from a central location and distribute the configuration to one or more iPads, you must use an MDM solution that supports the Managed App Configuration feature. If your MDM software does not support this feature, you must configure INSIGHT manually (see "Configuring an iPad Manually" on page 101).

The following steps describe the process of installing and configuring DRC INSIGHT using an MDM tool with the Managed App Configuration feature.

1. Install an MDM solution.
2. Enroll the iPads using the MDM tool.
3. If the MDM software allows you to configure the iPad group, make the following system settings:
   - Turn Check Spelling off.
   - Turn Predictive Text off and delete the Emoji keyboard (see "iOS 8-Predictive Text and the Emoji Keyboard" on page 97).
   - Turn Auto-Correction off.
   - Turn Auto-Capitalization off.
   - Enable and activate Guided Access.

   Important: For iOS levels 8.1.3 and higher, Apple introduced configuration profile options to restrict access to spelling and definition features for supervised iPad devices. For these devices, you can use key values to disable access to definition lookup for highlighted words, spell check and auto-correction while typing, and predictive keyboard. For more information about using these options and key values with supervised devices, refer to http://support.apple.com/en-us/HT204271.

   Notes:

   - Some MDM software allows you to configure Guided Access as part of the iPad software deployment process. You still must enable Guided Access at testing time.
   - To put the iPad device into Kiosk Mode, Technology Coordinators (TCs) must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during or after testing (see "Working with Guided Access" on page 96).
4. Go to **https://pa.drcedirect.com**, log on, and download the DRC INSIGHT executable (DRC INSIGHT.ipa) and configuration (ManagedAppConfig.plist) files from **Test Setup–General Information–Downloads**.

Installing INSIGHT for iOS Using an MDM Solution (cont.)

5. In the MDM software, edit the DRC INSIGHT configuration file to supply the values for your TSM configuration. You must use the values from the DRCConfiguration.json file. This file is created whenever you install DRC INSIGHT and contains the parameters you specified when you used the System Readiness Check to configure INSIGHT and the TSM.

   If DRC INSIGHT is already installed on a Windows, Mac (OS X), or Linux machine, you can locate the file in the following directories and skip to Step 9. Otherwise, go to Step 6.

   Windows: C:\Program Files (x86)\PA Online Assessment System\DRCConfiguration.json (64-bit) or C:\Program Files\PA Online Assessment System\DRCConfiguration.json (32-bit)

   Mac (OS X): Applications/PA Online Assessment System/DRCConfiguration.json

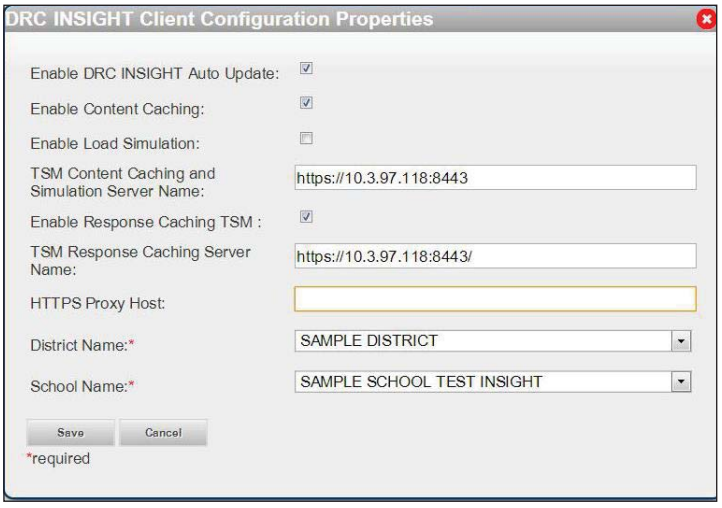
   Linux: /opt/PA Online Assessment System/DRCConfiguration.json

6. At this point, you have two options. You can install DRC INSIGHT on a Windows, Mac, or Linux-based desktop computer (not on a Chromebook or iPad) and perform Steps 7–11. Or, refer to "INSIGHT Installation Program Options" on page 99 for a description of the parameters that are in the .json file and use this information to edit the ManagedAppConfig.plist file (Step 9).

7. Start the System Readiness Check by selecting **All-Programs–PA Online Assessment System–Readiness** (Windows), or **/Applications/PA Online Assessment System/Readiness** (Mac), or **/Opt/PA Assessment System/Readiness** (Linux), and click **DRC INSIGHT Properties** in the System Information page.

8. Configure access to the TSM using the drop-down menus and fields from the DRC INSIGHT Client Configuration Properties dialog box and click **Save** to save your changes.

   The values from this page are used to create the DRCConfiguration.json file (see "Configuring an iPad Manually" on page 101).



9. Open the DRCConfiguration.json file and the ManagedAppConfig.plist file in a text editor and copy the values from the DRCConfiguration.json file into the ManagedAppConfig.plist file.

10. Using the MDM's deployment feature, distribute the executable and the edited configuration files—DRC INSIGHT.ipa and ManagedAppConfig.plist—to the iPad devices in the group.

Installing INSIGHT for iOS Using an MDM Solution (cont.)

11. After you have finished deploying INSIGHT, verify that check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are disabled and disable them if necessary.

12. Verify that Guided Access is configured (required to put the iPad into Kiosk Mode for testing). To configure Guided Access, specify **Settings–General–Accessibility–Learning–Guided Access**. Turn Guided Access on and select **Set Passcode** to set the passcode.

13. An external keyboard is recommended for testing and required for assessments that include constructed-response items (tests containing questions that require text entry). If an external keyboard is required and you did not use the MDM software to pair the iPad device with an external keyboard, manually pair each iPad device with an external keyboard.

Note: Both wired and wireless keyboards are supported for testing.

14. Launch the DRC INSIGHT App and triple-click the Home button quickly to enable Guided Access.

■ Working with Guided Access

This section describes some helpful hints for working with the Apple Guided Access feature. Refer to Guided Access documentation for additional information.

❑ Configuring Guided Access

To configure the Guided Access feature, do the following:

1. Select **Settings–General–Accessibility (Learning)–Guided Access**.
2. Turn Guided Access on and click **Set Passcode**.
3. Enter and re-enter a four-digit passcode. You need this passcode to enter and exit an INSIGHT session on an iPad while testing.
4. Click the Home button to exit Settings.

❑ Enabling Guided Access

To enable the Guided Access feature, do the following:

1. Open the INSIGHT App.
2. Triple-click the Home button quickly. The message **Guided Access Enabled** displays and the user cannot leave the App.
3. To exit the INSIGHT App, triple-click the Home button quickly and enter the four-digit passcode you used to configure Guided Access.
4. The screen display changes and allows you to End (end the App) and Resume (resume the App with Guided Access activated). Press **End** to end the App and **Exit** to exit INSIGHT.

❑ Parts of Touchscreen Disabled

To troubleshoot touchscreen issues, do the following:

1. Triple-Click the Home button.
2. Enter the four-digit Guided Access passcode.
3. Verify that **Ignore All Screen Touches** is disabled.
4. Check for gray circles on the screen. If any exist, delete them.
5. Press **Resume**.

❑ Enable Volume Rocker

To enable the volume rocker, do the following:

1. Triple-click the Home button.
2. Enter the four-digit Guided Access passcode.
3. Select **Options**.
4. Turn on the Volume.
5. Press **Resume**.

iOS 8—Predictive Text and the Emoji Keyboard

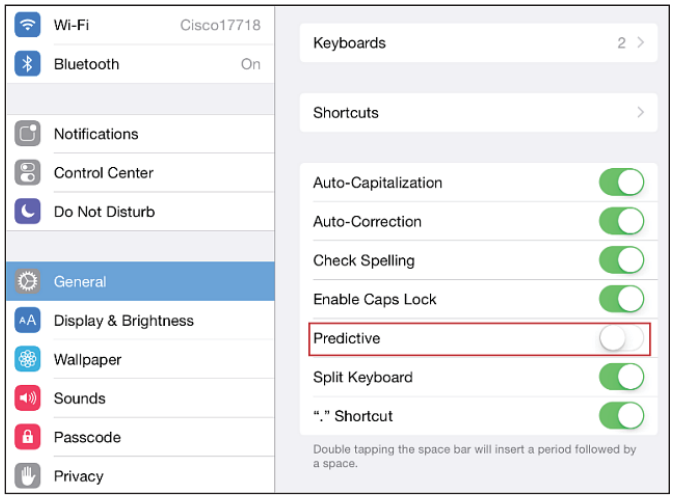
The iOS 8 level of Apple's mobile operating system provides a feature called Predictive Text. When this feature is enabled, the operating system displays a menu above the iPad's internal keyboard. The operating system software uses this menu to attempt to predict the word the user is typing. Instead of having to type the entire word, the user can tap the box above the keyboard that contains the suggested word to insert the word into the text.

Important: If you test using iOS 8, you must disable the Predictive Text feature and delete the Emoji keyboard to prevent the operating system from enabling the Predictive Text feature again. This feature must be disabled to ensure the validity of student test results. Failure to do so may give some students advantages over other students.

Disabling Predictive Text

To disable the Predictive Text feature, do the following:

1. Select **Settings–General–Keyboard–Predictive**.

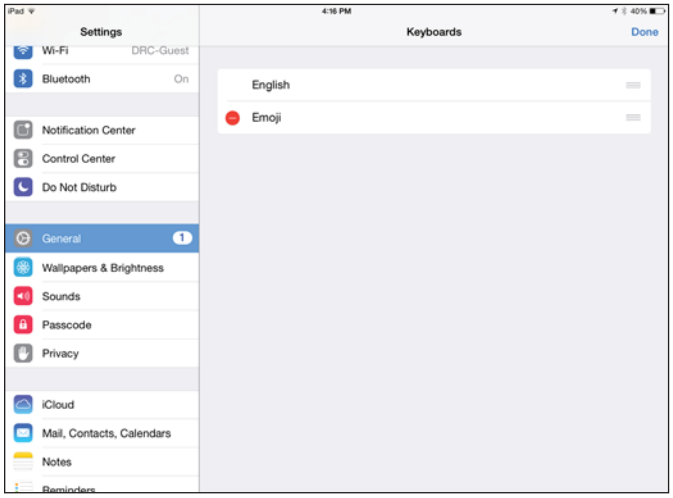


2. Turn **Predictive** off.

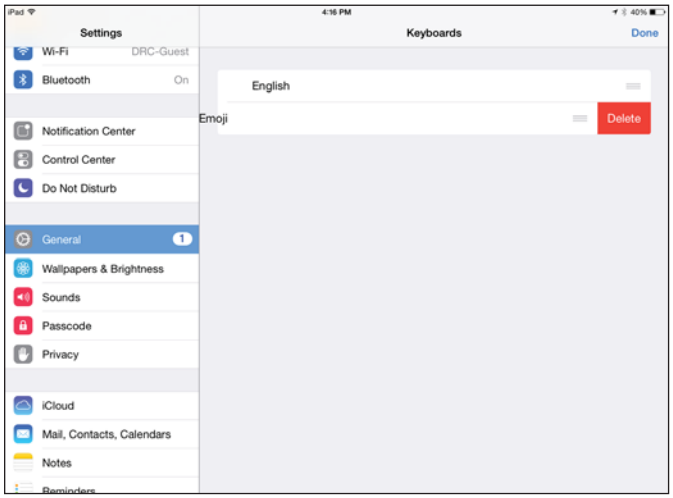
Deleting the Emoji Keyboard

To disable Predictive Text and prevent it from being re-enabled in iOS 8, you also must delete the Emoji keyboard. To delete the Emoji keyboard, do the following:

1. Select **Settings–General–Keyboard–Keyboards–Edit** (top right corner).The Edit display changes to Done and a red Remove icon (⊖) displays next to Emoji.



2. Press the red Remove icon (⊖) and press **Delete** when it displays.



3. Verify that the student is using an English keyboard.
4. Click the Home button to exit Settings.

INSIGHT Installation Program Options

The following table shows the custom properties that are available for the installation program.

Important: Ignore the adminId, adminName, and requireLatestVersion properties in the DRC Configuration.json file.

Property/Switch	Description	Default Value
autoUpdateFlag	Enables and disables the automatic update feature.	True
contentCache	The URL and secure port of the TSM server that caches test content and performs load simulation tests. Replace **localhost** with the name or IP address of the TSM server.	https://localhost:8443/
contentCacheEnable	Enables and disables a TSM for content caching. If true, include the contentCache property to specify the TSM that will perform content caching.	False
districtId*	The district ID for load simulation testing.	None
districtName*	The district name for load simulation testing.	None
httpsProxy	The URL and port of the proxy host server. Depending on your configuration, this URL can start with either http:// or https://	Blank
lcsURL	The URL and secure port of the TSM server that caches test responses. Replace **localhost** with the name or IP address of the TSM server.	https://localhost:8443/
loadSimulationEnable	Specifies that load simulation testing is enabled for the testing computer. If true, include the contentCacheEnable property set to true and the contentCache property to specify the TSM that will perform load simulation tests. You also must specify districtName, districtId, schoolName, and schoolId.	True
schoolId*	The school ID for load simulation testing.	None
schoolName*	The school name for load simulation testing.	None

*To determine the ID or name, use the name and/or numeric code from the locations file located at **https://pa-insight.drcedirect.com/InsightClientRESTServices/ClientRESTService.svc/locations** (see Using the Locations File on the following page.).

INSIGHT Installation Program Options (cont.)

Using the Locations File

To locate district and school names and IDs, do the following:

1. Paste the locations file link into a browser and open it (download the file into a text editor if necessary).
2. Search for the string **district_name** to locate the district name and ID (to the left).
3. Search for the string **school_name** to locate the school name and ID (see below).

   {"**districtid**":"88888","**district_name**":"Sample District","schools":{"**schoolid**":"8888","**school_name**":"Sample School"}

Example Configuration (.plist) File

The following is an example of the configuration (.plist) file.

Important: Do not cut and paste this information—it is meant as an example only.

```
<plist>

<dict>

<key>adminName</key><string></string>

<key>autoUpdateFlag</key><string>true</string>

<key>contentCache</key><string>https://10.3.97.11:8443/</string>

<key>contentCacheEnable</key><string>true</string>

<key>districtId</key><string>88888</string>

<key>districtName</key><string>Sample District</string>

<key>httpsProxy</key><string>http://10.3.98.61:8081</string>

<key>lcsURL</key><string>https://10.3.97.11:8443</string>

<key>loadSimulationEnable</key><string>true</string>

<key>schoolId</key><string>8888</string>

<key>schoolName</key><string>Sample School</string>

</dict>

</plist>
```

Configuring an iPad Manually

If your MDM software does not support the Managed App Configuration feature, you can use it to deploy INSIGHT, but you must configure INSIGHT manually. You configure an iPad manually by using the DRC INSIGHT properties to specify certain DRC INSIGHT properties for your iPad device. You can do the following:

- Enable automatic software updates.
- Specify settings for both your unsecured (http) and secured (https) host servers.
- Specify which server is the content caching and/or load simulation TSM server, and the port it uses for communication.
- Specify which server is the response caching TSM server and the port it uses for communication.
- Select the district and school name associated with the testing device (required).

You specify these properties by selecting **DRC INSIGHT Properties** (see "Setting DRC INSIGHT Properties on an iPad" on page 102). After you have finished, disable Check Spelling, Predictive Text, Auto-Correction, and Auto-capitalization, and enable/activate the Guided Access feature to put the iPad into Kiosk Mode (required for testing).

To turn on the Guided Access feature, specify **Settings**–**General**–**Accessibility**–**Learning**–**Guided Access**. Turn Guided Access on and select **Set Passcode** to set the numeric passcode.

Note: To put the iPad device into Kiosk Mode, TCs must provide a passcode (numeric password). This same passcode information is necessary to exit the INSIGHT App during and after testing. This passcode must be secure—do not allow students to have the passcode (see "Working with Guided Access" on page 96).

If an external Bluetooth keyboard is required, pair the iPad with a keyboard and launch the DRC INSIGHT App.

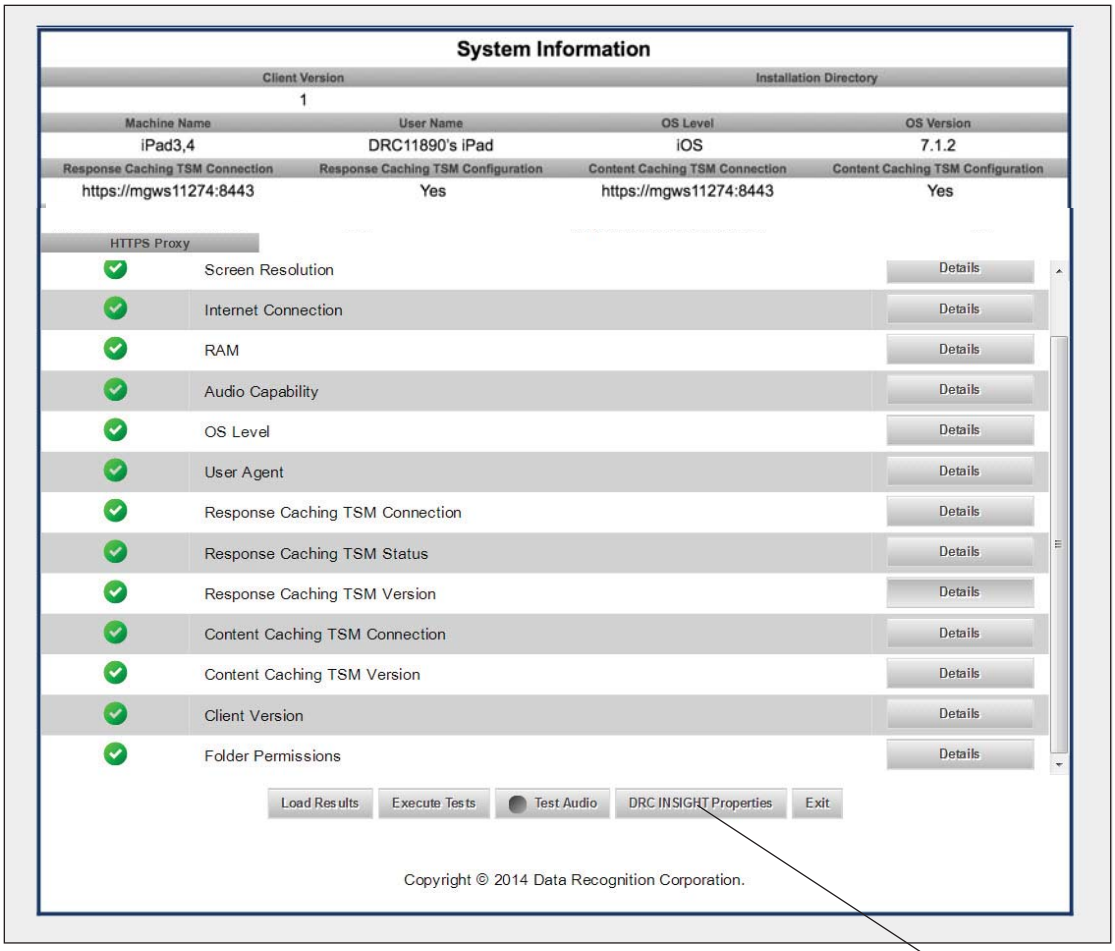
Setting DRC INSIGHT Properties on an iPad

When you start the System Readiness Check on an iPad, you can select INSIGHT Properties from the System Information page. A dialog box displays that you can use to configure the iPad to work with DRC INSIGHT and a TSM.

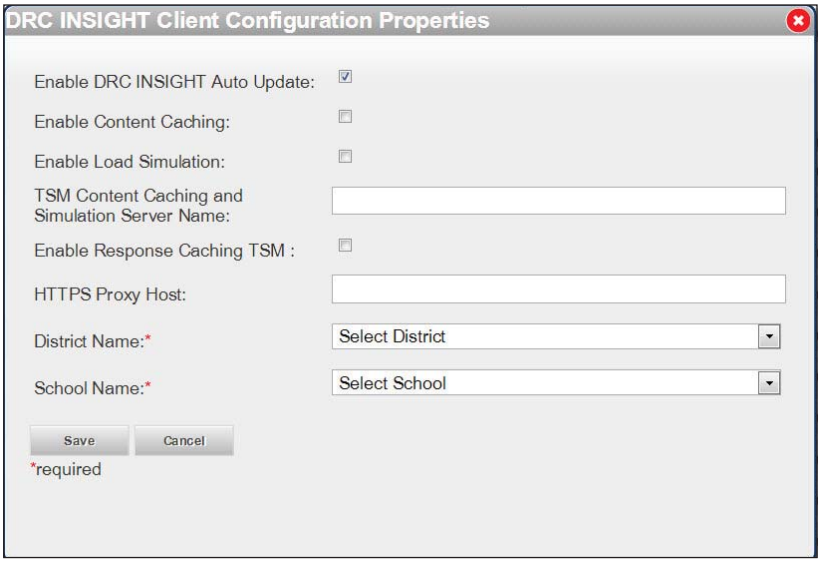
1. Press **DRC INSIGHT** to start INSIGHT.

2. In an empty part of the screen, press with two fingers and hold to display the System Readiness Check.

Setting DRC INSIGHT Properties on an iPad (cont.)



3. Click **DRC INSIGHT Properties** to display the DRC INSIGHT Client Configuration Properties dialog box. From this dialog box you can review your INSIGHT configuration and make changes to it.

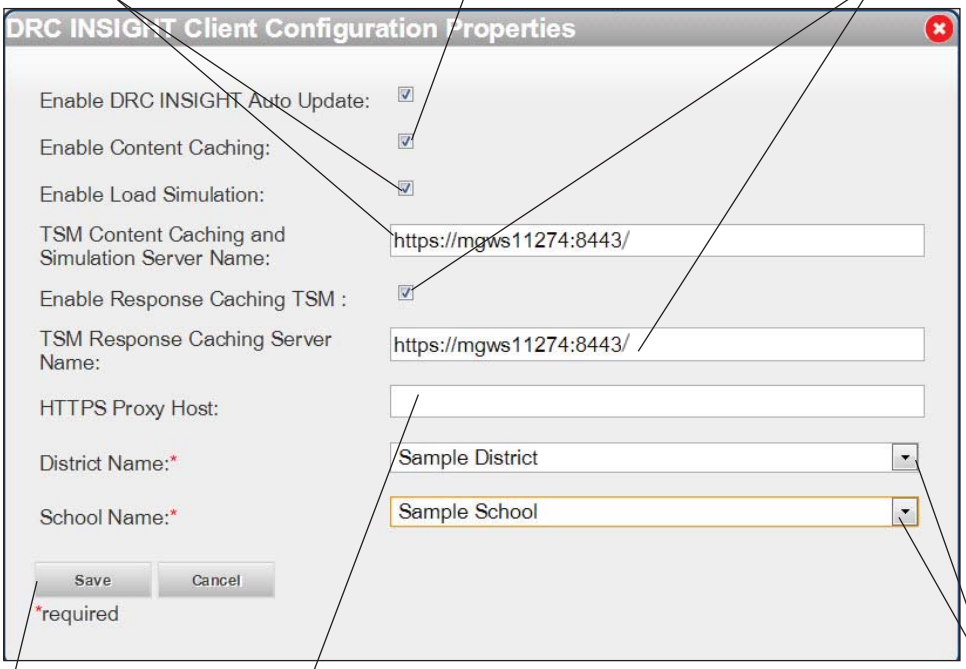


Setting DRC INSIGHT Properties on an iPad (cont.)

3a. To specify a server to use for test content caching, check **Enable Content Caching** and enter the server name (or IP address*) and port number in the TSM Content Caching and Simulation Server Name field.

3b. To specify a server to use for load simulations, check **Enable Load Simulation** and enter the server name (or IP address*) and port number (separated by a colon), followed by a forward slash (/), in the TSM Content Caching and Simulation Server Name field.

3c. To specify a server to use for test response caching, check **Enable Response Caching TSM** and enter the server name (or IP address*) and port number (separated by a colon), followed by a forward slash (/), in the TSM Response Caching Server Name field.



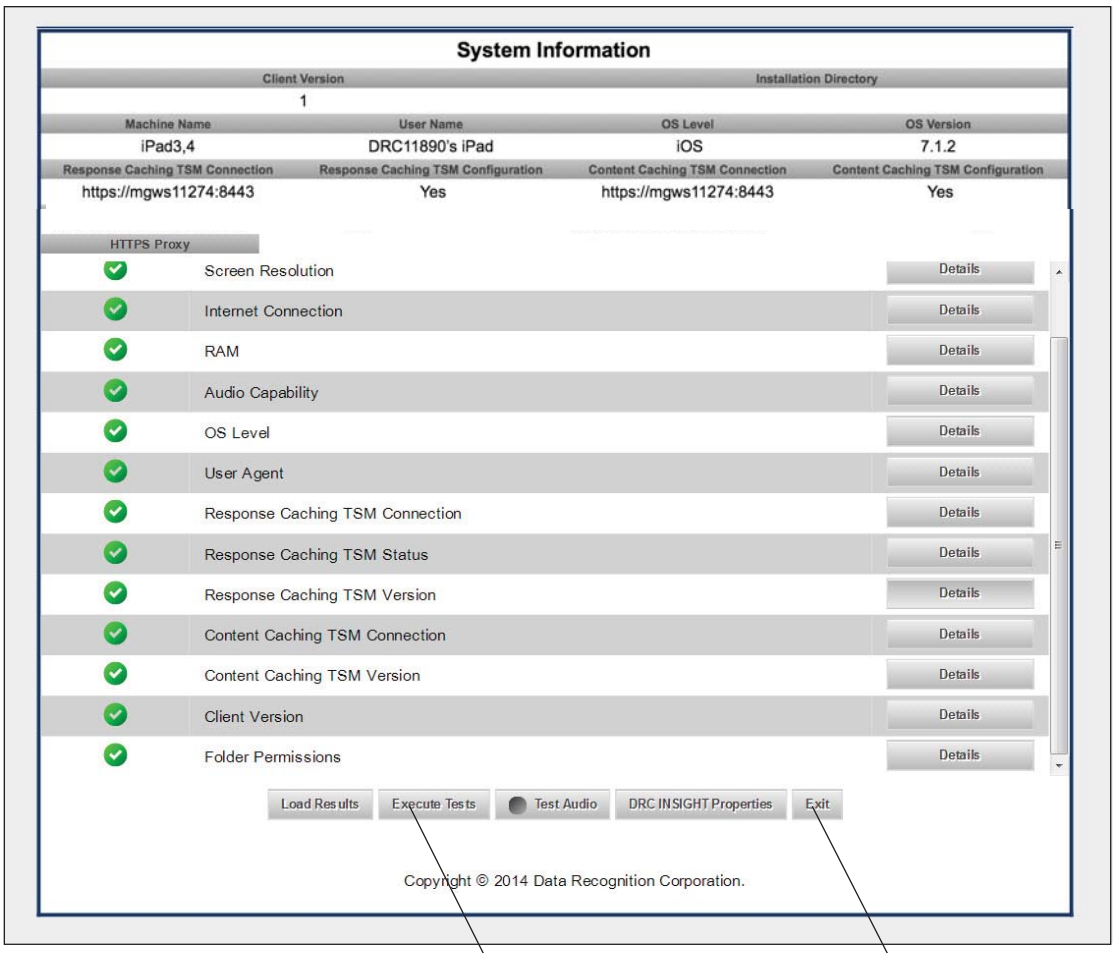
3d. To specify a proxy HTTPS (secured) Host to use for the TSM, enter the server name (or IP address*) and port number (separated by a colon), followed by a forward slash (/), in the HTTPS Proxy Host field. You may need to restart the DRC INSIGHT App to see this change.

3e. Select the district and school for the testing device from the **District Name** and **School Name** drop-down menus. These names are used for the reports generated from the load simulations tests.

4. Press **Save** to save your changes or **Cancel** to cancel them.

Important: *A TSM server should have a static IP address (an IP address that does not change when the computer is restarted or rebooted) if you are using the machine IP address instead of the machine name to connect to the TSM. If the IP address of a TSM machine changes, you must reconfigure the testing devices that connect to that TSM. Remember to include the forward slash (/) at the end of the path to the TSM server—without it, your TSM may not be configured correctly.

Setting DRC INSIGHT Properties (cont.)



5. If you made any configuration changes, the System Information window displays the results of the System Readiness Check tests for those changes. Click **Execute Tests** to verify that the iPad is ready for testing. If there are errors, you must resolve them and repeat Steps 4 and 5.

6. Click **Exit**. Disable Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization, and turn on the Guided Access feature to put the iPad into Kiosk Mode (required for testing) .

Note: Apple requires a passcode (numeric password) to activate Guided Access. This passcode must be secure—do not allow students to have the passcode.

If an external Bluetooth keyboard is required, pair the iPad with a keyboard and relaunch the DRC INSIGHT App.

Notes

Installing and Configuring INSIGHT on Chromebook Devices

What's Covered in This Chapter

This chapter describes the INSIGHT installation and configuration process for non-touch-screen Chromebook devices. It provides detailed information about installing INSIGHT and configuring it using the Device Toolkit.

DRC provides software called the Device Toolkit that you can use to configure and install the TSM with the Chromebooks in your environment. You use this software after you have installed, configured, and registered your Chromebooks. You must register your Chromebooks in your Google domain account (see https://support.google.com/a/answer/182433).

Two Ways to Set Up INSIGHT on Chromebooks

The following are overviews of two variations to the process of installing, configuring, and deploying INSIGHT on your Chromebook devices. For either variation you must install and deploy INSIGHT, set up organization units (ORG Units) using the Device Toolkit, and register each Chromebook device to its ORG Unit. The main difference between the two variations is based on the timing of the deployment, which affects the order of the steps in the process.

Variation A
In Variation A, you wait until Chrome device management deploys INSIGHT as part of its regular cycle.

1. Use Chrome device management to install and deploy INSIGHT to your Chromebook devices. The INSIGHT App is installed as a Kiosk application the next time the policy is reloaded, which occurs every three hours.
2. While you are waiting for INSIGHT to be deployed, use the DRC Device Toolkit to create ORG Units.
3. After INSIGHT is deployed, start it on each Chromebook device and register the device to an ORG Unit using the drop-down menu.

Variation B
In Variation B, you use Chrome device management to deploy INSIGHT immediately.

1. Use the DRC Device Toolkit to create ORG Units.
2. Use Chrome device management to install and deploy INSIGHT to the Chromebook devices immediately. To deploy the INSIGHT App immediately, enter **chrome://policy** in the address bar of the Chromebook and click **Reload policies**.
3. On each Chromebook, start INSIGHT on each Chromebook device and register the device to an ORG Unit using the drop-down menu.

■ Chromebook Installation and Configuration Checklist

To test using INSIGHT, you can connect to a TSM for content caching, response caching, load simulation testing, and other functions. The following is a brief overview of the process of installing INSIGHT and configuring a Chromebook.

1. To use a TSM, install one or more TSMs on desktop or laptop computers that have static IP addresses (if you use the machine's IP address to connect to the TSM) and will be available around the clock.
2. Sign on to DRC eDIRECT using a supported browser (see below) and use the Device Toolkit link to start the DRC INSIGHT Device Toolkit.

   Important: You must whitelist the following URL to enable the Chromebook to communicate with the Device Toolkit.

   dtk.drcedirect.com 50.58.190.22

3. Use the DRC INSIGHT Device Toolkit to organize and configure your Chromebook devices by performing the following tasks:
   - Create ORG Units based on your testing setup and needs, and group the Chromebook devices into ORG Units.
   - Configure each ORG Unit, specifying the connection to a TSM for all of the devices in the ORG Unit.
   - Check the contents of the log files during testing to monitor testing and Chromebook activity and make any configuration changes.
4. Use the URL DRC provides to install the DRC INSIGHT App on your Chromebook devices from the Google administration website.
5. Launch INSIGHT on the Chromebook and record the Chromebook's Device ID. Run the System Readiness Check to verify that the Chromebook can connect to the TSM and is ready for testing. If necessary, use the Device Toolkit to reset the parameters for the ORG Unit and redeploy the updated DRC INSIGHT software.
6. Test the configurations and monitor the log files for issues.

❑ Web Browsers and the Device Toolkit

The Device Toolkit is supported for the following web browser versions.

Browser	Version
Internet Explorer	Version 10 or newer*
Chrome	The most recent Google Chrome stable channel release
Mozilla Firefox	Version 31 or newer
Apple Safari	Version 6.1.5 or newer

*If you attempt to access the Device Toolkit using an unsupported version of Internet Explorer, you will receive a Flash error.

■ Installing a TSM

Because of the role that the TSM plays in testing, there are some special considerations regarding TSM software installation.

- The computer on which you install the TSM software should have a static IP address (an address that does not change when the computer is restarted or rebooted) if you are using the machine IP address instead of the machine name to connect to the TSM. If the IP address of a TSM machine changes, you must reconfigure the testing devices that connect to that TSM.
- You should install the TSM *before* you install INSIGHT so that you can specify the path to the TSM and the communication port during the INSIGHT installation.
- If you need to change the configuration of a TSM after it is installed, you must uninstall the TSM and install a new version. If you reinstall a TSM after you have installed INSIGHT, you may need to reconfigure the testing computers that connect to it.

❑ Chromebooks and the TSM

A TSM is used primarily to cache and manage test content and responses. For various reasons, Chromebooks do not provide a suitable environment for a TSM. As a result, you should install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the Chromebook.

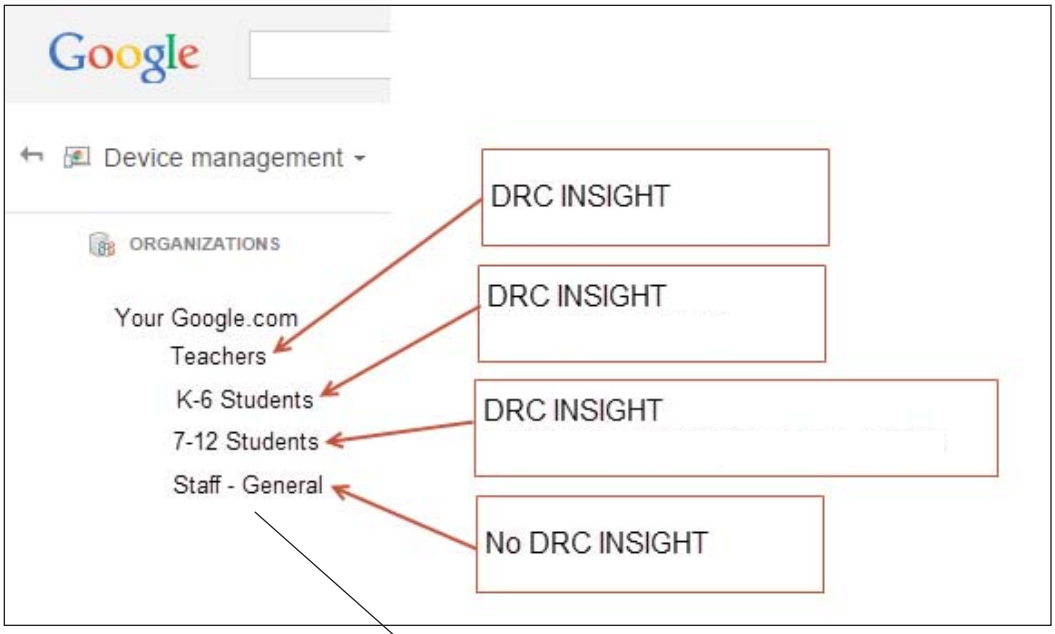
For specific TSM installation instructions, refer to the appropriate installation chapter.

Example of Chromebook Setup and Configuration for INSIGHT

The following is a high-level example of how to set up your Chromebook environment in Google to complement DRC INSIGHT and Single App Kiosk Mode. DRC assumes that users have registered their Chromebooks as part of their initial implementation. For secure testing, Google specifies that the user must get Chrome device management software for each Chrome device and enroll each Chrome device in the school's domain.

Important: The instructions in this chapter assume that you have already set up your Chrome environment using the Chrome device management software. The details of this process are outside the scope of this documentation. For more information, see https://support.google.com/chrome/a and "Chromebook Questions" on page 193.

1. Log in to your Google Admin account at admin.google.com.



2. Identify which organizations or sub-organizations should have DRC INSIGHT (see the Image above).

3. Enroll Chromebook devices and identify them by the device's serial number. You can add notes to help identify the device (see the Example and Notes below).

Device Serial Number YH4B922AB01005R Notes: Chromebook assigned to Sample School, Grade 4, Asset number 12345

4. Move the Chromebook devices to the appropriate sub-organizations.

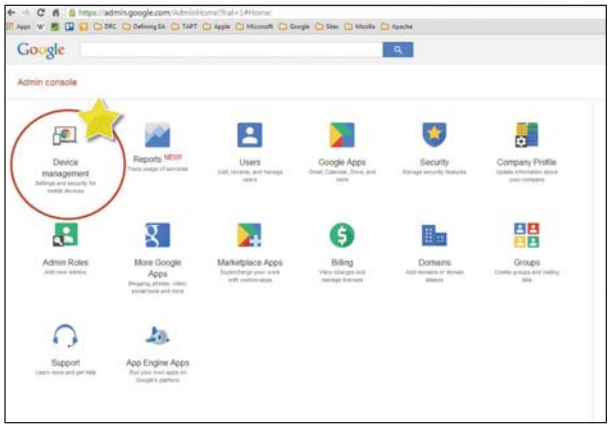
Note: The Google device administration organizations (organization units) are not the same as the DRC Device Toolkit ORG Units, and the Chromebook's serial number is not the same as the Chromebook Device ID that the Device Toolkit creates (see "DRC INSIGHT Device Toolkit" on page 117).

Quick Tour 7: Installing INSIGHT for Chrome

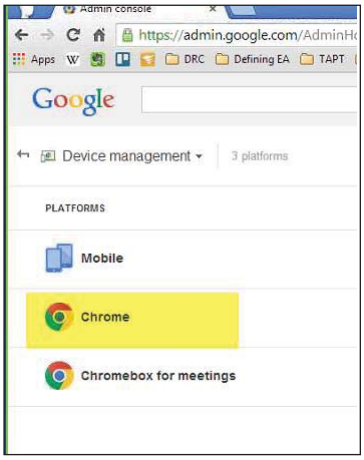
This Quick Tour describes how to install the DRC INSIGHT App on one or more Chromebooks using the Google administration site.

Note: You must have a Google Chrome Administrator profile to install the DRC INSIGHT App.

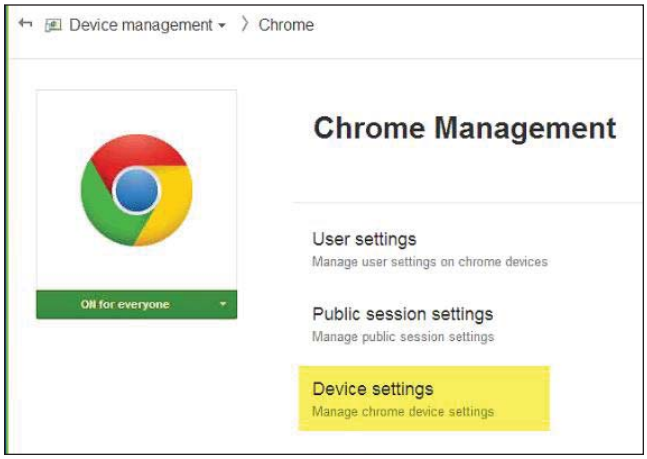
1. Using a supported web browser (see "Web Browsers and the Device Toolkit" on page 109), go to the Google administration site at **http://admin.google.com**, log in with an administrator profile, and select **Device management**.



2. Select **Chrome**.

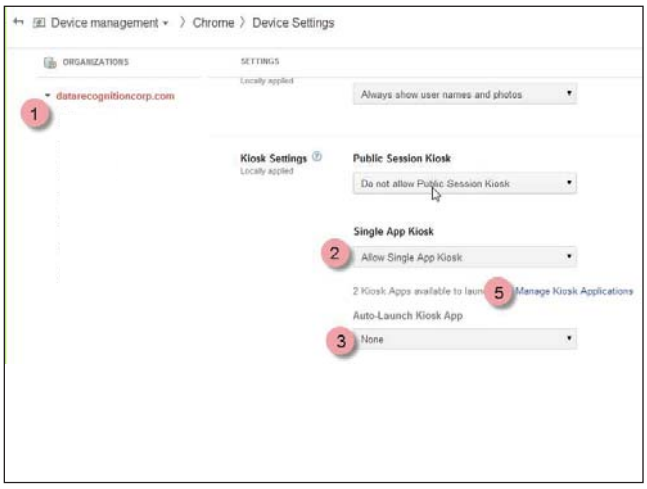


3. Select **Device settings**.



Quick Tour 7: Installing INSIGHT for Chrome (cont.)

4. The Device Settings page displays. For Steps 4 and 5, refer to the circled numbers in the diagrams.

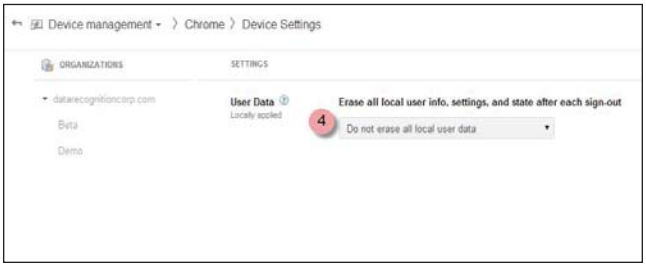


1 Select the proper organization level to be able to deploy the DRC INSIGHT App to everyone that will use it for testing.

Note: Where the example shows datarecognitioncorp.com, your domain will be listed.

2 For Single App Kiosk, change the drop-down menu setting to **Allow Single App Kiosk**.

Note: As of March 2015, Google made the **Allow Single App Kiosk** selection static (there is no drop-down menu in newer versions of Chrome). If a drop-down menu displays, change the setting and continue to the next step. Otherwise, continue to the next step.

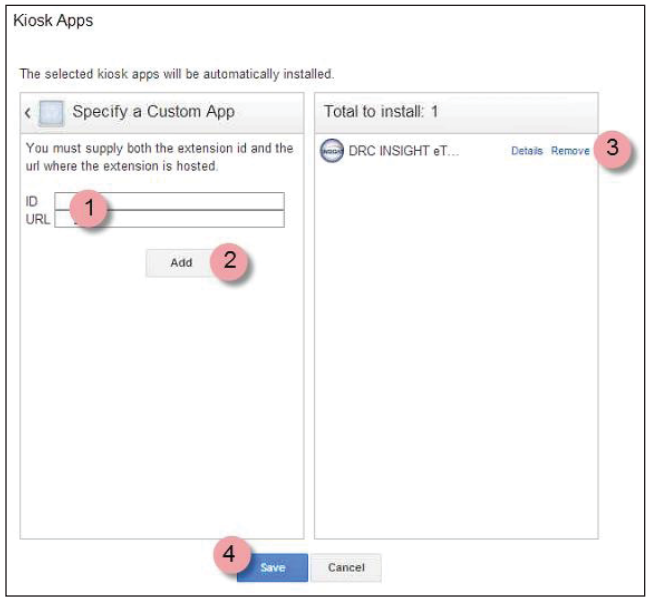


3 For Auto-Launch Kiosk App, leave the value as **None** so the user can use the Chromebook for non-DRC INSIGHT testing.

4 Scroll up the page to User Data and select **Do not erase all local user data**.

5 Scroll down the page and click **Manage Kiosk Applications**.

5. The Kiosk Apps page displays.



1 Enter the ID and URL for the DRC INSIGHT App (required).

Note: For the ID and URL, see "Installation Files" on page 17. The Chromebook installation file (ChromeAppIDInfo.txt) contains the ID and URL. To download the file, log in to eDIRECT, select **Test Setup–General Info–Downloads**, and download the file for the Chromebook platform.

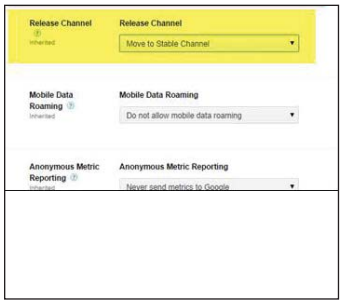
2 Click **Add**.

3 The screen refreshes and the DRC INSIGHT App icon displays in the **Total to install** list.

4 Click **Save**.

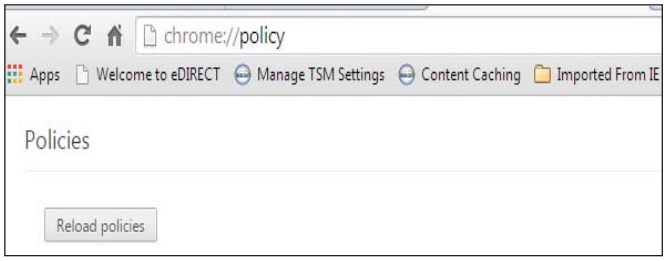
Quick Tour 7: Installing INSIGHT for Chrome (cont.)

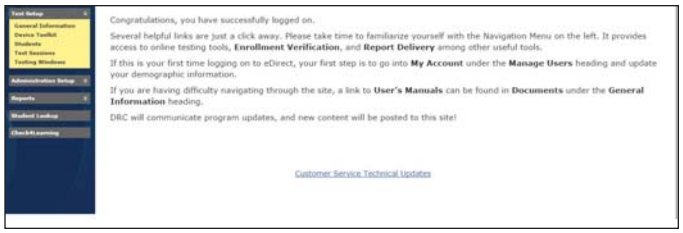
Important: Verify that the setting for Release Channel is **Move to Stable Channel** (the default value). This setting prevents development or beta versions of software being distributed to your Chromebooks during a Google Chrome update process.



6. The Device Settings page redisplays. Click **Save Change**. The INSIGHT App will be installed as a Kiosk application the next time the policy is reloaded, which occurs every three hours.

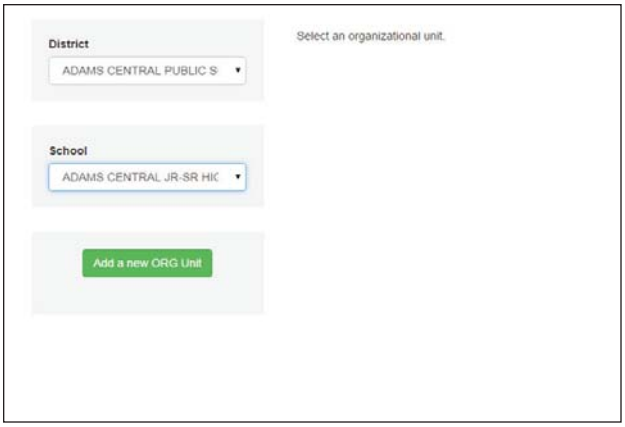
   Note: To reload device policy updates (to the INSIGHT App) immediately, enter ***chrome://policy*** in the address bar of the Chromebook and click **Reload policies**.





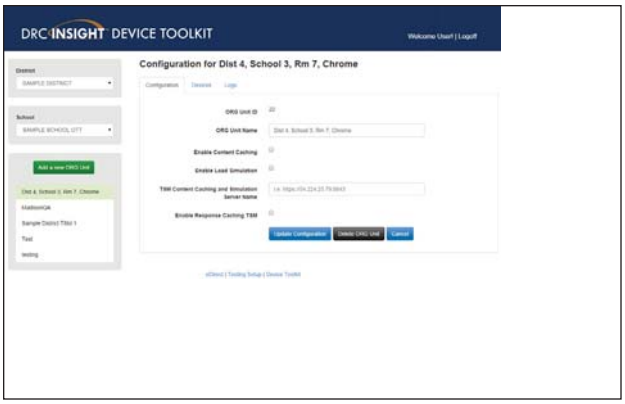
7. You must deploy the DRC INSIGHT configurations to each Chromebook being used for testing by using the DRC Device Toolkit. To start the Device Toolkit software and register the Chromebook, sign in to eDIRECT at **https://PA.drcedirect.com** using a supported browser and select **Test Setup–Device Toolkit**.

8. The Device Toolkit software displays in your browser. Use this software to create organizational units (ORG Units) to group, organize, and categorize your Chromebooks for testing. For each ORG Unit, you identify its DRC INSIGHT configuration. When you launch the Chromebook, it uses the configuration settings identified for the ORG Unit(s) to which the device is assigned (see "DRC INSIGHT Device Toolkit" on page 117).



9. Select a district from the District drop-down menu and a school from the School drop-down menu**.**

10. Click **Add a new ORG Unit** to get started (see "DRC INSIGHT Device Toolkit" on page 117).

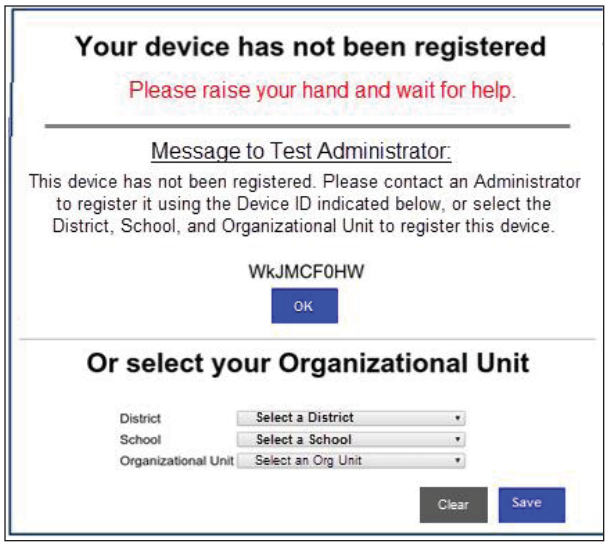


Quick Tour 7: Installing INSIGHT for Chrome (cont.)

11. After you have configured your Chromebooks using the DRC INSIGHT Device Toolkit, you are ready to start testing. To start INSIGHT, start the Chromebook and do not log in to any Google accounts (see below).

Important: If a user logs in to the Chromebook using a Google account, they will not see the DRC INSIGHT App. The DRC INSIGHT App runs in Single App Kiosk Mode, which means that the user cannot access any other application until they exit INSIGHT.

Click **App** from the Chromebook sign-in screen, and click **DRC INSIGHT** to display the main page.



12. Within the INSIGHT App, from a secure environment (locked down) you can try the Online Tools Training (OTT). Students can try the OTT or sign on to a take a test.

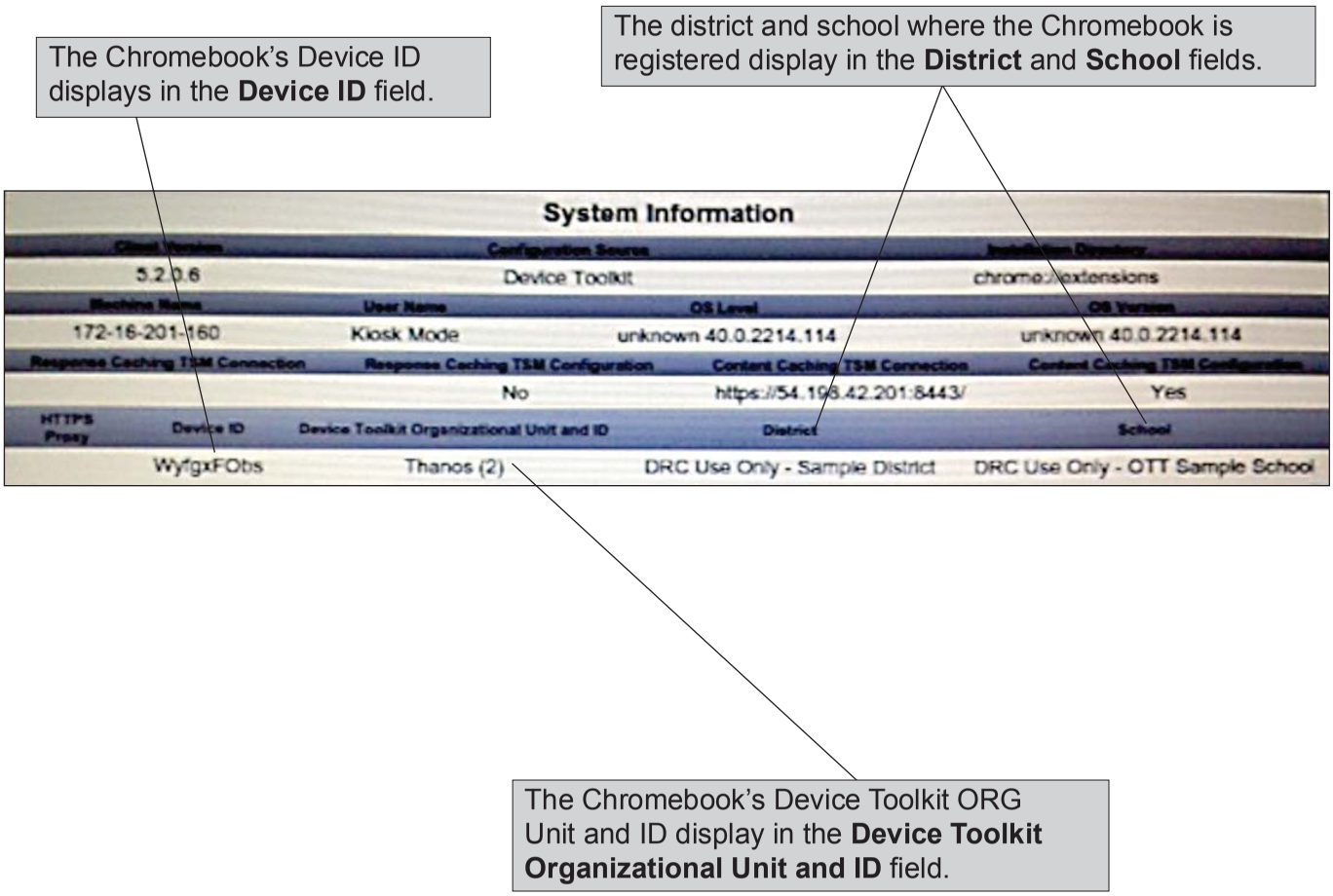
Note: You can retrieve the Chromebook's Device ID by from the System Readiness Check (click the **Readiness Check** link). For more information, see "Using the System Readiness Check on a Chromebook" on page 116.

Important: When you launch INSIGHT for the first time, it creates a Device ID on the Chromebook. The DRC INSIGHT App uses this Device ID to associate the Chromebook with its INSIGHT configuration. You use the Device Toolkit to enter this Device ID and register the Chromebook (see "Registering Devices" on page 122).

Using the System Readiness Check on a Chromebook

When you start the System Readiness Check on a Chromebook, the Device ID and Device Toolkit ORG Unit and ID display in the header fields on the System Information page (see below). You use this information when you configure the Chromebook using the Device Toolkit.

For more information about using this information to configure the Chromebook, see the topics "DRC INSIGHT Device Toolkit" on page 117 and "Registering Devices" on page 122.



■ DRC INSIGHT Device Toolkit

This section describes how to use the DRC INSIGHT Device Toolkit (referred to as the Device Toolkit) to organize and manage your Chromebook devices for testing with DRC INSIGHT.

You use the Device Toolkit to create and delete organization units (ORG Units), add Chromebook devices to units, move devices between units, and remove devices from an ORG Unit (the Chromebook is no longer visible in the Device Toolkit).

❑ Device Toolkit ORG Units

The Device Toolkit uses the concept of ORG Units to help organize and manage Chromebook devices. A Device Toolkit ORG Unit is a logical method of grouping your Chromebook devices for testing with DRC INSIGHT that makes sense for your environment. For example, if you use more than one TSM, you might want to base your ORG Units on your TSMs. If have two TSMs, you could create two ORG Units—one for TSM A and one for TSM B. Or, you might structure your ORG Units based on the location of a set of Chromebook devices.

Each Chromebook can belong to only one ORG Unit at a time. The Device Toolkit tracks and manages Chromebooks by using a DRC Device ID that is created when INSIGHT is launched for the first time. You can use the Device Toolkit to move a Chromebook device from one ORG Unit to another. You also can delete a Chromebook from the Device Toolkit. If you delete a Chromebook and later add it back in to the Device Toolkit, a new Device ID is generated which displays the first time you launch INSIGHT on the Chromebook.

You create each ORG Unit and decide which Chromebooks make up that unit. At the time you configure the TSM, you specify the configuration once for an entire ORG Unit and every device associated with that unit is configured to the same TSM. You can perform the following tasks:

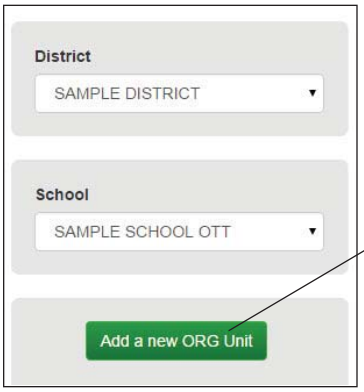
- Specify proxy settings for both your unsecured (http) and secured (https) host servers.
- Specify which server is the content caching and/or load simulation TSM server, and the port used for communication.
- Specify which server is the response caching TSM server and the port used for communication.
- Select the district and school name associated with the testing computer (required).

❑ Google Organizational Units

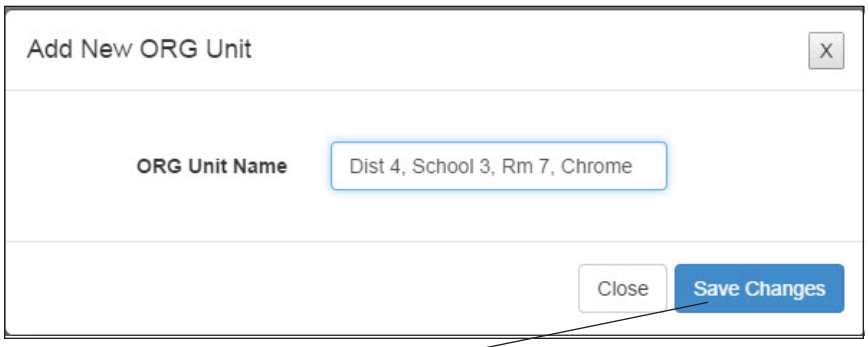
Device Toolkit ORG Units are different than Google *organizational units*. You use Google organizational units with Chrome device management to give users in an organization access to different features or services, and to tailor the settings for various Chrome devices (see https://support.google.com/a/answer/182433).

Creating and Deleting ORG Units

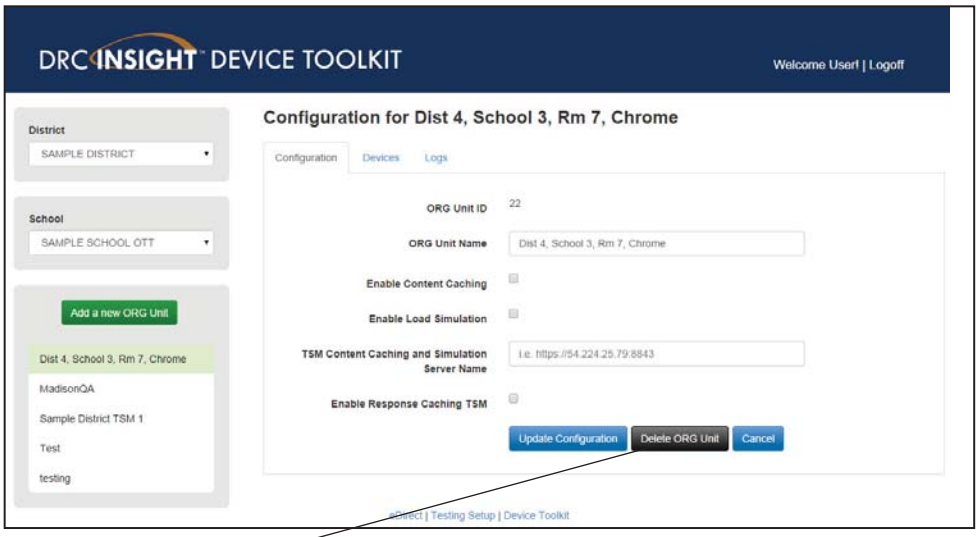
You can use the Device Toolkit to create or delete ORG Units to organize your Chromebooks for testing.



1. From the Device Toolkit, click **Add a new ORG Unit** to create a new unit.



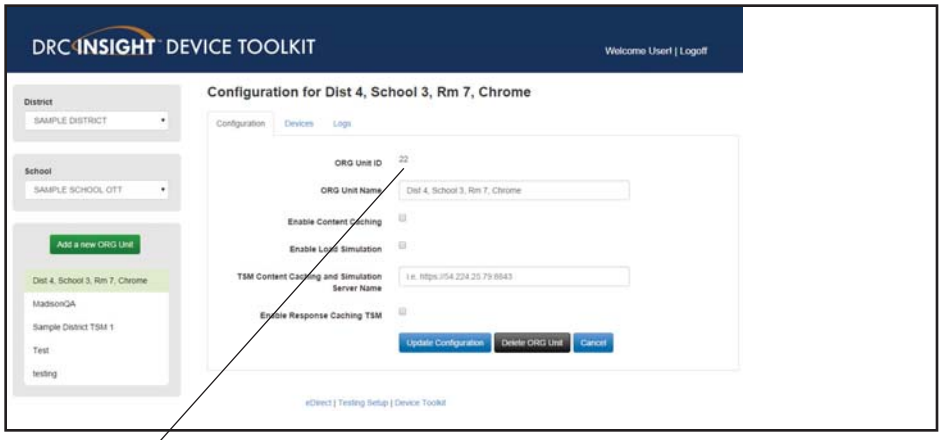
2. When the **Add New ORG Unit** dialog box displays, enter a meaningful name for the ORG Unit that will help you categorize and organize your Chromebooks for testing, and click **Save Changes**.



3. The configuration page for the ORG Unit you opened or created displays. To delete an ORG Unit, click **Delete ORG Unit**. A dialog box displays to confirm the deletion.

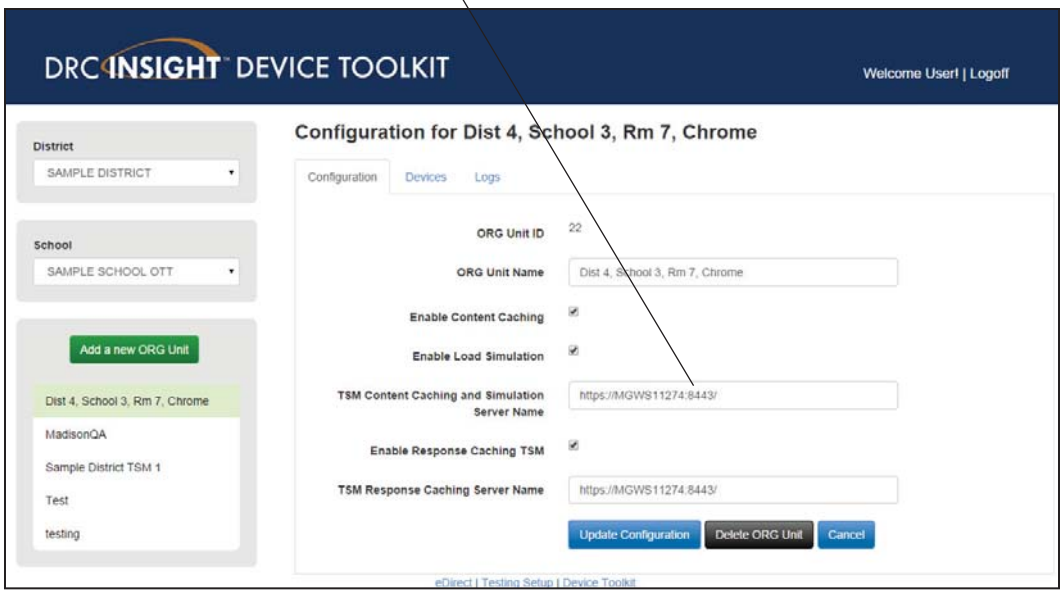
Configuring the TSM

This section describes how to use the Device Toolkit to configure your Chromebooks to work with the TSM and to organize them for testing and Online Tools Training (OTT).



1. From the Device Toolkit, select an ORG Unit. The configuration page for the ORG Unit you opened or created displays with a unique ORG Unit ID number.

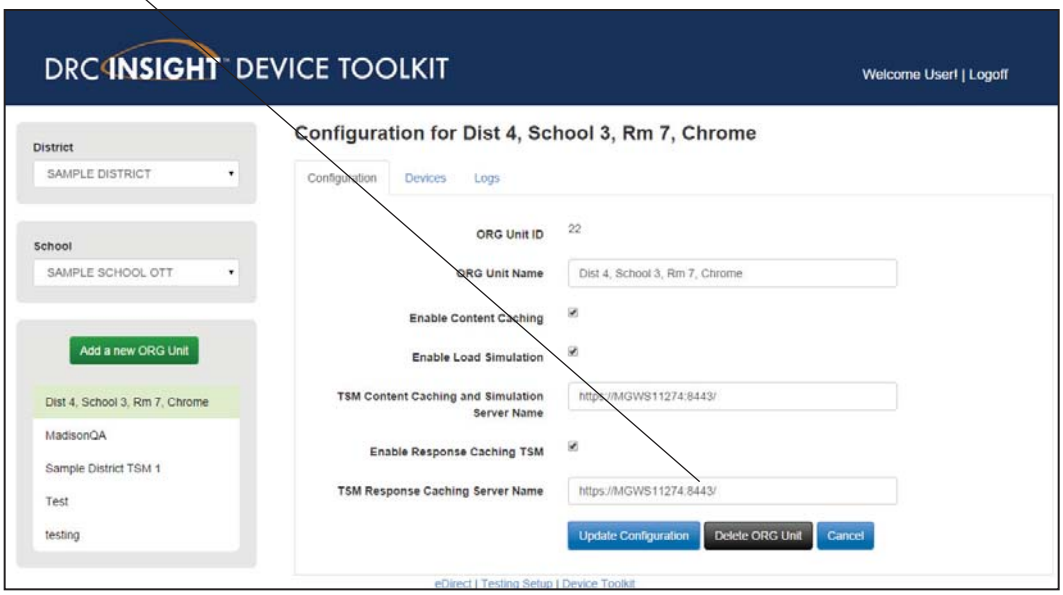
2. To specify a server to use for test content caching and/or load simulation testing, check **Enable Content Caching** and/or **Enable Load Simulation**, and enter the server name (or IP address*) and port number (separated by a colon), followed by a forward slash (/), in the TSM Content Caching and Simulation Server Name field.



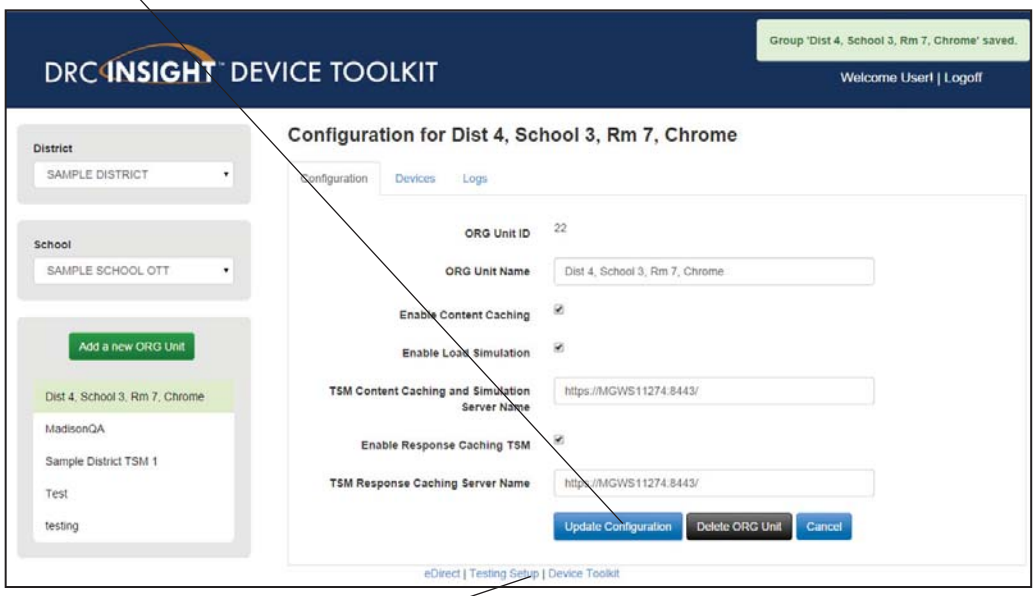
Important: *A TSM server should have a static IP address (an IP address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM. Remember to include the forward slash (/) at the end of the path to the TSM server—without it your TSM may not be configured correctly.

Configuring the TSM (cont.)

3. To specify a server to use for test content caching, check **Enable Response Caching TSM** and enter the server name (or IP address) and port number (separated by a colon), followed by a forward slash (/), in the TSM Response Caching Server Name field.



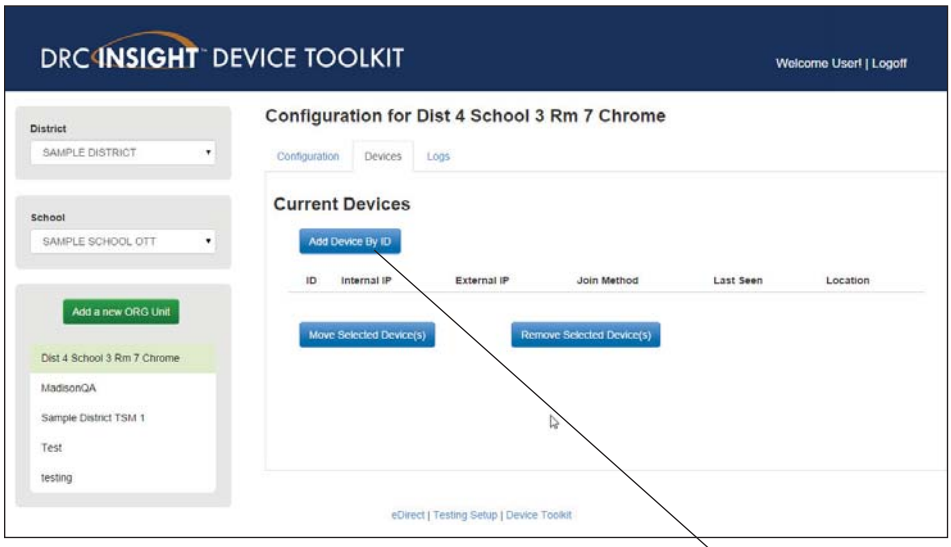
4. Click **Update Configuration** to save your changes or **Cancel** to cancel them. A message displays indicating whether the configuration was updated successfully.



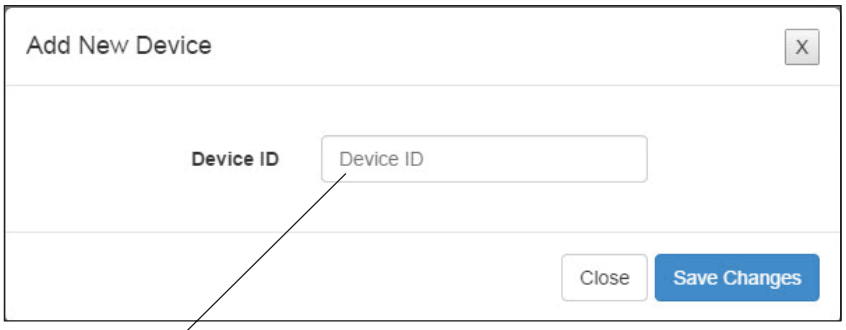
There are links to **eDIRECT**, **Testing Setup**, and the **Device Toolkit** at the bottom of the page.

Adding Devices

You can use the Device Toolkit to add Chromebook devices to an ORG Unit to organize your Chromebooks for testing. To add the device, you must know the Chromebook Device ID.



1. After you have selected an ORG Unit from the Device Toolkit, select the Devices tab and click **Add Device By ID** to add a device to the unit.



2. When the Add New Device dialog box, displays, enter the ID of the device in the Device ID field and click **Save Changes**. Click **OK** to add the device to the ORG Unit. The Devices tab redisplays with the device added.

Note: The Device ID is the Chromebook Device ID, not the device's serial number.

Registering Devices

If a Chromebook device has not been registered in the DRC Device Toolkit, when a student attempts to test with the device a message displays indicating that the device must be registered.

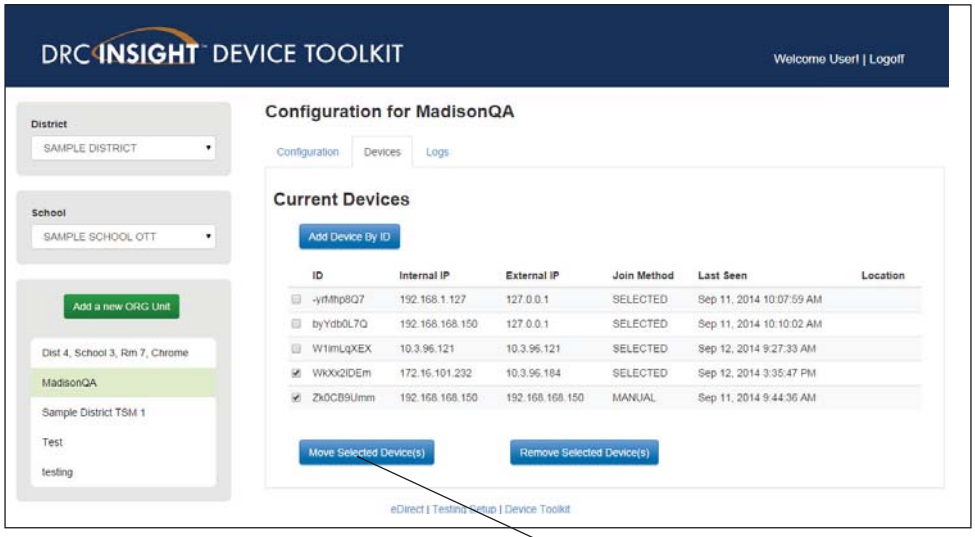
Note: The Chromebook Device ID is generated by DRC. If you uninstall and reinstall DRC INSIGHT, a new Device ID is created.

1. You can register the device by writing down the Device ID that displays and use it with the Device Toolkit **Add By Device ID** function (see "Adding Devices" on page 121). Click **OK** to close the message display.

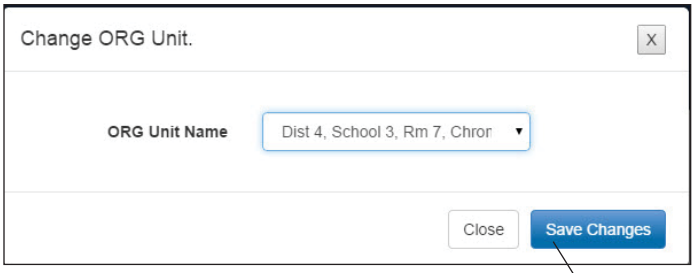
2. You also can register the Chromebook device by selecting its district, school, and organizational unit from the drop-down menu and clicking **Save** to save your changes. Click **Clear** to clear any entries in the District, School, or Organizational Unit fields.

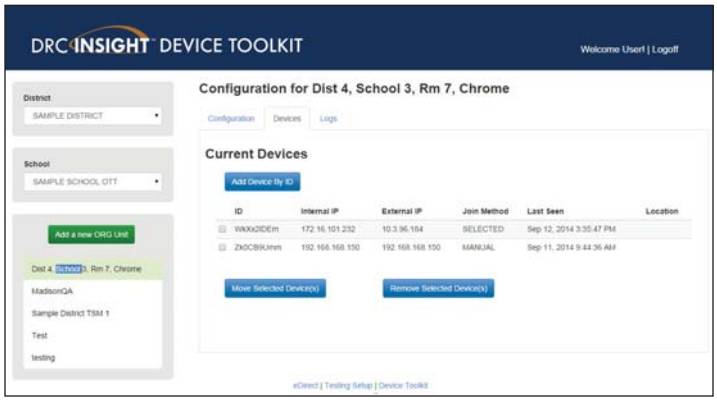
Moving Devices

You can use the Device Toolkit to move one or more devices between ORG Units to organize your Chromebooks for testing.



1. Select an ORG Unit you want to move devices from (the source unit), select the **Devices** tab, check each device you want to move from the source ORG Unit, and click **Move Selected Devices**.



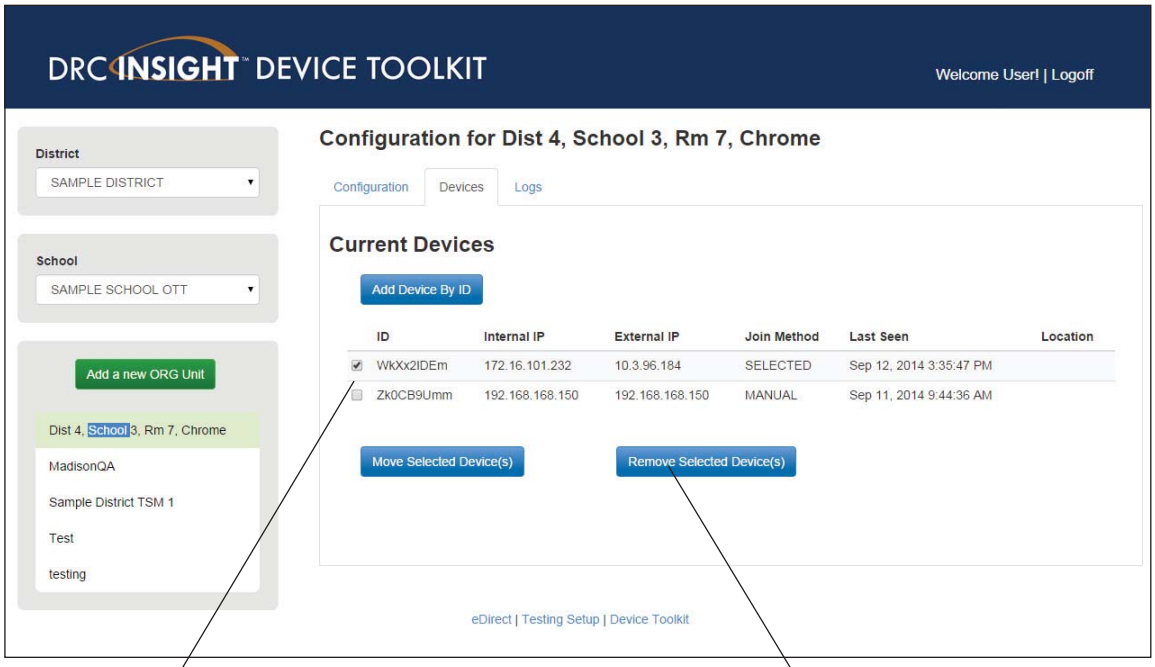


2. When the Change ORG Unit dialog box displays, select the name of the target ORG Unit from the drop-down menu in the ORG Unit Name field and click **Save Changes**. Each device you selected is moved to the target ORG Unit.

Removing Devices

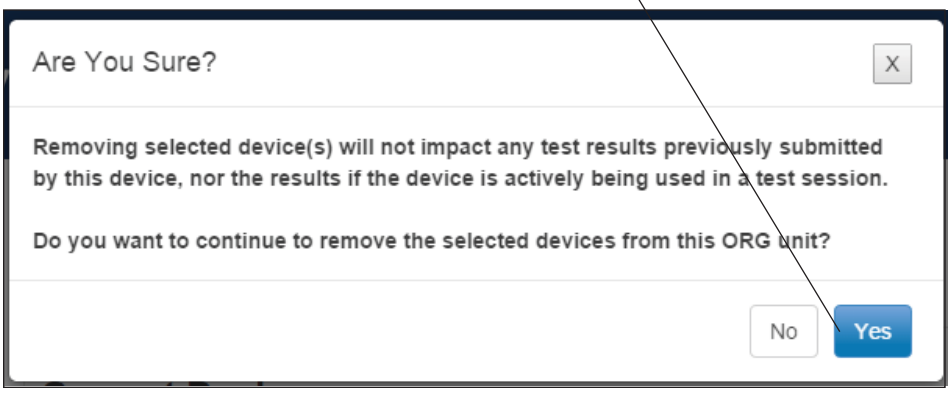
You can use the Device Toolkit to remove one or more Chromebook devices from an ORG Unit.

Note: When you remove a device, its configuration settings are saved in the database, but the device no longer appears in the Device Toolkit.



1. Select an ORG Unit and select the **Devices** tab. Check each device you want to remove from the ORG Unit.

2. Click **Remove Selected Devices**. A dialog box displays to confirm the process. Click **Yes** to continue or **No** to cancel the process.

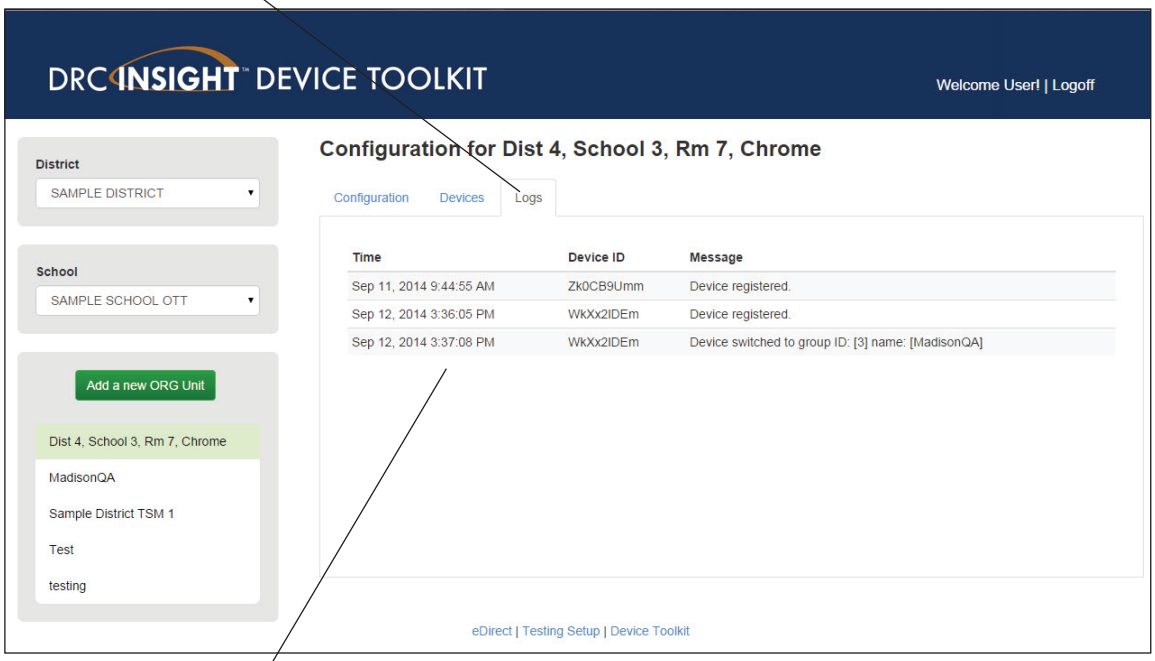


If you click **Yes**, each device you selected is removed from the ORG Unit and no longer displays in the Device Toolkit.

Using Log Files

You can use the Device Toolkit log files to review system information about the Chromebook devices assigned to an ORG Unit.

1. Select an ORG Unit and select the **Logs** tab. System information about Chromebook devices assigned to that ORG Unit displays.



2. You can view the time an incident was logged, the Device ID, and the message.

Notes

Working with INSIGHT

What's Covered in This Chapter

This chapter discusses some of the tools and components of the DRC INSIGHT Online Learning System. These include Online Tools Training (OTT) the Monitor Verification Test, the Testing Site Manager (TSM), the System Readiness Check, and DRC INSIGHT Properties. This chapter also offers tips and techniques to implement your INSIGHT configuration for maximum efficiency.

- ❑ **Online Tools Training (OTT)**

  This section describes the OTT, a series of sample test questions to help introduce students to the testing tools available in the online environment.

- ❑ **The Monitor Verification Test**

  This section describes the Monitor Verification test, available in eDIRECT, that helps you determine whether the monitor settings for the testing computer are configured for optimal testing.

- ❑ **The Testing Site Manager (TSM)**

  This section describes how to use the TSM software to manage tests and response communication between DRC and students efficiently. It also introduces the diagnostic tools available within the TSM.

- ❑ **Using Caching**

  This section describes how to use the TSM to help manage the process of storing and updating tests (content caching) and student test responses (response caching).

- ❑ **Ping Activity**

  This section describes how to display the consistency and rate of data transfer across a network (latency) during a specified date range to determine the best times for testing.

- ❑ **Load Simulation Testing**

  This section describes how to perform load simulations and estimate the amount of time it will take to download tests and upload responses during testing based on the testing load.

  Note: Load simulation testing is not applicable for the CDT Computer Adaptive Tests (CAT) and will not provide an accurate estimate of load times for these tests.

- ❑ **The System Readiness Check**

  This section describes how to verify that a testing computer is ready to test using the INSIGHT software.

- ❑ **DRC INSIGHT Properties**

  This section describes how to specify important system properties for testing computers, as well as how to connect to a TSM to perform content caching, response caching, and load simulation tests.

Online Tools Training (OTT)

The OTT is a set of sample test questions to introduce students to the tools available during testing and prepare them for online assessments. This training allows students to try the features of the testing software before the actual test.

The OTT is not designed to cover the test content—the goal is to instruct the student about using the testing application, not to assess skills. The sample OTT questions demonstrate the features of the testing environment and the OTT tests are not scored.

Assessment Coordinators should review the OTT before the students begin the test administration. Test Administrators (TAs) and Test Proctors should also review the OTT at least once. All students who will be testing online should have at least one opportunity to review the OTT for their subject and/or grade.

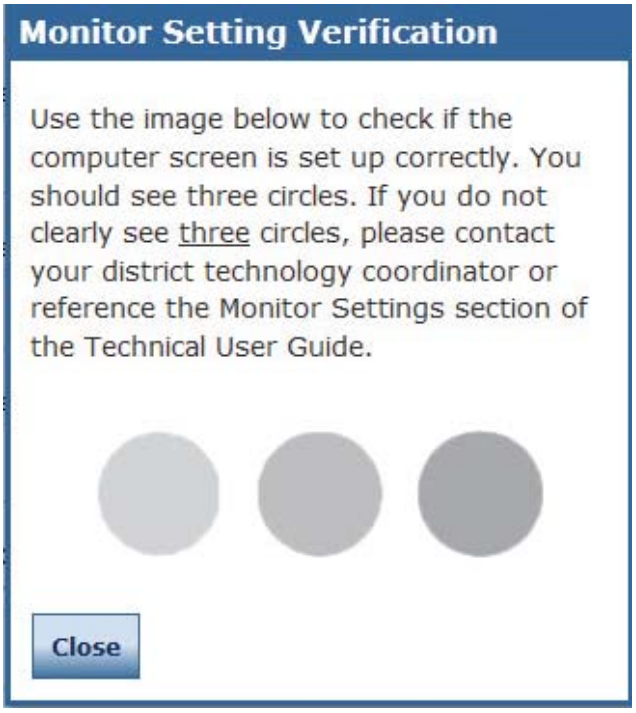
To try the OTT, do the following:

1. The first step depends on the type of testing device.
   - From a Windows 7 computer, select **All Programs–PA Online Assessment System—PA Online Assessments**, (or click the **PA Online Assessments** desktop shortcut).
   - From a Mac (OS X), select **Applications–PA Online Assessment System—DRC INSIGHT.app**, (or click the **PA Online Assessments** desktop shortcut).
   - From an iPad device, press **DRC INSIGHT** to start the INSIGHT App.
   - From a Chromebook device, click on the INSIGHT App.
2. When INSIGHT launches, click or select **Online Tools Training**.
3. Select a subject by clicking on it.
4. Enter the username and password provided on the screen and click **Sign In**.
5. Follow the instructions on the screen to take the practice tests and use the test tools.

   Note: There are no restrictions for accessing the OTT—students are allowed to repeat the practice tests as often as necessary.

The Monitor Verification Test

After you sign in to start a test, a screen similar to the following displays to help determine whether your monitor is set up correctly to display the online tests.



If you do not see three shaded circles on the monitor display, a student will have difficulty answering some of the online questions. To resolve the problem, you must modify the brightness and/or contrast settings for the testing computer's monitor until three circles display clearly.

Changing the Monitor's Contrast or Brightness

There are many ways to change the contrast or brightness of your display depending on the operating system, the computer, the graphics card, and the type of monitor you are using. The following are some ideas to try to change the contrast or brightness. For a specific hardware configuration, you also can try searching the Internet using a search such as *changing the contrast for operating system* x *or monitor* y.

Windows Operating System

- On a laptop, look for a half-white/half-black circle on the keyboard. This function key changes the contrast.
- On a desktop computer, look for an option on the monitor, or monitor menu, to change the contrast and brightness.
- Identify the type of graphics card—NVIDIA, Intel, or ATI—and locate options for your graphics card from the Control Panel: **Control Panel–System Properties**–graphic cards tab.
- Locate a menu called Monitor Settings, Color, or Graphic Settings and change the contrast (be sure to check Advanced Settings). If you can't find a Contrast option, look for Gamma, Saturation, or Hue.
- Right-click on the desktop to bring up menu options for Intel and ATI cards.

  Note: ATI's menu option is called Catalyst Control Center; Intel's option is called Intel Graphics Media Accelerator Driver.
- Select the folder **c:\Program Files***graphics card*

  where: *graphics card* is Intel, NVIDIA, or ATI.

Mac (OS X)

- To change the brightness, use the keyboard buttons, or select Apple button–**System Preferences**–**Displays** (Mac 10.6) or **System Preferences**–**Accessibility**–**Monitor** (Mac 10.8) and use the Change the Brightness slider.
- To increase the contrast, use the following key combination:

  Command key + **Option key** + **Ctrl key** + **.** (period)
- To decrease the contrast, use the following key combination:

  Command key + **Option key** + **Ctrl key** + **,** (comma)

  Note: You also can change the contrast by selecting **System Preference**–**Universal Access** (Mac 10.6) or **System Preferences**–**Accessibility**–**Monitor** (Mac OS 10.8) and use the Change the Contrast slider.

Linux

For Linux desktop monitors, check the settings in the Monitor menu options.

iPad Devices

For iPad devices, refer to your iPad documentation.

Chromebook Devices

For Chromebook devices, refer to the Google Chrome help or documentation.

The Testing Site Manager (TSM)

The Testing Site Manager (TSM) is a powerful, easy-to-configure, web-based software application that contains a number of software tools to help you plan, configure, manage, and troubleshoot your online testing environment, including caching software to store tests and/or student test responses.

The following table describes the suite of TSM software tools.

Tool	Description
Content Caching	The TSM stores tests and lets you update them to the most current versions for testing.
Response Caching	In the event the Internet connection to DRC is lost, the TSM stores test responses and attempts to transmit them at fifteen-minute intervals to DRC. It also lets you review details about responses currently stored in the TSM (unsent responses) and responses the TSM transmitted to DRC (historical responses).
Load Simulation Test (LST)	The LST helps you estimate variations in network responsiveness based on the number of students testing at the same time, the current network traffic, the amount of available bandwidth, and other site-specific factors.
Ping Trend Graphs	Ping trend graphs help you determine the best time of day to test based on the variances in speed, connectivity, and responsiveness of your network communication.

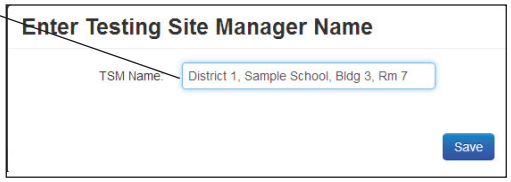
Using the TSM

This section describes how to use the TSM and its basic functions.

To start the TSM, select **Start–All Programs–TestingSiteManager–TestingSiteManager**.

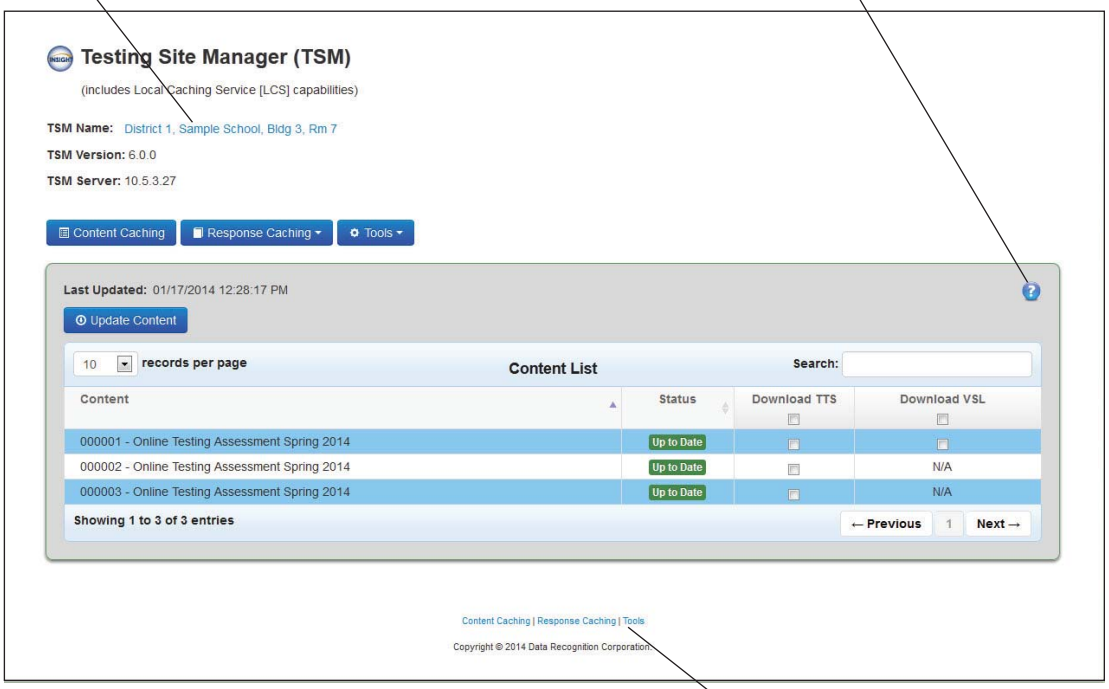
The first time you start the TSM, the Enter Testing Site Manager Name dialog box displays. In the TSM Name field, enter a name that will help you remember the location of the TSM machine and click **Save**.

Note: DRC recommends that you include the district, school, and location (building and/or room number) of the TSM. The name you choose is limited to 40 characters and there are no special formatting requirements.



You can click on the name of the TSM to edit it (this is the name you entered when you started the TSM for the first time).

The **Help** icon ( ) is displayed on every page in the TSM. Click it to display online help for the page you are currently on.



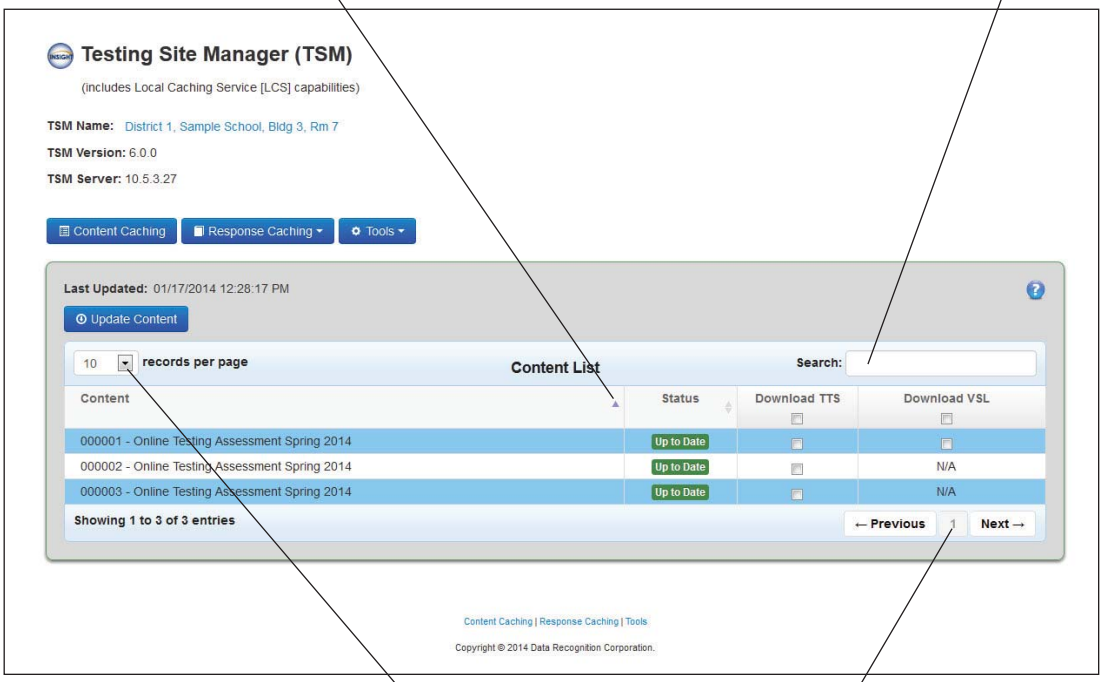
There are active page links to all of the functions currently configured in the TSM.

Using the TSM (cont.)

You can sort the data in a column.

- Click the up arrow icon ( ) next to the column header to sort the column data in ascending order, either alphabetically or by date, depending on the type of data.
- Click the down arrow icon ( ) next to the column header to sort the data in descending order, either alphabetically or by date, depending on the type of data.

Throughout the TSM you can use the Search field to search for specific information, such as tests, student responses, and simulation results, and filter the display.



Use the **records per page** drop-down menu to specify the number of records to display at once. You can select **10** (the default value), **25**, **50**, **100**, or **All** (for all records).

Use the **Previous** and **Next** buttons to move backward and forward between pages in the display. The number between the buttons indicates the number of the page you are currently viewing.

Using Caching

The TSM can cache (store) test items and student responses. It manages test items using the Content Caching option and student responses using the Response Caching option. Both of these caching options are configurable—a user can select either, both, or neither.

Note: Response caching is not available for computer adaptive testing.

- Before testing occurs, content caching stores copies of the test items that you can keep updated, manually or automatically, to guarantee that students are using the correct version of the test.

  Important: With content caching, each morning before testing begins, verify that your TSM has the most current test items (see "Content Caching" on page 136).

- As students test, if a student's connection to DRC fails, response caching stores their test responses in the TSM as a secure backup copy to be transmitted to DRC.

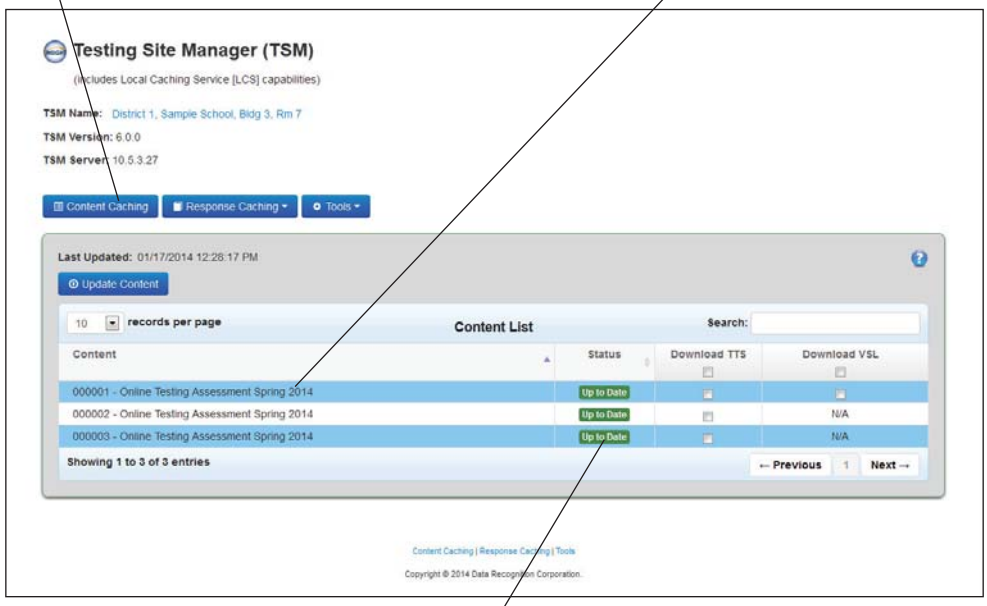
  Testing continues even if the connection to DRC is disrupted. If this happens, the TSM attempts to transmit its stored responses every fifteen minutes. You also can use the TSM to review the status of stored responses and transmit them manually.

Content Caching

The correct test content must be available when students start testing—students can only test using test content that is up to date. Because there may have been updates to the test content between the time the TSM was installed and testing begins, it is important to verify that the test items stored in the TSM are up to date. Before testing, you must replace any test content that is out of date with the most current versions from DRC. Students cannot test if test item content is out of date.

The **Content Caching** button displays the tests available on the TSM. These tests are available to download to INSIGHT.

Each testing administration in the cache is identified by a unique ID number followed by the name of the specific assessment. In the examples in this user guide, a generic identifier is displayed—the identifier you see will be specific to your state and assessments.



The **Status** column in the Content List table indicates whether all test forms in an administration are the most current version (up to date).

- If all of the most current versions of tests in an administration are on the TSM, the Status column displays **Up to Date** in green text.
- If the most current versions are not on the TSM, the Status column displays **Out of Date** in red text.

Note: An administration must have a status of Up to Date before it is administered. Otherwise, students receive an error message when they log in and will be unable to test.

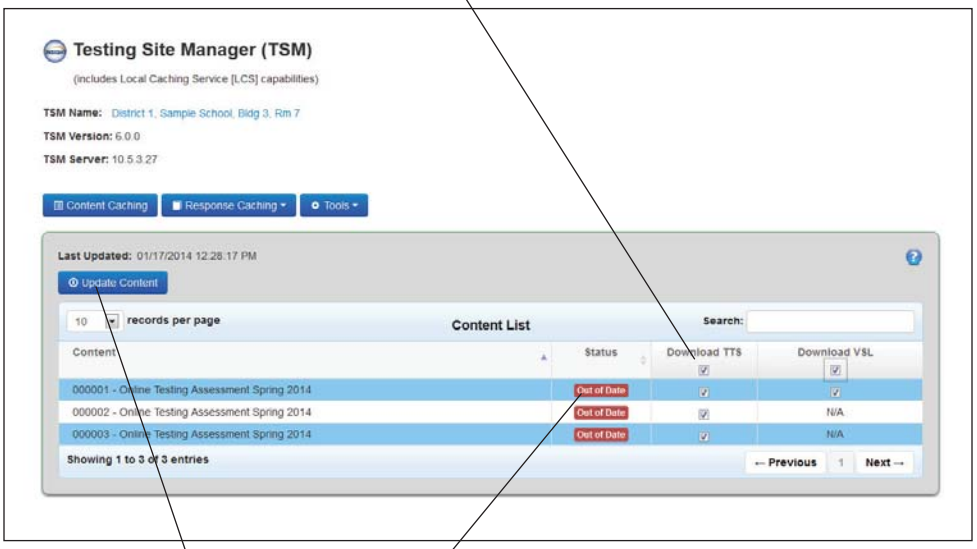
Content Caching (cont.)

If you have specified accommodations such as Text-To-Speech (TTS) or Video Sign Language (VSL), the forms for those tests are not loaded automatically when the TSM is downloaded.

Select the appropriate checkboxes to download the customized test forms.

Download TTS Download VSL

Note: A value of **N/A** in a column indicates that there is no accommodation for the corresponding assessment.



The Status indicator changes to Out of Date to indicate that you do not have the forms for the accommodation.

Click **Update Content** to update the TSM with the latest customized test version(s).

Note: This process can take some time based on the size of these forms. When the process is complete, the Status indicator changes to **Up to Date** to indicate that you have the latest forms for the accommodation.

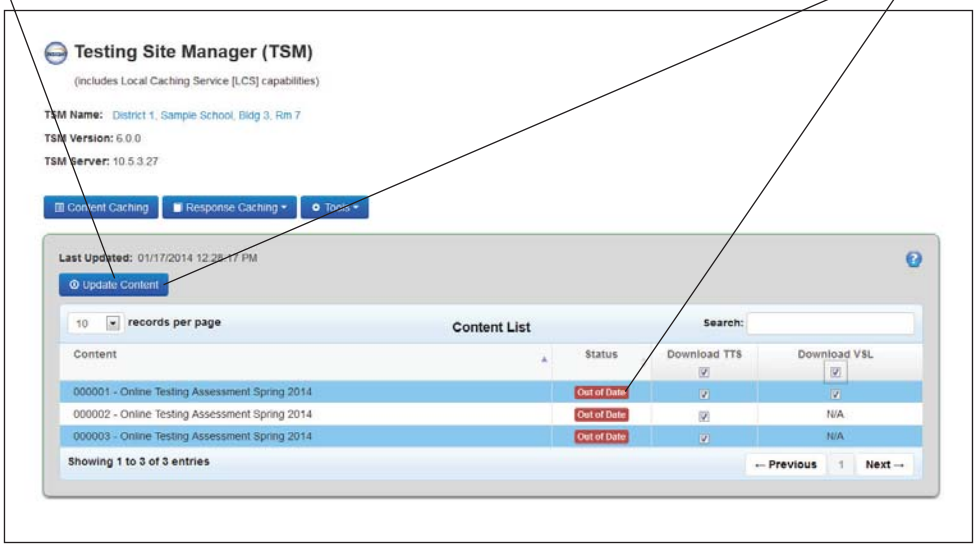
Content Caching (cont.)

To update tests manually, click the **Update Content** button at the top of the page. When you click **Update Content**, the latest version of each test is downloaded and the status changes to Up to Date.

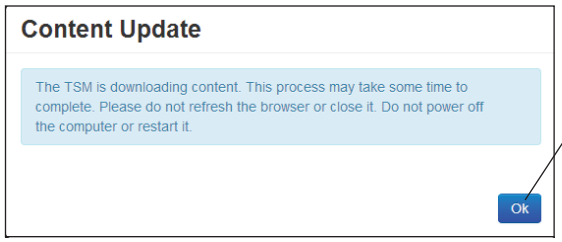
Note: The TSM also automatically checks for updates at regular intervals. If the computer where the TSM is installed is powered on, the TSM automatically updates the test content.

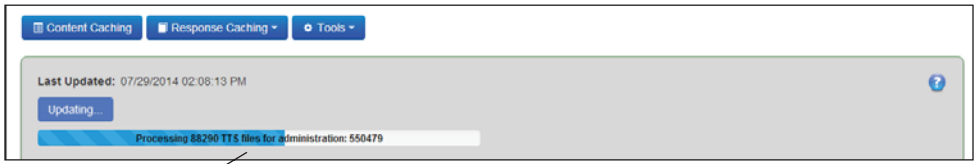
Click **Update Content** to update the TSM with the latest test version(s).

Important: On the day of testing, confirm that the TSM test content is up to date to ensure that students can log into their tests. For example, if the machine where the TSM is installed was turned off recently, it is possible that its content is out of date. If it is, click **Update Content**.



When an update starts, the **Content Update** page displays information regarding the update process. After you read the information, click **OK**.



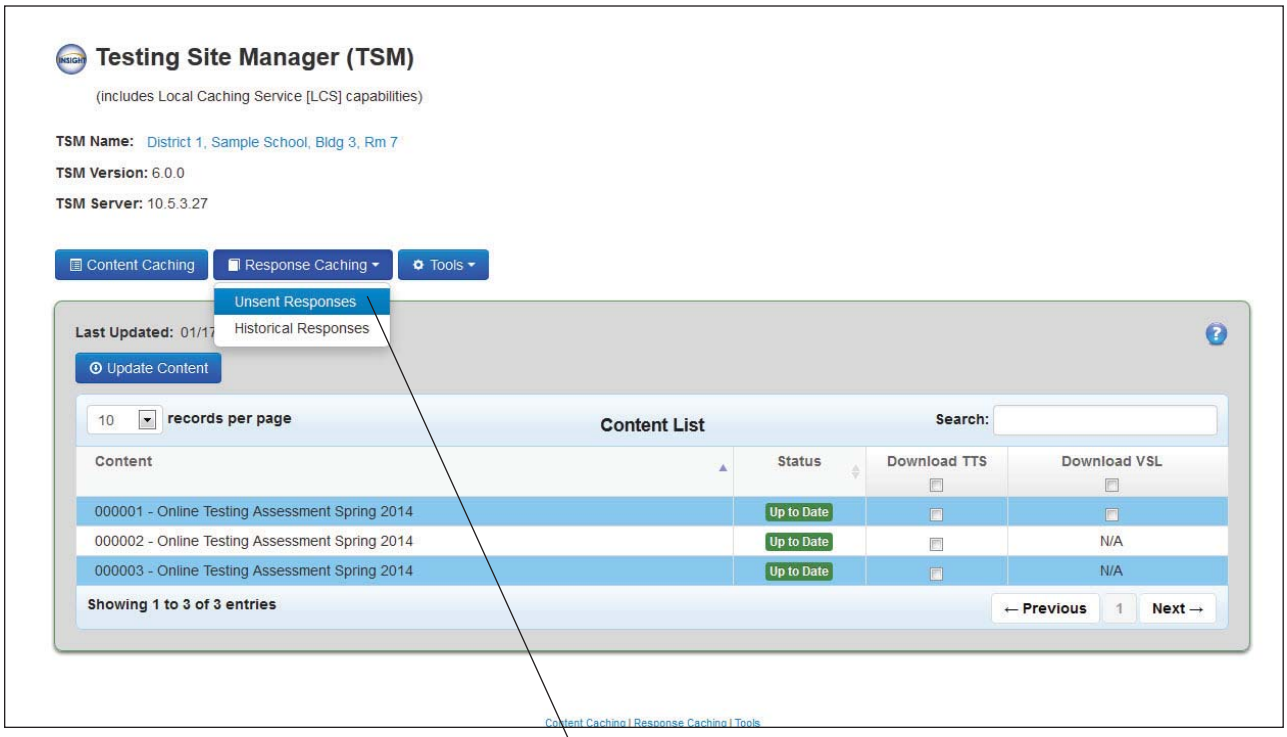


During the update, a progress bar displays to indicate the status of the update.

Response Caching—Viewing Unsent Student Test Responses

To check whether student test responses have been transmitted to DRC and for detailed information about those responses, Select **Response Caching–Unsent Responses**.

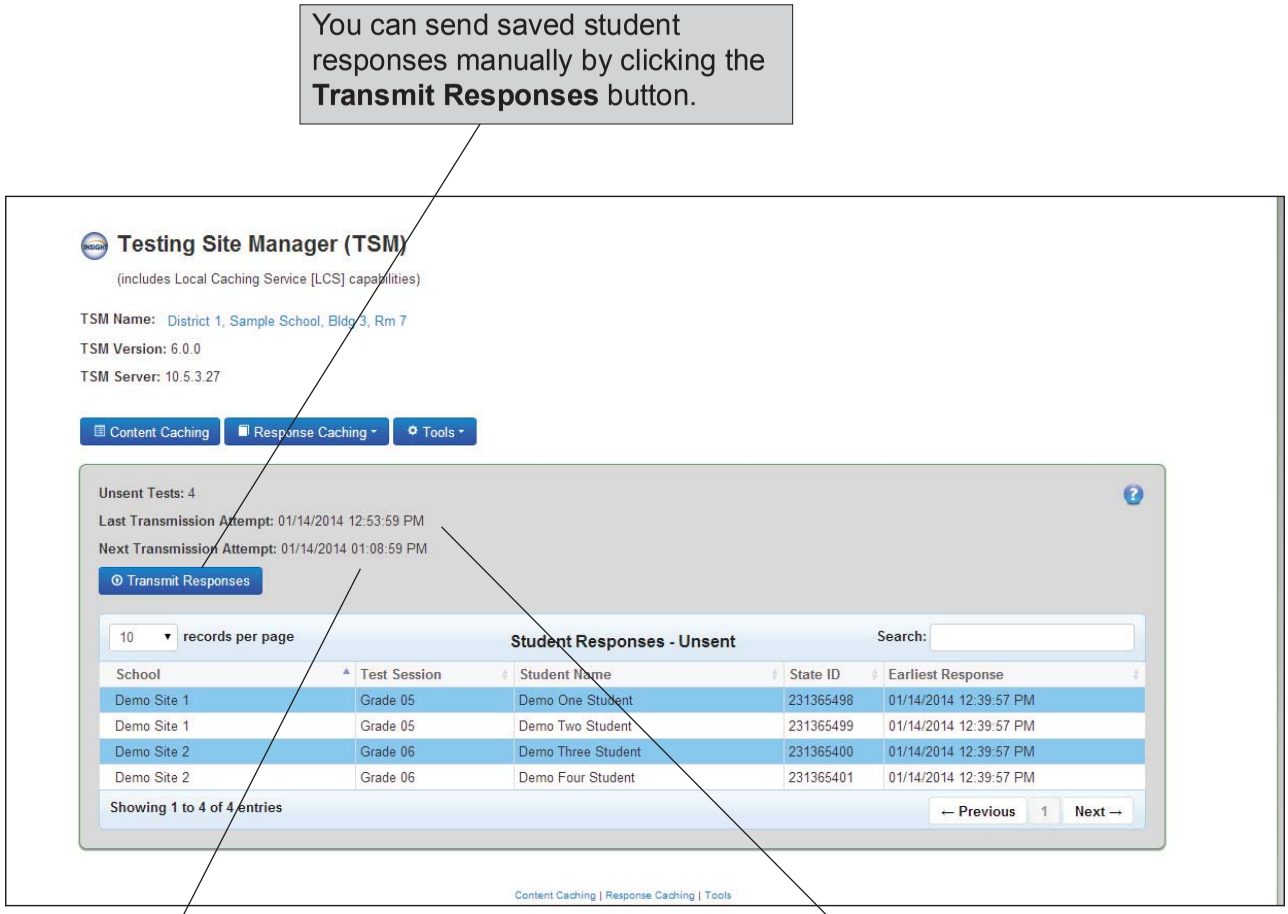
Note: If the Internet connection with DRC is lost while testing, student responses are saved to the TSM. When the TSM is communicating with DRC, these stored responses are transmitted automatically every fifteen minutes.



Select **Response Caching–Unsent Responses** to see information about student responses currently stored on the TSM for transmission to DRC.

Response Caching—Viewing Unsent Student Test Responses (cont.)

When you select **Unsent Responses**, the Student Responses–Unsent tab displays information about student responses currently stored in the TSM that are waiting to be transmitted to DRC.

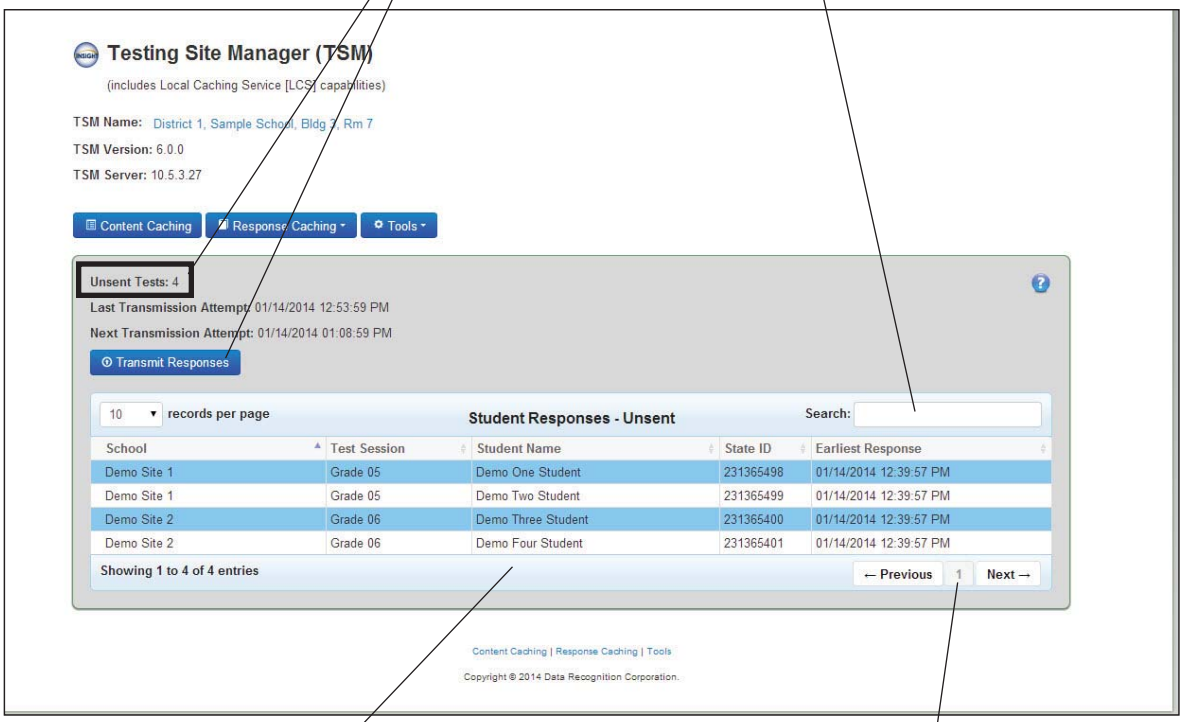


Response Caching—Viewing Unsent Student Test Responses (cont.)

Unsent Tests indicates the number of tests that have not been sent to DRC.

Important: Verify that this number is 0 (zero) at the end of each testing day and at the end of the entire testing period. If it is not zero, click the **Transmit Responses** button to transmit any stored responses.

Enter information in the **Search** field to search for specific data.

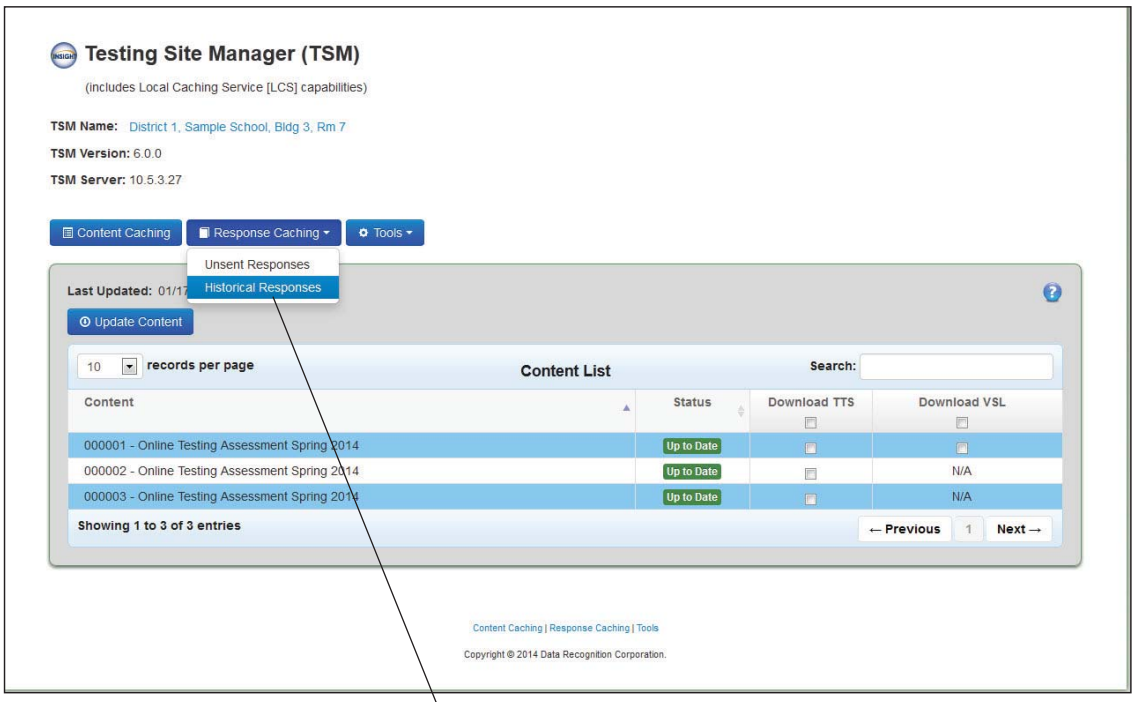


By default, the Student Responses – Unsent page displays all of the information currently available.

Use the **Previous** and **Next** buttons to move backward and forward between pages in the display. The number between the buttons indicates the page you are currently viewing.

Response Caching—Viewing Historical Test Responses

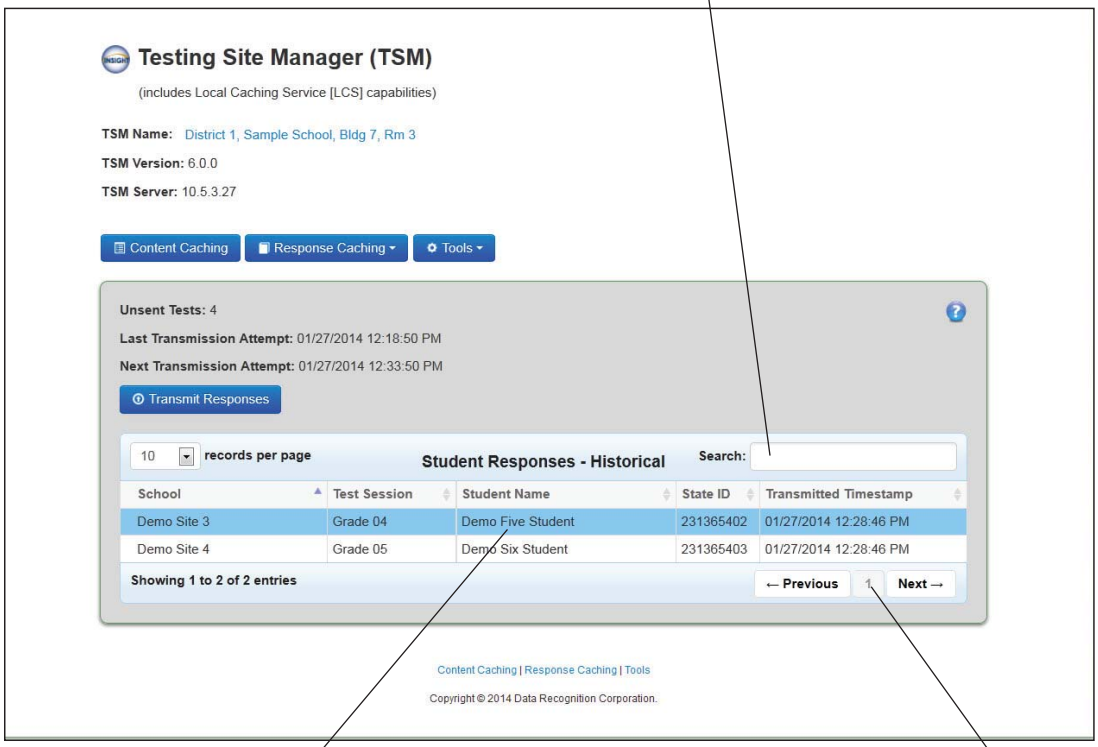
Select **Historical Responses** from the drop-down menu to display information about student responses that have been transmitted to DRC.



Select **Response Caching–Historical Responses** to display information about the student test responses that the TSM has sent to DRC.

Response Caching—Viewing Historical Test Responses (cont.)

Enter information in the **Search** field to search for specific data.



By default, the **Student Responses – Historical** tab displays all of the information currently available.

Use the **Previous** and **Next** buttons to move backward and forward between pages in the display. The number between the buttons indicates the page you are currently viewing.

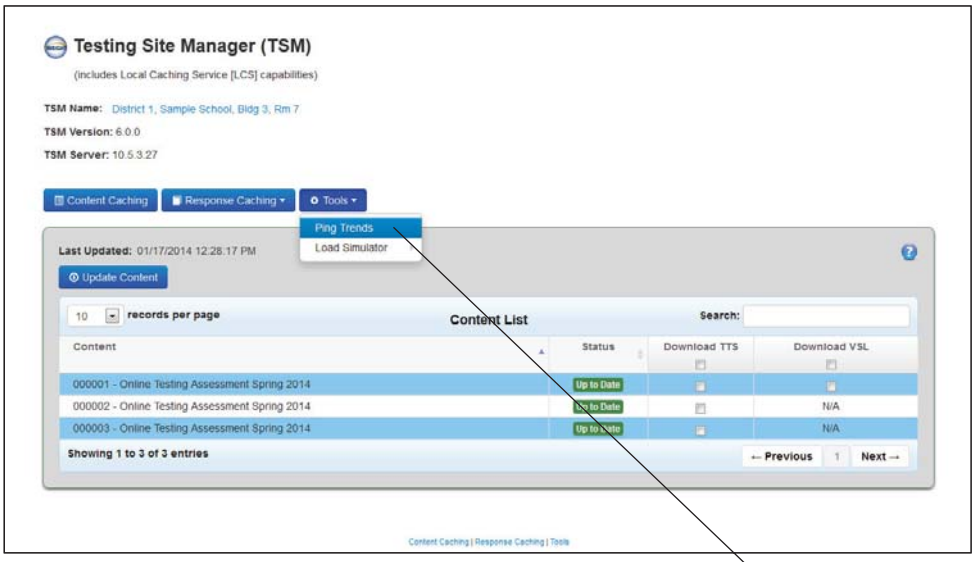
Ping Activity

When the TSM "pings" the IP address of the DRC server, the network sends data packets from the TSM to the DRC server and back. The network also calculates the time, in milliseconds, it takes for the data to be received. The longer this time is, the longer it has taken the DRC server to receive the data packets (usually because of excess network traffic).

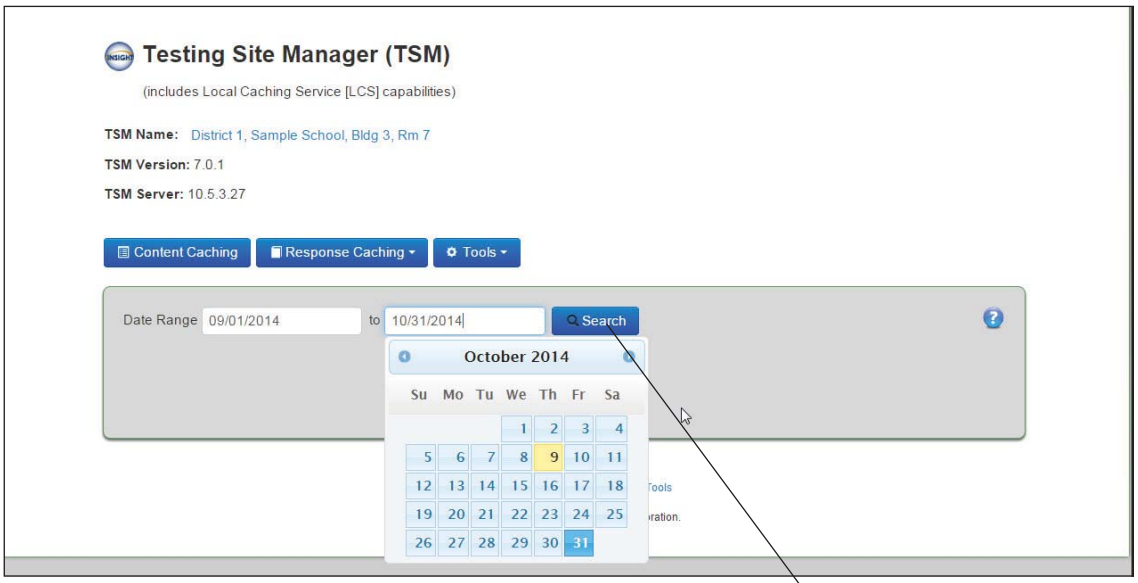
This rate of data transfer across a network is referred to as latency. Knowing the latency is useful for helping to determine peak network traffic times and for analyzing the best times for testing.

Graphing Ping Activity

Select **Tools–Ping Trends** to graph the time that was required by the TSM to ping the DRC servers for a date range that you specify, as well as the number of ping failures during the same date range.

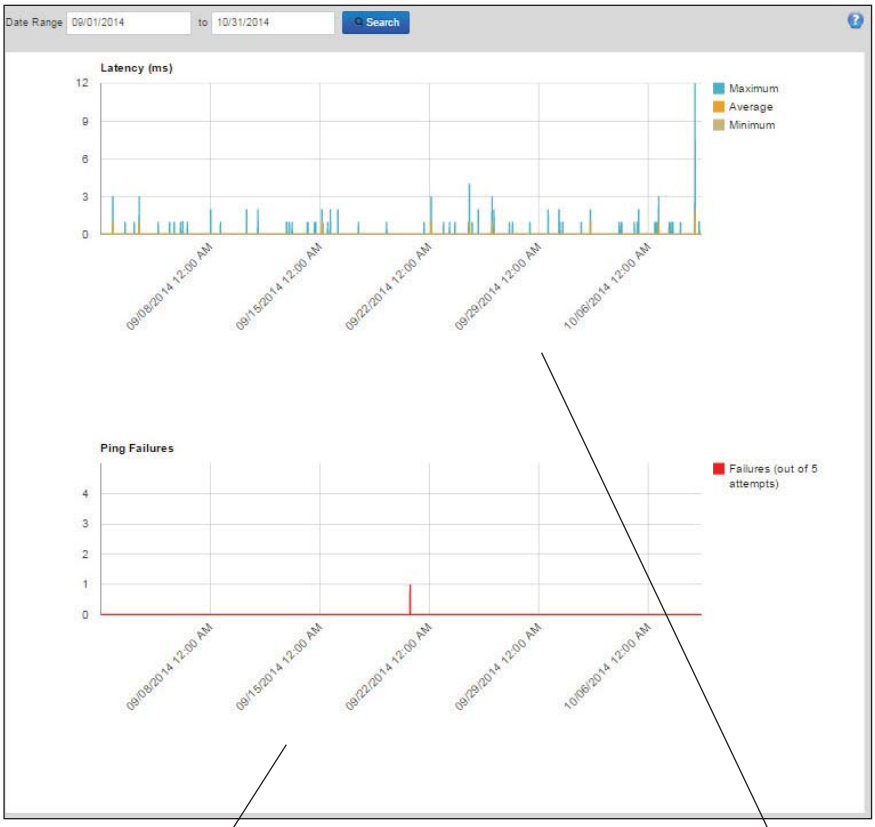


1. Select **Tools–Ping Trends** to display the Ping Trends page.



2. Use the drop-down calendars to specify a date range for the data and click **Search**.

Graphing Ping Activity (cont.)

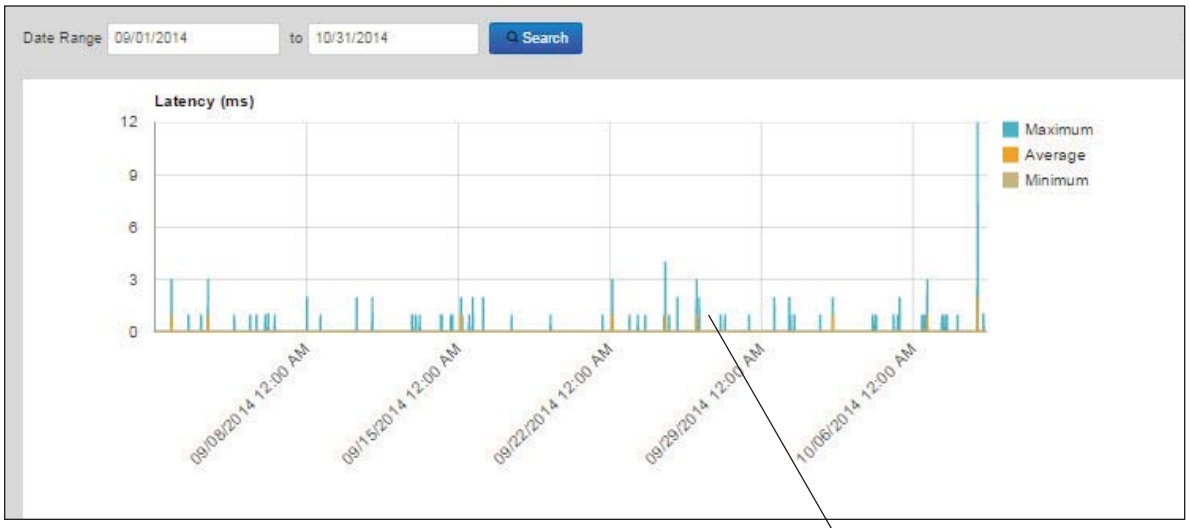


Two graphs display network communication information for the date range.

- The first graph reveals the latency of the network.
- The second graph indicates the number of ping failures.

Graphing Ping Activity (cont.)

The first graph displays a measure of the latency during the date range. Latency is a measure of the time delay in a system—the greater the latency, the slower the communication.



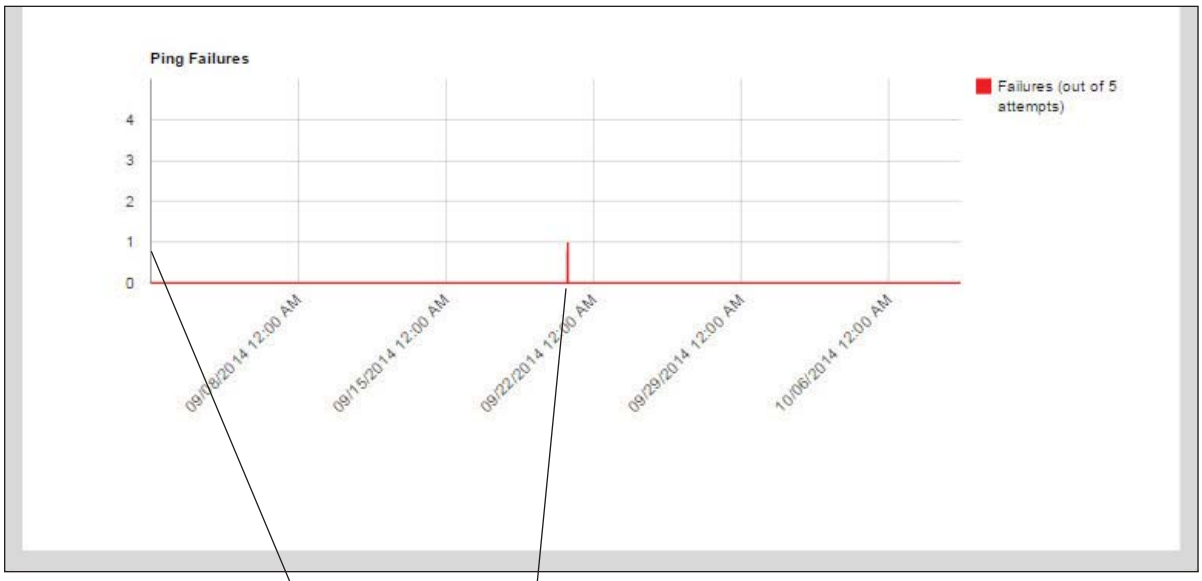
In this graph, latency represents the time required (in milliseconds) for ping attempts during the time period, organized by color:

- The blue line indicates the maximum amount of time needed for ping attempts.
- The orange line indicates the average amount of time needed for ping attempts.
- The tan line indicates the minimum amount of time needed for ping attempts.

As the time required for ping attempts increases, peaks or spikes appear that can indicate increased network traffic and slower response time. You can use this information to determine optimum testing times.

Graphing Ping Activity (cont.)

The second graph displays the number of ping failures during the date range. Ping failures are a good indicator of system availability—a spike, or high failure rate, indicates a time period of poor communication between the TSM and DRC. Similarly, a low failure rate indicates a good time for testing. You can use this information to determine optimum testing times.



Ping failures indicate the number of times (Y-axis) that the TSM was unable to successfully ping the DRC server after five attempts during each time interval* (X-axis).

*To graph ping failures, the TSM divides the date range you specified into equal date and time intervals.

Load Simulation Testing

Technology Coordinators (TCs) can perform load simulations to estimate the amount of time it will take during testing to download tests and upload responses. The following are prerequisites and tips for performing load simulation tests:

- The TSM must be installed, running, and connected to each testing device that you plan to include in the simulation.

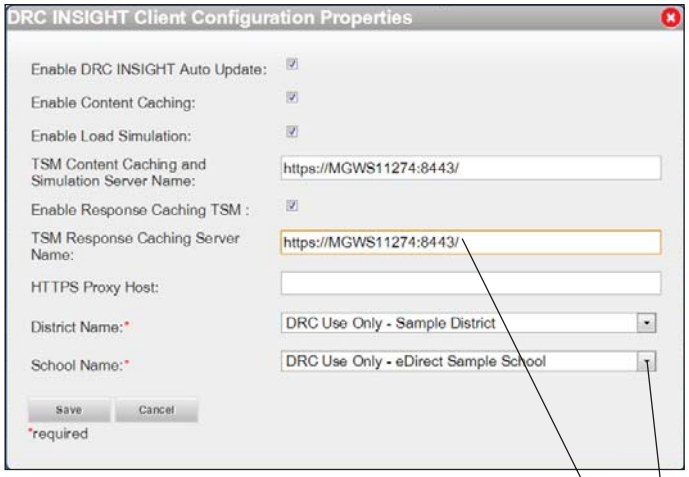
  Important: For a load simulation test, limit the number of testing devices per TSM to 100. Attempting to perform a load simulation test with more than 100 devices may cause the TSM to become unresponsive. You may have to uninstall and reinstall the TSM.

- DRC recommends that you run the each simulation three times during your load simulation testing. Run it twice specifying the TSM as the source for form content and once specifying DRC as the source for form content
- Run different load simulations with different groups of devices to ensure that all devices are included in multiple simulations.
- INSIGHT must be installed on each testing computer that you plan to include in the simulation.
- The System Readiness Check must be displayed on the screen of each testing computer that you plan to include in the simulation.
- You must select a district and school name for the testing computer for your load simulation reports.

  Note: For general questions and answers regarding Load Simulation Testing, see “Load Simulation Testing Questions” on page 190.

Performing a Load Simulation

You use the TSM and INSIGHT to perform a load simulation—if you are not using the TSM, you cannot perform load simulations. First, install INSIGHT on a testing computer and specify the location of the TSM the testing computer is using to register the testing computer with the TSM. Next, start the TSM, specify which of the registered computers to include in the simulation, and run your simulations. Then, use the TSM to review the results of the simulations.



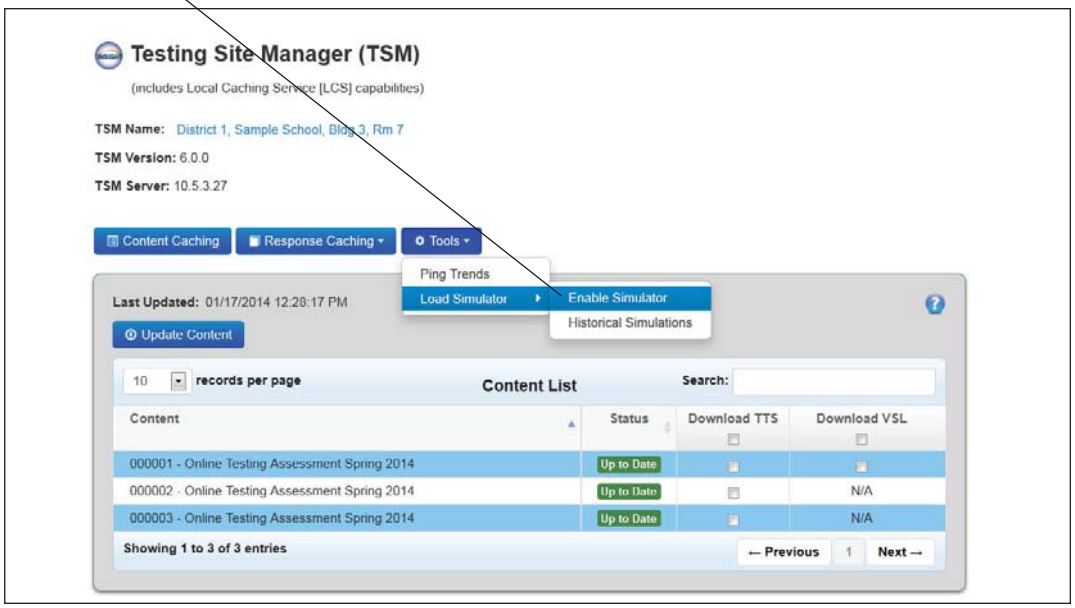
To perform a load simulation, do the following:

1. Install INSIGHT on each testing computer (see the Installation chapters) that you will be using in the load simulation.
2. Start the System Readiness Check and click **DRC INSIGHT Properties** to display the DRC INSIGHT Client Configuration Properties window.
3. If you have not done so, check the **Enable Content Caching** and **Enable Load Simulation** checkboxes and specify the location of the TSM you use for content caching in the **TSM Content Caching and Simulation Server Name** field, select the district and school for the testing computer from the **District Name** and **School Name** drop-down menus, and click **Save** (see “Setting DRC INSIGHT Properties” on page 169).

   Important: When you are finished, leave the System Readiness Check open. The System Readiness Check must be active on each testing computer that you plan to include in the simulation.
4. Start the TSM by selecting **Start–All Programs–TestingSiteManager–TestingSiteManager**.

Performing a Load Simulation (cont.)

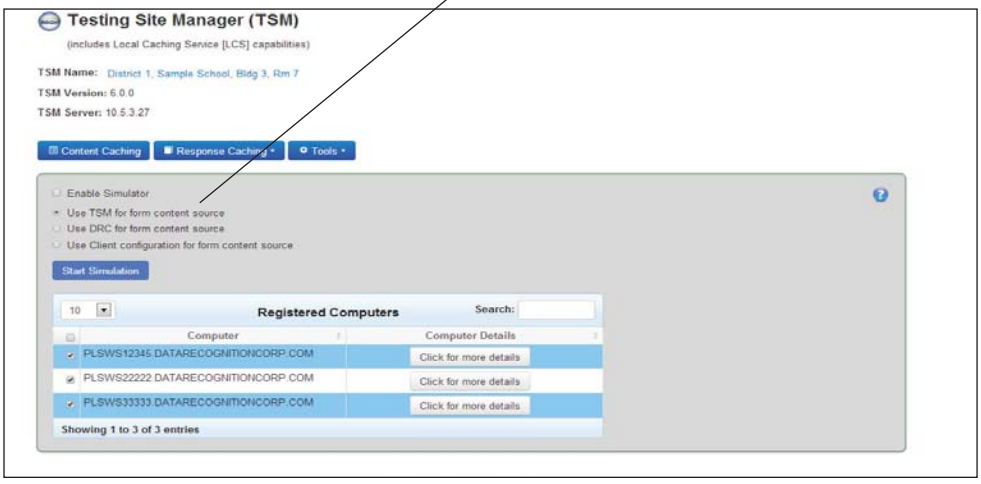
5. From the TSM, select **Tools–Load Simulator–Enable Simulator**.



You can specify the source for the test form content—the TSM, the DRC servers, or the testing computer.

6. Check the **Enable Simulator** checkbox and use the radio buttons to specify the source of the form content for the simulation.

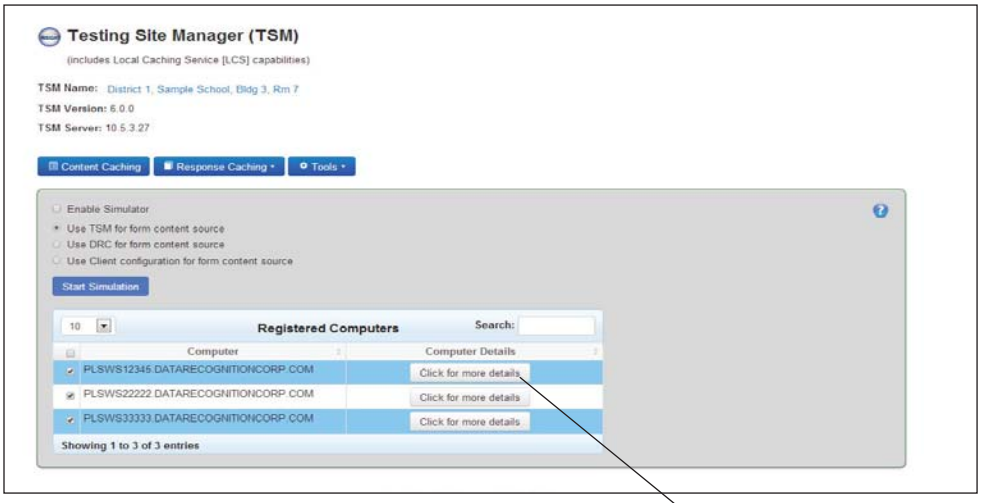
Note: This step registers the testing computer with the TSM.



The Registered Computers page displays the number and name of each testing computer registered to the TSM.

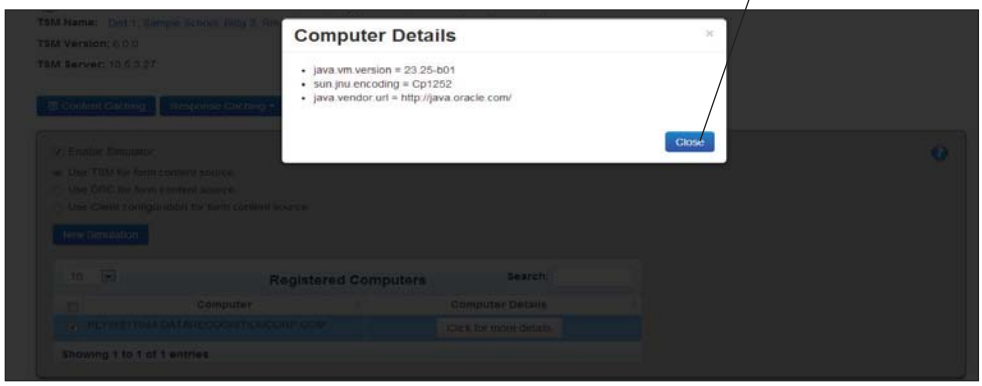
7. Select one or more computers from the Computer column to include in the simulation by clicking the checkbox next to each computer's name. Click the checkbox at the top of the column to test all of the computers.

Performing a Load Simulation (cont.)

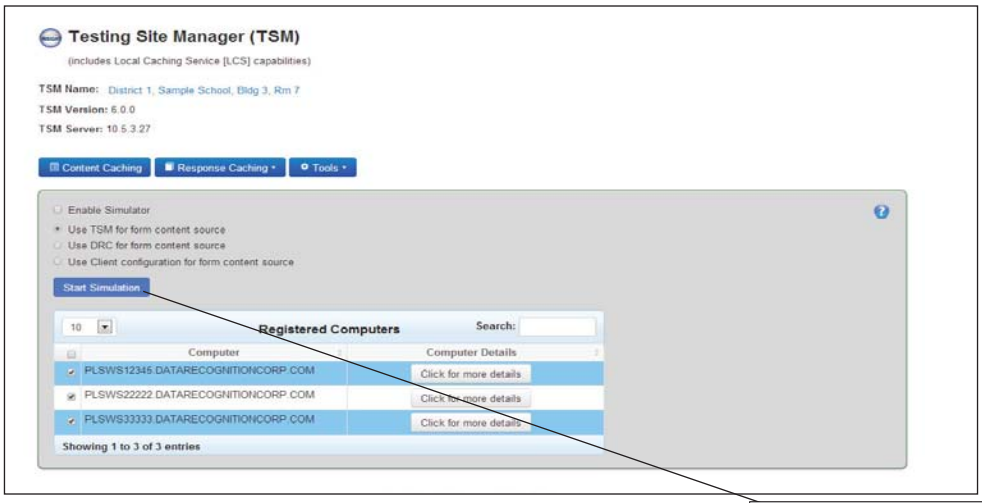


You are ready to run a simulation.

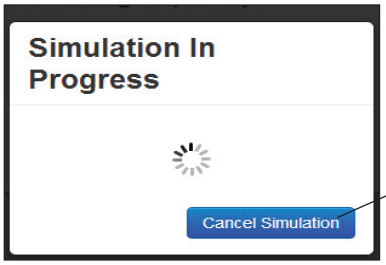
8. To locate one or more computers in the list, use the Search box. Click the **Click for more details** button to display technical details about the testing computer. Click **Close** when you are finished.

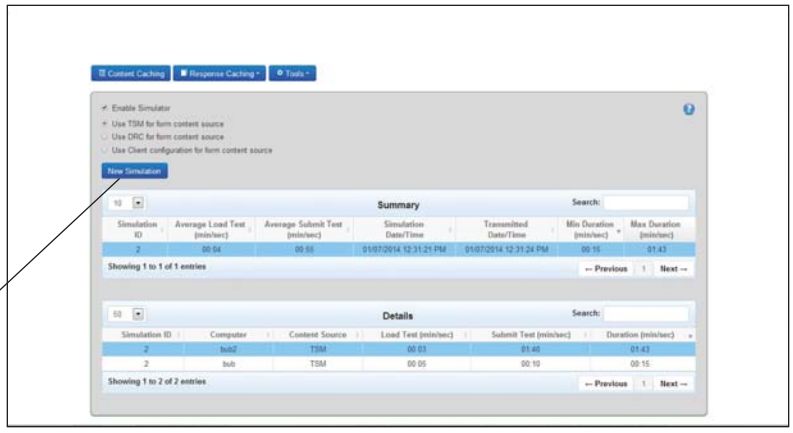


Performing a Load Simulation (cont.)



9. Click **Start Simulation** to start the simulation. You can click **Cancel Simulation** to cancel a simulation.





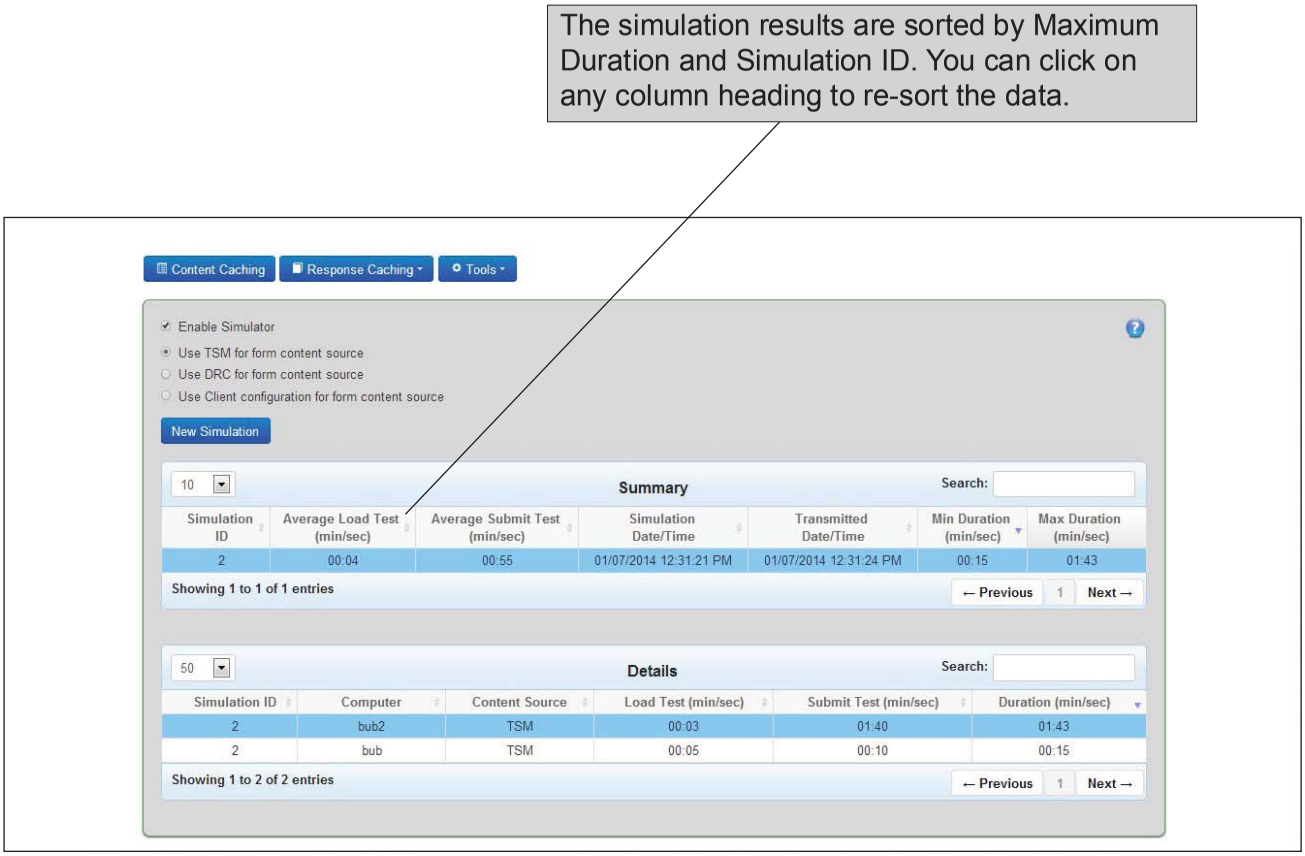
After a simulation, the Start Simulation button changes to New Simulation and each testing computer in the simulation displays a completion message.

10. To run another simulation, click the **New Simulation** button to reset it to **Start Simulation** and repeat steps 4–9. If you are finished, close the System Readiness Check on each testing computer.

Note: A simulation times out after ten minutes. The time for a simulation that lasts less than one second is rounded to one second.

Analyzing Load Simulation Results

When the load simulation finishes, the results display. For a description of the information displayed, refer to the tables on the following page.



Analyzing Load Simulation Results (cont.)

The following tables describe the information displayed from the completed simulation.

Summary

The information in the Summary column summarizes simulation results across all of the testing computers in the simulation.

Heading	Description
Simulation ID	A system identifier for the simulation.
Average Load Test (min/sec)	The average time for the computers in the simulation to load test content.
Average Submit Test (min/sec)	The average amount of time for the computers in the simulation to submit all test responses to DRC. This time factors in the time required to submit each test response, the wait time between each test question, and the time required for the final test submission.
Simulation Date/Time	The date and time the simulation started.
Transmitted Date/Time	The time the simulation results were transmitted to DRC.
Min Duration (min/sec)	The time required for the fastest computer in the simulation to load the test and submit the results.
Max Duration (min/sec)	The time required for the slowest computer in the simulation to load the test and submit the results.

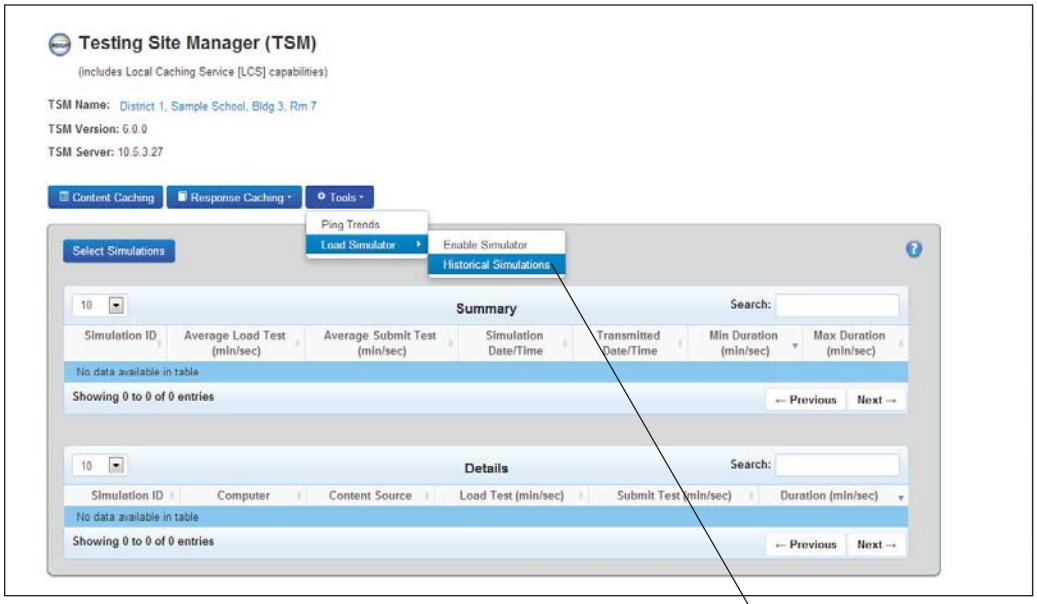
Details

The information in the Details column shows simulation details for each testing computer in the simulation.

Heading	Description
Simulation ID	A system identifier for the simulation.
Computer	The unique name of each computer in the simulation.
Content Source	The source of the test content loaded to the testing computer, DRC or TSM.
Load Test (min/sec)	The time it took the testing computer to load test content.
Submit Test (min/sec)	The time it took the testing computer to submit test responses to DRC.
Duration (min/sec)	The total time it took the testing computer to load the test and submit the results.

Viewing Historical Simulation Data

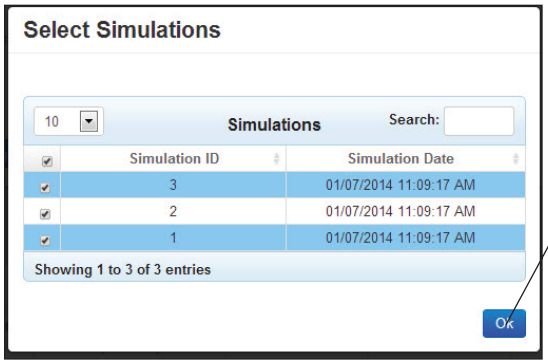
Use the Historical Simulations option to view the results of one or more simulations that you select. For a description of the meaning of the information displayed, refer to the tables that follow.



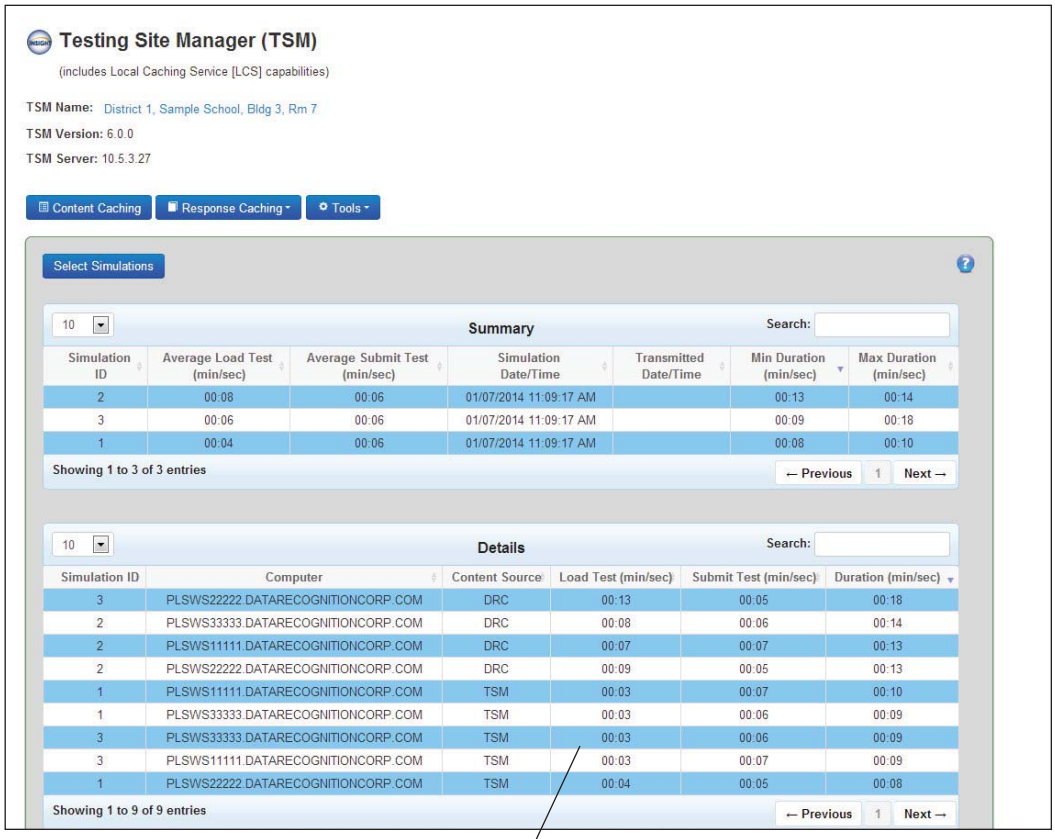
To select one or more simulations, do the following:

1. Select **Tools–Load Simulator–Historical Simulations**.
2. Click **Select Simulations**.

   The Select Simulations dialog displays. Check a checkbox for each simulation you want to display.
3. Click **OK** to view the results.



Viewing Historical Simulation Data (cont.)



The results display for the simulations you selected.

4. For a description of the meaning of the information displayed, refer to the tables on the following page.

Note: The results are sorted by Maximum Duration and Simulation ID. You can click on the column headings to re-sort the data.

Viewing Historical Simulation Data (cont.)

The following tables describe the simulation information that displays.

Summary (Historical)

The historical summary information summarizes simulation results across all of the testing computers in the simulation selected.

Heading	Description
Simulation ID	A system identifier for the simulation.
Average Load Test (min/sec)	The average time for the testing computers in the simulation to load test content.
Average Submit Test (min/sec)	The average amount of time for the computers in the simulation to submit all test responses to DRC. This time factors in the time required to submit each test response, the wait time between each test question, and the time required for the final test submission.
Simulation Date/Time	The date and time the simulation started.
Transmitted Date/Time	The time the simulation results were transmitted to DRC.
Min Duration (min/sec)	The time required for the fastest computer in the simulation to load the test and submit the results.
Max Duration (min/sec)	The time required for the slowest computer in the simulation to load the test and submit the results.

Details (Historical)

The historical detail information shows simulation details for each testing computer in the simulation selected.

Heading	Description
Simulation ID	A system identifier for the simulation.
Computer	The unique name of each computer in the simulation.
Content Source	The source of the test content loaded to the testing computer, DRC or TSM.
Load Test (min/sec)	The time it took the testing computer to load test content.
Submit Test (min/sec)	The time it took the testing computer to submit test responses to DRC.
Duration (min/sec)	The total time it took the testing computer to load the test and submit the results.

The System Readiness Check

The System Readiness Check helps you troubleshoot issues that might occur during INSIGHT installation or when INSIGHT is running. It is installed when you install INSIGHT and performs a series of tests you can use to diagnose and prevent or correct most errors easily.

The System Readiness Check verifies that a testing device meets all of the necessary hardware and software requirements for testing. It also indicates any checks that the testing device failed and provides suggestions for success.

The System Readiness Check is located in different places on the testing device, depending on the type of device, the operating system, and the state or assessment.

❑ Windows Systems

For Pennsylvania, the program is located at C:\Program Files\PA Online Assessments\Readiness. For 64-bit computers, the program is located at C:\Program Files (x86)\PA Online Assessments\Readiness. To run the program, from the **Start** menu select **All Programs–PA Online Assessments–Readiness**.

❑ Mac (OS X) Systems

For Pennsylvania, the program is located at /Applications/PA Online Assessments/Readiness. To run the program, select /**Applications/PA Online Assessments** and double-click on **Readiness**.

❑ Linux Systems

For Pennsylvania the program is located at /opt/PA Online Assessment System/Readiness. To run the program, right-click on the Readiness file, select **Open**, and select **Run in Terminal**.

❑ iPad Devices

On an iPad device, press **PA–INSIGHT** to start the INSIGHT App. After the INSIGHT App displays, press and hold with two fingers in an empty part of the screen to display the System Readiness Check (see “Setting DRC INSIGHT Properties on an iPad” on page 102).

❑ Chromebook Devices

On a Chromebook device, click the **Readiness Check** link to display the System Readiness Check.

Note: The Chromebook System Readiness Check has different options and fields because of the way Chromebooks are configured using the Device Toolkit. For more information, refer to “Using the System Readiness Check on a Chromebook” on page 116.

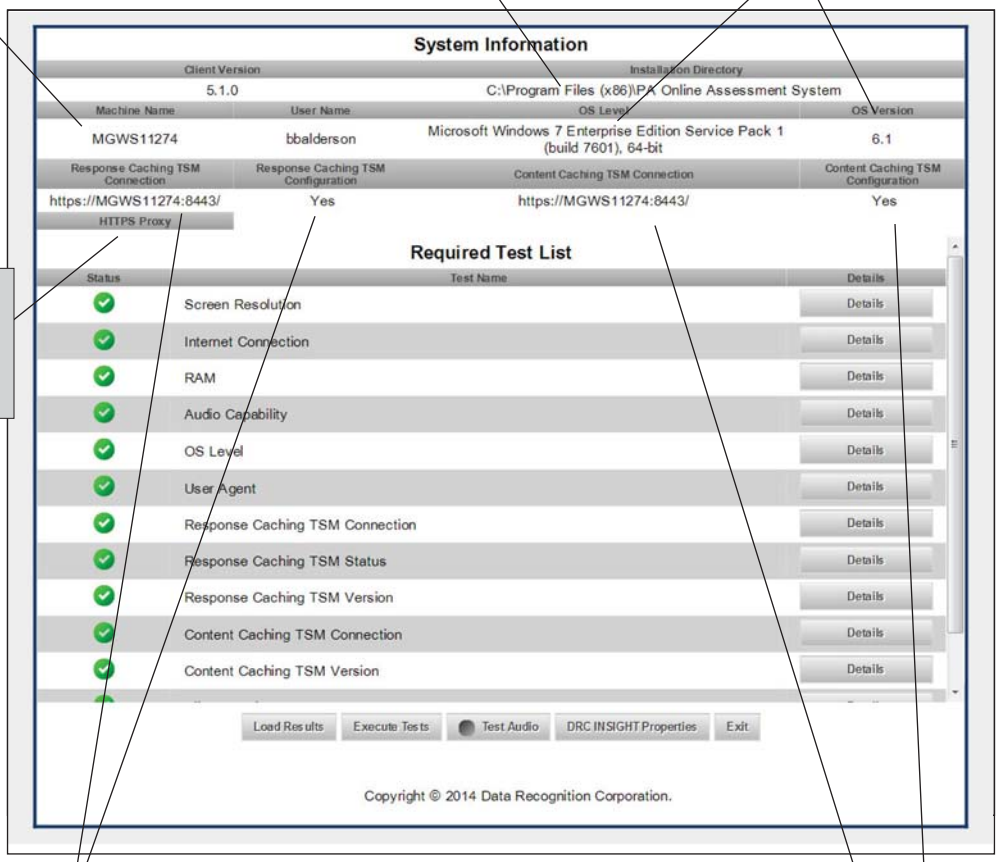
Using the System Readiness Check

After installing INSIGHT, use the System Readiness Check to determine whether your testing computers still meet system requirements and to troubleshoot issues.

The **Installation Directory** field indicates the directory where INSIGHT is installed.

The **Machine Name** field indicates the name of the testing computer.

The **OS Level and OS Version** fields indicate the operating system and level that is installed on the testing computer.

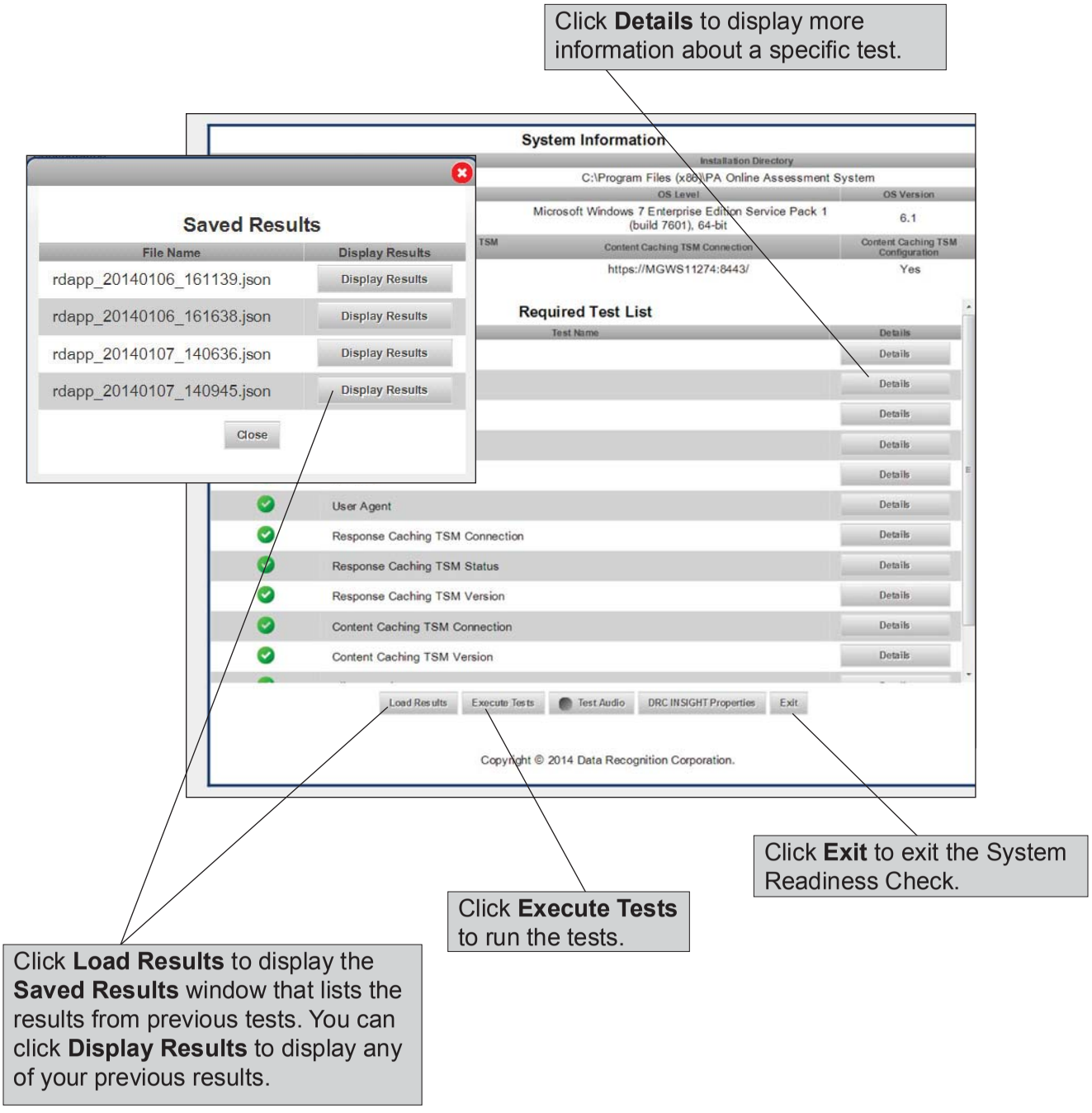


The **HTTPS Proxy** field indicates the URL to the secure proxy server (if configured).

The **Response Caching TSM Configuration** field indicates whether response caching is configured and the **Response Caching TSM Connection** field indicates the URL to the response caching server (if configured).

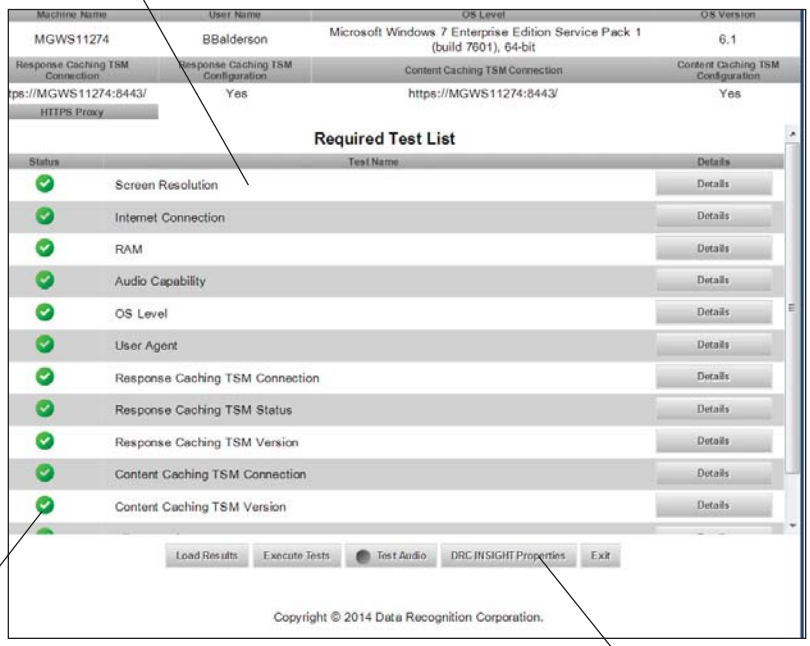
The **Content Caching TSM Configuration** field indicates whether content caching is configured and the **Content Caching TSM Connection** field indicates the URL to the content caching server (if configured).

Using the System Readiness Check (cont.)



Using the System Readiness Check (cont.)

When you click **Execute Tests**, the System Readiness Check runs all of the tests from the required test list and displays the results.



Click **DRC INSIGHT Properties** to display a dialog box you can use to update the connection information for your TSM server, or to enable or disable TSMs (see “Setting DRC INSIGHT Properties” on page 169).

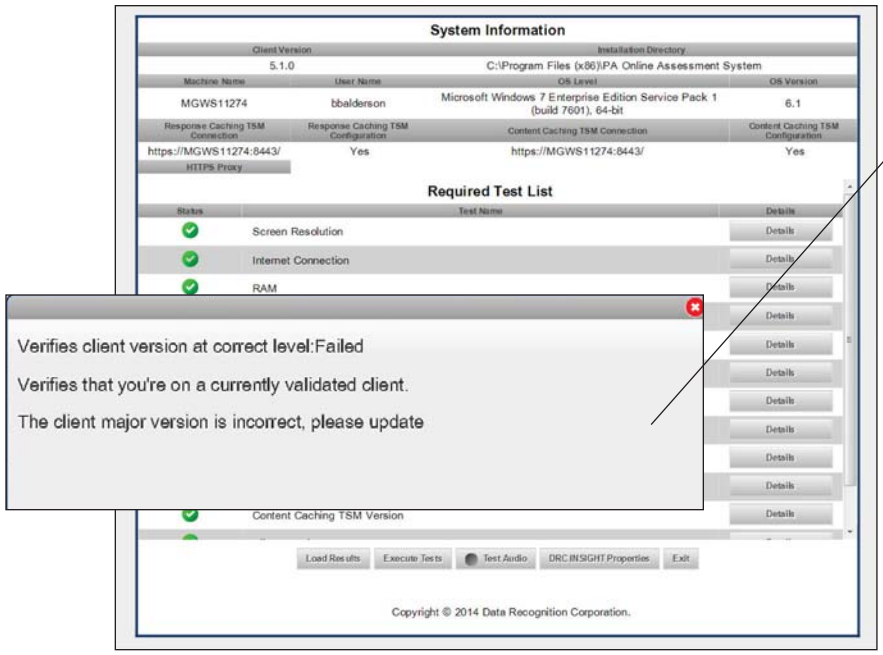
Various icons indicate the status of a test.

- A green check mark icon ( ) indicates that the testing computer passed the test.
- A red exclamation point icon ( ) indicates that the testing computer failed the test.
- A grey icon ( ) indicates that the test is not applicable to the configuration.
- A yellow check mark icon ( ) may display for the OS Level check only. This icon appears if the operating system is valid but the level/version of the operating system has not been tested by DRC.

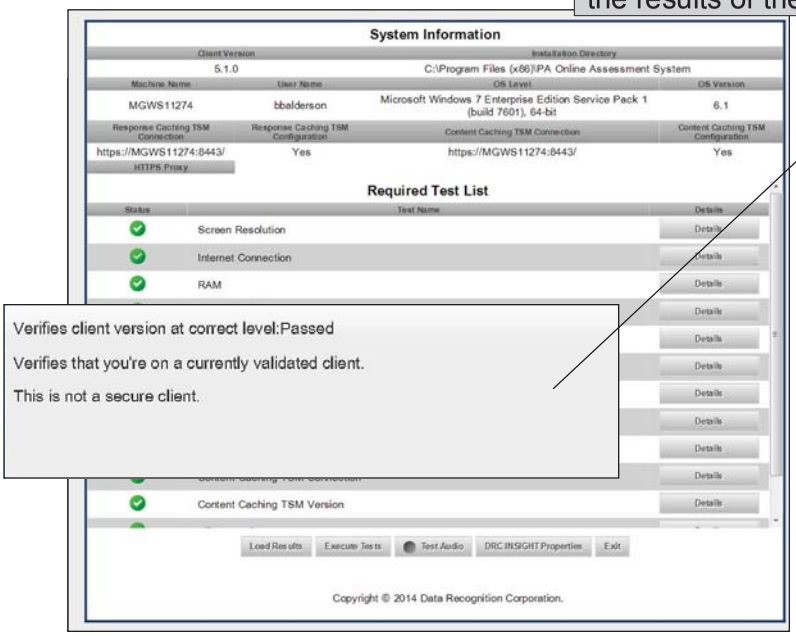
Using the System Readiness Check (cont.)

You can display details about the System Readiness Check before and after the tests. For a description of these tests, see “The System Readiness Required Tests” on page 164.

When you click **Details** before you execute a test, a window displays a description of the test.



When you click **Details** after you execute a test, a window displays the results of the test.



The System Readiness Required Tests

The System Readiness Check performs a series of required tests to determine whether the computer is ready for online testing. The following table lists and describes each test plus the minimum requirements to pass the test.

Test	Description	Required to Pass
Screen Resolution	Verifies that the screen width and height are sufficient to display the online tests.	A minimum screen size of 1024 x 768 pixels.
Internet Connection	Verifies that the computer is connected to the Internet and that the connection speed is fast enough for testing.	The computer and browser must have a ping (connection) time of no more than 250 milliseconds.
RAM	Verifies that the computer has enough memory for online testing.	512 MB of RAM (768 MB for VSL)
Audio Capability	Verifies that the computer has the audio capability needed for online testing and/or tutorials.	The computer must have one or more audio channels and be able to play MP3 audio files.
OS Level	Verifies that the operating system is supported and at a level required for online testing.	See "INSIGHT System Requirements" on page 18 for the supported operating systems.
User Agent	Verifies that the web browser will work for the unsecured, practice tests—the Online Tools Training, or OTT.	An up-to-date Chrome browser.
Response Caching TSM Connection	Verifies that the INSIGHT test engine software on the testing computer can connect to the TSM response caching server.	The connection to the TSM response caching server must be working.
Response Caching TSM Status	Verifies that the TSM contains no unsent student responses.	The TSM must contain no stored responses.
Response Caching TSM Version	Verifies that the version of the TSM response caching server is the most recent.	The TSM response caching server must be the latest version.
Content Caching TSM Connection	Verifies that the INSIGHT test engine software on the testing computer can connect to the TSM content caching server.	The connection to the TSM content caching server must be working.
Content Caching TSM Version	Verifies that the version of the TSM content caching server is the most recent.	The TSM content caching server must be the latest version.
Client Version	Verifies that the version of the client software will work with the secure browser.	The base level of the client software must be up to date.
Folder Permissions	Verifies that you have permission to read and write to the installation folder.	Read/write access to the installation folder.

Resolving System Readiness Required Tests

This section describes various issues you may experience when you run the System Readiness Check tests. It also describes the steps to take to resolve these issues.

Issue 1. Screen Resolution Error

This test verifies that the screen width and height settings meet the minimum system requirements.
If it fails, the machine's resolution is not high enough to meet the minimum system requirements. You must change the screen resolution (see "INSIGHT System Requirements" on page 18 for the supported resolution).

Issue 2. Internet Connectivity Error

The testing workstation cannot reach the DRC servers through the Internet. This is usually a firewall or proxy issue. Make sure that everything is whitelisted (see "Question 1: I Don't Know What to Whitelist, Allow, or Unblock?" on page 199).

Starting or Running the System Readiness Application

If the error occurs when you are starting or running the System Readiness application, do the following:

1. Verify that you have no bandwidth issues and that you can reach the DRC servers.
2. The Windows environment does not always capture proxy settings correctly. Usually, Windows uses the Internet Explorer Internet settings. You also can set them using the System Readiness software (see "Setting DRC INSIGHT Properties" on page 169).
3. Contact your Internet Service Provider (ISP) and verify that it is not filtering or throttling your connection with DRC.
4. Verify that you have all of the DRC addresses whitelisted.

Issue 3. RAM Error

This test verifies that the system's memory meets the minimum system requirements. If this test fails, you must upgrade the amount of memory in the computer to meet the minimum system requirements.

Issue 4. Audio Capability Error

This test verifies that the computer has the audio capability needed for online testing and/or tutorials. If this test fails, verify that the computer's sound card is working and that the computer has a valid playback device.

Issue 5: OS Level Error

This test verifies that INSIGHT is running on a supported operating system. If the machine is running a supported operating system, the test verifies that your setup meets the minimum system requirements. In addition to supported vs. unsupported operating systems, there is also a warning if the machine is using an untested version of a supported OS.

Resolving System Readiness Required Tests (cont.)

Issue 6. User Agent Error

This test verifies that the web browser is correct for online testing.

Issue 7. TSM Connection Error

The testing client (workstation) is configured to use the TSM, but it cannot connect to it. All of the computers that use the TSM server must be able to connect to the TSM.

Important: The two most common reasons for TSM connectivity issues are difficulty translating the server name into an IP address and not excluding the TSM from the system firewall on the computer where the TSM is installed.

You are not Using the TSM

Turn off the TSM in INSIGHT and do one of the following:

- In the installation directory, edit the properties file *<DRC INSIGHT Install Folder>*\DRCConfiguration.json, in a text editor (you must have administrator privileges to edit this file), and change the LCSURL parameter string to **"LCSURL" : ""**
- Reinstall INSIGHT and do not use the TSM.

You are Using the TSM

1. From the System Readiness application, verify that the TSM server settings are correct.
2. Verify that the TSM service is running.
3. Verify that the TSM is reachable. Open the TSM both on the computer where the TSM is installed and on some of the machines that are receiving the error.
4. Make sure that any Antivirus/Firewall/Proxy between, or on, the client and server is open. Also, ensure that both the testing client and the TSM are whitelisted.

   Note: See “Question 1: I Don’t Know What to Whitelist, Allow, or Unblock?” on page 199 to verify what should be allowed, whitelisted, and unblocked.
5. Try setting the proxy settings manually.
6. Verify that no other web servers are running. Check whether a Virtual Machine (VM) is being used to host the TSM. Make sure no other VMs on the server are running a web server on ports 8080 or 8443.

Resolving System Readiness Required Tests (cont.)

Issue 8. TSM Response Caching Error

The TSM server has not transmitted all of its stored responses. This test fails if there are stored student responses that have not been transmitted.

Note: Students cannot log in if there are stored responses in the TSM.

1. Start the TSM.
2. Select **Response Caching–Unsent Responses**.
3. Verify whether there are unsent tests and click **Transmit Responses** if there are.

Issue 9. TSM Version Error

The TSM is not the latest version. You must uninstall it and reinstall the latest version.

1. Uninstall the TSM (see the Installation chapters) and verify that it was uninstalled correctly.
2. Reinstall the TSM from eDIRECT (see the Installation chapters).
3. Rerun the System Readiness checks (see “Using the System Readiness Check” on page 160) to verify that the TSM is the latest version.

Issue 10. Client Version Error

The client software (INSIGHT) is not the latest version. You must download the latest version (if you are prompted to update your software, click **Update**).

DRC INSIGHT Properties

You use the DRC INSIGHT properties to specify certain system properties for your testing computers (the client systems), your TSM server, and other testing servers. You can do the following:

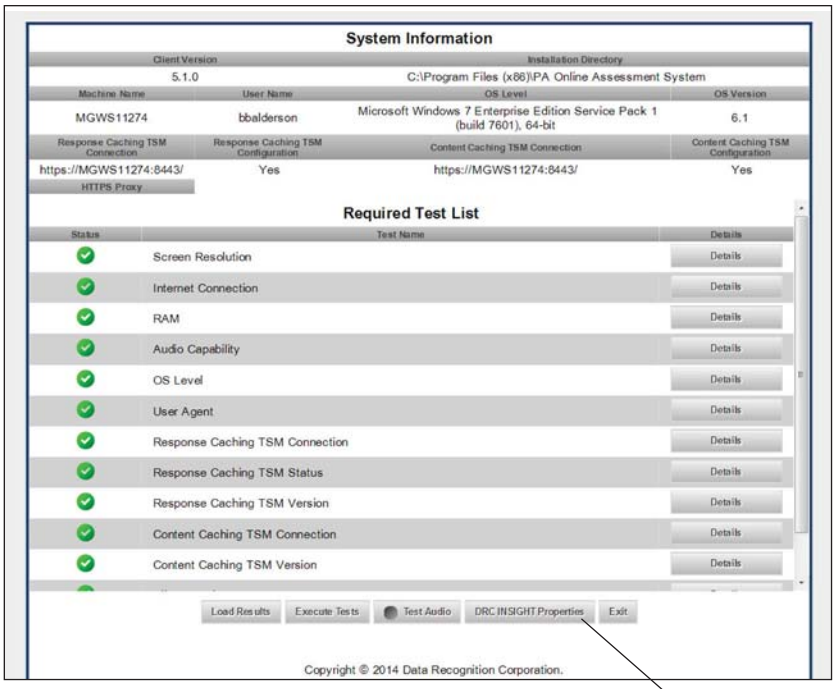
- Enable or disable automatic software updates.
- Specify proxy settings for both your unsecured (http) and secured (https) host servers.
- Enable or disable a TSM.
- Specify which server is the content caching and/or load simulation TSM server, and the port it uses for communication.
- Specify which server is the response caching TSM server and the port it uses for communication.
- Select the district and school name associated with the testing computer (required for Load Simulation Testing*).

  *The Load Simulation Tool is software that simulates and tests both the load and route of the data from the testing workstation to the DRC servers to help ensure that everything is set up correctly for testing (see the sections “Load Simulation Testing” on page 149 and “Load Simulation Testing Questions” on page 190).

You specify these properties by selecting **DRC INSIGHT Properties** (see “Setting DRC INSIGHT Properties” on page 169).

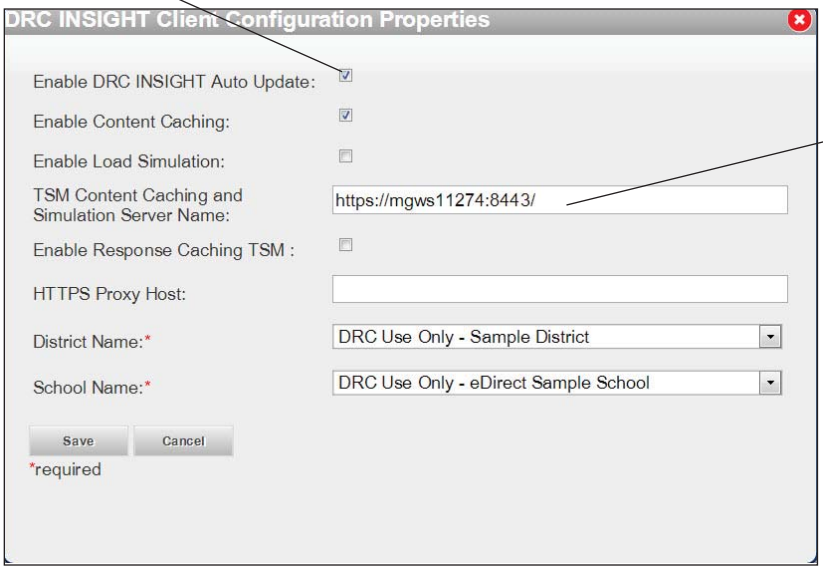
Setting DRC INSIGHT Properties

When you select DRC INSIGHT Properties from the Required Test List window, a dialog box displays that you can use to enable or disable automatic software updates, specify the path to the TSM server you use for content caching and/or load simulation tests, the path to the TSM server you use for response caching, the path to a secure proxy host, and the name of the district and school associated with the testing computer.



You can enable or disable Auto Updates of the INSIGHT software (“Automatic Software Updates” on page 26).

Click **DRC INSIGHT Properties** to display the DRC INSIGHT Configuration Properties dialog box. From this dialog box you can review your INSIGHT configuration and make changes to it.

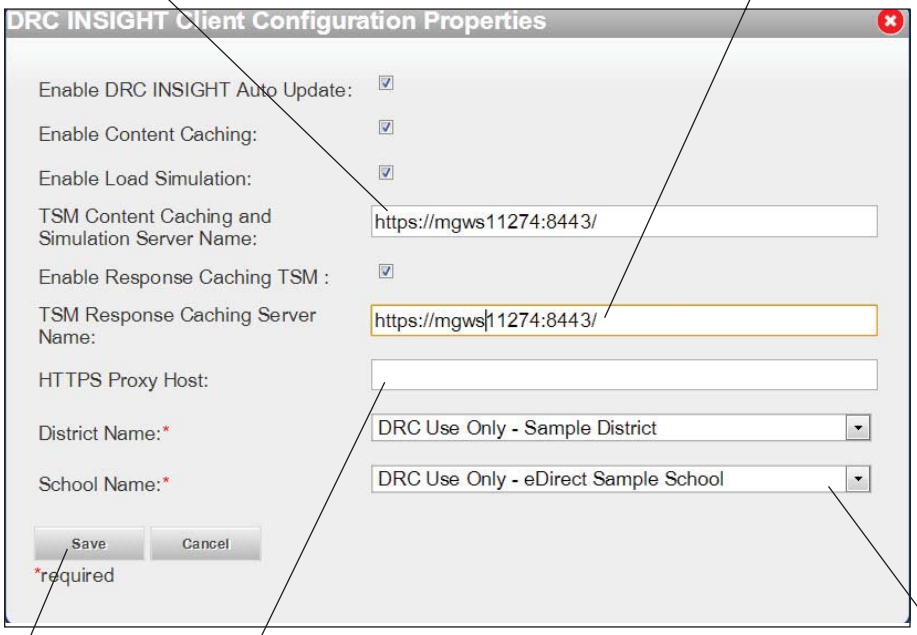


To specify a server to use for test content caching, check **Enable Content Caching** and enter the server name (or IP address*) and port number in the TSM Content Caching and Simulation Server Name field. The last character in the server address string must be a forward slash (/).

Setting DRC INSIGHT Properties (cont.)

To specify a server to use for load simulations, check **Enable Load Simulation** and enter the server name (or IP address*) and port number (separated by a colon) in the TSM Content Caching and Simulation Server Name field. The last character in the server address string must be a forward slash (/).

To specify a server to use for test response caching, check **Enable Response Caching TSM** and enter the server name (or IP address*) and port number (separated by a colon) in the TSM Response Caching Server Name field. The last character in the server address string must be a forward slash (/).



To specify a proxy HTTPS (secured) Host to use for the TSM, enter the server name (or IP address*) and port number (separated by a colon) in the HTTPS Proxy Host Name field. The last character in the server address string must be a forward slash (/).

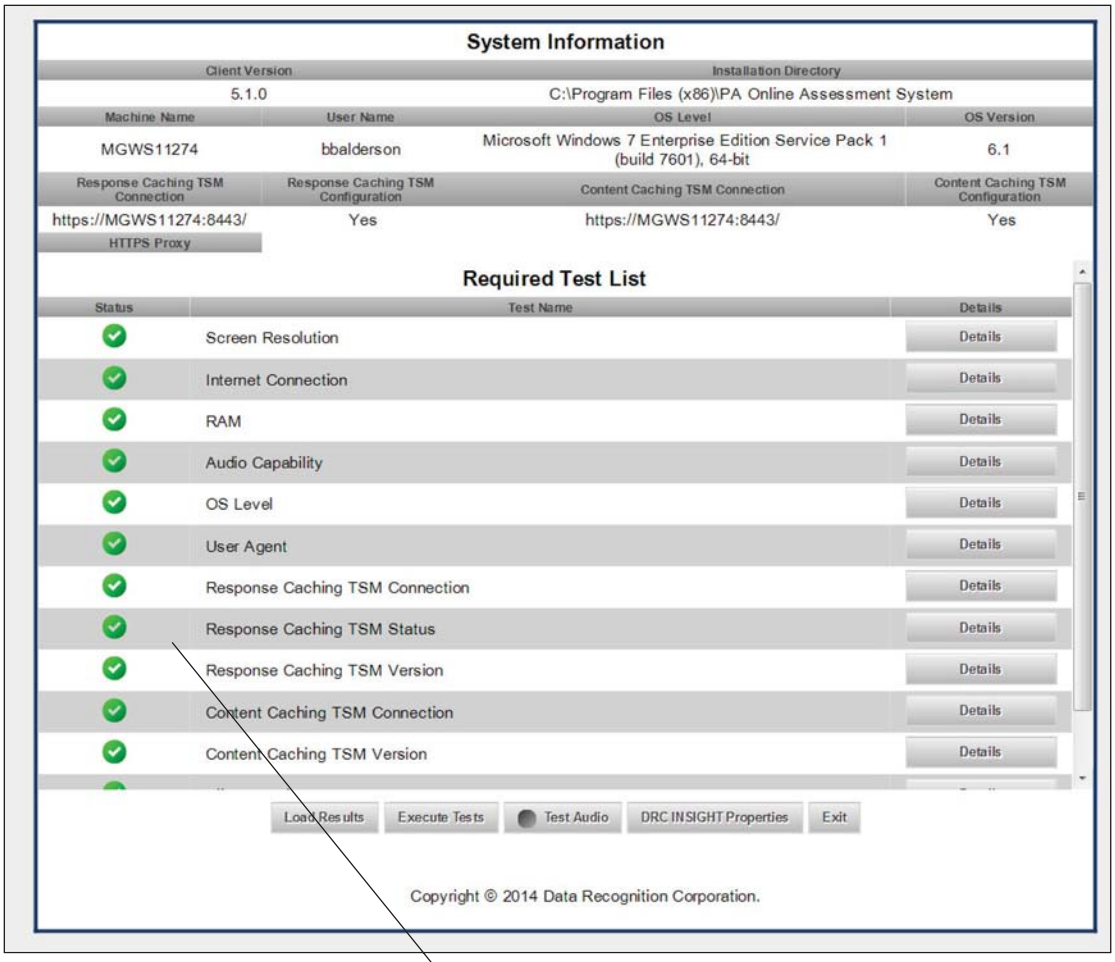
You must restart the testing computer to make this change.

Select the district and school for the testing computer from the **District Name** and **School Name** drop-down menus. These names are used for the reports generated from the load simulations tests.

Click **Save** to save your changes or **Cancel** to cancel them.

Important: *A TSM server should have a static IP address (an IP address that does not change when the computer is restarted or rebooted). If the IP address of a TSM machine changes, you must reconfigure the testing computers that connect to that TSM.

Setting DRC INSIGHT Properties (cont.)



If you made any configuration changes, the System Information window displays the results of the System Readiness Check tests for those changes.

Notes

Appendix A: Error Messages

What's Covered in This Appendix

This Appendix describes some of the more common error messages you may encounter while installing, configuring, and using DRC INSIGHT, and provides recommendations to resolve them.

For some messages, there are references to a more detailed description of how to resolve the error.

INSIGHT and TSM Error Messages

This section describes common INSIGHT and Testing Site Manager (TSM) error messages and methods to resolve them.

Message: *Connection Error Retrieving Content*

Please contact your local IT staff to verify network connection is working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The testing client is not able to connect and download the test form from DRC. This connection error occurred while trying to download the form.

What Should I Do? If the issue persists check your whitelisting on your network devices and prioritize testing traffic. If possible allow testing traffic to bypass as many network devices as possible. Ensure that bandwidth is not being completely consumed. If you are using a TSM, verify the whitelisting and firewalls to and on the TSM (see “Issue 7. TSM Connection Error” on page 166).

Message: *Could not retrieve testing information.*

Possible connection error while attempting to retrieve device configuration.

Description: INSIGHT is unable to determine the identify of the Chromebook device.

What Should I Do? Check you network connection and retry. Verify that the Chromebook device is registered in the DRC INSIGHT Device Toolkit (see “Registering Devices” on page 122).

Message: *Download of Upgrade Failed*

Your upgrade failed because the download was unsuccessful.

Description: The testing client tried to upgrade but was unable to download the update.

What Should I Do? Try one or more of the following actions:

1. Retry the update.
2. Verify your whitelisting settings.
3. Manually update the testing client.

Message: *Guided Access Is Not Enabled.*

Please raise your hand and wait for help.

Description: Guided Access must be started on the iPad device before students log in and begin testing.

What Should I Do? Start Guided Access on the iPad device (see “Working with Guided Access” on page 96).

Message: *Idle Error -- Responses Stored*

Your session has been ended due to inactivity. Please click the OK button to proceed.

Description: The test session ended due to inactivity and auto shut down testing.

What Should I Do? The student testing should log in again and continue testing after the responses have been transmitted from the TSM.

Message: *Internet Connection Error*

There has been an interruption in Internet connection. The student may be moved to another computer to continue testing. If this error persists, contact your local IT staff to verify network and Internet connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: There was an interruption in the Internet connection and the testing client was unable to reach DRC or the TSM (if connected).

What Should I Do? If the issue persists, check whitelisting on your network devices and prioritize testing traffic. Allow testing traffic to bypass as many network devices as possible. Ensure bandwidth is not being completely consumed (see “Issue 2. Internet Connectivity Error” on page 165).

Message: *No TSM Configured*

A TSM must be configured when using audio. Please contact an administrator.

Description: The testing client is trying to log into an audio test that requires a TSM, but no TSM is configured.

What Should I Do? Connect the testing client to a TSM for content caching.

Message: Operating system *version* xxx *is not supported by DRC INSIGHT*

The version of the operating system on this testing device has not been fully tested by the DRC INSIGHT team. You may experience issues while taking the test or be unable to complete the test.

Description: The operating system on the testing device is valid, but the version or level of the operating system has not been tested by DRC.

What Should I Do? Install a supported level of the operating system before you continue testing, or test on a different device that is using a supported level of the operating system (see “INSIGHT System Requirements” on page 18).

Message: *Previous Login May Have Unsent Responses*

The responses for the student’s previous login to this test may have used a Testing Site Manager (TSM). The student cannot continue testing until any stored responses are sent. Please contact your local IT staff to check for unsent responses. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The last login for this ticket saved responses, or tried to save responses, to the TSM. This login is either not connecting to the same TSM, or is not connecting to any TSM. The testing client must verify that there are no unsent responses on the previous TSM before the student can continue testing.

What Should I Do? The testing client must connect to the same TSM as their previous login to verify that there are no unsent responses. Start the TSM, select **Response Caching–Unsent Responses**, and click **Transmit Responses**.

Message: *Previous Login with Unsent Responses*

The responses for the student’s previous login to this test are still stored on the Testing Site Manager (TSM). The responses must be sent by the TSM before the student can continue testing. Please contact your local IT staff to send the responses. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The last login for this ticket saved responses to the TSM and they have not been submitted yet.

What Should I Do? Submit the unsent responses. Start the TSM, select **Response Caching–Unsent Responses**, and click **Transmit Responses**.

Message: *Session Ended*

Another session has been activated with this student's login. Please confirm the student is using their assigned login. If the student is actively testing on another computer, click OK. Please contact DRC Customer Support if you need additional help to resolve this matter.

Description: Someone else has logged in with the same credentials on another computer.

What Should I Do? Verify that the student is using the correct testing credentials and that another student is not using them, and have the student login again.

Message: *Session Status Outside Window*

Testing is currently unavailable. Please contact an administrator.

Description: The test ticket that is trying to be logged into is in a test session where the window is not active.

What Should I Do? Move the student to a test session in an appropriate testing window.

Message: *Test Exit! Responses Stored on TSM*

There has been an interruption in Internet connection. All of the student's responses have been saved to the Testing Site Manager (TSM). The student should return to the same testing workstation or device to complete the test. Please contact your local IT staff to confirm the TSM is cleared by the end of the day. They can contact DRC Customer Support if they need additional help to resolve this matter.

Description: During testing the testing client lost connection with DRC. The test continued while saving responses to the TSM. The test has not been completed, so before the student can continue testing, the TSM must submit the responses for the student. The student must connect to the same TSM to complete the test.

What Should I Do? Make sure the TSM submits all the unsent responses. The student will not be able to continue testing until the responses are submitted. From the TSM, select **Response Caching–Unsent Responses**, and verify that the TSM displays **No unsent responses!** If there are unsent responses, click **Transmit Responses**. If that doesn't work, contact your System Administrator, or see "Issue 2. Internet Connectivity Error" on page 165.

Message: *Test Version Error*

The form the student is trying to access is not available. The form must be downloaded prior to students testing. Please contact your local IT staff to update the Testing Site Manager (TSM). If further support is required, contact DRC Customer Support.

Description: The form the testing client is trying to download from the TSM is not available.

What Should I Do? Download the form onto the TSM (see "Question 2: How Do I Update Test Forms in a TSM?" on page 200).

Message: *Test Version Error*

The test the student is trying to access is not the most up-to-date version. The latest version must be downloaded prior to students testing. Please contact your local IT staff to update the Testing Site Manager (TSM). If further support is required, contact DRC Customer Support.

Description: The form on the TSM is not up to date.

What Should I Do? Update the form on the TSM (see "Question 2: How Do I Update Test Forms in a TSM?" on page 200).

Message: *Testing Complete! Responses Stored on TSM*

There has been an interruption in Internet connection. All of the student's responses have been saved to the Testing Site Manager (TSM). The TSM will send the responses for scoring. Please contact your local IT staff to confirm the TSM is cleared by the end of the day. They can contact DRC Customer Support if they need additional help to resolve this matter.

Description: During testing the testing client lost connection with DRC. The test continued while saving responses to the TSM. The test has been completed.

What Should I Do? Make sure the TSM submits all the unsent responses. From the TSM, select **Response Caching–Unsent Responses**, and verify that the TSM displays **No unsent responses!** If there are unsent responses, click **Transmit Responses**. If that doesn't work, contact your System Administrator, or see "Issue 2. Internet Connectivity Error" on page 165.

Message: *TSM Connection Error -- Could Not Register TSM*

This computer cannot connect to the Testing Site Manager (TSM). The problem must be corrected before the student can continue testing. Try logging in again or restarting INSIGHT. Otherwise, contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The connection to the TSM was lost. All responses should be stored either at DRC or on the TSM.

What Should I Do? Confirm that the testing client can reach the TSM. Also confirm that the testing client's TSM URL is correct.

Message: *TSM Connection Error -- Responses May Be Stored*

This computer can no longer connect to the Testing Site Manager (TSM). The connection must be restored before the student can continue testing. Please contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The connection to the TSM was lost. All responses should be stored either at DRC or on the TSM.

What Should I Do? Confirm that the testing client can reach the TSM. Restart the TSM. If that doesn't work, contact your System Administrator, or see "Issue 7. TSM Connection Error" on page 166).

Message: *TSM Connection Error During Login*

This computer cannot connect to the Testing Site Manager (TSM). The connection or the content must be restored before the student can continue testing. Please contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The testing client is not able to connect to the TSM. This connection error occurred while trying to login.

What Should I Do? Verify that you can reach the TSM. If the issue persists check your TSM computer's firewall and check your whitelisting on your firewall, content filter, proxies and other network devices.

Message: *TSM Connection Error Retrieving Content*

This computer cannot connect to the Testing Site Manager (TSM) to retrieve content. The connection or the content must be restored before the student can continue testing. Please contact your local IT staff to verify network and TSM connections are working. They can contact DRC Customer Support if they need additional help to resolve the matter.

Description: The testing client is not able to connect and download the test form from the TSM. This connection error occurred while trying to download the form.

What Should I Do? Verify that all the forms are up to date and that the testing client can reach the TSM.

Message: *TSM Content Caching Configuration Error*

The Testing Site Manager (TSM) is not configured to deliver testing content. Enter a different TSM for Content Caching. Please contact DRC Customer Support if you need additional help to resolve this matter.

Description: The testing client is configured to download testing content from the TSM, but the TSM is not configured to deliver content.

What Should I Do? Either the client must be set to not download content from the TSM, or the TSM must be configured to provide content. This is a configuration issue and something needs to be corrected in the setup. For example, a URL must be updated.

Message: *TSM Content Caching Error*

The Testing Site Manager (TSM) is not configured to deliver testing content. Testing Content will not be downloaded from the TSM. Please contact your local IT staff to update your content source configuration. They can contact DRC Customer Support if they need additional help to resolve this matter.

Description: The testing client is configured to download testing content from the TSM but the TSM is not configured to deliver content.

What Should I Do? Either the client must be set to not download content from the TSM, or the TSM must be configured to provide content. There is an issue with content caching that cannot be updated by making a change to the configuration.

Message: *TSM Response Caching Configuration Error*

The Testing Site Manager (TSM) is not configured to store student responses. Enter a different TSM for Response Caching. Please contact DRC Customer Support if you need additional help to resolve this matter.

Description: The testing client is configured to save responses to the TSM but the TSM is not configured to save responses.

What Should I Do? Either the client must be set to not save responses to the TSM, or the TSM must be configured to save responses. This is a configuration issue and something needs to be corrected in the setup. For example, a URL must be updated.

Message: *TSM Response Caching Error*

The Testing Site Manager (TSM) is not configured to store student responses. The student responses will not be saved to the TSM. Please contact your local IT staff to update your student response caching configuration. They can contact DRC Customer Support if they need additional help to resolve this matter.

Description: The testing client is configured to save responses to the TSM, but the TSM is not configured to save responses.

What Should I Do? Either the client must be set to not save responses to the TSM, or the TSM must be configured to save responses. There is an issue with response caching that cannot be updated by making a change to the configuration.

Message: *TSM Version Error*

The TSM is out of date. Please contact an administrator.

Description: The TSM is out of date.

What Should I Do? Update the TSM. If you did not specify automatic updates of your TSM software when you installed it, you must uninstall the current version of the TSM and reinstall the new version.

Message: *Your client attempted to access an invalid URL*

Your session has been ended because your client tried to access an unsupported address. Please click the OK button to proceed.

Description: The client is pointed to the wrong URL. The correct URLs are as follows:

BaseURL: https://wbte.drcedirect.com/PA/
StartupURL: https://wbte.drcedirect.com/PA/portals/pa/
UpdateURL: https://pa-insight-client.drcedirect.com/Download/SecureBrowser/VERSIONS.txt

What Should I Do? Fix the URL in the .json file. The file is located at the following locations:

Windows 32-bit
C:\Program Files\PA\DRCConfiguration.json

Windows 64-bit
C:\Program Files (x86)\PA Online Assessments\DRCConfiguration.json

Macintosh
/Applications/PA Online Assessments/DRCConfiguration.json

Message: *Your client failed the Readiness Check*

Your session has been ended because your client is not supported. Please click the OK button to proceed. It is possible that the browser that you are using is unsupported. Please download the latest version of Chrome.

Description: The testing client has failed a System Readiness Check test.

What Should I Do? Use the System Readiness Check to see which test failed and fix the issue. This error can be caused by issues such as an invalid operating system or incorrect screen resolution.

Message: *Your client is out of date*

Your session has been ended because your client is out of date. We will now attempt an upgrade.

Description: The testing client is out of date. If Auto Update is enabled, it will now run.

What Should I Do? If you enabled Auto Update, it will run now. Otherwise, enable and run Auto Update, or install the update manually.

Message: *Your client is out of date*

Your session has ended because your client is out of date. The latest version must be downloaded prior to students testing.

Description: The testing client is out of date. Auto Update is not enabled, so you must update the testing client manually.

What Should I Do? You did not enable Auto Update. Enable and run Auto Update, or install the update (upgrade) manually.

Message: *Your device has not been registered*

The Chromebook device is not registered in the DRC INSIGHT Device Toolkit.

Description: INSIGHT does not recognize the Chromebook device because it is not registered in the INSIGHT Device Toolkit.

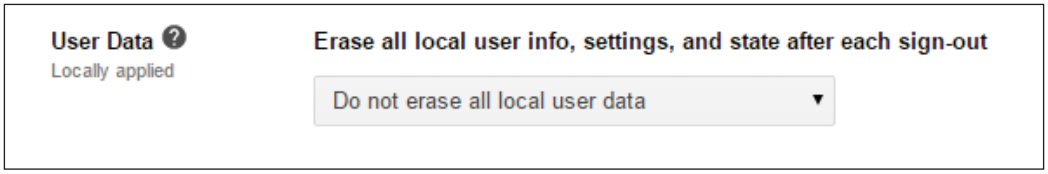
What Should I Do? Use the Device ID displayed in the message to register the Chromebook device in the Device Toolkit, or use the drop-down menus to select a district, school, and ORG Unit for the device (see “Registering Devices” on page 122).

Message: *Your device has not been registered*

The Chromebook device was already registered in the DRC INSIGHT Device Toolkit.

Description: Because the Google Admin Console setting for **Erase all local user info, settings, and state after sign-out** was accidentally set to **Erase all local user data after each sign-out**, the Chromebook was registered successfully, but the registration was lost/deleted when the Chromebook was restarted.

What Should I Do? Verify that the setting for **Erase all local user info, settings, and state after sign-out** in the Google Admin Console is set to **Do not erase all local user data** (see below).



Appendix B:
FAQs, Hints and Tips

What's Covered in This Appendix

This Appendix contains a list of frequently asked questions (FAQs), as well as helpful hints and tips, regarding configuring, installing, and using DRC INSIGHT and the Testing Site Manager (TSM) software. The questions and answers are technical in nature and cover the following environments:

- Windows
- Macintosh (OS X)
- Linux
- iOS (iPads)
- Chrome OS (Chromebooks)

The FAQs and Hints and Tips are divided into various categories. In addition, the Common Technical Questions and Answers cover the common technical support issues you may encounter, and provide tips, techniques, and workarounds to resolve them.

General Questions

Q1: Is the TSM in the Mac environment a true service that runs when no one is logged in to the server?

A: It is a true service—it runs using the "Launchd" capability of OS X.

Q2: If our TSM "goes down" or is unavailable, will a test automatically bypass the TSM, or are we stuck until the TSM is running again?

A: If the TSM goes down, testing stops. If the computers are configured to use a TSM, the TSM must be available.

Q3: Is there a way to provide failover TSM service? Or a quick way to redirect service if a server fails during the testing window?

A: There is nothing built into the software.

Q4: Do we use an .msi file for installation?

A: The INSIGHT and TSM installation file types vary by operating system:

- The Windows version uses an .exe file for the TSM and an .msi file for INSIGHT.
- The Mac (OS X) version uses a .dmg file for the TSM and a .pkg file for INSIGHT.
- The Linux version uses a .deb file for the TSM and a .sh file for INSIGHT.

Q5: I tried removing the TSM and reinstalling it, but now I can't seem to use it?

A: Verify that the uninstallation process removed the TSM installation folder. On a Windows 7 machine (64-bit), the folder is C:\Program Files (x86)\TestingSiteManager. After you remove the TSM, if this folder still exists, delete it before you reinstall the TSM.

Q6: Do we have to have a TSM server in each school, or can it be on a shared district server? If so, which approach do you recommend?

A: It depends on your network's capacity and reliability—with a dedicated TSM server you can offload about 50% of the traffic from the Internet to your TSM.

Because student computers need uninterrupted connectivity to the TSM, we recommend one TSM per school. But, you may be able to share a TSM if you have enough network capacity.

General Questions (cont.)

Q7: Do we need to go to each student's computer to enable automatic updates?

A: No. Just remember to enable automatic updates when you install the INSIGHT software. After installation, INSIGHT automatically checks for software updates and installs them whenever it is launched.

Q8: How are test responses received?

A: It depends on whether a TSM is installed and how it is configured.

If a TSM is installed and configured for content caching

The students log in first. INSIGHT always contacts DRC to log in. After students log in, they download the test from the TSM and send test responses directly to DRC.

If a TSM is installed and configured for response caching

If there is an interruption in internet connectivity, a student's testing computer starts sending the test responses to the TSM. The TSM tries to submit them to DRC every fifteen minutes. The student continues sending responses to the TSM until the student completes the test, pauses, or exits and logs back in.

Note: Students cannot log back in while their responses are still on the TSM.

If there is no TSM installed

The student logs in by connecting with DRC. Tests are sent directly from DRC and responses are sent directly to DRC. If there is an Internet connectivity problem, the student is unable to continue testing.

Q9: How do I test that a TSM is working?

A: Start the System Readiness Check on a testing computer.

This software is in the installation directory of the testing client. For example, on a Windows 7 machine (64-bit), a shortcut to the software is located at C:\Program Files (x86)\PA **Online Assessments**\Readiness.

To confirm that the TSM is being used, do the following:

1. Verify that the TSM settings are showing up in the System Readiness Check.
2. Click **Execute Tests** in the System Readiness Check.

General Questions (cont.)

3. What you do next depends on the type of caching you have configured.

   If you have content caching configured, check the results for Content Caching TSM Connection, Content Caching TSM Status, and Content Caching TSM Version.

   If you have response caching configured, check the results for Response Caching TSM Connection, Response Caching TSM Status, and Response Caching TSM Version.

   These results tell you whether the testing client is set up correctly to work with a TSM. Verify that a TSM is being used and check the test details for more information.

4. Click the desktop shortcut for **PA Online Assessments**, select , sign in, and take a training test to verify that you can connect to the TSM.

Q10: Can we install INSIGHT on one central server/computer and use shortcuts, or other links, to share it for testing across different machines?

A: No. DRC assumes that INSIGHT is installed on each computer that will be used for testing. Any other configuration is unsupported and may produce unexpected results.

Q11: The sound for Text-To-Speech does not work. What should I do?

A: Run the System Readiness Checks and verify that the sound (Audio Capability) is working (see “Resolving System Readiness Required Tests” on page 165). Adjust the volume before testing.

Load Simulation Testing Questions

Q1: What is the Load Simulation Tool?

A: It's a software tool that Technology Coordinators (TCs) can use to perform load simulations that help estimate the amount of time it will take to download tests and upload responses.

Q2: How many testing devices should we use for a simulation? Can we use just one?

A: DRC recommends that you include all of the schools and all of the computer labs that will perform online testing.

Important: For a load simulation test, limit the number of testing devices per TSM to 100. Attempting to perform a load simulation test with more than 100 devices per TSM may cause the TSM to become unresponsive. You may have to uninstall and reinstall the TSM.

Q3: How many times should I run the simulation?

A: DRC recommends that you run the simulation three times during your load simulation testing. Run it twice specifying the TSM as the source for form content and once specifying DRC as the source for form content (see "Load Simulation Testing" on page 149).

Q4: What metrics are reported?

A: A load simulation test reports the following for each testing device:

- The source for the content: TSM, DRC, or the client computer (based on configuration)
- The amount of time it took to load the test to the testing device, on average.
- The time it took to submit the result to DRC.
- The combined time for the load test and submit result.

For more information and a description of the summary results, see "Load Simulation Testing" on page 149.

Load Simulation Testing Questions (cont.)

Q5: What are acceptable results for test load and response times?

A: As a result of the Technology Readiness Assessments that DRC has performed, we suggest that the test load time should be less than 60 seconds. We also suggest that the Avg Submit Test time on the load simulation test should be less than 60 seconds. This value is a combined time that factors in the time required to submit each test response, the wait time between each test question, and the time required for the final test submission.

For a description of all summary results, see "Analyzing Load Simulation Results" on page 154.

Districts should analyze their results and set what they feel are acceptable response times for their students. If necessary, they can adjust their technical configurations and/or the number of students testing at one time.

■ iPad Questions

Q1: Do I install a TSM on an iPad or Chromebook?

A: A TSM is used primarily to cache and manage test content and responses. For various reasons, tablet devices (such as iPads) and Chromebooks do not provide a suitable environment for a TSM. As a result, you must install the TSM software on a Windows PC, Mac (OS X) computer, or Linux machine, and connect to the TSM when you install INSIGHT on the tablet device or Chromebook.

Q2: Can the DRC INSIGHT iPad App be distributed without an MDM as an .ipa file using iTunes or other software/methods?

A: No.

Q3: Does DRC recommend any particular version of Mobile Device Management (MDM) software?

A: No, there are many versions of MDM software, any of which will distribute INSIGHT. To configure INSIGHT using the MDM software, you must use a version that supports the Managed App Configuration feature (originated in iOS 7).

Q4: Is iOS 8 supported?

A: Yes, currently iOS 8.1.3 and 8.2 are supported.

Q5: Is custom installation of the Apple virtual (internal) keyboard supported for testing?

A: Yes—the internal keyboard does not display automatically during testing, but can be toggled on using an iPad function key.

If you are testing with iOS 8 be sure that the Emoji keyboard is removed from the user settings and that students are using only an English keyboard.

Q6: What features need to be on or off to securely test with an iPad?

A: Ensure that Check Spelling, Predictive Text, Auto-Correction, and Auto-Capitalization are turned off on each iPad device, and enable/activate the Guided Access feature.

Note: Apple requires a Passcode (numeric password) to activate Guided Access. This passcode must be secure—do not allow students to have the passcode.

Q7: Is an external Bluetooth keyboard required for testing with iPads?

A: An external Bluetooth keyboard is required for all tests with open-ended items. If you use external Bluetooth keyboards, you must pair one keyboard with one iPad.

Chromebook Questions

Chromebooks can be a secure platform for administering student assessments. When set up properly, these devices meet K–12 education testing standards. If configured according to Google specifications, Chromebooks can be set to disable students' access to browse the web during an exam in addition to disabling external storage, screenshots, and the ability to print. Google provides three scenarios for setting up Chromebooks for secure assessment, detailed at the link below:

https://support.google.com/chrome/a/answer/1289314?hl=en

If you need help setting up your Google Administrator account or enrolling Chromebooks, please contact Google directly.

Q1: Of the three secure testing scenarios provided by Google, which one did DRC select and why?

A: DRC developed the Chromebook INSIGHT application to meet the specifications of Google's Scenario 1 for delivery of secure assessments. Although each scenario prepares a Chromebook for secure testing, DRC selected Scenario 1 where the student takes an exam on the Chromebook using the DRC INSIGHT App in Single App Kiosk Mode. While the student tests, the INSIGHT App runs in a secure, full-screen mode. After the student exits the test, the Chromebook device can be used for any purpose, secure or otherwise—the Chromebook is only secured during testing with the DRC INSIGHT App.

Scenario 1

DRC specifically selected Scenario 1 because:

- It is the only scenario that allows for fully secure assessment delivery (Single App Kiosk Mode).
- It allows the DRC INSIGHT App to communicate securely with the TSM.
- It does not require locking down the device and dedicating it for assessment purposes. Students can use the Chromebook for other purposes when the INSIGHT App is not being used for testing.
- It provides students a full-screen environment (the only scenario that does).

Chromebook Questions (cont.)

Scenario 2

In contrast, Google's Scenario 2 includes a restricted sign-in feature for secure assessment delivery, which assumes that the Chromebook will be used solely for testing purposes. When this feature is enabled, non-assessment sign on is not allowed. When this feature is not enabled, test administrators must maintain separate student profiles—assessment and non-assessment—to allow for additional restrictions needed during assessment sessions.

Scenario 2 requires a higher level of administration oversight (for example, creating accounts twice). And, it requires manual management of security permissions making it prone to user error that is difficult to detect. It also requires taking the test in the Chrome browser, or manually launching a non-kiosk application (essentially launching the user into a desktop session where they have access to one URL). Finally, the Chromebook device must be cleared of data (wiped) upon exiting the test.

Scenario 3

In Scenario 3, Google's Public Session Kiosk Mode is used to limit user access to non-assessment-related features of the Chrome OS operating system. Using Scenario 3 negates the possibility of TSM integration and secure content delivery due to known conflicts with Chrome packaged Apps. In addition, there are other considerations with Scenario 3:

- The URL and taskbar at the bottom of screen are visible. This consumes screen space and means the test engine must scale down the test content.
- Students can open additional Chrome windows.
- Students can use a command line shell that allows access to another machine.
- Students can close the Chrome window while the test engine is running, instead of using **Pause–Exit** or **Review–End Test-Exit**. This could mean lost test responses.

Chromebook Questions (cont.)

Q2: Does DRC require users to log in to each Chromebook and write down the Device ID?

A: Not necessarily. There are two options for registering Chromebooks to use the DRC INSIGHT App:

- Use the DRC Device Toolkit to create one or more DRC ORG Units (with or without a TSM configured) and associate the Chromebook devices with an ORG Unit (this method requires the user to know the Chromebook's Device ID). When the user starts the DRC INSIGHT App on the Chromebook, the Chromebook will be registered.
- Use the DRC Device Toolkit to create one or more DRC ORG Units (with or without a TSM configured). Then, start the DRC INSIGHT App on the Chromebook. The DRC INSIGHT App will request the user to register the device (the Device ID will display) using the District, School, and ORG Unit drop-down menus that display.

Using the second method, no manual entry of the Device ID is required. Regardless of the method used, at any time the user can use the DRC Device Toolkit to associate a TSM with an ORG Unit, or to move registered Chromebook devices between DRC ORG Units.

Note: The System Readiness Check (available through a link on the DRC INSIGHT App portal page) displays the Device ID as part of the System Information at the top of the page.

Q3: Why does DRC require Google Apps for Education and the Google Administrator accounts?

A: The DRC INSIGHT Chrome App requires Single App Kiosk mode to launch and ensure a secure testing environment on Chrome devices. Google Apps for Education and Chrome device management allow Chrome administrators to manage kiosk apps for multiple Chrome devices from a central console. This is the best approach to managing these devices in terms of efficiency and security.

DRC assumes that users have registered their Chromebooks as part of the initial implementation. Google specifies two additional requirements for secure testing using any of the three scenarios described in Q1:

- Google administrators must use Chrome device management to manage their Chrome devices from a single location.
- Google administrators must enroll each device in the school's domain.

Chromebook Questions (cont.)

Q4: How is installing DRC INSIGHT different than installing other testing applications that districts may be using?

A: The DRC INSIGHT Chromebook App is configured to be secure and deployed using Chrome device management and configured to work with the TSM using the DRC Device Toolkit. For a different application, the process would not necessarily use a secure App or a TSM. These processes rely on Chromebook user account or other settings to restrict access. Since there is no secure testing App for the Chromebook, these processes require a workaround to secure the testing sessions.

Q5: Does the deployment or installation of DRC INSIGHT require the Chromebooks to be dedicated to testing for the duration of the assessment window?

A: No, the Chromebook device is not dedicated to testing, but the secure DRC INSIGHT App is. The DRC INSIGHT App is the secure testing environment that the student accesses using a unique test ticket. After a student has finished a test and exits the DRC INSIGHT App, the student can execute other applications and use the Chromebook for other purposes. Test Administrators are responsible for monitoring testing and ensuring students are properly ending and submitting their tests.

Q6: Does Google provide a method to mass deploy secure testing configurations to Chromebooks?

A: As DRC understands it, Google is working on a feature to allow users to "push" a secure testing configuration using Chrome device management. Currently, Google's release timetable is unknown.

Q7: How do I configure Chromebooks to work with DRC INSIGHT?

A: DRC provides the DRC INSIGHT Device Toolkit that you can use to configure and manage your Chromebooks after you have registered them in your Chrome domain.

Q8: Can I use DRC INSIGHT on a touch-enabled Chromebook?

A: At this time, DRC INSIGHT is not supported on touch-enabled Chromebooks. If your Chrome devices allow you to disable the touch function and use a mouse, it may be possible to run DRC INSIGHT.

General Hints and Tips

The following are hints and tips for testing with iPad and Chromebook devices.

- Be sure to have a strong network connection, either Wi–Fi or direct Internet connectivity.
- Make sure the device's keyboard is set to English.
- Make sure the devices are either fully charged or plugged in.
- An optical drive is not required.
- While you are running the DRC INSIGHT application, the system operates in Single App Kiosk Mode.
- DRC INSIGHT displays in landscape mode only.

iPad Hints and Tips

- Use the following finger taps/presses to navigate DRC INSIGHT:
  - **Show System Readiness Check** = two-finger press (hold)
  - **Show Version** = two fingers plus three taps
- For calculators, click the **OK** button versus the Return key. Using the Return key on your keyboard will not work as an 'Enter' function.
- All iPad devices have a Sleep Mode setting. In Sleep Mode the screen goes black and users can touch any key to re-activate it, or press their home key and type in the device passcode (if applicable).

  The DRC INSIGHT timeout warning is not visible when an iPad is in Sleep Mode. To disable Sleep Mode, select **Settings-General-Auto-Lock** and select **Never**.

  Note: School iPad profiles may not permit you to set this to Never.
- Smaller graphing and dragging elements may be difficult to track because the user's finger covers the item.
- The pinch-to-zoom in/out iOS gesture is supported; the swipe iOS gesture is not supported.
- The internal keyboard will not display during test execution. You can toggle it on using the appropriate iPad function key.
- External keyboards are not required for tests with open-ended items.
- The Audio starting point does not turn red when your finger gets close to touching it.
- All non-OTT tests require you to turn on the Guided Access feature. Under **Device Settings–General–Accessibility Learning–Guided Access**, enable Guided Access and Passcode.

  Note: Administrators must ensure that this passcode is set before testing begins (see "Working with Guided Access" on page 96).

Chromebook Hints and Tips

- You must enroll a Chromebook in your Google domain account before using it with INSIGHT. As part of the enrollment process, Google uses the concept of ORG Units. These are not the same ORG Units that DRC uses in the Device Toolkit.

  To prepare for the Chromebook administration, please ensure that you have set up Google Apps for Education and have enrolled all of your Chromebooks in the Google Device Manager software. This software helps you manage your device configurations.

  For more information about managing Chromebooks and setting up your basic Chromebook environment, see the topic https://support.google.com/chrome/a/answer/1289314?hl=en&ref_topic=2935995.

  If you need help setting up your Google Administrator account or enrolling Chromebooks, please contact Google directly.

- The DRC INSIGHT Device Toolkit manages the INSIGHT portion of the Chromebook device configuration process.

- When you use the Device Toolkit to create DRC ORG Units and group Chromebooks, DRC assigns each Chromebook a Device ID. This Device ID is different than the serial number of the Chromebook.

  - Google uses the Chromebook's serial number to enroll the Chromebook in the Google domain.

  - DRC uses the Chromebook's Device ID to register the Chromebook in a DRC ORG Unit.

  To help manage and organize your Chromebooks, keep track of the current Device ID.

- On your Chromebook, do not log in to your Google account if you want to access DRC INSIGHT. Because INSIGHT runs in Single App Kiosk Mode, you cannot access it after you have logged in to a Google account. If you attempt to start the INSIGHT App, an error message displays indicating that you are not in Single App Kiosk Mode. To access INSIGHT, log out of your Google account and start the INSIGHT App.

Common Technical Questions and Answers

This section describes detailed resolutions to common technical support issues you may encounter, as well as tips, techniques, and workarounds to resolve them.

Question 1: I Don't Know What to Whitelist, Allow, or Unblock?

The following is a list of the items to include (for more information, see "Network Requirements for Testing Computers" on page 25):

- Allow or enable http/https protocols on ports 80/443.

  Important: To avoid potential conflicts, verify that no other device is using either port. For Windows 7, enter the command **netstat -a** from a command prompt to display a list of ports being used.

- Allow connectivity on ports 80 and 443.
- Whitelist the following file types, both internally and externally:

  enc **exe** (for updates) **gif** **html** **jar** **jpeg** **json** **xml**

- Prioritize and whitelist INSIGHT traffic on:
  - Firewalls, Internet packet shapers, routers, switches, proxies
  - Other network devices you use
- Whitelist the following URL to enable the Chromebook to communicate with the Device Toolkit.

  dtk.drcedirect.com 50.58.190.22

- Allow whitelist access for content. Try these links in a browser window to see if you have access:

Link	Displays a blank page with a label similar to...
http://pa-insight-client.drcedirect.com/	insightwebdl01
https://pa-insight.drcedirect.com/ping.htm	53 systemonline
https://wbte.drcedirect.com	no label

  Notes:

  - When whitelisting, you may need to use *.drcedirect.com instead of pa-insight.drcedirect.com.
  - Besides whitelisting these sites, you may need to allow sites to pass through the proxy server without requiring authentication credentials to be passed by INSIGHT.

- Each state uses its own URLs and IP addresses to communicate from the INSIGHT client (workstation) software to DRC servers, or from the TSM server to DRC servers.

State	URL	IP Address	Port/Protocol
Pennsylvania	http://pa-insight-client.drcedirect.com https://pa-insight.drcedirect.com https://wbte.drcedirect.com	50.58.190.29 50.58.190.30 50.58.190.53	80/http; 443/https 80/http; 443/https 80/http; 443/https

Common Technical Questions and Answers (cont.)

Question 2: How Do I Update Test Forms in a TSM?

To update your test forms, do the following:

1. Open the TSM by pasting the following URL in a browser:

   http://localhost:8080/

   Note: The string **localhost** only works in this URL if you are using a browser on the computer where the TSM is installed.

2. To access the TSM remotely, change **localhost** to the IP address or server name of the computer where the TSM is installed.

3. Select any optional media files (TTS,VSL) that need to be updated (if applicable).

4. If the status of any content changes to Out of Date, click the **Update Content** button.

   Note: When an update starts, the Content Update page displays information regarding the update process. After you read the information, click **OK**. During the update, a progress bar displays to indicate the status of the update. It takes a while for the TSM to update. Wait for the screen to refresh and all of the content to display the status **Up to Date**.

Common Technical Questions and Answers (cont.)

Question 3: Can We Mass Deploy Test Software to All Student Computers?

Yes, but the details vary depending on which technology you use for deployment and the operating system to which you deploy. Basically, you can configure the installer using arguments when you deploy it in a non-interactive or silent mode. For technical details, see Modifying the Setup File.

Modifying the Setup File

You can modify the DRC_INSIGHT_Setup.msi installation file to install your software on many machines using different installation settings. To modify the file, you need the ORCA installer package from the Windows SDK for Windows Installer Developers. This package is available at the following location:

http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=3138

After installing the Windows SDK Components for Windows Installer Developers, double-click on **Orca.msi** to install the Orca.exe file.

To modify the setup file, do the following:

1. Start Orca.
2. Select **File–Open** and open the MSI installer.
3. Select **Property–Table** to open the Property table (see the figure below). Make all of your changes in this table.

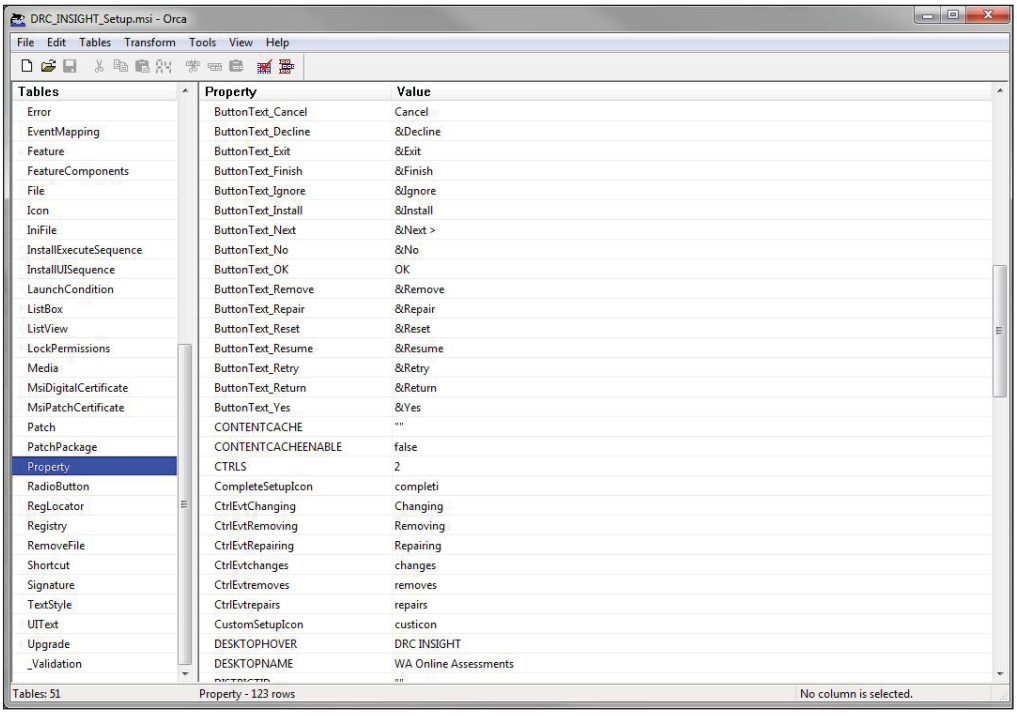


Figure: Property Table

Common Technical Questions and Answers (cont.)

4. The following are the different properties you may want to change. To make a change, double-click on the value of the property, enter your value, and click **Enter**.

Important:

- Make sure that there are no spaces before your input—do not put spaces in front of any attribute that you modify.
- For DISTRICT_NAME, DISTRICTID, SCHOOL_NAME, and SCHOOLID, use the name and/or numeric code from the locations file located at the following link: https://pa-insight.drcedirect.com/InsightClientRESTServices/ClientRESTService.svc/locations.
- Ignore the ADMINID and ADMINNAME properties.

AUTOUPDATEFLAG

Toggles automatic updates on or off. True enables automatic updates.

ENABLELCS

Enables a TSM for response caching. If true, use LCSURL to specify the TSM server that will perform response caching.

LCSURL

The name or IP address of the TSM response caching server. The default value is https://localhost:8443/. Replace **localhost** with the name or IP address of the TSM response caching server.

LOADSIMULATIONENABLE

Specifies that load simulation testing is enabled for the testing computer. If true, include CONTENTCACHEENABLE set to true and CONTENTCACHE to specify the TSM server that will perform load simulation tests. You also must specify DISTRICT_NAME, DISTRICTID, SCHOOL_NAME, and SCHOOLID.

DISTRICT_NAME

The district name for load simulation testing.

DISTRICTID

The district ID for load simulation testing.

SCHOOL_NAME

The school name for load simulation testing.

SCHOOLID

The school ID for load simulation testing.

Common Technical Questions and Answers (cont.)

CONTENTCACHEENABLE

Enables a TSM for content caching. If true, use CONTENTCACHE to specify the TSM server that will perform content caching.

CONTENTCACHE

The URL and secure port of the TSM server that caches test content and performs load simulation tests. The default value is https://localhost:8443/. Replace **localhost** with the name or IP address of the TSM content caching server.

HTTPSPROXY

The URL and secure port of the proxy host server. Depending on your configuration, this URL can start with either http:// or https://.

5. After you make your changes, save the file and overwrite the original DRC_INSIGHT_Setup.msi file.

Silent Install Example

The following example shows the syntax you would use to install INSIGHT silently in Windows 7.*

DRC_INSIGHT_Setup.msi /qn

Silent Uninstall Example

The following example shows the syntax you would use to uninstall INSIGHT silently in Windows 7.*

msiexec /x DRC_INSIGHT_Setup.msi /qn

*For Microsoft Windows 8, use /qb instead of /qn.

Notes

Glossary

Accommodation

Modifications or enhancements made to tests, or test environments, that allow students with physical or learning disabilities, or a limited English-language ability to more accurately demonstrate their knowledge and skills in an assessment situation (see *"Text-To-Speech", "Video Sign Language"*).

Content Caching

The Testing Site Manager (TSM) can cache test content. At test time, the TSM content caching software sends its cached test items to the testing computers. This content must be up to date in order for students to test. DRC strongly recommends TSM content caching for maximum performance (see "*Response Caching*").

DRC INSIGHT Learning System

DRC's system to deliver assessments and related resources online for all content areas and grade levels by incorporating computerized testing, related resources, dynamic reporting, and a suite of educator tools.

The DRC INSIGHT Learning System consists of a secure web browser testing interface and the Testing Site Manager (TSM) to help manage network traffic, maintain connectivity, and handle bandwidth issues (see *"Testing Site Manager"*).

DRC INSIGHT

The main component of the DRC INSIGHT Online Learning System, DRC INSIGHT is a secure web browser testing interface that is installed on each testing device. This software communicates with the DRC INSIGHT server to provide online tools training and test questions to the test taker and to send responses to the DRC INSIGHT server, which stores them securely.

Dynamic IP Address

An IP address that can change when the computer is restarted or rebooted based on the pool of IP addresses that are available at the time (see "*Static IP Address*").

Kiosk Mode

When DRC INSIGHT runs on a supported device and operating system, it uses Kiosk Mode to "lock down" student access and prevent students from performing inappropriate testing activities, such as accessing the Internet.

Latency

When the TSM "pings" the IP address of the DRC server, the network sends data packets from the TSM to the DRC server and back. The network also calculates the time, in milliseconds, it takes for the data to be received. The longer this time is, the longer it has taken the DRC server to receive the data packets (usually because of excess network traffic).

This rate of data transfer across a network is referred to as latency. Knowing the latency of a network is useful for helping to determine peak network traffic times and for analyzing the best times for testing.

Load Simulation Test (LST)

A software test used to perform load simulations to help estimate the amount of time it will take to download tests and upload responses. For individual testing computers, a load test simulation reports the following results:

- The source for the content: the TSM, DRC, or the client computer (based on configuration)
- The amount of time it took to load the test to the testing computer, on average
- The time it took to submit the result to DRC
- The combined time for the load test and submit result

Native Device

A device that can run INSIGHT-supported operating systems natively if it meets the minimum system requirements. Running natively means running without external support, as opposed to running in an emulation.

Online Tools Training (OTT)

An optional, customized feature of DRC INSIGHT that allows students and administrators to become familiar with the online test environment and their suite of online testing tools.

Response Caching

The TSM can cache student test responses. During testing, if the test computers cannot communicate with the DRC INSIGHT server, the TSM response caching software buffers and stores their test responses.

When the response caching software is communicating with DRC, it sends test responses to the DRC INSIGHT server every fifteen minutes. Even if DRC is not currently communicating with the testing computers, the test responses are still being stored on the TSM for transmission to DRC, so no responses are lost. DRC strongly recommends the TSM response caching software for maximum performance (see *"Content Caching"*).

Static IP Address

An IP address that is permanently assigned to a computer and does not change when the computer is restarted or rebooted (see *"Dynamic IP Address"*).

System Readiness Check (SRC)

A software program that helps you troubleshoot issues that may occur when DRC INSIGHT is installed or running. The SRC is installed automatically when you install DRC INSIGHT, runs anytime DRC INSIGHT runs, and performs a series of tests you can use to diagnose, prevent, or correct most errors easily. It verifies that a testing device meets the necessary hardware and software requirements for testing, indicates any checks the testing device failed, and provides suggestions for success.

Testing Site Manager (TSM)

DRC's powerful, web-based application that works with DRC INSIGHT to provide caching and a software toolbox to help you plan, configure, and manage your online testing environment.

The TSM offers two types of caching—content caching for test content and response caching for student test responses. The TSM caching software is installed on one or more strategic computers with sufficient bandwidth to help manage and streamline communication between the test computers and the DRC INSIGHT server. A TSM typically reduces bandwidth traffic for schools by about 50% when downloading test content (see *"Content Caching"* and "*Response Caching*").

Text-To-Speech (TTS)

An optional testing accommodation offered with DRC INSIGHT that allows a student to hear the test recorded by a computer-simulated voice.

Thin Client

A computer that relies on servers for information processing and other tasks.

Video Sign Language (VSL)

An optional testing accommodation offered with DRC INSIGHT that allows a student to see both test instructions and content signed visually through an online video.

Virtual Desktop

Desktops that can indirectly host some supported operating systems for DRC INSIGHT (other physical devices host operating systems directly). Typically, users access virtual desktops from another operating system, on another device, across a network boundary.

Virtual Desktop Device

A device a student interacts with, which is actually a gateway to the virtual or remote desktop. The device may or may not be capable of supporting DRC INSIGHT natively, or be able to run an operating system that DRC INSIGHT supports.

Virtual Desktop Infrastructure (VDI)

A computer environment in which a computer hosts a desktop operating system within a virtual machine running on a central server.

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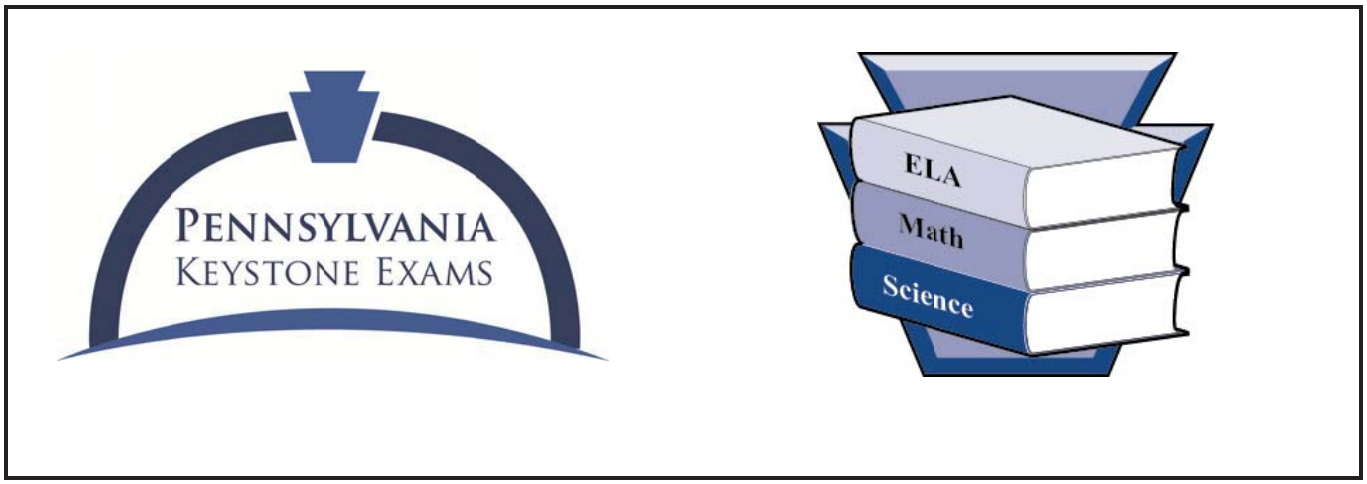
Data Recognition Corporation (DRC)
13490 Bass Lake Road
Maple Grove, MN 55311

PSSA/Keystone Exams: 1-800-451-7849
CDT: 1-888-551-6935
Fax: 763-268-3008 or 763-268-3031
Website: https://pa.drcedirect.com
Revision Date: March 25, 2015

pennsylvania
DEPARTMENT OF EDUCATION



eDIRECT TEST SETUP USER GUIDE

TABLE OF CONTENTS

GENERAL INFORMATION

Introduction

All District Technology Coordinators, District Assessment Coordinators, School Assessment Coordinators, Test Administrators, and Teachers who are coordinating an online administration must read this user guide and follow the procedures presented. This user guide is essential to a successful online administration.

Reference Material

The following reference materials can be found on the eDIRECT website: https://pa.drcedirect.com:

INSIGHT *Technology User Guide*
PA Online Assessments Technology Training PowerPoint
Handbook for Assessment Coordinators
*Directions for Administration Manual*s

Customer Service Support

If there are any questions, please review the resources that are available at https://pa.drcedirect.com.

DRC PA CUSTOMER SERVICE TEAM	
Phone	(800) 451-7849
Email	PAcustomerservice@datarecognitioncorp.com
Hours	Monday–Friday (exclusive of holidays) 8:00 AM–5:00 PM Eastern Standard Time

ROLES AND RESPONSIBILITIES

Communication Plan

The District Technology Coordinator and the District Assessment Coordinator should meet to review the district's plan for administering the online assessments in schools within their district. They should review and discuss the testing schedule and determine which schools are participating.

A plan for efficient communication between the District Technology Coordinator and the District Assessment Coordinator about the online administration should be established before schools within the district begin any online assessment. This plan should include establishing communication processes involving the District Technology Coordinator, District Assessment Coordinators, and School Assessment Coordinators. The communication should be shared during the training of School Assessment Coordinators.

Although the Test Setup system via eDIRECT allows for District Assessment Coordinators and School Assessment Coordinators to have many of the same responsibilities, it is flexible enough to allow for the District Assessment Coordinators to restrict the School Assessment Coordinators' access to and rights within the system. Given this model, DRC recommends that the District Assessment Coordinators be responsible for student data management, while the School Assessment Coordinators focus more on the teacher and test session data management.

District Technology Coordinator Responsibilities

The District Technology Coordinator is responsible for the following tasks:

- reviewing the *Technology User Guide*
- attending or viewing a DRC-led online technology training WebEx prior to testing
- reviewing the WBTE Technology Coordinator Training PowerPoint
- reviewing the Technology Readiness Checklist
- creating a communication plan with the District Assessment Coordinator to support the School Assessment Coordinators, Test Administrators, and Teachers during testing
- ensuring that computers used for the online assessments meet the minimum system requirements and are configured to support online testing
- managing their profile on eDIRECT to ensure all information is correct and up-to-date
- adding any other district or school technology personnel to eDIRECT who might require access to the software downloads

District Assessment Coordinator Responsibilities

The District Assessment Coordinator is responsible for the following tasks:

- distributing the communication plan and ensuring that all School Assessment Coordinators have the correct administration materials prior to the testing window
- working with the District Technology Coordinator(s) to ensure all appropriate schools within the district have access to the online assessment system
- becoming familiar with this user guide, the PA Online Assessment application, and the Test Setup system
- setting up and managing account permissions for the appropriate School Assessment Coordinators on eDIRECT
- providing training to all School Assessment Coordinators involved in test administration
- managing student data and teacher data
- managing their profile on eDIRECT to ensure all information is correct and up-to-date

School Coordinator Responsibilities

The School Assessment Coordinator is responsible for the following tasks:

- becoming familiar with this user guide, the PA Online Assessment application, and the Test Setup system
- working with the District Technology Coordinator to ensure that the online testing system is loaded on all the appropriate computers within the school
- setting up and managing eDIRECT permissions for appropriate Test Administrators and Teachers
- providing training and ensuring that all Test Administrators and Teachers have the correct administration materials prior to testing
- ensuring students have explored the Student Tutorial, have taken the Online Tools Training, and know how to use the tools within the online system—including where and how to mark their answers
- managing student data, teacher data, and test session data
- managing their profile on eDIRECT to ensure that information is correct and up-to-date
- overseeing and assisting Test Administrators and Teachers with Test Setup tasks
- helping to coordinate assessment times for the students testing within the school
- managing Student Login Tickets (Test Tickets)
- reviewing and verifying that student information is correct on the Student Login Rosters
- printing the Student Login Tickets, verifying that the student information (Name, PAsecureID, and Accommodations) on the Test Tickets is correct and making any necessary corrections
- storing Student Login Tickets in a secure location

Test Administrator Responsibilities

The Test Administrator is responsible for the following tasks:

- becoming familiar with the PA Online Assessment application and Test Setup system
- reviewing the roster contained within the Student Login Summary and making certain that all students intended for testing are on the roster and verifying that student information is correct
- notifying the School Assessment Coordinator if any student information is incorrect and needs to be changed
- ensuring students have explored the Student Tutorial, have taken the Online Tools Training, and know how to use the tools within the online system—including where and how to mark their answers
- distributing the correct Test Tickets to the students at the time of the test
- monitoring the testing environment during the scheduled testing time
- notifying the School Assessment Coordinator/Teacher if any students were unable to complete the assessment in the scheduled time
- scheduling extended testing time for any students unable to complete the assessment within the scheduled testing time
- coordinating with the School Assessment Coordinator to reset Test Tickets if extended testing time is required
- collecting, accounting for, and returning all Test Tickets and scratch/grid paper

PA ONLINE ASSESSMENT TEST ENGINE

Student Tutorials

The Student Tutorials have been created for the CDT assessments, PSSAs, and the Keystone Exams. The tutorials have been developed for each content area and for each grade as needed. They use pictures, motion, and sound to present visual and verbal descriptions of the properties and features of the PA Online Assessment system. It is recommended that students are given at least 15 minutes to go through the tutorials once, but additional time should be scheduled for students to review the tutorial segments as needed.

The Student Tutorials can be accessed directly from the computer desktop by double-clicking on the PA Online Tutorials icon. This icon will be visible if the PA Online Assessment system has been downloaded. Otherwise, the tutorials can be viewed directly on the eDIRECT website. Go to Test Setup. Click on General Information and then select the Test Tutorials tab. The Student Tutorials are available for review by administrators, teachers, students, and parents.

Once the Student Tutorials are opened, users are able to select whether they wish to view tutorials for the CDT assessment, PSSA, or the Keystone Exams. Users should then follow the menu selection on the screen to determine which videos are appropriate for them to view.

It is strongly encouraged to have students review the tutorials in advance of their test day. Students are allowed to repeat the tutorial as often as desired and needed. There are no restrictions on accessing these tools. It is also recommended that the District Technology Coordinators, District Assessment Coordinators, School Assessment Coordinators, Test Administrators, Teachers, and Proctors take time to review the tutorials to become familiar with the PA Online Assessment software.

ONLINE TOOLS TRAINING

The Online Tools Training (OTT) is designed to provide an introductory experience using the online assessment software in preparation for taking the CDT assessments, PSSAs, or the Keystone Exams. The purpose of the OTT is for students to observe and try out features of the PA Online Assessment software prior to the actual assessment. This allows students to experience taking a test on a computer and allows them to experiment with the features available during an actual test. The OTT is NOT designed to demonstrate complete coverage of the tested content, and it is NOT scored. Rather, items have been chosen to demonstrate online assessment features and uses.

The OTT has been developed for each content area and for each grade currently being assessed for the CDT assessments, PSSAs, and the Keystone Exams.

Test Administrators should encourage students to learn to use the testing tools while answering the practice questions. Practice Hints are provided with some test questions. The Practice Hints are a guide to focus exploration to key tools and features. Practice Hints do not appear in actual assessments. Test Administrators may help students with questions or show them how to use the tools on the Online Tools Training.

It is strongly suggested that students be given time to take the OTT prior to taking any online assessment. It is recommended that the District Technology Coordinators, District Assessment Coordinators, School Assessment Coordinators, Test Administrators, Teachers, and Proctors also take the OTT to become familiar with the online assessment software.

ACCESS TO THE ONLINE TOOLS TRAINING

To launch the Online Tools Training, follow these steps:

1. Install the PA Online Assessment software
    - secure version
    - public OTT version
2. Double click on the DRC Insight icon on the desktop.
3. Select the **Online Tools Training** under CDT, PSSA, or Keystone.
4. Select the **Content Area**.
5. Select the **Subject** and **Grade,** if applicable.
6. Enter in the **Username** and **Password** noted on the sign-in screen.
7. Click on **Sign In** and follow the instructions on the screen.

Note for Accommodations: To access audio versions of the tools training, add the word “audio” to the end of the username specified on the screen and use the same password shown.


pennsylvania
DEPARTMENT OF EDUCATION
Welcome to
Pennsylvania Online Assessments
CLASSROOM
DIAGNOSTIC TOOLS
PENNSYLVANIA
System of School Assessment
KEYSTONE
EXAMS
Online Tools Training
Online Tools Training
Online Tools Training
Test Sign In
Test Sign In
Test Sign In
Exit

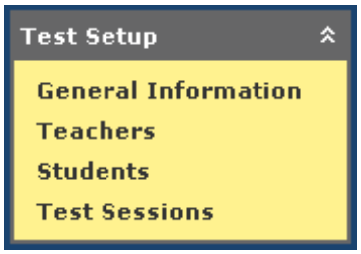

PENNSYLVANIA
System of School Assessment
pennsylvania
DEPARTMENT OF EDUCATION
Please sign in with the following credentials:
Username: reading3
Password: test1234
Username:
Password:
Sign In
Display Item Ids
Back
4.3.0
2013.1.10.0919
Copyright © 2013 Data Recognition Corporation.

TEST SETUP SYSTEM

The Test Setup system is used to manage student and teacher information, create test sessions, update student accommodation and demographic information, print test tickets, and monitor student testing status.

The Test Setup system is web-based through eDIRECT and does not require a software installation to operate. It does require eDIRECT access and download permissions.

ACCESSING THE TEST SETUP SYSTEM

To access the Test Setup system, follow these steps: 1. Go to the eDIRECT website at https://pa.drcedirect.com. 2. **Log On** with your email and password. 3. On the left menu, select **Test Setup**.	

GENERAL INFORMATION

INSTRUCTIONS

Directions on the use of the Test Setup System are available within the system. Anytime the +Instructions icon appears, the user can click on the plus sign and the instructions will expand for further reading.

GRID FUNCTIONALITY

Throughout the Test Setup System, anytime a grid is displayed, it is arranged based on default settings. The information displayed in the grid can be rearranged either by clicking on a specific column header to re-organize the data based on the selected column, or by clicking on and dragging the column to a new position so the order in which the columns are displayed is changed.

MANAGE TEACHERS

Teacher information can be added or edited using the Test Setup system. Teacher information does not need to be populated and used for Keystone Exams and PSSA. It is only used to help filter test sessions.

Helpful Hint: PPID is the seven-digit Staff ID that is collected in PIMS. If a teacher does not have a PPID, please use his or her nine-digit Social Security number without dashes.

Note: Updates made to teacher data in the Test Setup system are not reflected in PIMS. Make sure to update the information in the PIMS system separately.

SEARCH FOR TEACHERS

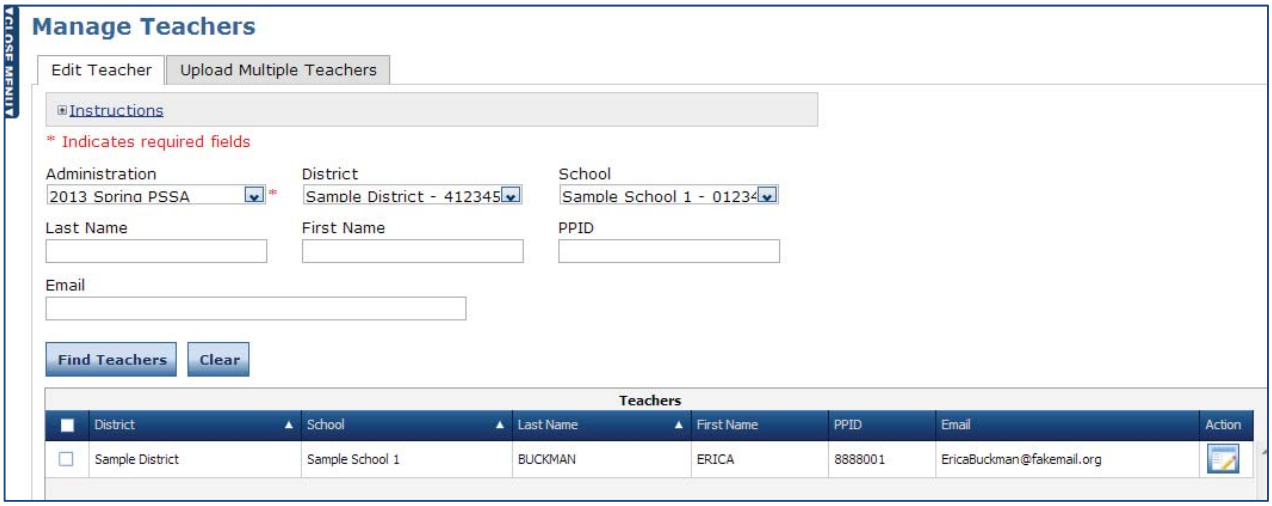
To search for teachers, follow these steps:

1. Select **Test Setup→Teachers**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Enter any additional search criteria: **Last Name**, **First Name**, **PPID**, or **Email**.
5. Select **Find Teachers**.
6. To clear your search and start over, click on **Clear**.

To export search results, follow these steps:

1. Search for **Teachers**
2. Click on **Export to Excel** at the bottom of the page.

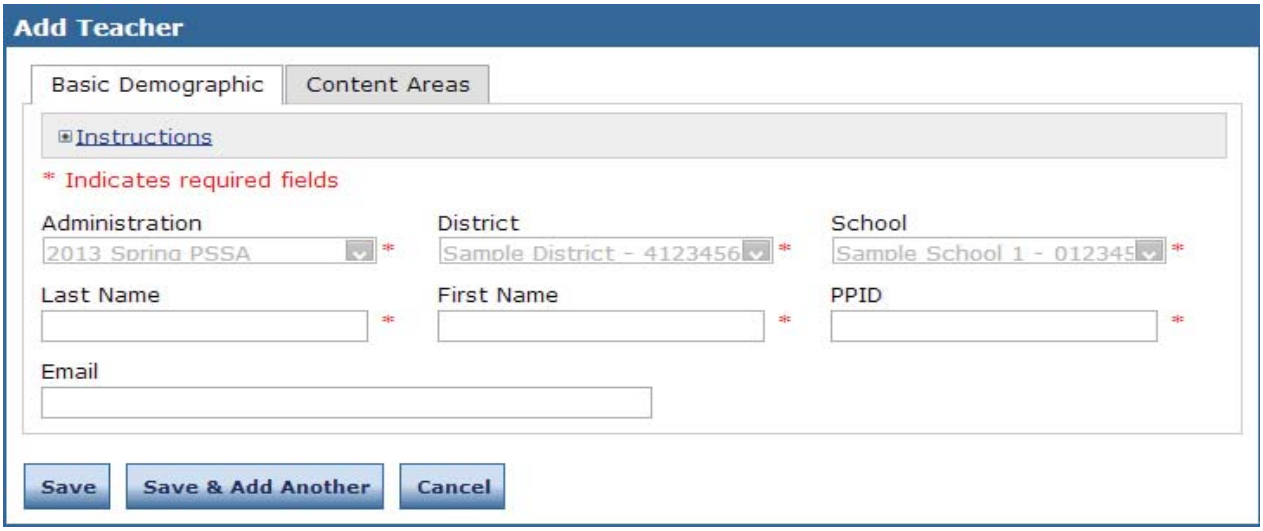
Note: Only the search results are exported to Excel.



ADD TEACHERS

To add teachers, follow these steps:

1. Select **Test Setup→Teachers**.
2. Select the appropriate Administration.
3. Select **District** and/or **School**.
4. Select **Add Teacher** at the bottom of the page.
5. Enter the teacher **Last Name**, **First Name**, **PPID**, and **Email.**
6. Click **Save** or click **Save & Add Another** to continue adding new teachers.



Upload Multiple Teachers

If several teachers need to be added, it is possible to add multiple teachers at one time by using the upload function. A File Layout PDF and a Sample File CSV text file are available within Test Setup after **Administration** and **District** have been selected.

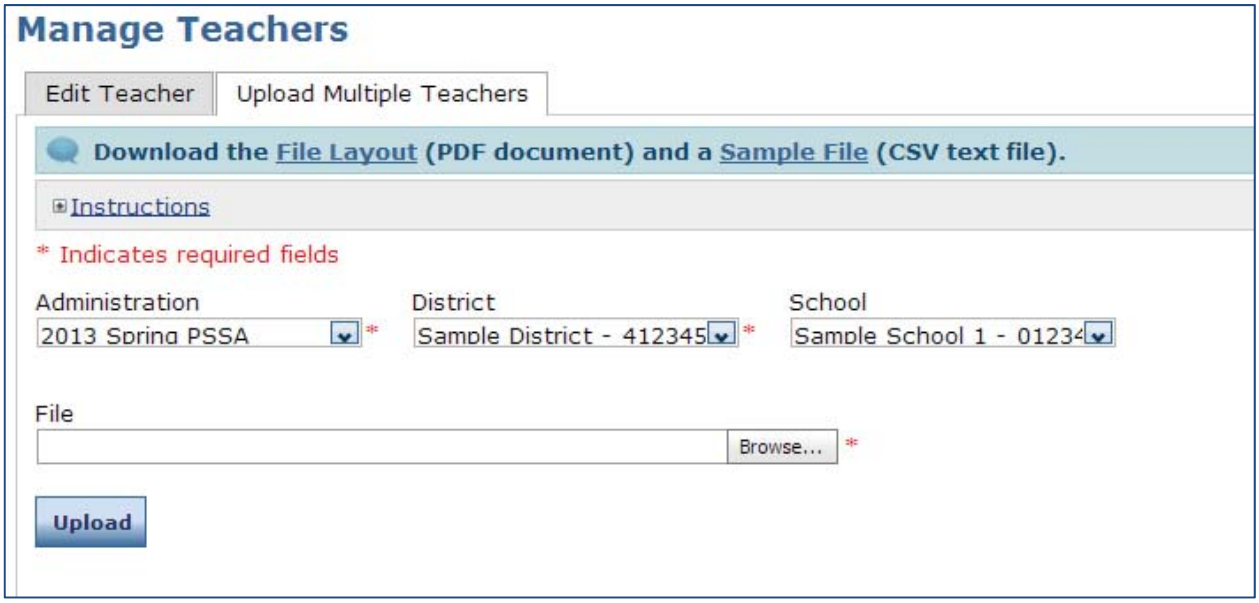
When uploading a new file, the new file updates information that was contained in the previous file uploaded. If the new file is missing records that were on the previous file, those records from the previously uploaded file will remain in the system.

File Format Verification Process: The file is then checked to ensure that it is in the correct comma-separated-value (CSV) format.

File Validation Process: If the file format passes the file format verification process, then it will go through a rigorous file error validation process. This process could take up to four hours. You will not be able to upload another file until this process is complete. See the File Layout PDF for specifics on what validations will be performed on the uploaded file. Only records with errors will not be uploaded. Click on the **error report** to view the error report for the last file that was uploaded.

To upload multiple teachers, follow these steps:

1. Select **Test Setup→Teachers**.
2. Select the **Upload Multiple Teachers** tab.
3. Select the appropriate Administration.
4. Select the **District** and **School**.
5. Click **Browse**, and select the file from your computer.
6. Click **Upload**.
7. Status messages appear at the top of the page notifying the user of the status of the file being uploaded.
8. Click on **teacher file** to view the file that was last uploaded.
9. Click on **error report** to view the error report for the last file that was uploaded.



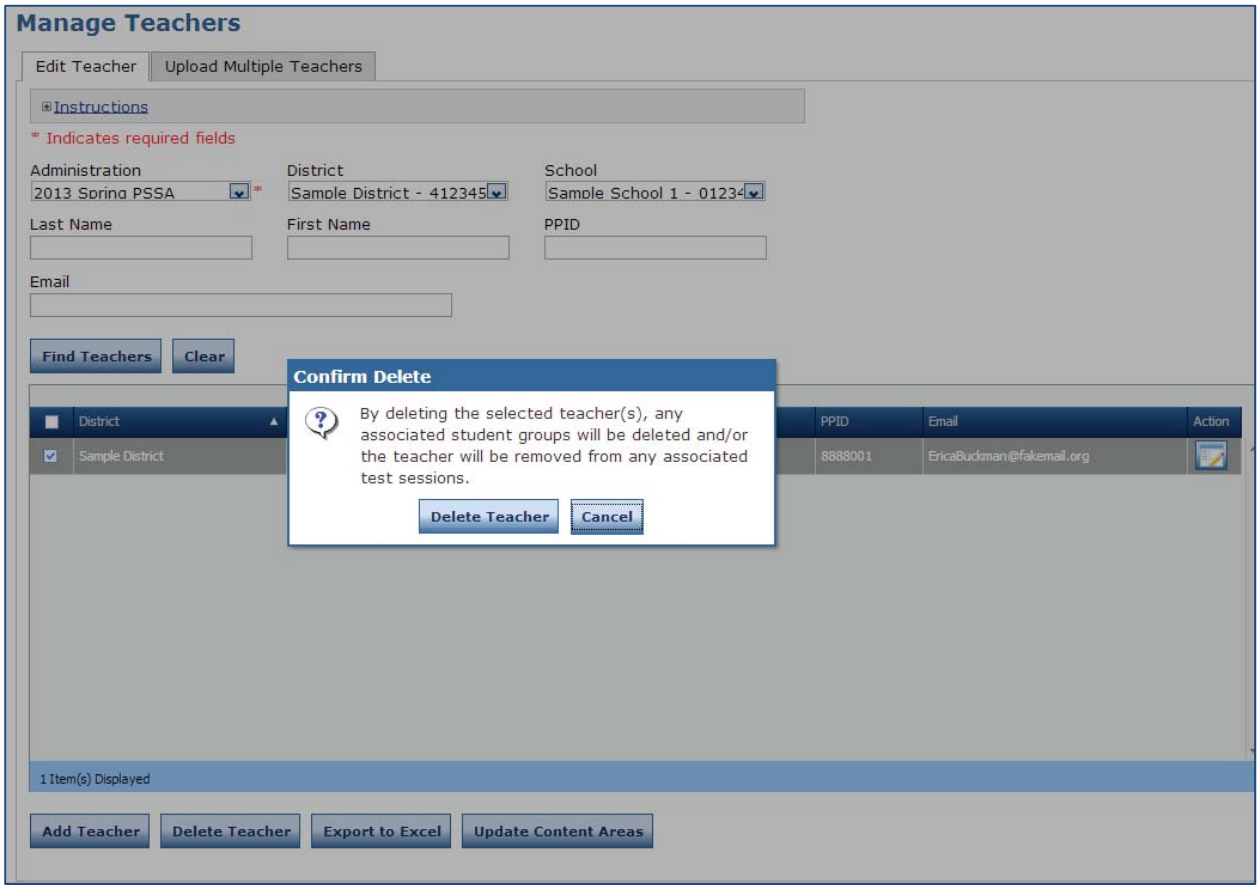
DELETE TEACHERS

Teachers can be removed from the Test Set Up system, if needed. When a teacher is deleted, the teacher is removed from Test Setup only. Deleting a teacher will also delete all Test Sessions assigned to the teacher.

Note: Deleting a teacher from test setup does not remove a teacher from an eDIRECT user role. The teacher still has permissions that may have been assigned. To remove permissions, go to Manage Users.

To delete teachers, follow these steps:

1. Select **Test Setup→Teachers**.
2. Select the appropriate Administration**.**
3. Select the **District** and/or **School**.
4. Select **Find Teachers,** to display a list of all teachers, or enter **Last Name, First Name,** or **PPID** to search for a specific teacher.
5. Check the box(es) in front of the teacher(s) you wish to remove.
6. Select the **Delete Teacher** button at the bottom of the page.
7. To confirm the delete, click **Delete Teacher** in the pop-up window or click **Cancel** to return to the Manage Teachers page.

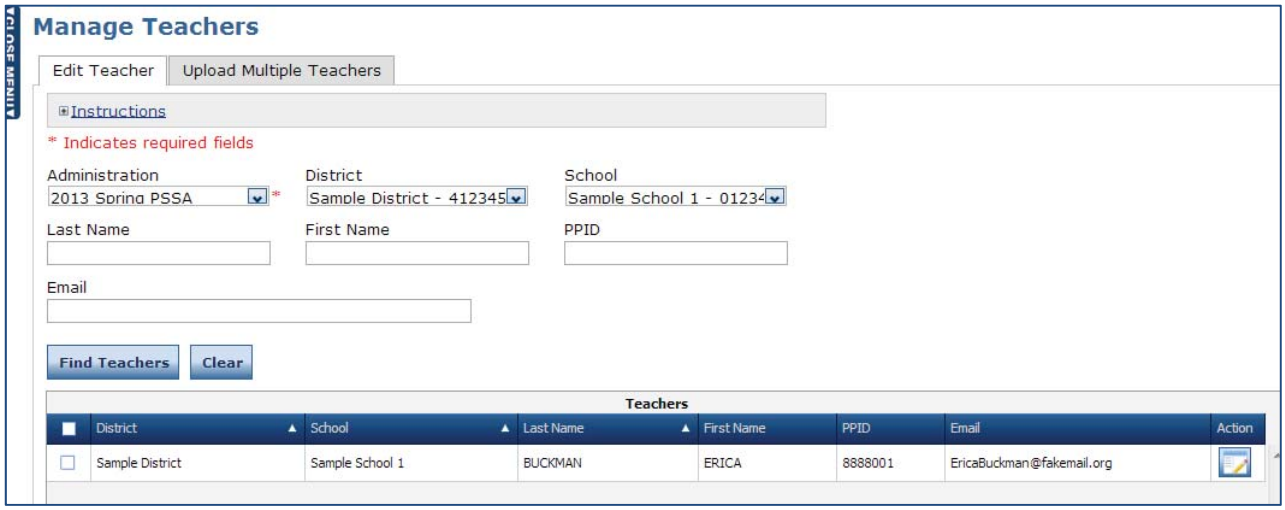


EDIT TEACHER INFORMATION

Teacher information that is missing or incorrect in the Test Setup system should be edited to reflect the correct information.

To edit teacher profiles, follow these steps:

1. Select **Test Setup→Teachers**.
2. Select the appropriate Administration**.**
3. Select **District** and/or **School**.
4. Perform a search to find the teacher that needs to be edited.
5. Select the **View/Edit** icon in the Action column to the right of the teacher being edited.
6. Update all the incorrect or missing information.
7. Click **Save** or click **Cancel** and return to the Manage Teachers page.



MANAGE STUDENTS

Student information can be viewed, added, or edited using the Test Setup system. District Assessment Coordinators have been granted the permissions to add or edit students to make necessary changes. District Assessment Coordinators have the ability to share those permissions with School Assessment Coordinators.

- **PIMS UPLOAD**
    - Prior to a student being added to a Test Session, the student must be loaded to the eDIRECT system. The Test Setup system is primed with student data collected during the corresponding Pennsylvania Information Management System (PIMS) file collection window as reflected in the PIMS calendar. If a student moves into the district after the PIMS collection window, the student can be added to the eDIRECT system. This student will need to be added to PIMS for the final reporting collection window.
- **DEMOGRAPHICS/ACCOMMODATIONS**
    - Student demographic information collected during the PIMS collection window will be reflected within the Test Setup system. This demographic information will not be editable via eDIRECT. Any demographic changes will need to be updated via PIMS within the final reporting collection window.
    - Accommodation information is NOT currently collected in the state PIMS system. If a student needs the online **AUDIO** or **SIGN LANGUAGE** accommodation, the student's profile must be updated prior to the student being assigned to a test session. All other accommodations, such as extended time, frequent breaks, etc., can be updated before, during, or after the student has completed the assessment.
- **NON-ASSESSED STUDENTS**
    - For students who are non-assessed, home-schooled, or have supplemental information needed, the District Assessment Coordinator is responsible for updating the student's profile via the eDIRECT system.
    - The following items are found under the Testing Code tab when editing a student profile:
        - Recent Medical Emergency
        - Extended absence for the entire testing window
        - Parental request for exclusion from the assessment
        - Court/agency placed (not foster care)
        - Absent without make-up
        - Home-schooled

SEARCH/VIEW STUDENTS

To search for students, follow these steps:

1. Select **Test Setup→Students**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Enter any other desired search criteria: **Last Name**, **First Name**, **PAsecureID**, **Accommodation Content Area**, **Accommodation Type**, **Accommodation**, **Grade**, **Demographic, Teacher**, **Student Group, Content Area**, or **Session**.
5. Select **Find Students**.
6. To clear your search and start over, click **Clear**.

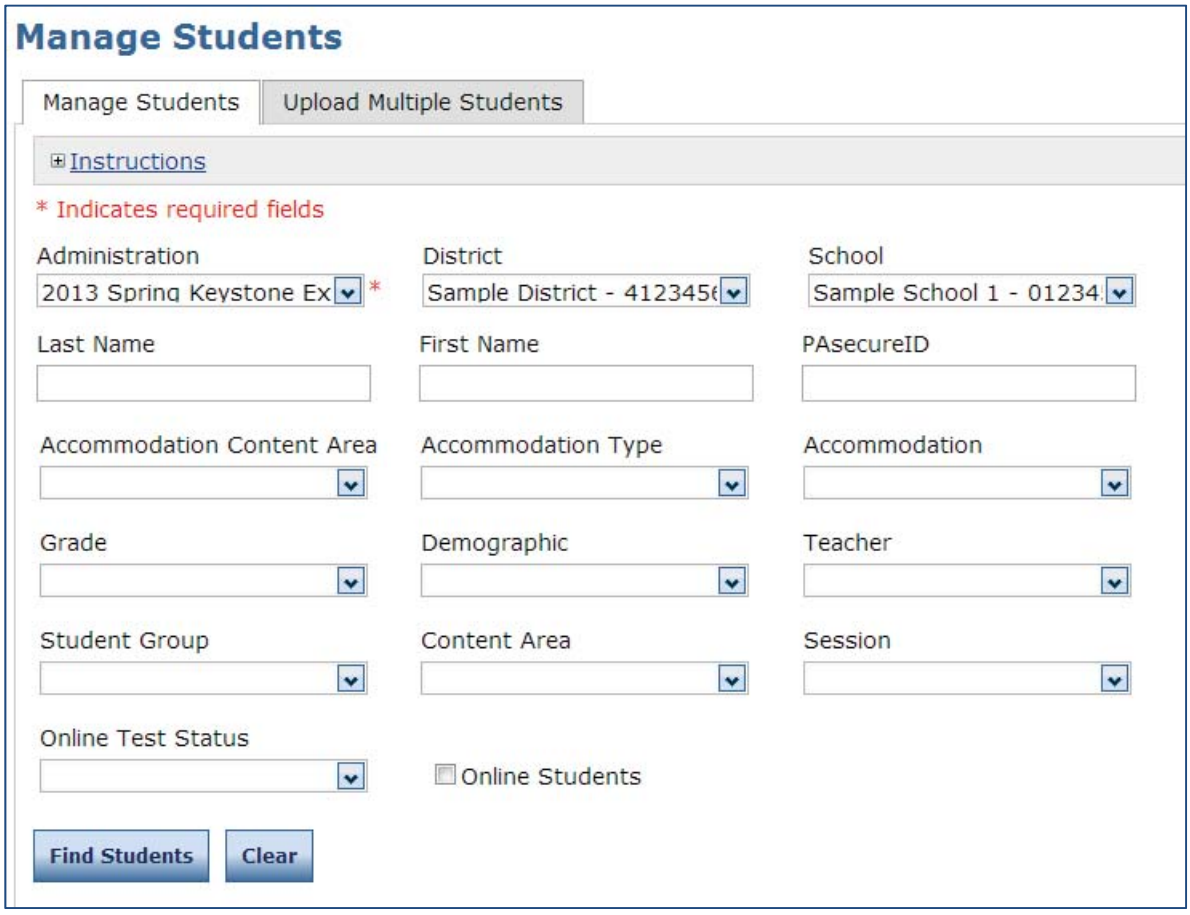
To export search results, follow these steps:

1. Search for **Students**.
2. Click **Export to Excel**.

Note: Only the search results will be exported to Excel.

To download a complete student list for a school, follow these steps:

1. Select **Students** under the **Test Setup** tab.
2. Select the appropriate Administration.
3. If applicable, select the **District** and/or **School**.
4. Click on **Download Students** at the bottom of the page.

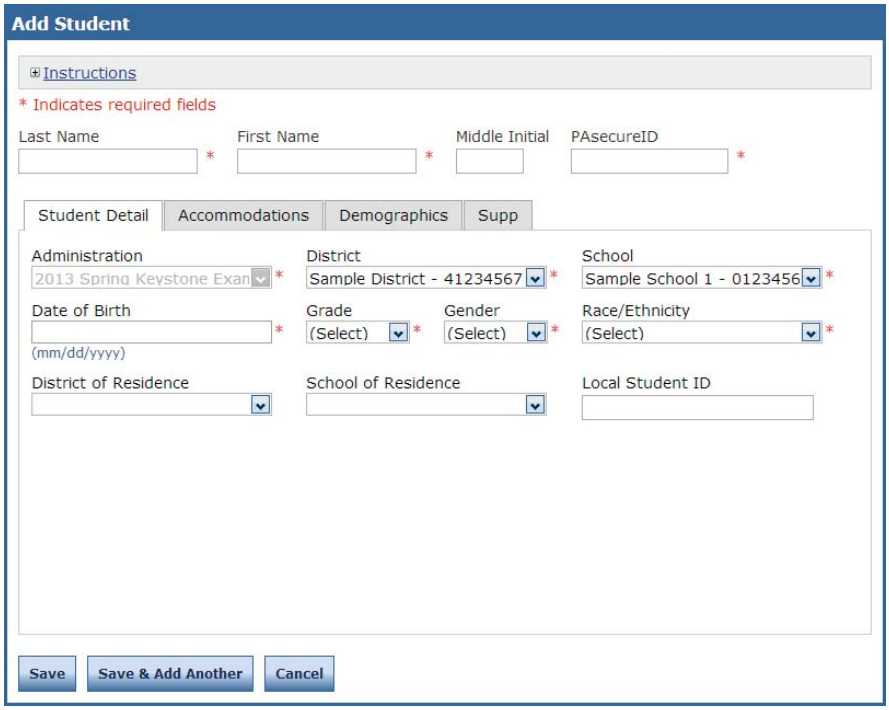


ADD STUDENTS

Students not included in the PIMS data file will need to be added to the Test Setup system prior to adding the student to a Test Session.

To add students, follow these steps:

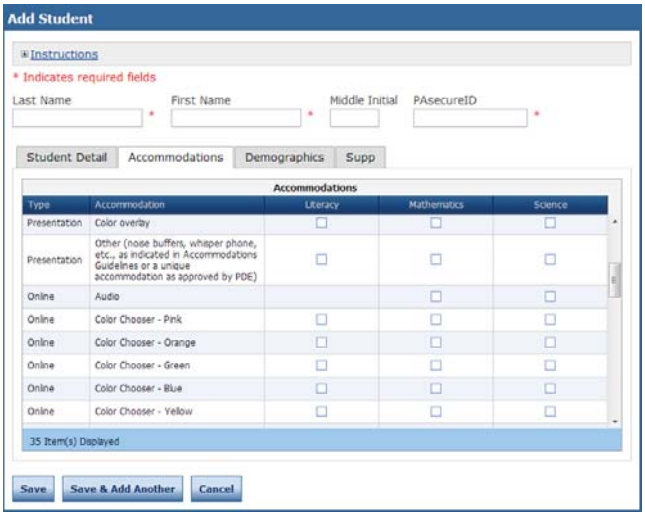
1. Select **Test Setup→Students**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Select **Add Student** at the bottom of the page.
5. Enter all the required information for the student being added in **Student Detail** tab.
6. Click **Save** or click **Save & Add Another** to continue adding new students



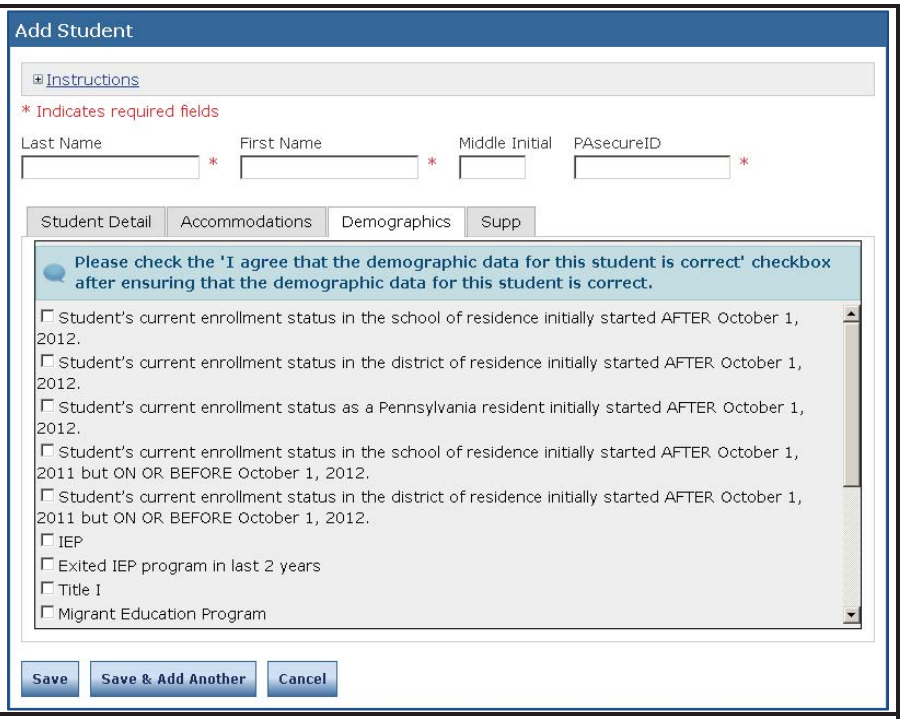
7. Select the **Accommodations** tab to enter **Presentation**, **Online**, **Response**, and/or **Timing** accommodations *if needed.*

   Note: If a student needs online **AUDIO** or **SIGN LANGUAGE**, the student's profile must be updated prior to the student being assigned to a test session.

8. Click **Save**.



9. Select the **Demographics** tab to enter **Enrollment Status, IEP, Title I, Migrant Education Program, Economically Disadvantaged, Foreign Exchange, ELL**, and/or **Title III**.
10. Click **Save**.

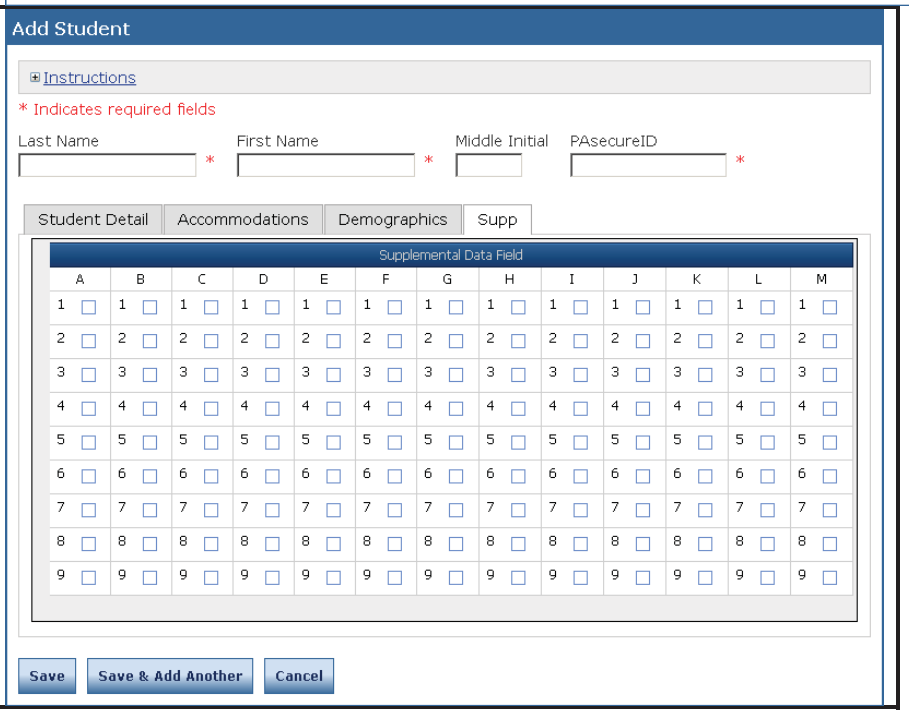


Note: You **must** check the **"I agree that the demographic data for this student is correct."** box for **all** students.

11. Select the **Supp** tab to enter **Supplemental Data Field** if needed.

    Note: The Supplemental Data Field **<u>will only be used</u>** in the event that a determination is made that the demographic information already contained in the answer books has overlooked an element that should be considered for reporting requirements.

<u>This field will only be used if districts/schools are instructed to do so by DRC or PDE.</u>



Upload Multiple Students

District Assessment Coordinators have the ability to upload a file containing multiple students. A **File Layout** and a **Sample File** are available within Test Setup after you have selected the **Administration** and **District** and/or **School**. Click on the hyperlinks to view or download the files. It is necessary to have the File Layout document readily accessible while entering student data into the CSV Sample File as it explains what the appropriate data is for each field in the file.

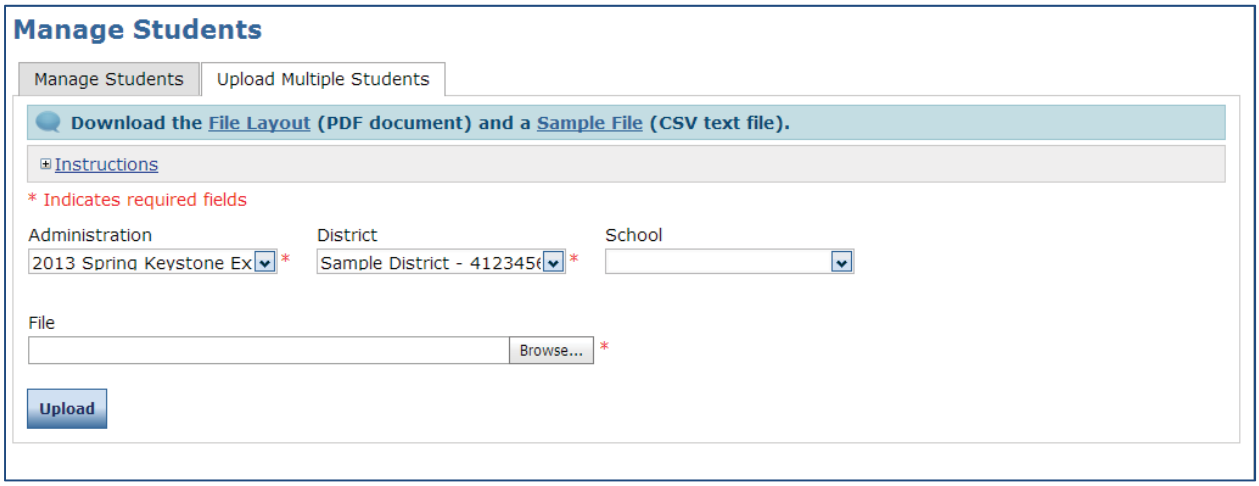
When uploading a new file, the new file updates and amends information that was contained in the previous file uploaded. If the new file is missing records that were on the previous file, those student records from the previously uploaded file will remain in the system.

File Format Verification Process: The file format will then be verified by the system to ensure that it is in the correct CSV format.

File Validation Process: If the file format passes the file format verification process, it will go through a rigorous file error validation process. This process could take up to four hours. You will not be able to upload another file until this process is complete. See **File Layout** PDF, at the top of the Upload Multiple Students tab, for specifics on what validations will be performed on the uploaded file. Only records with errors will not be uploaded. Click on the **error report** to view the error report for the last file that was uploaded.

To upload multiple students, follow these steps:

1. Select **Test Setup→Students**.
2. Select **Upload Multiple Students** tab.
3. Select the appropriate Administration.
4. Select the **District** and/or **School.**
5. Click **Browse**, and select the file from the computer.
6. Click **Upload**.
7. Status messages appear at the top of the page notifying the user of the status of the file being uploaded.
8. Click on **student file** to view the file that was last uploaded.
9. Click **error report** to view the error report for the last file that was uploaded.

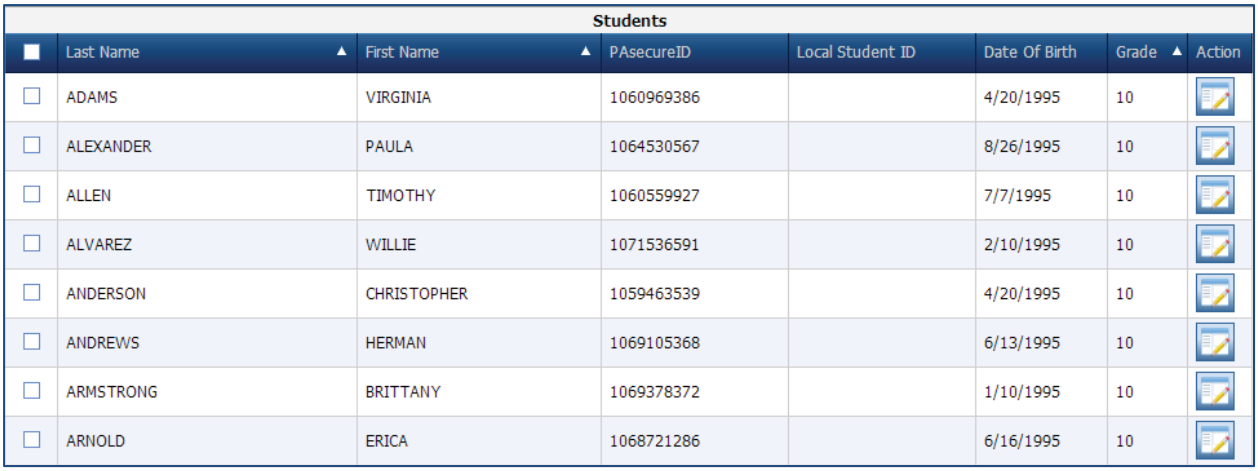


EDIT STUDENTS

If student information is missing from the Test Setup system or is incorrect, it may be edited, unless the student matches to PIMS.

To update student profiles, follow these steps:

1. Select **Test Setup→Students**.
2. Select the appropriate Administration
3. If applicable, select the **District** and/or **School**.
4. Perform a search to find the student whose data needs to be edited. The *most* useful way to search for a student is by using only their PAsecureID. If you do not know the PAsecureID, use first and last name.
5. Click on the **View/Edit** icon in the Action column to the right of the student whose information is being edited.
6. Update all the incorrect or missing information under the **Student Detail, Accommodations**, **Demographics**, **Testing Codes**, **Student Groups, Test Sessions**, and/or **Supp** tab.
7. Click **Save** or click **Cancel** to return to the Manage Students page.



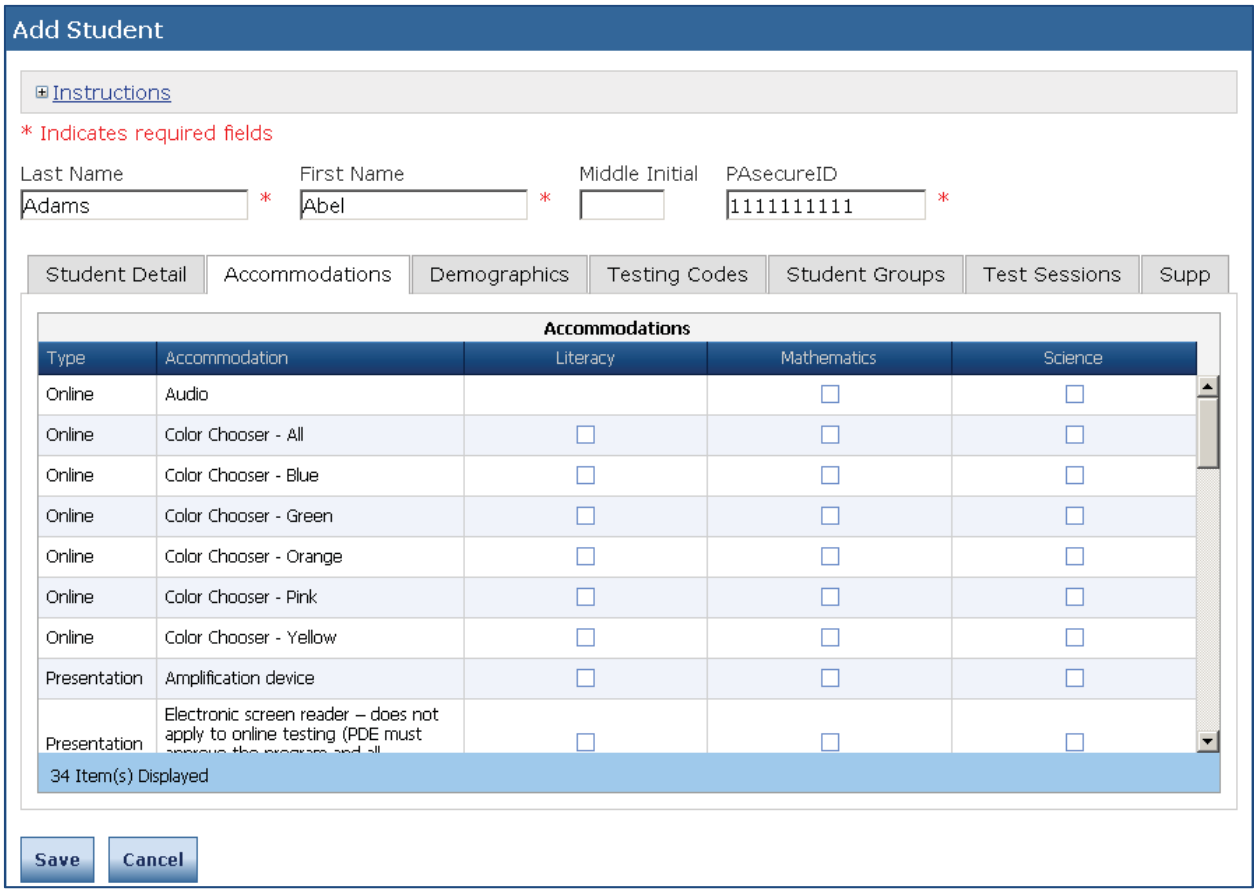
Students

Last Name	First Name	PAsecureID	Local Student ID	Date Of Birth	Grade	Action
ADAMS	VIRGINIA	1060969386		4/20/1995	10	
ALEXANDER	PAULA	1064530567		8/26/1995	10	
ALLEN	TIMOTHY	1060559927		7/7/1995	10	
ALVAREZ	WILLIE	1071536591		2/10/1995	10	
ANDERSON	CHRISTOPHER	1059463539		4/20/1995	10	
ANDREWS	HERMAN	1069105368		6/13/1995	10	
ARMSTRONG	BRITTANY	1069378372		1/10/1995	10	
ARNOLD	ERICA	1068721286		6/16/1995	10	

Update Accommodations For A Single Student

To update and/or change student accommodations, follow these steps:

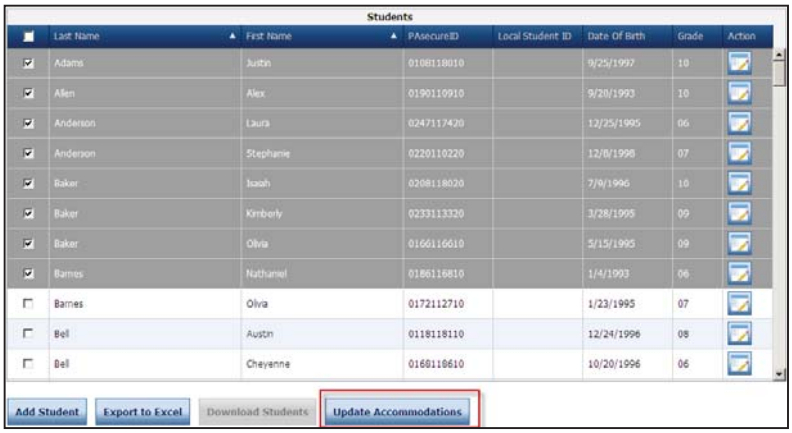
1. Select **Test Setup→Students**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Perform a search to find the student.
5. Click the **View/Edit** icon in the Action column to the right of the student being edited.
6. Select the **Accommodations** tab.
7. The accommodation options are listed.
8. Put a check in the box to select an accommodation.
9. Deselect the check in the box to remove an accommodation.
10. Click **Save** to apply the accommodation or click Cancel to return to the Manage Students page.



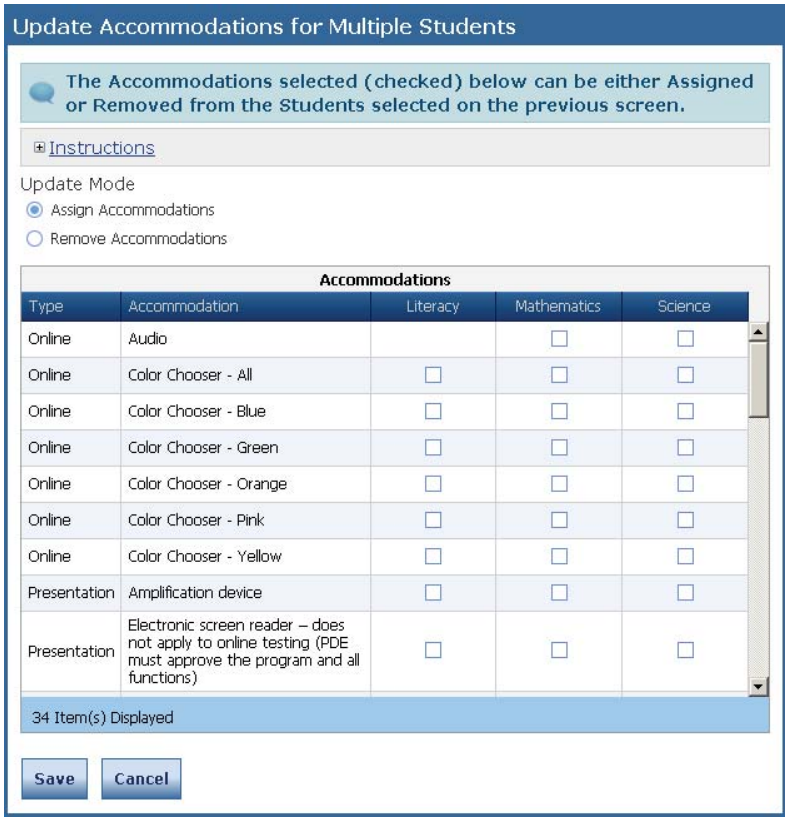
Update Accommodations For Multiple Students

To update and/or change student accommodations for multiple students, follow these steps:

1. **Test Setup→Students**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Click on **Find Students**.
5. Place a check in the box to select the students who need accommodations updated.
6. Click on **Update Accommodations** at the bottom of the page.



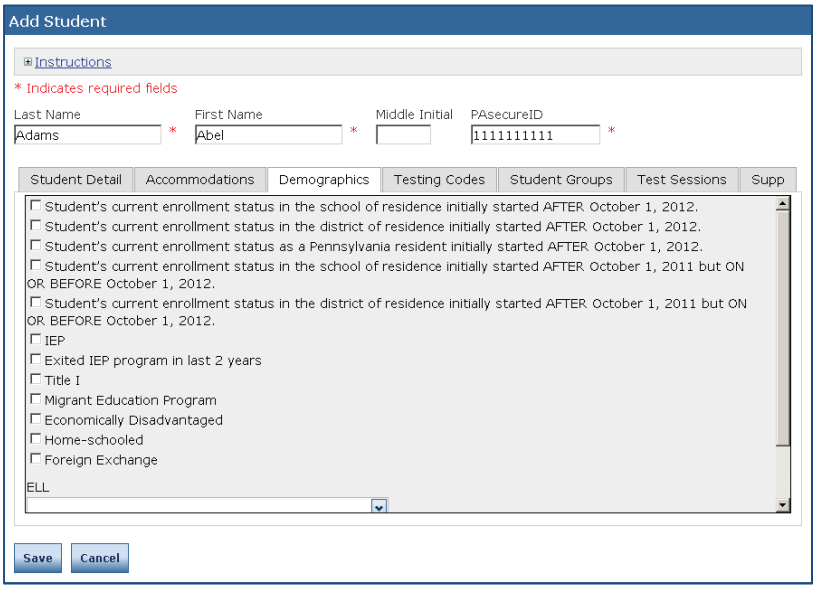
7. Select the button for **Assign Accommodations** or **Remove Accommodations**.
8. Put a check in the box for the accommodation to either assign or remove.
9. Click **Save** to apply the accommodation or click **Cancel** to return to the Manage Students page.



Update Demographics

To update and/or change student demographics, follow these steps:

1. Select **Test Setup→Students**.
2. Select the appropriate Administration
3. Select the **District** and/or **School**.
4. Perform a search to find the student.
5. Click the **View/Edit** icon in the Action column to the right of the student being edited.
6. Select the **Demographics** tab.
7. The demographics options are listed.
8. Put a check in the box to select demographic information.
9. Deselect the check in the box to remove demographic information.
10. Click **Save** to apply the demographic change or click **Cancel** to return to the Manage Students page.

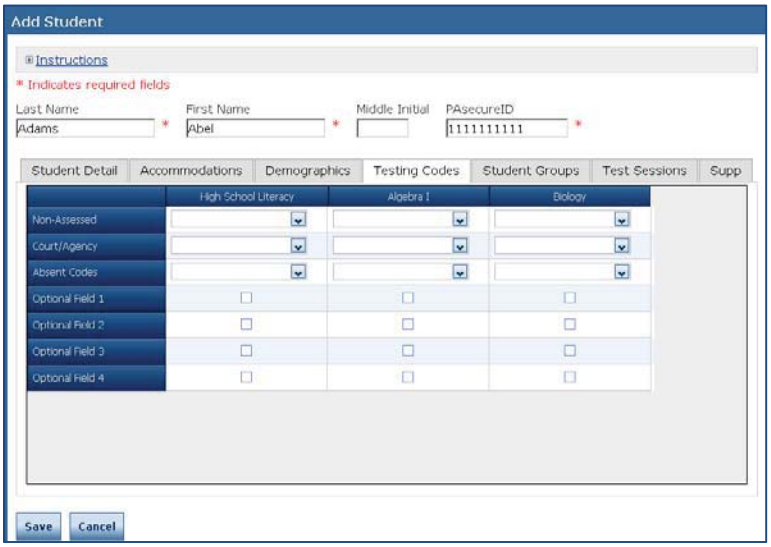


Update Testing Codes

To update and/or change student testing codes, follow these steps:

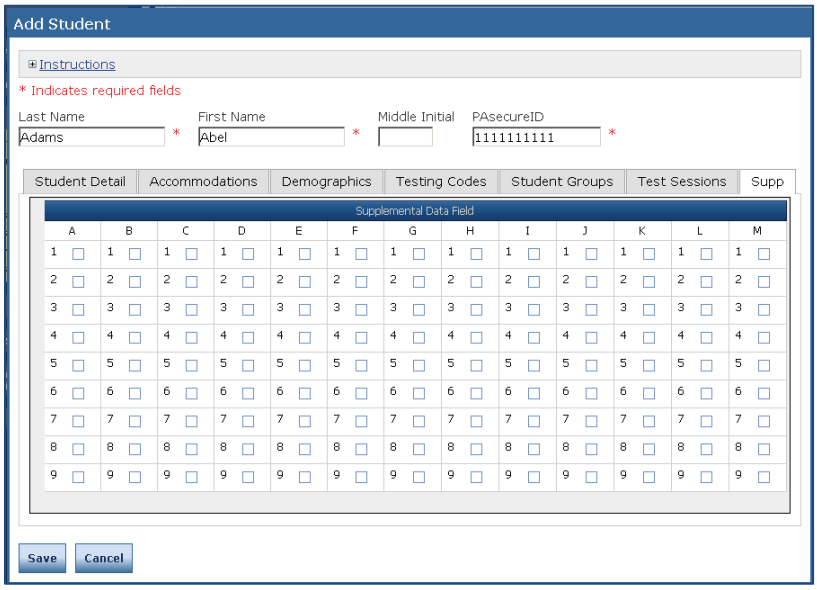
1. Select **Test Setup→Students**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Perform a search to find the student.
5. Click the **View/Edit** icon in the Action column to the right of the student being edited.
6. Select the **Testing Codes** tab.
7. The testing code options are listed.
8. Put a check in the box to select a testing code.
9. Deselect the check in the box to remove testing code.
10. Click **Save** to apply the testing code or click **Cancel** to return to the Manage Students page.

Note: Testing Codes can only be applied to a subject if the student has been placed in a Test Session for that subject.



Update Supplemental Grid

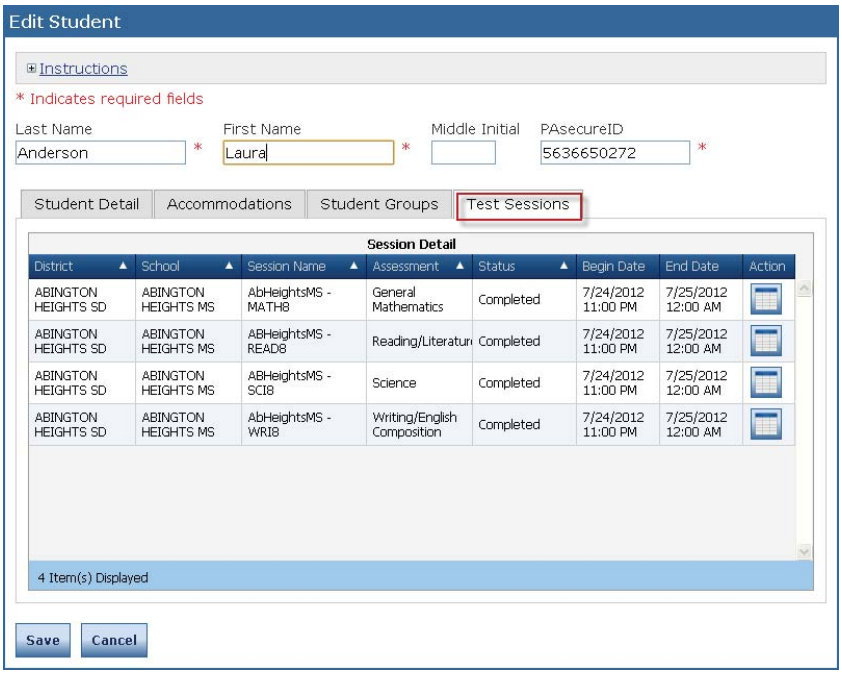
Note: The Supplemental Data Field **will only be used** in the event that a determination is made that the demographic information already contained in the answer books has overlooked an element that should be considered for reporting requirements.



View Test Sessions to Which a Student is Assigned

To view test sessions to which a student is assigned, follow these steps:

1. Select **Test Setup→Students**.
2. Select the **Administration** you would like to search.
3. If applicable, select the **District** and/or **School**.
4. Perform a search to find the student.
5. Click the **View/Edit** icon in the Action column to the right of the selected student.
6. Select the **Test Sessions** tab to view test sessions to which the student is assigned.
7. Click **Cancel** to return to the Manage Students page.



TEST SESSIONS

Within the Test Session link, a user assigns students to assessments, prints test login tickets, and checks student status.

After all students have been loaded to eDIRECT (see page 14), test sessions can be created. Test sessions are created to assign students to an assessment. It is recommended that multiple sessions be created to help manage student test tickets and review of status information. A student can only be assigned to one assessment per administration. Indicators will display if a student is already in a test session for an assessment.

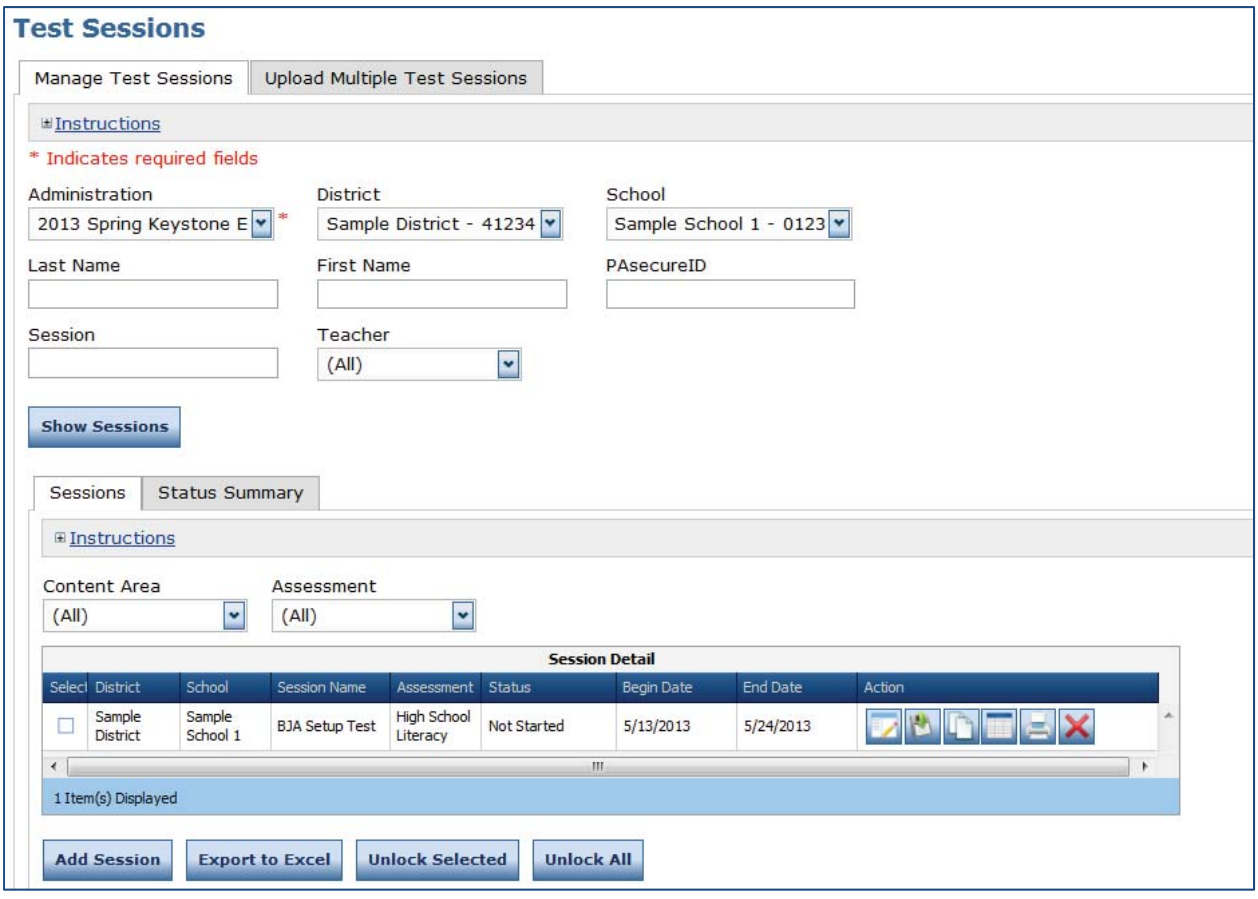
Users can print the Student Roster and Student Login Tickets (Test Ticket) from each test session. Test Administrators will use the Rosters to confirm all of the student information is correct. Students use their Test Ticket to sign in to the actual PA Online Assessment.

During the testing window, a user can view test sessions and student status. This is helpful in determining whether a student did not complete a section and a make-up session is needed.

SEARCH/VIEW TEST SESSIONS

To search for Test Sessions, follow these steps:

1. Select **Test Setup→Test Sessions.**
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Enter any additional filter criteria.
5. Click **Show Sessions**.



ADD TEST SESSION

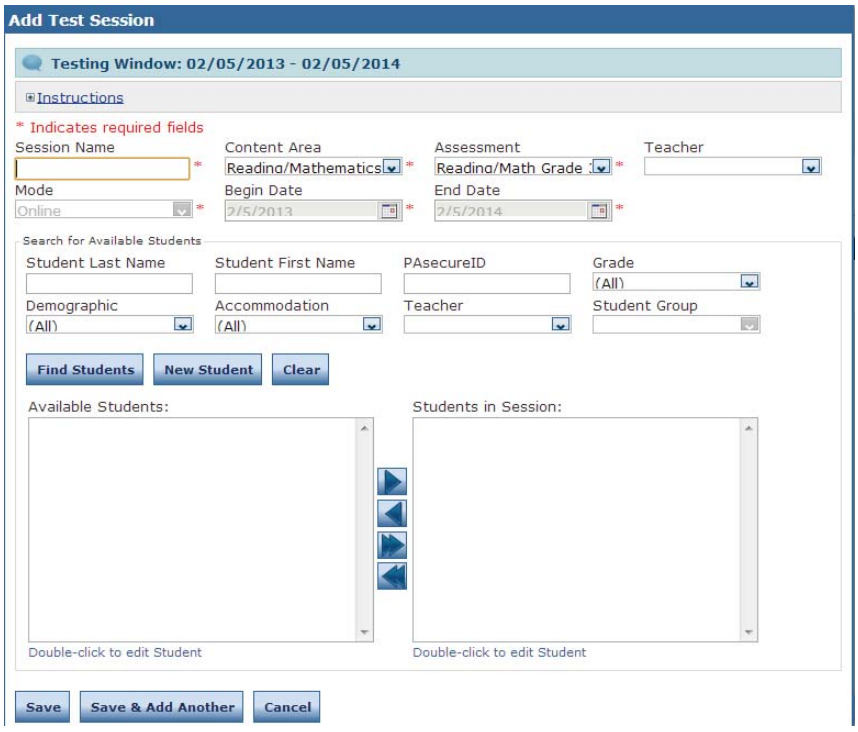
To add a Test Session, follow these steps:

1. Select **Test Setup→Test Sessions**.
2. Select the appropriate Administration.
3. Select the **District** and **School**.
4. Click **Add Session** at the bottom of the page.
5. Enter the required information: **Session Name**, **Content Area**, **Assessment**, and **Mode (online)**.

   Test Session Name Recommendation: <Teacher Name>/<Class Name>/<Test Session Name>

   Example: Sample Teacher/Algebra 1 Period 1/Session 1
6. Enter any additional search criteria to search for students: **Last Name**, **First Name**, **PAsecureID, Grade, Demographic, Accommodation,** or **Teacher**.
7. Click **Find Students**.
8. To clear your search criteria and start again, click **Clear**.
9. Select students from the **Available Students** list; to multi-select, use Crtl+Mouse.
10. Click the **Single Right Arrow** icon to move the selected students from the **Available Students** list to the **Students in Session** list.
11. Click **Save** to add the students to the session or click **Cancel** to return to the Test Sessions page.

Note: Students with a pound sign (#) before their name are not available for the test session because they have reached their maximum number of test sessions for the assessment selected. Each student can only be in one test session per subject. If the student has recently transferred, it is likely they were placed into test session in their prior district. If this is the case, they would need to be removed from that test session by their prior district before they can be placed in a test session in their new district.



EDIT/DELETE TEST SESSIONS

Test sessions can be edited at any time but cannot be deleted if *any* of the students within the session have begun or completed testing. The Delete icon is unavailable when a test session's status is either **In Progress** or **Complete**.

Test Session Status:

Not Started—none of the students in the session have started testing.
In Progress—one (1) or more of the students in the session have started or completed testing.
Completed—all the students in the session have completed testing.

Test Ticket Status:

Not Started—student has not started to test.
In Progress—student has begun testing.
Completed—student has completed testing.
Locked—test is locked.

Note: Test Session Status does NOT relate to the start and end dates for the session.

When editing a test session, the content area or assessment can be changed ONLY when there are no students in the Students in Session list on the Add/Edit Test Sessions screen.

To view/edit Test Sessions, follow these steps:

1. Select **Test Setup→Test Sessions**.
2. Select the appropriate Administration.
3. Select the **District** and/or **School**.
4. Click **Show Sessions**.
5. Enter in any additional filter criteria: **Content Area** or **Assessment**.
6. Click the **View/Edit** icon in the Action column next to the test session.
7. See the "Add Test Session" section of this user guide for further information.

To delete test sessions, follow these steps:

1. Click the **Delete** icon in the Action column to delete a test session.

Delete Available 

Delete Unavailable 

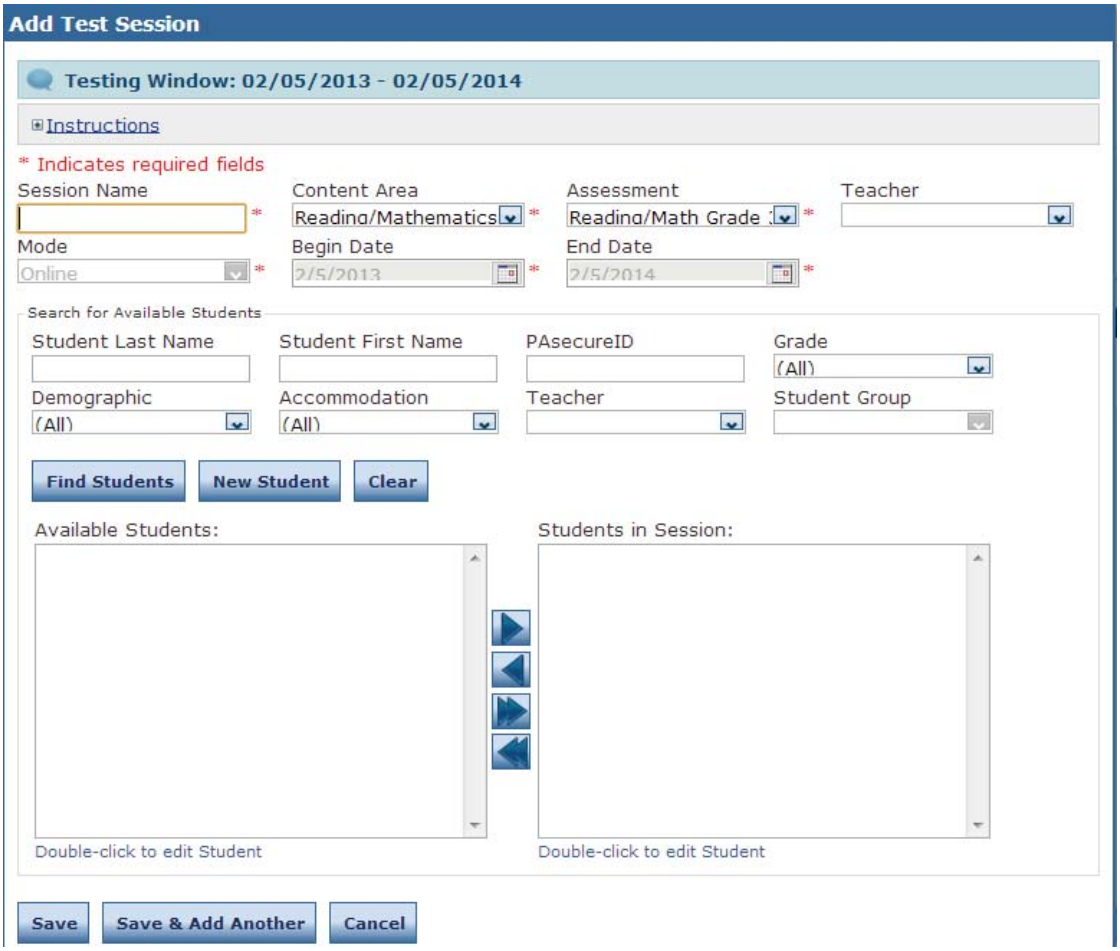
Select	District	School	Session Name	Assessment	Status	Begin Date	End Date	Action
☐	Sample District	Sample School 2	TestSession1	Algebra I	Paper	3/3/2013	5/31/2013	
☐	Sample District	Sample School 2	TestSession2	High School Literacy	Paper	3/3/2013	5/31/2013	
☐	Sample District	Sample School 2	TestSession3	Biology	Paper	3/3/2013	5/31/2013	

COPY A TEST SESSION

The Copy a Test Session functionality allows users to create multiple test sessions for the same group of students.

To copy a Test Session, follow these steps:

1. Select **Test Setup→Test Sessions**.
2. Select the appropriate Administration.
3. If applicable, select the **District** and/or **School**.
4. Select **Show Sessions**.
5. Click **Copy Session** icon  in the Action column next to the test session.
6. Enter a Test Session Name in the **Session Name** field.
7. Adjust Content Area and Assessment, as necessary.
8. Click the double-arrow icon  to move over all students.
9. Click **Save.**
10. To cancel and return to Test Sessions page, click Cancel**.**

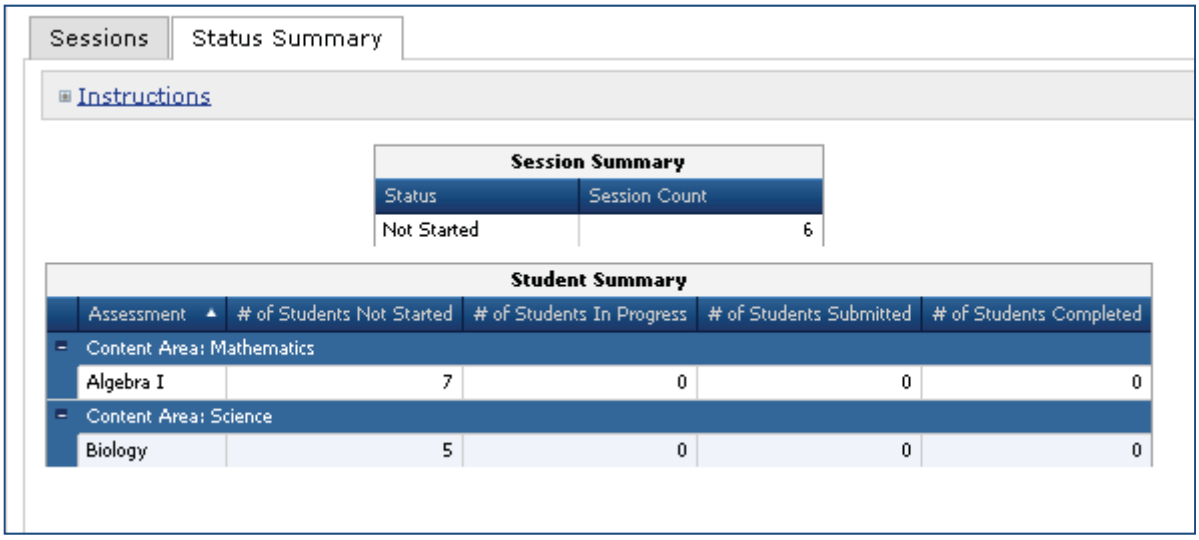


Test Session Summary

The Test Session Summary provides the user the ability to view summary information about any of the testing that is occurring within their district, school, or class. District users can view summary information for either all the schools within their district collectively or one school at a time. School users can view summary information for their school ONLY.

To view a Test Session summary, follow these steps:

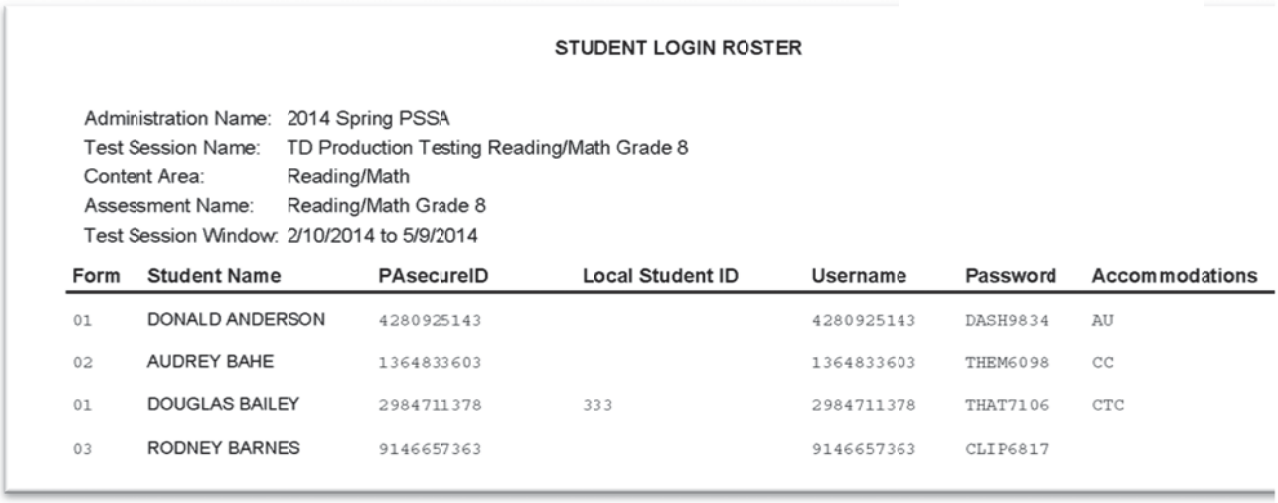
1. Select **Test Setup→Test Sessions**.
2. Select the appropriate Administration.
3. If applicable, select the **District** and/or **School**.
4. Click **Show Sessions**.
5. Select the **Status Summary** tab.



STUDENT LOGIN TICKETS

The Student Login Ticket (Test Ticket) contains unique login credentials used by the student to access the testing software. An individual Test Ticket is required to use the online testing system. These Test Tickets are secure materials and must be treated appropriately.

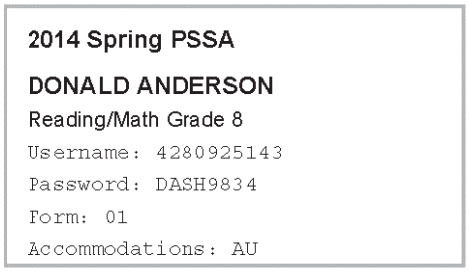
The Student Login Ticket (Test Ticket) always indicates the name of the administration, the name of the assessment, the username (student's PAsecureID), the password, the form number, and if the student is using the **AUDIO, SIGN LANGUAGE, COLOR CHOOSER**, and/or **CONTRASTING TEXT** accommodations. No other accommodation information will appear on the Test Ticket.



STUDENT LOGIN ROSTER

Administration Name: 2014 Spring PSSA
Test Session Name: TD Production Testing Reading/Math Grade 8
Content Area: Reading/Math
Assessment Name: Reading/Math Grade 8
Test Session Window: 2/10/2014 to 5/9/2014

Form	Student Name	PAsecureID	Local Student ID	Username	Password	Accommodations
01	DONALD ANDERSON	4280925143		4280925143	DASH9834	AU
02	AUDREY BAHE	1364833603		1364833603	THEM6098	CC
01	DOUGLAS BAILEY	2984711378	333	2984711378	THAT7106	CTC
03	RODNEY BARNES	9146657363		9146657363	CLIP6817	



2014 Spring PSSA

DONALD ANDERSON

Reading/Math Grade 8

Username: 4280925143

Password: DASH9834

Form: 01

Accommodations: AU

View/Print Test Session Tickets

To view/print Test Session Tickets, follow these steps:

1. Select **Test Setup→Test Sessions**.
2. Select the appropriate Administration.
3. If applicable, select the **District** and/or **School**.
4. Click **Show Sessions**.
5. Enter in any additional criteria: **Content Area** or **Assessment**.
6. Click on the **Edit/Print Ticket Status** icon in the Action column next to the test session.
7. Either select the Test Tickets by checking the box next to the applicable students and clicking **Print Selected,** or click **Print All** to print all the tickets for the test session.
8. A PDF document opens containing the Test Ticket instructions, a roster of student tickets being printed, and the Test Tickets.
9. Print the PDF and separate the tickets for distribution to students at testing time.
10. To return to the Test Sessions page, click **Close**.

Quick Print All Tickets in a Test Session:

- Click the **Print All Tickets** icon in the Action column next to the test session.

Log In

If students are having trouble logging in:

- make sure they are selecting the correct test,
- make sure they did not select the Online Tools Training,
- make sure the first four letters are capitalized, and
- make sure when using the number key pad that the Caps Lock is not on.

Unlocking of Test Tickets

The Distict Assessment Coordinator has access to unlock a test ticket. This permission allows the DAC to re-open a session if the student was locked out prior to completing that session (e.g., school lost internet connectivity or the student went home ill). The student will be able to log back into the session using the same test ticket.

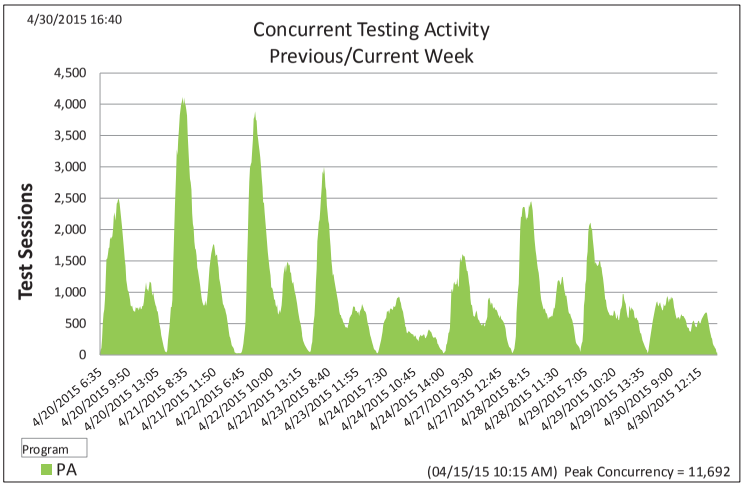
The DAC is required to document all unlocked tickets. A Daily Student Reset Report will be generated to provide a tool for districts and PDE to monitor unlocked tickets. The report is found under the Status Report link in eDIRECT.

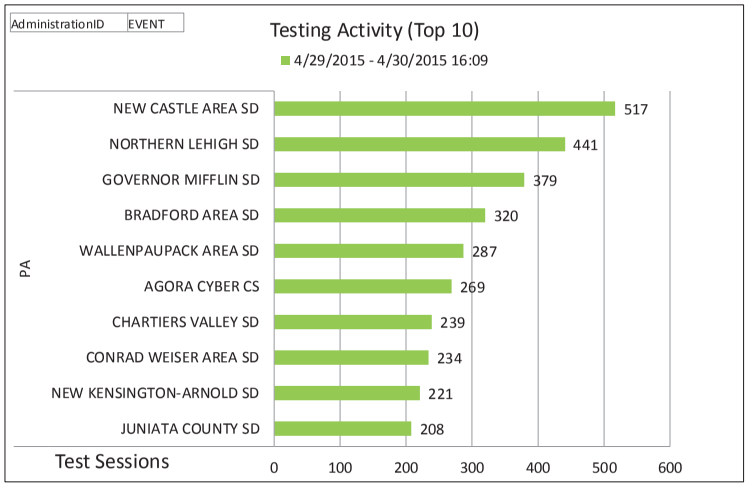
Student Withdraws

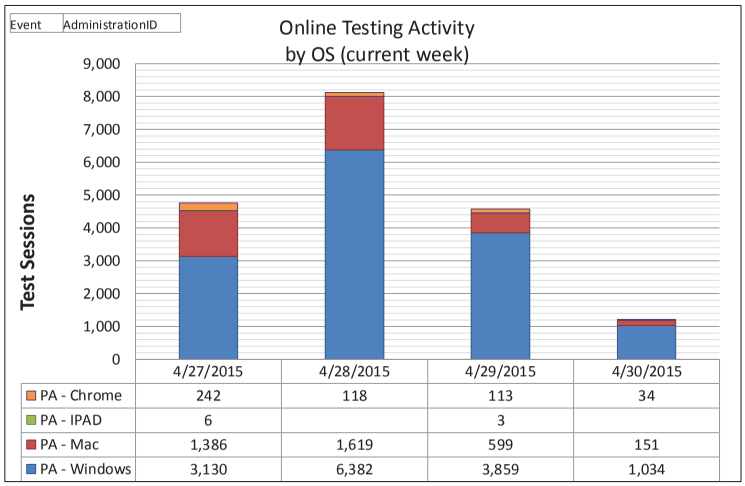
If a student starts a module (Keystone) or section (PSSA) of an online assessment and withdraws from school before completing the module/section, contact DRC for assistance.

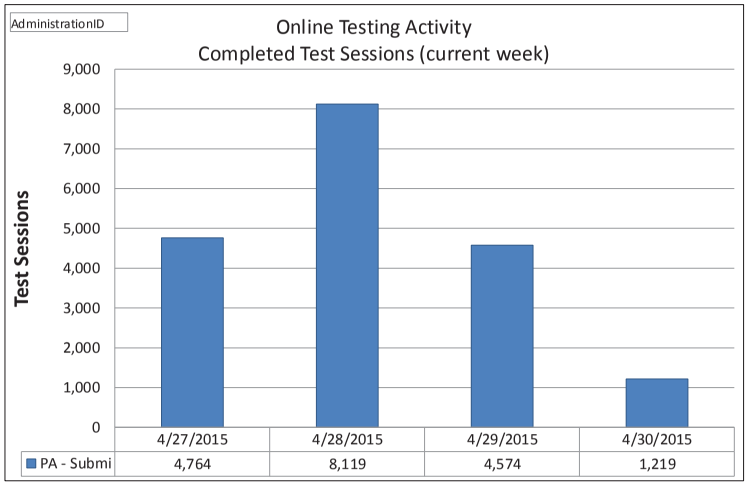
eDIRECT Test Setup User Guide

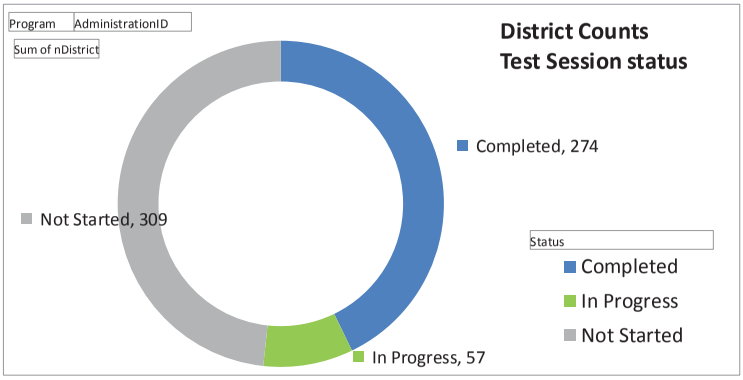
Program Dashboard

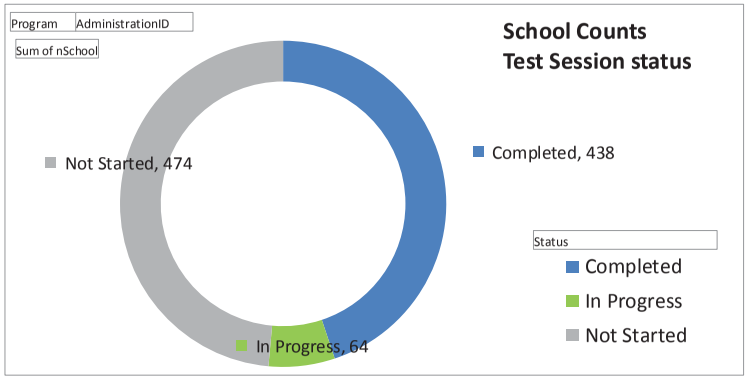


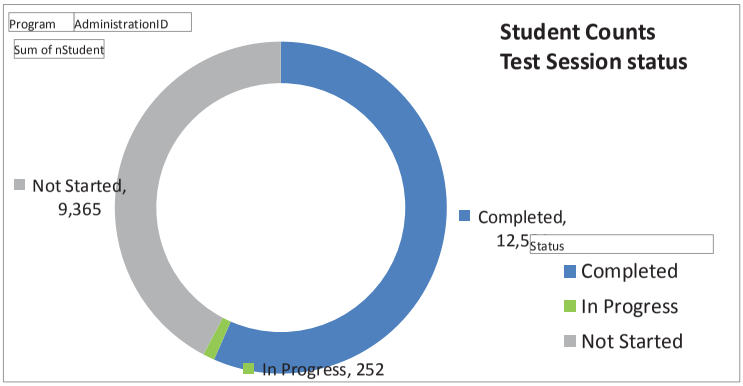


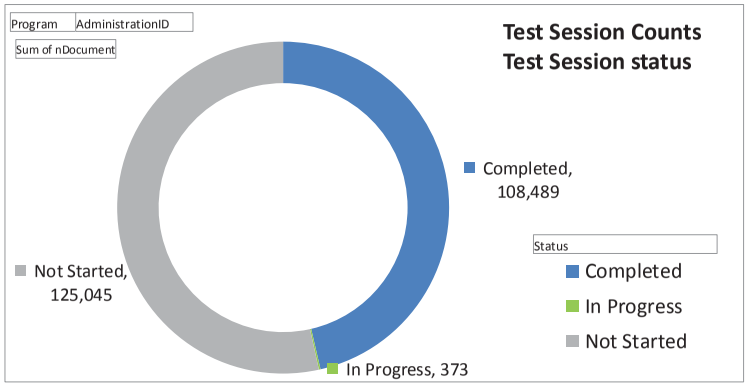












Program Dashboard

Student

Program PA

AdministrationID	Test	Level	Status Values: Completed Student(count)	Completed Student %	In Progress Student(count)	In Progress Student %	Not Started Student(count)	Not Started Student %	Total Student(count)	Total Student %
550438	ELA	08	3,900	73.39%	26	0.49%	1,388	26.12%	5,314	100.00%
		03	621	33.46%	18	0.97%	1,217	65.57%	1,856	100.00%
		04	725	38.96%	28	1.50%	1,108	59.54%	1,861	100.00%
		05	1,033	44.39%	20	0.86%	1,274	54.75%	2,327	100.00%
		06	1,529	54.51%	27	0.96%	1,249	44.53%	2,805	100.00%
		07	2,370	51.63%	24	0.52%	2,196	47.84%	4,590	100.00%
	ELA Total		**10,178**	**54.27%**	**143**	**0.76%**	**8,432**	**44.96%**	**18,753**	**100.00%**
	MATH	08	3,639	68.75%	17	0.32%	1,637	30.93%	5,293	100.00%
		03	784	41.79%	13	0.69%	1,079	57.52%	1,876	100.00%
		04	876	53.22%	7	0.43%	763	46.35%	1,646	100.00%
		05	1,217	53.10%	13	0.57%	1,062	46.34%	2,292	100.00%
		06	1,670	57.89%	12	0.42%	1,203	41.70%	2,885	100.00%
		07	2,426	66.52%	10	0.27%	1,211	33.21%	3,647	100.00%
	MATH Total		**10,612**	**60.16%**	**72**	**0.41%**	**6,955**	**39.43%**	**17,639**	**100.00%**
	SCIENCE	08	3,903	64.17%	18	0.30%	2,161	35.53%	6,082	100.00%
		04	1,593	62.23%	33	1.29%	934	36.48%	2,560	100.00%
	SCIENCE Total		**5,496**	**63.60%**	**51**	**0.59%**	**3,095**	**35.81%**	**8,642**	**100.00%**
550435	LITERACY	HS	215	0.13%	53	0.03%	170,457	99.84%	170,725	100.00%
	LITERACY Total		**215**	**0.13%**	**53**	**0.03%**	**170,457**	**99.84%**	**170,725**	**100.00%**
	MATH	A1	82	0.04%	27	0.01%	220,857	99.95%	220,966	100.00%
	MATH Total		**82**	**0.04%**	**27**	**0.01%**	**220,857**	**99.95%**	**220,966**	**100.00%**
	SCIENCE	BIO	124	0.07%	154	0.08%	185,174	99.85%	185,452	100.00%
	SCIENCE Total		**124**	**0.07%**	**154**	**0.08%**	**185,174**	**99.85%**	**185,452**	**100.00%**

Program Dashboard

Test Session

Program PA

AdministrationID	Test	Level	Status Values: Completed – Test Session (count)	Completed – Test Session (%)	In Progress – Test Session (count)	In Progress – Test Session (%)	Not Started – Test Session (count)	Not Started – Test Session (%)	Total Test Session (count)	Total Test Session (%)
550438	ELA	08	19,381	63.03%	31	0.10%	11,338	36.87%	30,750	100.00%
		03	3,057	22.48%	26	0.19%	10,517	77.33%	13,600	100.00%
		04	3,571	30.17%	34	0.29%	8,230	69.54%	11,835	100.00%
		05	5,107	35.27%	26	0.18%	9,346	64.55%	14,479	100.00%
		06	7,547	44.77%	43	0.26%	9,267	54.97%	16,857	100.00%
		07	11,766	44.72%	34	0.13%	14,512	55.15%	26,312	100.00%
	ELA Total		**50,429**	**44.30%**	**194**	**0.17%**	**63,210**	**55.53%**	**113,833**	**100.00%**
	MATH	08	14,355	59.20%	25	0.10%	9,868	40.70%	24,248	100.00%
		03	3,088	27.35%	21	0.19%	8,181	72.46%	11,290	100.00%
		04	3,472	35.06%	17	0.17%	6,415	64.77%	9,904	100.00%
		05	4,817	43.66%	19	0.17%	6,196	56.16%	11,032	100.00%
		06	6,592	47.74%	17	0.12%	7,199	52.14%	13,808	100.00%
		07	9,587	55.66%	19	0.11%	7,619	44.23%	17,225	100.00%
	MATH Total		**41,911**	**47.89%**	**118**	**0.13%**	**45,478**	**51.97%**	**87,507**	**100.00%**
	SCIENCE	08	11,482	50.66%	22	0.10%	11,161	49.24%	22,665	100.00%
		04	4,667	47.13%	39	0.39%	5,196	52.47%	9,902	100.00%
	SCIENCE Total		**16,149**	**49.59%**	**61**	**0.19%**	**16,357**	**50.23%**	**32,567**	**100.00%**
550438 Total			**108,489**	**46.38%**	**373**	**0.16%**	**125,045**	**53.46%**	**233,907**	**100.00%**
550435	LITERACY	HS	532	0.26%	97	0.05%	203,186	99.69%	203,815	100.00%
	LITERACY Total		**532**	**0.26%**	**97**	**0.05%**	**203,186**	**99.69%**	**203,815**	**100.00%**
	MATH	A1	185	0.07%	53	0.02%	256,132	99.91%	256,370	100.00%
	MATH Total		**185**	**0.07%**	**53**	**0.02%**	**256,132**	**99.91%**	**256,370**	**100.00%**
	SCIENCE	BIO	244	0.11%	295	0.13%	227,030	99.76%	227,569	100.00%
	SCIENCE Total		**244**	**0.11%**	**295**	**0.13%**	**227,030**	**99.76%**	**227,569**	**100.00%**
550435 Total			**961**	**0.14%**	**445**	**0.06%**	**686,348**	**99.80%**	**687,754**	**100.00%**