Georgia

Milestones

Assessment System

Assessment Guide

Grade 8

Assessment Guide

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Table of Contents

THE GEORGIA MILESTONES ASSESSMENT SYSTEM 4

GEORGIA MILESTONES END-OF-GRADE (EOG) ASSESSMENTS 5

ASSESSMENT GUIDE 6

TESTING SCHEDULE 7

DEPTH OF KNOWLEDGE DESCRIPTORS 8

SCORES 11

ENGLISH LANGUAGE ARTS (ELA) 12

DESCRIPTION OF TEST FORMAT AND ORGANIZATION 12

CONTENT MEASURED 13

GRADE 8 ENGLISH LANGUAGE ARTS (ELA): DOMAIN STRUCTURES AND CONTENT WEIGHTS . 14

ITEM TYPES 16

ENGLISH LANGUAGE ARTS (ELA) DEPTH OF KNOWLEDGE EXAMPLE ITEMS 18

ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEMS 29

ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEM KEYS 53

ENGLISH LANGUAGE ARTS (ELA) EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES 56

ENGLISH LANGUAGE ARTS (ELA) WRITING RUBRICS 64

MATHEMATICS 71

DESCRIPTION OF TEST FORMAT AND ORGANIZATION 71

CONTENT MEASURED 72

GRADE 8 MATHEMATICS: DOMAIN STRUCTURES AND CONTENT WEIGHTS 73

ITEM TYPES 74

MATHEMATICS DEPTH OF KNOWLEDGE EXAMPLE ITEMS 76

MATHEMATICS ADDITIONAL SAMPLE ITEMS 79

MATHEMATICS ADDITIONAL SAMPLE ITEM KEYS 101

MATHEMATICS EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES 105

SCIENCE 115

DESCRIPTION OF TEST FORMAT AND ORGANIZATION 115

CONTENT MEASURED 116

GRADE 8 SCIENCE: DOMAIN STRUCTURES AND CONTENT WEIGHTS 117

ITEM TYPES 117

SCIENCE DEPTH OF KNOWLEDGE EXAMPLE ITEMS 119

SCIENCE ADDITIONAL SAMPLE ITEMS 126

SCIENCE ADDITIONAL SAMPLE ITEM KEYS 154

SCIENCE EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES 159

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SOCIAL STUDIES . . . 173
DESCRIPTION OF TEST FORMAT AND ORGANIZATION . . . 173
CONTENT MEASURED . . . 174
GRADE 8 SOCIAL STUDIES: DOMAIN STRUCTURES AND CONTENT WEIGHTS . . . 175
EXTENDED PROPER NOUN LIST FOR SOCIAL STUDIES . . . 177
ITEM TYPES . . . 179
SOCIAL STUDIES DEPTH-OF-KNOWLEDGE EXAMPLE ITEMS . . . 180
SOCIAL STUDIES ADDITIONAL SAMPLE ITEMS . . . 185
SOCIAL STUDIES ADDITIONAL SAMPLE ITEM KEYS . . . 204
SOCIAL STUDIES EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES . . . 208
APPENDIX: LANGUAGE PROGRESSIVE SKILLS, BY GRADE . . . 216

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THE GEORGIA MILESTONES ASSESSMENT SYSTEM

The purpose of the Georgia Student Assessment Program is to measure student achievement of the state-adopted content standards and inform efforts to improve teaching and learning. Results of the assessment program are utilized to identify students failing to achieve mastery of content, to provide educators with feedback about instructional practice, and to assist school districts in identifying strengths and weaknesses in order to establish priorities in planning educational programs.

The State Board of Education is required by Georgia law (O.C.G.A. §20-2-281) to adopt assessments designed to measure student achievement relative to the knowledge and skills set forth in the state-adopted content standards. The Georgia Milestones Assessment System (Georgia Milestones) fulfills this requirement and, as a key component of Georgia's Student Assessment Program, is a comprehensive summative assessment program spanning grade 3 through high school. Georgia Milestones measures how well students have learned the knowledge and skills outlined in the state-adopted content standards in Language Arts, Mathematics, Science, and Social Studies. Students in grades 3 through 8 take an end-of-grade assessment in English Language Arts and Mathematics; additionally, students in grades 5 and 8 are assessed in Science; and students in grade 8 are assessed in Social Studies. High school students take an end-of-course assessment for each of the five courses designated by the State Board of Education. In accordance with State Board Rule, Georgia Milestones end-of-course measures serve as the final exams for the specified high school courses.

The main purpose of Georgia Milestones is to inform efforts to improve student achievement by assessing student performance on the standards specific to each course or subject/grade tested. Specifically, Georgia Milestones is designed to provide students and their parents with critical information about the students' achievement and, importantly, their preparedness for the next educational level. The assessment system is a critical informant of the state's accountability measure, the College and Career Ready Performance Index (CCRPI), providing an important gauge about the quality of the educational services and opportunities provided throughout the state. The ultimate goal of Georgia's assessment and accountability system is to ensure that all students are provided the opportunity to engage with high-quality content standards, receive high-quality instruction predicated upon those standards, and are positioned to meet high academic expectations.

Features of the Georgia Milestones Assessment System include:

- technology-enhanced items in all grades and courses;
- open-ended (constructed-response) items in English Language Arts (all grades and courses);
- a writing component (in response to passages read by students) at every grade level and course within the English Language Arts assessment; and
- online administration as the primary mode of administration.

The mode of administration for the Georgia Milestones program is online. Paper/pencil test materials, such as Braille forms, will be available for the small number of students who cannot interact with the computer due to their disability as documented in an IEP, IAP/504, or EL-TPC Plan.

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Georgia Milestones follows guiding principles to help ensure that the assessment system:

- is sufficiently challenging to ensure Georgia students are well positioned to compete with other students across the United States and internationally;
- is intentionally designed across grade levels to send a clear signal of student academic progress and preparedness for the next level, whether it is the next grade level, course, or college or career;
- is accessible to all students, including those with disabilities or limited English proficiency, at all achievement levels;
- supports and informs the state's educator-effectiveness initiatives, ensuring items and forms are appropriately sensitive to quality instructional practices; and
- includes innovative technology-enhanced items.

GEORGIA MILESTONES END-OF-GRADE (EOG) ASSESSMENTS

As previously mentioned, Georgia law (§20-2-281) mandates that the State Board of Education adopt annual measures of student achievement in the content areas of English Language Arts (ELA) and Mathematics in grades 3–8, Science in grade 5 and 8, and Social Studies in grade 8. Students must participate in the Georgia Milestones content areas measured at the end of each grade in which they are enrolled. State law further mandates that student achievement in reading, as measured as a component of the Georgia Milestones English Language Arts (ELA) EOG assessment, be utilized in promotion and retention decisions for students in grades 3, 5, and 8, while student achievement in mathematics, as measured by the Georgia Milestones Mathematics EOG assessment, be considered in grades 5 and 8. Students who fail to demonstrate grade-level achievement on these measures must receive remediation and be offered an opportunity for a retest prior to consideration for promotion to grades 4, 6, and 9 (§20-2-283 and State Board of Education Rule 160-4-2-.11).

Results of the EOG assessments, according to the legislated and identified purposes, must:

- provide a valid measure of student achievement of the state content standards across the full achievement continuum;
- provide a clear signal of each student's preparedness for the next educational level (i.e., grade);
- allow for the detection of the academic progress made by each student from one assessed grade to the next;
- be suitable for use in promotion and retention decisions at grades 3 (reading), 5 (reading and mathematics), and 8 (reading and mathematics);
- support and inform educator-effectiveness measures; and
- inform state and federal accountability measures at the school, district, and state levels.

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ASSESSMENT GUIDE

The Georgia Milestones Grade 8 EOG Assessment Guide is provided to acquaint Georgia educators and other stakeholders with the structure and content assessed by the tests. Importantly, this guide is not intended to inform instructional planning. It is essential to note that there are a small number of content standards that are better suited for classroom or individual assessment rather than large-scale summative assessment. While those standards are not included on the tests, and therefore are not included in this Assessment Guide, the knowledge, concepts, and skills inherent in those standards are often required for the mastery of the standards that are assessed. Failure to attend to all content standards within a content area can limit a student's opportunity to learn and show what he or she knows and can do on the assessments.

The Georgia Milestones Grade 8 EOG Assessment Guide is in *no way* intended to substitute for the state-mandated content standards; it is provided to help educators better understand the structure and content of the assessments, *but is not all-encompassing of the knowledge, concepts, and skills covered in Grade 8 or assessed on the tests*. The state-adopted content standards and associated standards-based instructional resources, such as the Content Frameworks, should be used to plan instruction. This Assessment Guide can serve as a *supplement* to those resources, in addition to any locally developed resources, ***but should not be used in isolation***. In principle, this Assessment Guide is intended to be descriptive of the assessment program and should not be considered all-inclusive. The state-adopted content standards are located at www.georgiastandards.org.

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TESTING SCHEDULE

The Georgia Milestones Grade 8 EOG assessment is offered during the Main Administration each spring and one Summer Administration for retests.

Students will take the Georgia Milestones Grade 8 EOG assessment on days specified by their local school district during the testing window. Each district determines a local testing window within the state-designated testing window.

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DEPTH OF KNOWLEDGE DESCRIPTORS

Items found on the Georgia Milestones assessments, including the Grade 8 EOG assessment, are developed with a particular emphasis on cognitive complexity, or Depth of Knowledge (DOK). DOK is measured on a scale of 1 to 4 and refers to the level of cognitive demand required to complete a task (or in this case, an assessment item). The higher the level, the *more complex* the assessment; however, higher levels do not necessarily mean *more difficult* items. For instance, a question can have a low DOK but a medium or even high difficulty level. Conversely, a DOK 4 question may have a low difficulty level but still require a great deal of cognitive thinking (e.g., analyzing and synthesizing information instead of just recalling it). The following descriptions and table show the expectations of the four DOK levels in greater detail.

Level 1 (Recall of Information) generally requires students to identify, list, or define, often asking them to recall who, what, when, and where. Consequently, this level usually asks students to recall facts, terms, concepts, and trends and may ask them to identify specific information contained in documents, excerpts, quotations, maps, charts, tables, graphs, or illustrations. Items that require students to “describe” and/or “explain” could be classified at Level 1 or Level 2, depending on what is to be described and/or explained. A Level 1 “describe” and/or “explain” would require students to recall, recite, or reproduce information.

Level 2 (Basic Reasoning) includes the engagement of some mental processing beyond recalling or reproducing a response. A Level 2 “describe” and/or “explain” would require students to go beyond a description or explanation of recalled information to describe and/or explain a result or “how” or “why.”

Level 3 (Complex Reasoning) requires reasoning, using evidence, and thinking on a higher and more abstract level than Level 1 and Level 2. Students will go beyond explaining or describing “how and why” to justifying the “how and why” through application and evidence. Level 3 questions often involve making connections across time and place to explain a concept or “big idea.”

Level 4 (Extended Reasoning) requires the complex reasoning of Level 3 with the addition of planning, investigating, applying significant conceptual understanding, and/or developing that will most likely require an extended period of time. 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, a product, or an extended response) that the cognitive demands have been met.

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The following table identifies skills that students will need to demonstrate at each DOK level, along with sample question cues appropriate for each level.

Level	Skills Demonstrated	Question Cues
Level 1 Recall of Information	• Make observations • Recall information • Recognize formulas, properties, patterns, processes • Know vocabulary, definitions • Know basic concepts • Perform one-step processes • Translate from one representation to another • Identify relationships	• Tell who, what, when, or where • Find • List • Define • Identify; label; name • Choose; select • Compute; estimate • Express as • Read from data displays • Order
Level 2 Basic Reasoning	• Apply learned information to abstract and real-life situations • Use methods, concepts, and theories in abstract and real-life situations • Perform multi-step processes • Solve problems using required skills or knowledge (requires more than habitual response) • Make a decision about how to proceed • Identify and organize components of a whole • Extend patterns • Identify/describe cause and effect • Make basic inferences or logical predictions from data to text • Interpret facts • Compare or contrast simple concepts/ideas	• Apply • Calculate; solve • Complete • Describe • Explain how; demonstrate • Construct data displays • Construct; draw • Analyze • Extend • Connect • Classify • Arrange • Compare; contrast • Predict

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Level	Skills Demonstrated	Question Cues
Level 3 Complex Reasoning	• Solve an open-ended problem with more than one correct answer • Create a pattern • Generalize from given facts • Relate knowledge from several sources • Draw conclusions • Translate knowledge into new contexts • Compare and discriminate between ideas • Assess value of methods, concepts, theories, processes, and formulas • Make choices based on a reasoned argument • Verify the value of evidence, information, numbers, and data	• Plan; prepare • Create; design • Ask “what if?” questions • Generalize • Justify; explain why; support; convince • Assess • Rank; grade • Test; judge • Recommend • Select • Conclude
Level 4 Extended Reasoning	• Analyze and synthesize information from multiple sources • Examine and explain alternative perspectives across a variety of sources • Describe and illustrate how common themes are found across texts from different cultures • Apply mathematical models to illuminate a problem or situation • Design a mathematical model to inform and solve a practical or abstract situation • Combine and synthesize ideas into new concepts	• Design • Connect • Synthesize • Apply concepts • Critique • Analyze • Create • Prove

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SCORES

Students will receive a scale score and an Achievement Level designation based on total test performance. In addition, students will receive information on how well they performed at the domain level. For more information on scoring, please see the *Georgia Milestones End-of-Grade (EOG) Interpretive Guide for Score Reports*. Additional information on the items contributing to these scores is found in the Description of Test Format and Organization sections for English Language Arts (ELA), Mathematics, Science, and Social Studies.

Selected-response items and technology-enhanced items are machine scored. The Mathematics, Science, and Social Studies assessments consist of selected-response and technology-enhanced items. However, the English Language Arts (ELA) assessment consists of a variety of item types that contribute to the student's score, including selected-response, technology-enhanced, constructed-response, extended constructed-response, and extended writing-response. Items that are not machine scored—i.e., constructed-response, extended constructed-response, and extended writing-response items—require rubrics for manual scoring.

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ENGLISH LANGUAGE ARTS (ELA)

DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones English Language Arts (ELA) EOG assessment is a criterion-referenced test, designed to provide information about how well a student has mastered the grade-level state-adopted content standards in English Language Arts (ELA). The assessment consists of both operational items and field test items (newly written items that are being tried out and do not contribute to the student's score). Each student will receive one of four Achievement Level designations, depending on how well the student has mastered the content standards. The four Achievement Level designations are Beginning Learner, Developing Learner, Proficient Learner, and Distinguished Learner. In addition to criterion-referenced information, the Georgia Milestones measures will also produce an estimate of how Georgia students are achieving relative to their peers nationally. The norm-referenced information provided is supplementary to the criterion-referenced Achievement Level designation and will not be utilized in any manner other than to serve as a barometer of national comparison. Only the criterion-referenced scores and Achievement Level designations will be utilized in the accountability metrics associated with the assessment program (such as student growth measures, educator-effectiveness measures, or the CCRPI).

The table on the following page outlines the number and types of items included on the Grade 8 English Language Arts EOG assessment.

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Grade 8 English Language Arts (ELA) EOG Assessment Design

Description	Number of Items	Number of Points
1-point Selected-Response and Technology-Enhanced Items[1, 2]	37	37
2-point Technology-Enhanced Items[1]	5	10
2-point Constructed-Response Items	1	2
4-point Extended Constructed-Response Items	1	4
7-point Extended Writing-Response Items	1	7
Field Test Items[3]	6	0
Total[4]	**51**	**60**

[1] **Technology-Enhanced:** Possible variants of the technology-enhanced item types used for ELA include evidence-based selected-response, drag-and-drop, and drop-down.
[2] **1-point Selected-Response and Technology-Enhanced Items:** The ratio of selected-response to technology-enhanced items may vary. The target range of 1-point technology-enhanced items is 0 to 5.
[3] **Field Test Items:** Field test items may include 1-point selected-response, 1-point technology-enhanced, 2-point evidence-based selected-response, 2-point technology-enhanced, and 4-point extended constructed-response items.
[4] **Total:** Of the total 51 items, 45 contribute to the student's ELA score.

The test will be given in three sections. Students will be given a maximum of 90 minutes to complete Section 1, which includes the extended writing-response. Students may have up to 80 minutes per section to complete Sections 2 and 3. The total estimated testing time for the Grade 8 English Language Arts (ELA) EOG assessment ranges from approximately 125 to 250 minutes. Total testing time describes the amount of time students have to complete the assessment. It does not take into account the time required for the test examiner to complete pre-administration and post-administration activities (such as reading the standardized directions to students). Section 1, which focuses on writing, must be administered on a separate day. Sections 2 and 3 must be scheduled such that both will be completed in a single day or over the course of two consecutive days (one section each day) and should be completed within the same week following the district's testing protocols for the EOG measures (in keeping with state guidance).

CONTENT MEASURED

The Grade 8 English Language Arts (ELA) assessment will measure the Grade 8 standards that are described at www.georgiastandards.org.

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The content of the assessment is organized into two groupings, or domains, of standards for the purposes of providing feedback on student performance. A content domain is a reporting category that *broadly* describes and defines the content of the course, as measured by the EOG assessment. The standards for Grade 8 English Language Arts (ELA) are grouped into two domains: Reading and Vocabulary, and Writing and Language. Each domain was created by organizing standards that share similar content characteristics. The content standards describe the level of expertise that Grade 8 English Language Arts (ELA) educators should strive to develop in their students. Educators should refer to the content standards for a full understanding of the knowledge, concepts, and skills that may be assessed on the EOG assessment.

The approximate proportional number of points associated with each domain is shown in the following table. A range of cognitive levels will be represented on the Grade 8 English Language Arts (ELA) EOG assessment. Educators should always use the content standards when planning instruction.

GRADE 8 ENGLISH LANGUAGE ARTS (ELA): DOMAIN STRUCTURES AND CONTENT WEIGHTS

Reporting Categories and Content Standards

Reporting Category/Domain	Content Standards Assessed	Approximate # of Points	Approximate % of Test
Reading and Vocabulary		**32**	**53%**
Key Ideas and Details	ELAGSE8.RL (1, 2, 3)	16	27%
	ELAGSE8.RI (1, 2, 3)		
Craft and Structure/ Integration of Knowledge and Ideas	ELAGSE8.RL (5, 6, 9)	10	16%
	ELAGSE8.RI (5, 6, 7, 8, 9)		
Vocabulary Acquisition and Use	ELAGSE8.RL4/RI4	6	10%
	ELAGSE8.L (4, 4a, 4b, 4c, 5, 5a, 5b, 5c, 6)		
Writing and Language		**28**	**47%**
Writing	ELAGSE8.W (1, 1a, 1b, 1c, 1d, 1e, 2, 2a, 2b, 2c, 2d, 2e, 2f, 3, 3a, 3b, 3c, 3d, 3e, 4, 7, 8, 9, 9a, 9b)	16	27%
Language	ELAGSE8.L (1, 1a, 1b, 1c, 1d, 2, 2a, 2b, 2c, 3, 3a)	12	20%
	Total	**60**	**100%**

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Text Type Reporting Categories and Content Standards

Each reading and vocabulary question connects to one of the Reading and Vocabulary domains as well as to one of the Text Type domains. While each item is categorized into two different domains, performance on each item counts only one time in determining the student's total score.

Reporting Category/Domain	Content Standards Assessed	Approximate # of Reading and Vocabulary Points	Approximate % of Reading and Vocabulary Points
Text Type		**32**	**100%**
Reading Literary Text	ELAGSE8.RL (1, 2, 3, 4, 5, 6, 9)	14	44%
	ELAGSE8.L (4, 4a, 4b, 4c, 5, 5a, 5b, 5c, 6)		
Reading Informational Text	ELAGSE8.RI (1, 2, 3, 4, 5, 6, 7, 8, 9)	18	56%
	ELAGSE8.L (4, 4a, 4b, 4c, 5, 5a, 5b, 5c, 6)		

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ITEM TYPES

The English Language Arts (ELA) portion of the Grade 8 EOG assessment consists of selected-response, technology-enhanced, constructed-response, extended constructed-response, and extended writing-response items.

A selected-response item, sometimes called a multiple-choice item, is defined as a question, problem, or statement that appears on a test followed by several answer choices, sometimes called options or response choices. The incorrect choices, called distractors, usually reflect common errors. The student's task is to choose, from the alternatives provided, the best answer to the question posed in the stem (the question). The English Language Arts (ELA) selected-response items will have four answer choices.

A technology-enhanced item is an innovative way to measure student skills and knowledge by using scaffolding within a multi-step process. Technology-enhanced items are worth one or two points. If the item is worth two points, partial credit is awarded for special combinations of responses that do not include all the correct answers. For ELA, there are a number of specific technology-enhanced item types being used:

- In Evidence-Based Selected-Response (EBSR) items, the student responds to a two-part question. In the first part, the student responds to an inferential or key concept question related to a stimulus text. In the second part, the student provides evidence from the same text to support the inference or idea. In both parts of an EBSR item, the student selects the responses from the choices provided. There is one correct answer for each part of an EBSR item. If the student responds correctly to both parts of the EBSR item, the student receives two points. Partial credit may be awarded when a student answers the first part correctly.
- In drag-and-drop items, the student can show language, writing, research, or comprehension skills by organizing or sequencing information into a table or simple graphic. The student uses a mouse, touchpad, or touchscreen to move responses to designated areas on the screen.
- In drop-down menu items, the student reads a stimulus text with two to four drop-down menus embedded in the text. The student uses a mouse, touchpad, or touchscreen to open each drop-down menu and select the correct answer from the drop-down options. Each drop-down menu will include two to four options.
- Since some technology-enhanced items in this guide were designed to be used only in an online, interactive-delivery format, some of the item-level directions will not appear to be applicable when working within the format presented in this document (for example, "Move the descriptions onto the lines of the paragraph" or "Click To Respond").
- This icon ➲ identifies special directions that will help the student answer technology-enhanced items as shown in the format presented within this guide. These directions do not appear in the online version of the test but explain information about how the item works that would be easily identifiable if the student were completing the item in an online environment.

To give students practice using technology-enhanced items in an online environment very similar to how they will appear on the online test, visit "Experience Online Testing Georgia."

1. Go to the website "Welcome to Experience Online Testing Georgia" (http://gaexperienceonline.com/).
2. Select "Test Practice."
3. On the right side of the page, you will see "End-of-Grade (EOG) Spring Main." Select "Online Tools Training" which appears underneath it.
4. Select "EOG Test Practice."
5. Select "Technology Enhanced Items."
6. Select "All Grades."

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7. You will be taken to a login screen. Use the username and password provided on the screen to log in and practice navigating technology-enhanced items online.

Please note that Google Chrome is the only supported browser for this public version of the online testing environment.

A constructed-response item asks a question and solicits the student to provide a response he or she constructs on his or her own, as opposed to selecting from options provided. The constructed-response items on the EOG assessment will be worth two points. Partial credit may be awarded if part of the response is appropriate based upon the prompt and the rubric.

An extended constructed-response item is a specific type of constructed-response item that elicits a longer, more detailed response from the student than a two-point constructed-response item. The stimulus used for this type of item may be a literary or informational passage or a paired passage set. A paired passage set may consist of two literary passages, two informational passages, or one of each passage type. The extended constructed-response items on the EOG assessment will be worth four points. For English Language Arts (ELA), the student will respond to a narrative prompt based on a passage the student has read, and the response will be scored for the Writing and Language domain. Partial credit may be awarded if part of the response is appropriate based upon the prompt and rubric.

The extended writing-response items require students to produce arguments or develop an informative/explanatory response. As part of the extended writing task, students must first read two passages and then respond to three multiple-choice items and one constructed-response item. All of these items help students write their extended essay by focusing them on the main idea(s) and key details in the passages. Two of the selected-response items will address each of the passages separately. One selected-response item and the constructed-response item will address both of the passages together. All three selected-response items and the constructed-response item contribute to the Reading and Vocabulary domain. These items will be followed by an extended writing-prompt, which requires the student to draw from reading experiences when writing an essay response and to cite evidence from the passage(s) to support claims and conclusions in the essay. The writing task is worth seven points that contribute to the Writing and Language domain.

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ENGLISH LANGUAGE ARTS (ELA) DEPTH OF KNOWLEDGE EXAMPLE ITEMS

Example items that represent the applicable DOK levels across various Grade 8 English Language Arts (ELA) content domains are provided.

All example and sample items contained in this guide are the property of the Georgia Department of Education.

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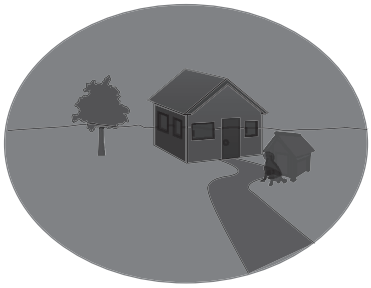
Example Items 1 and 2

Read the article and answer example items 1 and 2.

Technology Nation: A Unique Vision

Have you ever noticed how some *nocturnal* animals, or animals that are active at night, seem to get around so effortlessly in the dark? That is because nocturnal animals have better night vision than humans. Some nocturnal animals have larger eyeballs, while others have pupils that expand wider. Both of these help their eyes take in more light in low-light conditions. This means nocturnal animals can see easily when humans normally cannot.



Ordinary Human Night Vision

But with the help of technology, humans have found a way to *simulate*, or recreate, night vision in order to see in the dark. Several types of night vision devices have been developed and improved over time and they are now used for a variety of reasons. Night vision devices are used in law enforcement, hunting, security systems, navigation, and the military. We at *Technology Nation* (TN) interviewed research specialist Sergeant Sarah Tyson, a member of the U.S. Army, to give us more information about how night vision works and where it came from.

Simulation of
Night Vision Technology

TN: *Sergeant Tyson, when did night vision research begin in our country?*

Sergeant Tyson: Around 1945, the Army realized that we could develop the technology to see at night. Night vision devices would greatly help our soldiers who need to see in the dark. Our research departments came up with a night vision scope that was given to 300 soldiers. This first type of night vision device worked by projecting a special beam of light similar to a flashlight beam but undetectable to the naked eye. The beam would then reflect off objects and bounce back to the lens of the night vision device, enabling the user to effectively see in the dark.

TN: *Is that how night vision works today?*

Sergeant Tyson: Night vision technology has come a long way since then. The first improvements were in the creation of devices that did not need to project a beam of invisible light to work. These devices drew in the trace amount of light that was present from the moon, stars, or distant buildings. They intensified this light so that the user could see well at night.

Naturally, these devices did not work well on overcast or moonless nights since there was too little light to use. So night vision devices were improved by becoming increasingly sensitive to low-light conditions. This means they can now work on nights that are cloudy or moonless and can view a person up to 200 yards away, which is truly amazing progress. These newer devices usually use an image intensifier, which brings light in through two mirrors. They are remarkably effective.

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TN: *What types of night vision devices are there?*

Sergeant Tyson: First, there are scopes, which are handheld rather than worn as goggles. They are typically *monocular*, meaning they use one eyepiece. Next, there are goggles, which are worn on a person's head. Goggles have two eyepieces, so they are called *binocular*. Finally, there are night vision cameras, which work and look like normal cameras, but they have a feature that makes shapes in the dark easier to locate. Many cameras that people buy today already have a night vision feature built in.

It is amazing that night vision has come such a long way and that it can be helpful in a number of different ways. If you find night vision as interesting as we do, there are night vision goggles for kids available at some toy stores. Whether you love to pretend you are a spy or just to find lost things in the dark, night vision goggles are an exciting accessory to have.

Example Item 1

Selected-Response: 1 point

DOK Level: 2

English Language Arts (ELA) Grade 8 Content Domain: Reading and Vocabulary

Standard: ELAGSE8RI1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.

Which sentence from the article BEST supports the conclusion that many improvements have been made since the technology of night vision was invented?

A. But with the help of technology, humans have found a way to *simulate*, or recreate, night vision in order to see in the dark.
B. Our research departments came up with a night vision scope that was given to 300 soldiers.
C. This means they can now work on nights that are cloudy or moonless and can view a person up to 200 yards away, which is truly amazing progress.
D. Many cameras that people buy today already have a night vision feature built in.

Correct Answer: C

Explanation of Correct Answer: The correct answer is choice (C) This means they can now work on nights that are cloudy or moonless and can view a person up to 200 yards away, which is truly amazing progress. This sentence refers to the "amazing progress" made in night vision technology and gives a specific example of one type of improvement. Choices (A), (B), and (D) are incorrect because, while they describe features of night vision technology, they do not explain how this technology has improved over time.

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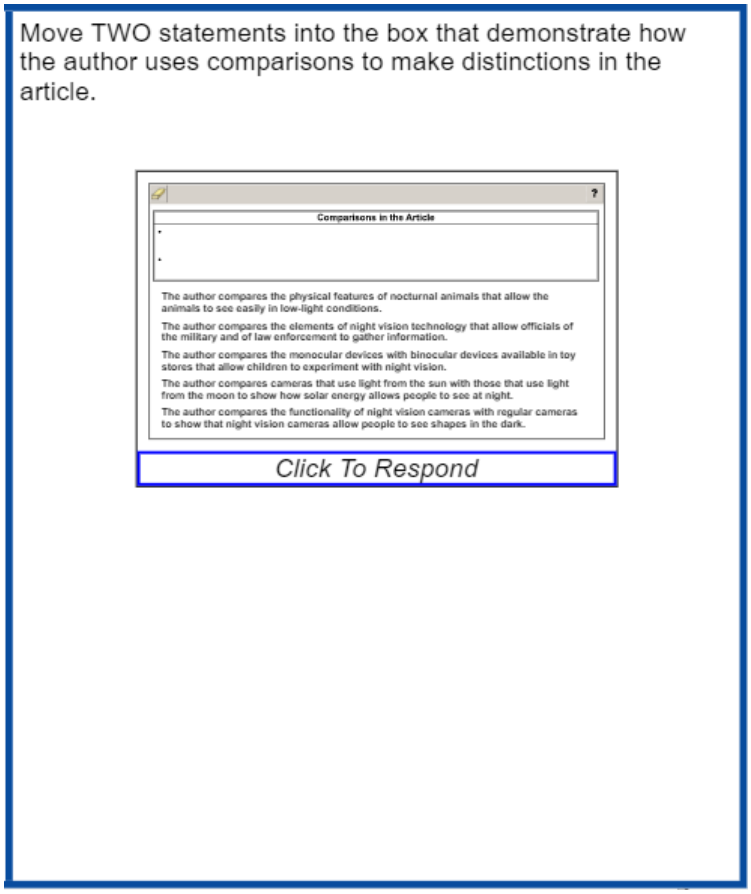
Example Item 2

Drag-and-Drop Technology-Enhanced: 2 points

DOK Level: 3

English Language Arts (ELA) Grade 8 Content Domain: Reading and Vocabulary

Standard: ELAGSE8RI3. Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).



Due to the size of the response area, this item has a “Click To Respond” button on the screen. Clicking this button will bring up the response area at full size.

Go on to the next page to finish example item 2.

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Example Item 2. ***Continued*.**

?

Comparisons in the Article
• •

The author compares the physical features of nocturnal animals that allow the animals to see easily in low-light conditions.

The author compares the elements of night vision technology that allow officials of the military and of law enforcement to gather information.

The author compares the monocular devices with binocular devices available in toy stores that allow children to experiment with night vision.

The author compares cameras that use light from the sun with those that use light from the moon to show how solar energy allows people to see at night.

The author compares the functionality of night vision cameras with regular cameras to show that night vision cameras allow people to see shapes in the dark.

Use a mouse, touchpad, or touchscreen to move the sentences below the box into the box beside the bullets.

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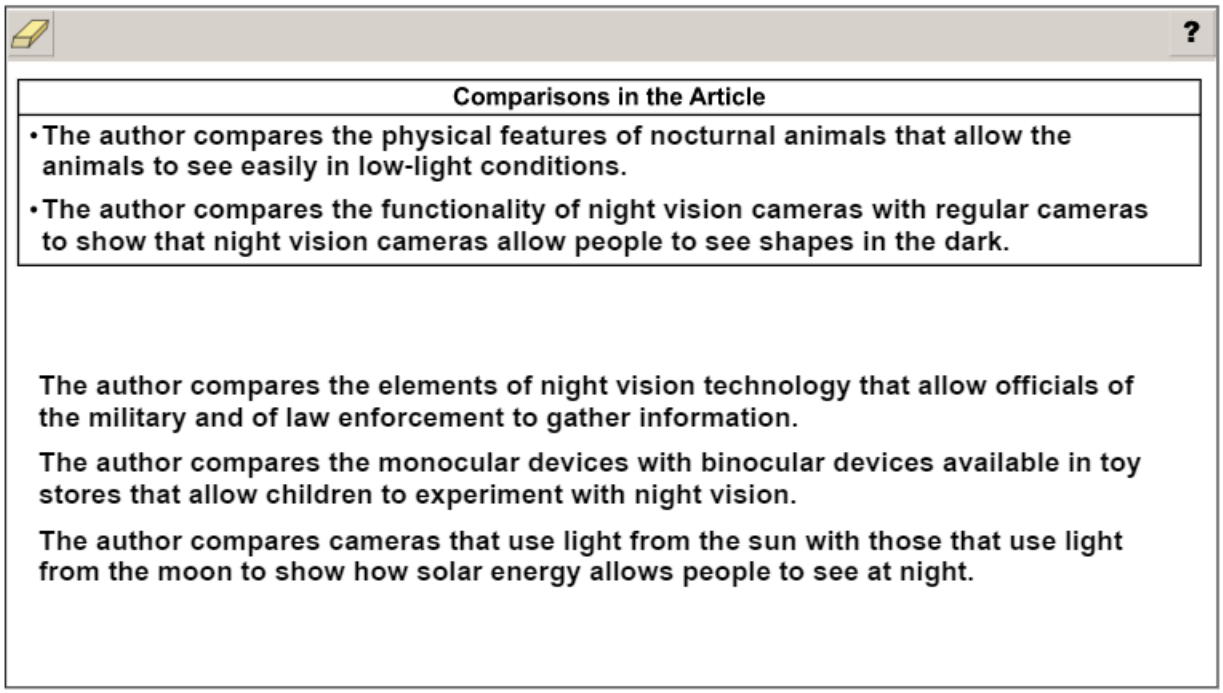
Example Item 2. *Continued*.

Scoring Rubric

Points	Description
2	The student correctly fills in both bullets (order within the box does not matter).
1	The student correctly fills in one bullet (order within the box does not matter).
0	The student does not correctly fill in either bullet.

Exemplar Response

The correct response is shown below.



The correct answers are “The author compares the physical features of nocturnal animals that allow the animals to see easily in low-light conditions.” and “The author compares the functionality of night vision cameras with regular cameras to show that night vision cameras allow people to see shapes in the dark.” These are both comparisons made in the article that help readers understand the ideas presented more clearly. The first comparison helps readers make the distinction between what humans can naturally see in the dark and what animals can naturally see in the dark. The second comparison helps readers make the distinction between what normal cameras are able to capture and what night vision cameras are able to capture. NOTE: Response order does not affect scoring.

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Example Item 3

Extended Writing-Response: 7 points

DOK Level: 4

English Language Arts (ELA) Grade 8 Content Domain: Writing and Language

Standards:
ELAGSE8W1. Write arguments to support claims with clear reasons and relevant evidence.
ELAGSE8L1. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.
ELAGSE8L2. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.

This section of the test assesses your skill to comprehend reading passages and use information from the passages to write an argumentative essay.

Before you begin writing your essay, you will read two passages.

As you read the passages, think about details you may use in an argumentative essay about the use of genetically modified (GM) food.

These are the titles of the passages you will read:

1. GM Food Saves Lives
2. What We Don't Know about GM Food

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GM Food Saves Lives

by Rebecca Wilson

Genetically modified (GM) food was introduced to the citizens of the United States in 1994. Since then, the use of genetics on produce and animals has become so widespread that each person in the United States is most likely eating GM food daily. A primary reason for its popularity is how beneficial it is to people and businesses.

What is genetic modification?

Plants and animals naturally go through a process of selection for survival. Features that make the plant or animal more likely to live are passed along, and features that are not advantageous are weeded out. These genetic mutations occur over generations, though, making improvement a slow-moving process. Scientists discovered that they could improve specific characteristics quickly by introducing foreign genes into an organism, such as those from plants, animals, and even viruses. For example, exposing a plant to a certain virus can make it more resistant to disease. Transferring genes from cows to pigs can help the pigs create more milk for larger litters of piglets. The targeting of genes allows scientists to bring out the specific traits of a product that will make it more successful.

Uses of GM foods

There are three main reasons for genetically modifying food: to produce more food at lower cost, to increase the health value of the food, and to make the food more desirable. When crops are modified to withstand disease and drought, it takes fewer resources to produce them, and fewer crops are lost. But altering food goes much further than this. Scientists are also able to make food more nutritious. For example, Golden Rice is infused with vitamin A in the hopes of saving the lives of children suffering from vitamin A deficiencies. However, the earliest uses of GM food are still the most popular. Genetic modification makes food look and taste better. Tomatoes stay ripe longer. Apples have fewer bruises. Strawberries grow larger.

Safety

Opponents of GM food say that changing an organism's genetic code is dangerous. They say that changes to a plant's durability can create superweeds that kill crops and that altering nutrition values could cause health problems for the people who eat the food. Yet thousands of research studies have shown no evidence that GM food causes harm, either to the environment or to people. It's safe, effective, and needed in a time when food shortages are skyrocketing.

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What We Don't Know about GM Food

by Daniel McLeod

Humans have a history of moving forward with great ideas—until they realize that those ideas weren't so great. Back in the 1940s, people around the world started using a miracle insecticide called dichlorodiphenyltrichloroethane (DDT). It killed every annoying insect out there! It was helping to eliminate malaria-carrying mosquitoes and life-threatening spiders. DDT was the best insecticide ever—until people realized the severe damage it was doing to the environment. It took over thirty years of using the chemical agent for scientists to verify the problems and for countries to ban DDT's use. Only now, seventy years since it became popular, are some of the species negatively affected by it finally regaining a foothold on life.

Genetically modified (GM) food is our generation's DDT. Just as before, people have jumped headlong into the process of making food better, stronger, and different through changes to an organism's genetic code. Scientists are altering plants and animals at their most fundamental levels with no regard to the effects we might see in twenty, thirty, or even seventy years from now. True, this process is producing food at a lower cost and higher rate, something this world desperately needs, but at what cost?

There have been documented cases of genetically altered crops affecting the durability of weeds that compete for the crops' resources. It's believed the genetic mutation of the crops spread to the weeds. These weeds, called superweeds, are aggressive and resistant to the chemicals used to kill them and now threaten the crops' growth. Another current problem is the reduction in insects such as butterflies and bees, which pollinate flowers. Crops designed to produce natural insecticides are killing off these important creatures. The ecosystem is thrown off balance without them.

Those problems are nothing compared to the ones we don't know about yet. How will these modifications affect the humans who consume this food over a lifetime? How will unforeseen mutations affect the food? These questions can't be answered right now since we won't see the effects for decades.

The biogenetics companies that produce GM food say the food has been tested by thousands of studies. What they don't say, however, is that they are the ones who funded the studies. Their financial interest in studies showing that GM food is safe compromises the believability of the studies. How might their corporate dollars have affected the results the scientists are reporting?

The plain truth is that we don't know how GM food will affect humans, plants, and animals in the future. We shouldn't be risking our lives by eating altered food without knowing whether or not genetic modification is another DDT.

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WRITING TASK

There is an ongoing debate over the use of genetically modified (GM) foods.

Think about BOTH sides of the debate. Should GM foods be produced and consumed? Write an **argumentative essay** in your own words supporting either side of the debate.

Be sure to use information from BOTH passages in your **argumentative essay**.

Writer's Checklist

Be sure to:

- Introduce your claim.
- Support your claim with logical reasons and relevant evidence from the passages.
- Acknowledge and address alternate or opposing claims.
- Organize the reasons and evidence logically.
- Develop your ideas clearly and use your own words, except when quoting directly from the passages.
- Identify the passages by title or number when using details or facts directly from the passages.
- Use words, phrases, or clauses to connect ideas and to clarify the relationships among claims, counterclaims, reasons, and evidence.
- Establish and maintain a formal style.
- Use clear language and vocabulary.
- Provide a conclusion that supports the argument presented.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

Now write your argumentative essay on your answer document. Refer to the Writer's Checklist as you write and proofread your essay.

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The following are examples of seven-point responses. See the seven-point, two-trait rubric for a text-based argumentative response on pages 69 and 70 to see why these examples would earn the maximum number of points.

Producing and consuming genetically modified food is necessary to feed the people of the world and keep them healthy. Since GMOs have been introduced, farmers have been able to grow more food that uses fewer resources.

Rebecca Wilson states that we are all most likely eating genetically modified foods on a daily basis. She claims that "A primary reason for its popularity is how beneficial it is to people and businesses." GM food grows bigger and tastier than regular food. This makes it more appealing to customers. The more customers want the food, the more they will buy it. This will help businesses succeed.

Modifying food also makes it stronger. According to Wilson, "When crops are modified to withstand disease and drought, it takes fewer resources to produce them, and fewer crops are lost." Therefore, using genetic modification means there will be more food for more people. The food will also be healthier. An example of this is how vitamin A is being introduced to rice to help nourish children.

People question how safe GM food is. However, Wilson notes that thousands of studies have been done on it, and there is "no evidence that GM food causes harm, either to the environment or to people." If it's safe and effective, why not use it?

GM food is here to stay, and that is a good thing. The more we use genetic modification, the more we will be able to provide healthy food to more people.

OR

There's no question that using genetic modification grows more food. The problem is that the food it produces has not been proven safe, so we shouldn't be producing or consuming it.

As Daniel McLeod illustrates with the example of DDT, we often don't know the negative effects a scientific discovery will have on us in the years to come. DDT went from being a miracle insecticide to a threat to the ecosystem. GM food could offer the same kind of threat to humans.

While GM foods may be bigger, stronger, and tastier, they also may be dangerous. The studies done to prove their safety were done by the companies selling the products themselves. McLeod rightfully asks, "How might their corporate dollars have affected the results the scientists are reporting?" We can't trust results that are financially motivated.

Unfortunately, as Rebecca Wilson says, "The use of genetics on produce and animals has become so widespread that each person in the United States is most likely eating GM food daily." Unless we take steps to avoid it, we have no choice but to consume something that could kill us. For that reason, modifying foods must stop.

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ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEMS

This section has two parts. The first part is a set of 22 sample items for the English Language Arts (ELA) portion of the EOG assessment. The second part contains a table that shows for each item the standard assessed, the DOK level, the correct answer (key), and a rationale/explanation about the key and distractors. The sample items can be utilized as a mini-test to familiarize students with the item formats found on the assessment.

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Items 1–11

Read the story and answer questions 1 through 11.

Tranquility Falls

Tranquility Falls glittered like fine sugar in the distance as Brayden and his father pulled up to the trailhead. Brayden opened the car door and recoiled at the sharp scent of pine. He slurped the last bit of juice from his juice pouch and flattened the container.

Brayden could not muster his usual enthusiasm for their annual father-son camping trip. The day before, Brayden's parents had broken the news to him that he would be spending the remainder of his vacation studying algebra in summer school. Six weeks of finding the value of *x*. No skateboarding with his friends or swimming at the community pool. Brayden chewed on his straw, the empty juice pouch hovering in front of his face. He hoisted his backpack and slung its straps over his shoulders.

"Leave your trash in the car or we'll just have to carry it back—pack it in, pack it out," yelled his father, already twenty yards up the trail. The car chirped as his father locked it too quickly for Brayden to do as he was asked. "Let's go, slowpoke! First-night festivities await!" Brayden groaned, stuffed the juice pouch into his back pocket, and followed his father up the trail.

Six miles from the trailhead, they began to set up camp in the forest along the Tranquility River. It had been a long, tiresome hike, and Brayden now struggled to set up his new tent until his patience was spent. When his father tried to help, Brayden snapped. "Can you quit rushing me? I can do this by myself!" Brayden dropped his poles onto a heap of twisted nylon and stormed off toward the river.

Upriver, Brayden stood on his favorite boulder and watched the sun sink beneath the trees. As he sat down, the juice pouch in his back pocket crinkled, reminding him of the morning, of summer school, and of his dad shutting the car before he was ready. He grabbed the pouch and threw it at the water as hard as he could. Sighing, he turned to head back to the camp.

By the time Brayden returned to the camp, it was pitch black, save for the light of the campfire that had guided him back. Brayden was silent as he ate his dinner and endured his father's cheesiest tradition, the proprietary and confidential first-night campfire story.

"Native Americans say that Bear was king of this land once," his father began in a hushed voice, "as his father had been king before him. He had a great temper; he slept in the open and was proud, vain, and greedy. He left a trail of waste and wreckage everywhere he went as a warning to all who crossed his path. One day Coyote dared to approach him and said, 'Bear, I will have pups soon, and it breaks my heart to think they will have to live as I do, in the wake of your thoughtlessness!' Bear roared with rage and tossed Coyote aside by her ears, but as he did this, he saw behind her a river flowing not with water, but with his own thoughtless waste. Ashamed, Bear dug a den and stayed in it for five months, eating mostly berries, plants, and fish when he emerged. Forever onward to this day, the bears eat this way, and all stay in their dens for five months a year in observance of their former king's great realization: the land is not ours to own, but rather just to borrow."

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The next morning, Brayden went to the river to splash cold water on his face. Out of the corner of his eye he saw a silver flash in the water: his empty juice pouch was stuck in some low-hanging branches. His father's story echoed in his mind and made him think about his own thoughtlessness. He grabbed the juice pouch and slowly walked back to the camp.

When he arrived at the camp, he saw his father picking up the trash from breakfast. "I'm sorry, Dad," Brayden sighed. "I've just been really frustrated . . . like I can't get everything done right, you know? I think I started this trip off on the wrong foot." His father gave him a look of understanding and an affectionate pat on the back.

That evening before dinner, as Brayden walked to his boulder, a blur of rust-colored movement caught his eye. He turned and saw a coyote directly opposite him on the other side of the river. The beautiful animal stared at Brayden for a brief moment. Then she inclined her head toward him and seemed to nod, before turning away and disappearing into the purple twilight.

Item 1

Selected-Response: 1 point

Why does Brayden MOST LIKELY throw the juice pouch into the river?

A. He does not know any better.
B. He does not want to carry it around.
C. He is bored from spending time with his family.
D. He is expressing his frustration with recent events.

Item 2

Selected-Response: 1 point

Read the sentence from the story.

He hoisted his backpack and slung its straps over his shoulders.

What does the use of the words *hoisted* and *slung* suggest?

A. It indicates that the backpack is heavy.
B. It clarifies how the backpack should be carried.
C. It illustrates that the backpack is difficult for Brayden to handle.
D. It shows that carrying the backpack is a new experience for Brayden.

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Item 3

Selected-Response: 1 point

Which word BEST replaces *recoiled* without changing the meaning of the sentence?

> **Brayden opened the car door and recoiled at the sharp scent of pine.**

A. blinked
B. cringed
C. leaped
D. hesitated

Item 4

Selected-Response: 1 point

What does the phrase *seemed to nod* suggest to the reader?

> **Then she inclined her head toward him and seemed to nod, before turning away and disappearing into the purple twilight.**

A. The coyote accepts Brayden's presence within her territory.
B. The coyote believes Brayden is someone who can be trusted.
C. The coyote approves of Brayden's effort to correct his mistake.
D. The coyote recognizes Brayden from his many trips to the area.

Item 5

Selected-Response: 1 point

Which sentence from the story shows that Brayden has negative feelings?

A. He slurped the last bit of juice from his juice pouch and flattened the container.
B. He hoisted his backpack and slung its straps over his shoulders.
C. He grabbed the pouch and threw it at the water as hard as he could.
D. He turned and saw a coyote directly opposite him on the other side of the river.

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Item 6

Selected-Response: 1 point

How does the story draw from traditional works of fiction?

A. The main character goes on a quest.
B. The main character has to correct his mistake.
C. The main character outsmarts an enemy.
D. The main character must overcome his pride.

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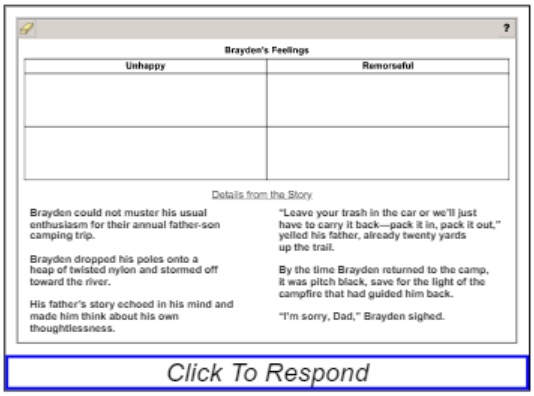
Item 7

Drag-and-Drop Technology-Enhanced: 2 points

Over the course of "Tranquility Falls," the author reveals that Brayden feels unhappy at first but then later feels remorseful. Complete the chart by moving TWO details from the story under each characteristic the details support. You will NOT use all of the details.



Due to the size of the response area, this item has a "Click To Respond" button on the screen. Clicking this button will bring up the response area at full size.

Go on to the next page to finish item 7.

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Item 7. *Continued*.

Brayden's Feelings

Unhappy	Remorseful

Details from the Story

Brayden could not muster his usual enthusiasm for their annual father-son camping trip.

Brayden dropped his poles onto a heap of twisted nylon and stormed off toward the river.

His father's story echoed in his mind and made him think about his own thoughtlessness.

"Leave your trash in the car or we'll just have to carry it back—pack it in, pack it out," yelled his father, already twenty yards up the trail.

By the time Brayden returned to the camp, it was pitch black, save for the light of the campfire that had guided him back.

"I'm sorry, Dad," Brayden sighed.

Use a mouse, touchpad, or touchscreen to move the sentences below the chart into the boxes in the chart.

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Item 8

Selected-Response: 1 point

How does the campfire story influence Brayden's actions?

A. by inspiring Brayden to pick up his litter
B. by giving Brayden an example of forgiveness
C. by inspiring Brayden to go camping again
D. by giving Brayden a reason to talk to his father

Item 9

Selected-Response: 1 point

What is a similarity between Brayden and Bear in the story?

A. They are both happier outdoors than indoors.
B. They both expect to have things done for them.
C. They are both influenced by a wise father figure.
D. They both learn that being considerate is important.

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Item 10

Evidence-Based Selected-Response Technology-Enhanced: 2 points

This question has two parts. Answer Part A, and then answer Part B.

Part A

How does the author build suspense in the first half of the story?

A. by showing that Brayden does not like the smells of the forest
B. by showing the father tell a tale with a message
C. by showing Brayden becoming angry
D. by showing the father quickly locking the car

Part B

Which text from the story BEST supports the answer in Part A?

A. "Let's go, slowpoke! First-night festivities await!"
B. "Can you quit rushing me? I can do this by myself!"
C. Upriver, Brayden stood on his favorite boulder and watched the sun sink beneath the trees.
D. Brayden was silent as he ate his dinner and endured his father's cheesiest tradition, the proprietary and confidential first-night campfire story.

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Item 11

Extended Constructed-Response: 4 points

Imagine how "Tranquility Falls" would change if it were written from the father's point of view. Then rewrite the first three paragraphs of the story from the father's point of view.

Be sure to include details from the story in your narrative.

Narrative Writer's Checklist

Be sure to:

- Write a narrative response that develops a real or imagined experience.
- Establish a context for the experience and a point of view.
- Introduce a narrator and/or characters.
- Organize events in a natural and logical order.
    - Use a variety of transitions to sequence the events, to indicate shifts from one time frame or setting to another, and to show the relationships between the events.
- Use dialogue, description, pacing, and/or reflection to:
    - develop events.
    - develop characters.
    - develop experiences.
- Use precise words and phrases, relevant descriptive details, and sensory language to communicate the action and to describe the events.
- Include a conclusion that reflects on the experience in your narrative.
- Use ideas and/or details from the passage(s).
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

Now write your narrative on your answer document. Refer to the Writer's Checklist as you write and proofread your narrative.

Go on to the next page to finish item 11.

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Items 12–14

This section of the test assesses your skill to comprehend reading passages and use information from the passages to write an argumentative essay.

Before you begin writing your essay, you will read two passages and answer one multiple-choice question and one short constructed-response question about what you have read.

As you read the passages, think about details you may use in an argumentative essay about the use of genetically modified (GM) food.

These are the titles of the passages you will read:

1. GM Food Saves Lives
2. What We Don't Know about GM Food

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GM Food Saves Lives

by Rebecca Wilson

Genetically modified (GM) food was introduced to the citizens of the United States in 1994. Since then, the use of genetics on produce and animals has become so widespread that each person in the United States is most likely eating GM food daily. A primary reason for its popularity is how beneficial it is to people and businesses.

What is genetic modification?

Plants and animals naturally go through a process of selection for survival. Features that make the plant or animal more likely to live are passed along, and features that are not advantageous are weeded out. These genetic mutations occur over generations, though, making improvement a slow-moving process. Scientists discovered that they could improve specific characteristics quickly by introducing foreign genes into an organism, such as those from plants, animals, and even viruses. For example, exposing a plant to a certain virus can make it more resistant to disease. Transferring genes from cows to pigs can help the pigs create more milk for larger litters of piglets. The targeting of genes allows scientists to bring out the specific traits of a product that will make it more successful.

Uses of GM foods

There are three main reasons for genetically modifying food: to produce more food at lower cost, to increase the health value of the food, and to make the food more desirable. When crops are modified to withstand disease and drought, it takes fewer resources to produce them, and fewer crops are lost. But altering food goes much further than this. Scientists are also able to make food more nutritious. For example, Golden Rice is infused with vitamin A in the hopes of saving the lives of children suffering from vitamin A deficiencies. However, the earliest uses of GM food are still the most popular. Genetic modification makes food look and taste better. Tomatoes stay ripe longer. Apples have fewer bruises. Strawberries grow larger.

Safety

Opponents of GM food say that changing an organism's genetic code is dangerous. They say that changes to a plant's durability can create superweeds that kill crops and that altering nutrition values could cause health problems for the people who eat the food. Yet thousands of research studies have shown no evidence that GM food causes harm, either to the environment or to people. It's safe, effective, and needed in a time when food shortages are skyrocketing.

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What We Don't Know about GM Food

by Daniel McLeod

Humans have a history of moving forward with great ideas—until they realize that those ideas weren't so great. Back in the 1940s, people around the world started using a miracle insecticide called dichlorodiphenyltrichloroethane (DDT). It killed every annoying insect out there! It was helping to eliminate malaria-carrying mosquitoes and life-threatening spiders. DDT was the best insecticide ever—until people realized the severe damage it was doing to the environment. It took over thirty years of using the chemical agent for scientists to verify the problems and for countries to ban DDT's use. Only now, seventy years since it became popular, are some of the species negatively affected by it finally regaining a foothold on life.

Genetically modified (GM) food is our generation's DDT. Just as before, people have jumped headlong into the process of making food better, stronger, and different through changes to an organism's genetic code. Scientists are altering plants and animals at their most fundamental levels with no regard to the effects we might see in twenty, thirty, or even seventy years from now. True, this process is producing food at a lower cost and higher rate, something this world desperately needs, but at what cost?

There have been documented cases of genetically altered crops affecting the durability of weeds that compete for the crops' resources. It's believed the genetic mutation of the crops spread to the weeds. These weeds, called superweeds, are aggressive and resistant to the chemicals used to kill them and now threaten the crops' growth. Another current problem is the reduction in insects such as butterflies and bees, which pollinate flowers. Crops designed to produce natural insecticides are killing off these important creatures. The ecosystem is thrown off balance without them.

Those problems are nothing compared to the ones we don't know about yet. How will these modifications affect the humans who consume this food over a lifetime? How will unforeseen mutations affect the food? These questions can't be answered right now since we won't see the effects for decades.

The biogenetics companies that produce GM food say the food has been tested by thousands of studies. What they don't say, however, is that they are the ones who funded the studies. Their financial interest in studies showing that GM food is safe compromises the believability of the studies. How might their corporate dollars have affected the results the scientists are reporting?

The plain truth is that we don't know how GM food will affect humans, plants, and animals in the future. We shouldn't be risking our lives by eating altered food without knowing whether or not genetic modification is another DDT.

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Item 12

Selected-Response: 1 point

Read paragraph 1 from "GM Food Saves Lives."

> **Genetically modified (GM) food was introduced to the citizens of the United States in 1994. Since then, the use of genetics on produce and animals has become so widespread that each person in the United States is most likely eating GM food daily. A primary reason for its popularity is how beneficial it is to people and businesses.**

Which word in paragraph 1 BEST helps the reader understand the meaning of *widespread*?

A. introduced
B. citizens
C. primary
D. popularity

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Item 13

Constructed-Response: 2 points

Rebecca Wilson claims in "GM Food Saves Lives" that genetically modified (GM) foods are safe and supports that claim by citing the results of existing studies. Based on the information in "What We Don't Know about GM Food," how sound is her reasoning about the safety of GM food?

Use details from BOTH passages to support your answer. Write your answer on the lines on your answer document.

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Item 14

Extended Writing-Response: 7 points

WRITING TASK

There is an ongoing debate over the use of genetically modified (GM) foods.

Think about BOTH sides of the debate. Should GM foods be produced and consumed? Write an **argumentative essay** in your own words supporting either side of the debate.

Be sure to use information from BOTH passages in your **argumentative essay**.

Writer's Checklist

Be sure to:

- Introduce your claim.
- Support your claim with logical reasons and relevant evidence from the passages.
- Acknowledge and address alternate or opposing claims.
- Organize the reasons and evidence logically.
- Develop your ideas clearly and use your own words, except when quoting directly from the passages.
- Identify the passages by title or number when using details or facts directly from the passages.
- Use words, phrases, or clauses to connect ideas and to clarify the relationships among claims, counterclaims, reasons, and evidence.
- Establish and maintain a formal style.
- Use clear language and vocabulary.
- Provide a conclusion that supports the argument presented.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

Now write your argumentative essay on your answer document. Refer to the Writer's Checklist as you write and proofread your essay.

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Items 15–22

Item 15

Selected-Response: 1 point

Read the sentence.

> **My mother used to ask me what I would want to do _____ in charge of running the world.**

Which clause correctly completes the sentence?

A. if I was
B. if I had been
C. if I were
D. if I have been

Item 16

Selected-Response: 1 point

A student wrote a personal essay about playing an instrument.

> **[1]In some ways, playing the fiddle wasn't really a choice for me. [2]All of my relatives play music. [3]My mom plays fiddle and my dad plays piano and bass. [4]My grandparents were musicians who met in a bluegrass band. [5]In my family, playing an instrument was kind of taken for granted, like breathing or eating food. [6]I think I was probably six or seven years old before the thought even crossed my mind that playing the fiddle was actually a decision. [7]Sometimes you have a whole lot of different ways of seeing different situations. [8]By that time, I was already hooked.**

Which revision to the paragraph would make it clearer and more coherent?

A. Compare the fiddle with other instruments after sentence 3.
B. Add more details about the grandparents after sentence 4.
C. Remove sentence 5.
D. Remove sentence 7.

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Item 17

Selected-Response: 1 point

A student is writing a report on how screen time affects teenagers. Which source would provide the MOST relevant and credible information for the report?

A. a teenager's blog titled *How I Survived a Week without Screens*
B. a newspaper interview titled "Local Parents See Benefits of Screen Time for Teens"
C. a self-help book for teenagers titled *Doing More and Watching Less: How to Control Your Screen Time*
D. an academic article from a university researcher titled "An Analysis of Screen Use and Teenage Health"

Item 18

Selected-Response: 1 point

Read the sentence.

After the swim meet, cheeseburgers were eaten by many hungry kids from the swim team.

What is the BEST way to rewrite the sentence in the active voice?

A. After many hungry kids on the swim team finished the swim meet, they ate cheeseburgers.
B. After the swim meet, many cheeseburgers were eaten by a swim team of hungry kids.
C. After the swim meet, many hungry kids from the swim team ate cheeseburgers.
D. After cheeseburgers were eaten by many hungry kids, the swim team finished the swim meet.

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Item 19

Drop-Down Technology-Enhanced: 1 point

Read the paragraph from a student's report. Select the transition from each drop-down menu that BEST clarifies the relationships among the ideas in the paragraph.

In the early 1800s, people did not have convenient devices to open canned goods properly. [ ], they banged on their cans with hammers and chisels to open them. [ ], the first can opener was invented in 1858, and the process of opening cans became much simpler.

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the two blank boxes. When you click the arrow, a drop-down menu will appear, showing you all the possible options for that blank. Each drop-down menu with its options is shown below.

In the early 1800s, people did not have convenient devices to open canned goods properly. [ ], they banged on their cans with hammers and chisels to open them. [ ], the first can [ ] in 1858, and the process of opening cans became much simpler.

Likewise
However
In addition

Instead
Nevertheless
Of course

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Item 20

Drag-and-Drop Technology-Enhanced: 2 points

Read the paragraph from a draft of a student's narrative. Then move the TWO sentences that BEST capture the action onto the blank lines.

On the ride home from visiting my cousins, I let my mind drift back to my favorite activity from the carefree week at the farm. I closed my eyes and relived the evenings we spent playing on the big tire swing on the massive oak tree. First, I would climb onto the old tractor tire, grab onto the ropes, and tell my cousin I was ready.

_____

_____

The unique mix of feeling both exhilarated by the ride and happy to be with my cousins is something I will never forget.

After about five pushes, my cousin felt pretty exhausted, and we all laughed.

As I whooshed through the air, I felt like I was floating on giant ocean waves.

My other family members were waiting nearby for their turn on the thrilling tire swing.

The rope that we hung on to was brown and connected to the tire in three different places.

Then my cousin would give the swing a powerful shove that sent me swooping into the evening sky.

Use a mouse, touchpad, or touchscreen to move the sentences below the paragraph onto the lines in the paragraph.

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Item 21

Drop-Down Technology-Enhanced: 1 point

Select the correctly spelled word from each drop-down menu to complete the sentence.

The colonists had strong emotions and attitudes about freedom. Filled with this [ ] they formed a [ ] against the British government.

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the two blank boxes. When you click the arrow, a drop-down menu will appear, showing you all the possible options for that blank. Each drop-down menu with its options is shown below.

The colonists had strong emotions and attitudes about freedom. Filled with this [ ] they formed a [ ] against the British government.

rebelion
rebbellion
rebellion

passion,
pashion,
pastion,

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Item 22

Drag-and-Drop Technology-Enhanced: 2 points

Read the paragraph. For each underlined word or phrase, complete the chart by moving the term that identifies each word or phrase into the middle column. Then move the statement into the third column that explains how each word or phrase functions in the sentences.

Exercising can be more appealing when done outdoors. Using borrowed equipment, like a bicycle, makes outdoor fitness convenient and affordable. Many people prefer to incorporate physical activity into their enjoyment of nature and fresh air.

?

Word or Phrase	Is It a Participle, Infinitive, or Gerund?	How Does It Function in the Sentence?
Exercising		
borrowed		
to incorporate		

gerund
participle
infinitive

It functions as a noun.
It functions as a direct object.
It functions as an adjective.

Use a mouse, touchpad, or touchscreen to move the descriptions below the chart into the boxes in the chart.

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ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	ELAGSE8RL3	2	D	The correct answer is choice (D) He is expressing his frustration with recent events. Brayden's mood is affected because he has to attend summer school and continually feels frustrated by the work. His anger climaxes when he yells at his father and storms off to the water, where he throws the juice pouch as hard as he can. He is, indeed, frustrated. Choices (A), (B), and (C) are incorrect because they are not supported by the story. Brayden's general anger and his thoughtless actions both stem from his frustration about summer school and the fact that nothing seems to be going his way lately.
2	ELAGSE8RL4	2	A	The correct answer is choice (A) It indicates that the backpack is heavy. The word *hoisted* means "an act of raising or lifting something," while *slung* indicates that the backpack was moved using a good amount of effort. Choice (B) is incorrect because *hoisted* does not necessarily indicate the manner in which something should be carried, although in some contexts, it does indicate that something is lifted with ropes and pulleys. In this context, it does not. Choices (C) and (D) are incorrect because they are not supported by the story.
3	ELAGSE8L4a	2	B	The correct answer is choice (B) cringed. The word *recoiled* means "suddenly spring or flinch back in fear, horror, or disgust." The word *cringed* means "bent one's head and body in fear or in a servile manner." The smell of pine repulses Brayden, and both *recoiled* and *cringed* can show this. Choices (A) and (D) are incorrect because they do not indicate disgust. Choice (C) is incorrect because *leaped* indicates an action that does not fit the context of the sentence.
4	ELAGSE8L5a	2	C	The correct answer is choice (C) The coyote approves of Brayden's effort to correct his mistake. Brayden has heard a story about animals and the environment, and it has changed his behavior, causing him to make amends with nature. The coyote's nod suggests her approval. Choice (A) is incorrect because, although the coyote does not seem to mind Brayden's presence, her nod figuratively means that she recognizes that Brayden fixed his mistake. Choices (B) and (D) are incorrect because they are not supported by the story, as the reader does not know that the coyote trusts Brayden or that the coyote recognizes him from previous trips.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
5	ELAGSE8RL1	2	C	The correct answer is choice (C) He grabbed the pouch and threw it at the water as hard as he could. Choices (A), (B), and (D) show Brayden taking various actions, but none of them suggest he has negative feelings.
6	ELAGSE8RL9	3	B	The correct answer is choice (B) The main character has to correct his mistake. This is correct because Brayden has to try to right the wrong that he committed (littering on his camping trip and then picking up his trash). Choices (A), (C), and (D) are all traditional motifs in fiction, but they do not apply to this story.
7	ELAGSE8RL3	2	N/A	See scoring rubric and exemplar response on page 56.
8	ELAGSE8RL3	3	A	The correct answer is choice (A) by inspiring Brayden to pick up his litter. This is correct because Brayden feels motivated to correct his mistake once he has heard of Bear's behavior. Choices (B), (C), and (D) are incorrect because the story does not affect Brayden in the ways listed.
9	ELAGSE8RL9	2	D	The correct answer is choice (D) They both learn that being considerate is important. While Bear realizes that he has been destroying the environment, Brayden realizes that his frustration has caused him to be thoughtless about the environment and throw his juice pouch into the water. Both learn that it is important to think of others who are using the environment. Choices (A) and (B) are incorrect because they are not supported by the story. Choice (C) is incorrect because Coyote is female and, as such, not a "wise father figure."
10	ELAGSE8RL6	3	C/B	The correct answer is choice (C) by showing Brayden becoming angry **and** choice (B) "Can you quit rushing me? I can do this by myself!" The author creates suspense by showing Brayden becoming increasingly angry, and these words are an example of Brayden's frustration and anger. In Part A, Choices (A), (B), and (D) show other aspects of the story, but none that builds suspense. In Part (B), choices (A), (C), and (D) all relate to the events in Part A, but they are incorrect as they do not show Brayden's anger.
11	ELAGSE8W3	4	N/A	See exemplar responses on page 57 and the four-point holistic rubric beginning on page 65.
12	ELAGSE8L4	2	D	The correct answer is choice (D) popularity. This is correct because something that is widespread is common/popular. Choices (A), (B), and (C) do not provide additional context for the meaning of *widespread*.
13	ELAGSE8RI8	3	N/A	See scoring rubric and exemplar responses on page 58.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
14	ELAGSE8W1, ELAGSE8L1, ELAGSE8L2	4	N/A	See exemplar responses on page 59 and the seven-point, two-trait rubric beginning on page 69.
15	ELAGSE8L3a	2	C	The correct answer is choice (C) if I were. This choice uses the conditional tense necessary for the sentence. Choices (A), (B), and (D) do not use the correct tense.
16	ELAGSE8W4	3	D	The correct answer is choice (D) Remove sentence 7. This sentence in the paragraph is vague and repetitive and does not add to the content or organization. Choices (A) and (B) are incorrect because they would create digressions in the paragraph. Choice (C) is incorrect because sentence 5 is a necessary part of the paragraph and adds to/refines the main idea.
17	ELAGSE8W8	2	D	The correct answer is choice (D) an academic article from a university researcher titled “An Analysis of Screen Use and Teenage Health.” This answer is correct because a university researcher is likely to be a more credible source than the other options. Choices (A), (B), and (C) are incorrect because a blog, interview, and self-help book are less credible. In addition, the titles suggest very specific treatment of some part of the topic.
18	ELAGSE8L1d	2	C	The correct answer is choice (C) After the swim meet, many hungry kids from the swim team ate cheeseburgers. This choice is the best revision of the sentence in active voice. Choice (A) changes the order of the sentence, but the meaning is unclear. Choices (B) and (D) remain in the passive voice.
19	ELAGSE8W2c	2	N/A	See scoring rubric and exemplar response on page 60.
20	ELAGSE8W3d	3	N/A	See scoring rubric and exemplar response on page 61.
21	ELAGSE8L2c	1	N/A	See scoring rubric and exemplar response on page 62.
22	ELAGSE8L1a	2	N/A	See scoring rubric and exemplar response on page 63.

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ENGLISH LANGUAGE ARTS (ELA) EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

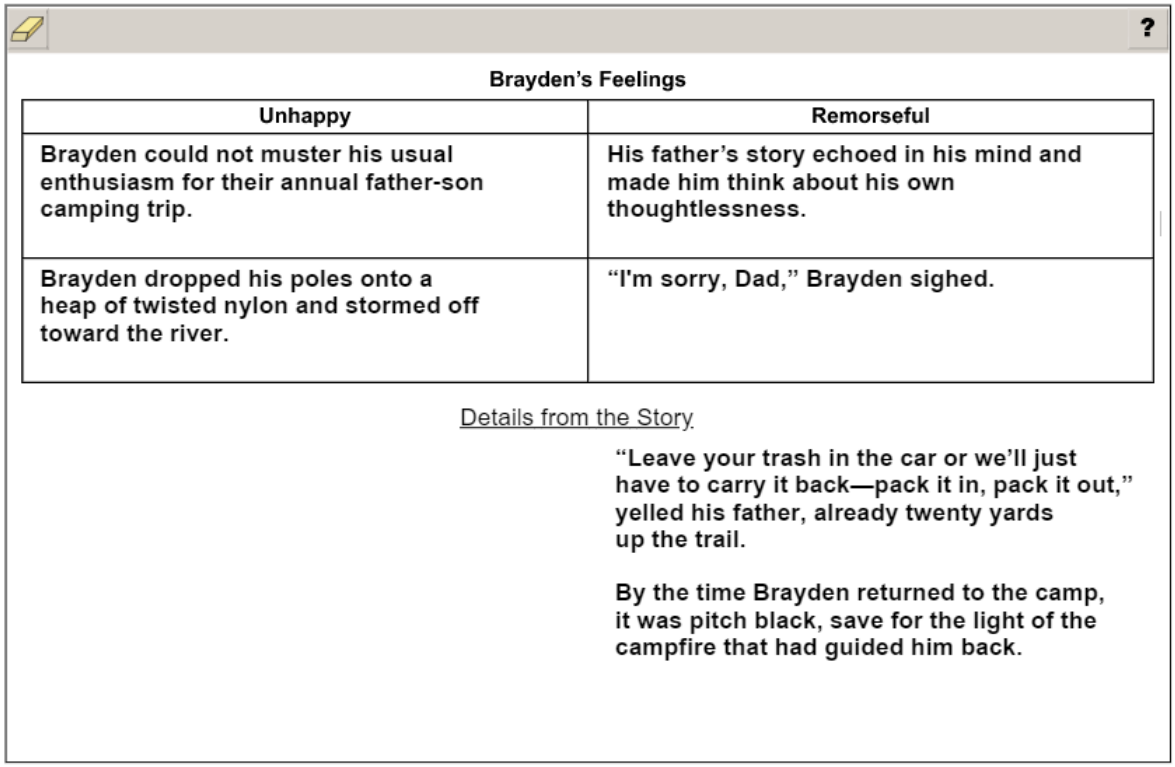
Item 7

Scoring Rubric

Points	Description
2	The student correctly fills in both columns (order within each column does not matter).
1	The student correctly fills in one column or one box in each column (order within each column does not matter).
0	The student correctly fills in one box in one column or does not correctly fill in either column.

Exemplar Response

The correct response is shown below.



Brayden's Feelings

Unhappy	Remorseful
Brayden could not muster his usual enthusiasm for their annual father-son camping trip.	His father's story echoed in his mind and made him think about his own thoughtlessness.
Brayden dropped his poles onto a heap of twisted nylon and stormed off toward the river.	"I'm sorry, Dad," Brayden sighed.

Details from the Story

"Leave your trash in the car or we'll just have to carry it back—pack it in, pack it out," yelled his father, already twenty yards up the trail.

By the time Brayden returned to the camp, it was pitch black, save for the light of the campfire that had guided him back.

The correct responses in the "Unhappy" column are "Brayden could not muster his usual enthusiasm for their annual father-son camping trip." and "Brayden dropped his poles onto a heap of twisted nylon and stormed off toward the river." The use of phrases such as "could not muster his usual enthusiasm" and "stormed off" convey an unhappy attitude. The correct responses in the "Remorseful" column are "His father's story echoed in his mind and made him think about his own thoughtlessness." and " 'I'm sorry, Dad,' Brayden sighed." Brayden's recollection of his father's story with its major theme of remorse, Brayden's awareness of his thoughtlessness, and his direct expression of remorse ("I'm sorry") support the idea that he feels remorseful. NOTE: Within each column, response order does not affect scoring.

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Item 11

To view the four-point holistic rubric for a text-based narrative response, see pages 65 and 66.

Exemplar Response

Points Awarded	Sample Response
4	Tranquility Falls was as beautiful as ever. When I got out of the car, I inhaled the smells of the forest with a smile on my face. I looked at Brayden, who was finishing a juice pouch, and noticed he didn't look very happy. He was disappointed that he had to go to summer school and would not be able to spend time with his friends. I felt for him, but he'd had trouble with algebra during the year. There wasn't anything we could do about it. His feelings about school seemed to affect the way he viewed the camping trip, and he was moving slowly as we unpacked the car. "Leave your trash in the car or we'll just have to carry it back—pack it in, pack it out," I called back to him. I think I locked the car door too quickly on him, because he stuffed the empty juice pouch in his pocket and trudged along after me up the trail.
3	I was so excited to be at Tranquility Falls again. It's always so pretty, and I love the sharp scent of pine in the air. Brayden was moving slowly as he emptied his juice pouch. He didn't seem very enthusiastic about being on the camping trip. He was mad about having to go to summer school. He put on his backpack, and I noticed he still had the juice pouch in his hand. I yelled back at him to leave the pouch in the car, but he just groaned, stuck the pouch in his pocket, and followed me up the trail.
2	Tranquility Falls was as pretty as last time. I was excited about the camping trip with Brayden. He was angry about being there. I know he was mad about having to go to summer school. He was moving slowly. I told him there were lots of things to look forward to that night. I accidentally locked the car on him, so he had to bring his empty juice pouch with him.
1	I took my kid camping, but he didn't want to go. He was mad because he wanted to be hanging out with his friends instead. He stuck an empty juice pouch in his pocket instead of putting it in the car.
0	Tranquility Falls was a nice place to visit and I'm glad we went.

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Item 13

Scoring Rubric

Points	Description
2	The response achieves the following: • Gives sufficient evidence of the ability to evaluate the claims in a text and assess whether the author's reasoning is sound • Includes specific examples/details that make clear reference to the text • Adequately evaluates the claims in a text and assesses whether the author's reasoning is sound with clearly relevant information based on the text
1	The response achieves the following: • Gives limited evidence of the ability to evaluate the claims in a text and assess whether the author's reasoning is sound • Includes vague/limited examples/details that make reference to the text • Evaluates the claims in a text and assesses whether the author's reasoning is sound with vague/limited information based on the text
0	The response achieves the following: • Gives no evidence of the ability to evaluate the claims in a text and assess whether the author's reasoning is sound

Exemplar Response

Points Awarded	Sample Response
2	Rebecca Wilson's reasoning for the safety of GM foods is not sound. She cites "thousands of research studies" that assert GM foods are safe. Yet, according to Daniel McLeod, these studies were done by the very people who benefit from the use of GM foods. Because of this bias, "the believability of the studies" is in question. As McLeod asks, "How might their corporate dollars have affected the results the scientists are reporting?"
1	Rebecca Wilson's reasoning for the safety of GM food is not sound. She bases her claim on studies that, according to Daniel McLeod, were done by the very people who benefit from the use of GM food.
0	Rebecca Wilson doesn't make a very good case for saying GM food is safe.

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Item 14

The following are examples of seven-point responses. See the seven-point, two-trait rubric for a text-based argumentative response on pages 69 and 70 to see why these examples would earn the maximum number of points.

Producing and consuming genetically modified food is necessary to feed the people of the world and keep them healthy. Since GMOs have been introduced, farmers have been able to grow more food that uses fewer resources.

Rebecca Wilson states that we are all most likely eating genetically modified foods on a daily basis. She claims that "A primary reason for its popularity is how beneficial it is to people and businesses." GM food grows bigger and tastier than regular food. This makes it more appealing to customers. The more customers want the food, the more they will buy it. This will help businesses succeed.

Modifying food also makes it stronger. According to Wilson, "When crops are modified to withstand disease and drought, it takes fewer resources to produce them, and fewer crops are lost." Therefore, using genetic modification means there will be more food for more people. The food will also be healthier. An example of this is how vitamin A is being introduced to rice to help nourish children.

People question how safe GM food is. However, Wilson notes that thousands of studies have been done on it, and there is "no evidence that GM food causes harm, either to the environment or to people." If it's safe and effective, why not use it?

GM food is here to stay, and that is a good thing. The more we use genetic modification, the more we will be able to provide healthy food to more people.

OR

There's no question that using genetic modification grows more food. The problem is that the food it produces has not been proven safe, so we shouldn't be producing or consuming it.

As Daniel McLeod illustrates with the example of DDT, we often don't know the negative effects a scientific discovery will have on us in the years to come. DDT went from being a miracle insecticide to a threat to the ecosystem. GM food could offer the same kind of threat to humans.

While GM foods may be bigger, stronger, and tastier, they also may be dangerous. The studies done to prove their safety were done by the companies selling the products themselves. McLeod rightfully asks, "How might their corporate dollars have affected the results the scientists are reporting?" We can't trust results that are financially motivated.

Unfortunately, as Rebecca Wilson says, "The use of genetics on produce and animals has become so widespread that each person in the United States is most likely eating GM food daily." Unless we take steps to avoid it, we have no choice but to consume something that could kill us. For that reason, modifying foods must stop.

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Item 19

Scoring Rubric

Points	Description
1	The student correctly selects both drop-down menu options.
0	The student does not correctly select both drop-down menu options.

Exemplar Response

The correct response is shown below.

In the early 1800s, people did not have convenient devices to open canned goods properly. [Instead ▾], they banged on their cans with hammers and chisels to open them. [However ▾], the first can opener was invented in 1858, and the process of opening cans became much simpler.

In the first drop-down menu, the correct response is “Instead” because it transitions to a statement about a method of dealing with the problem set up in the preceding sentence (“people did not have convenient devices”). In the second drop-down menu, the correct response is “However” because it introduces a contrast, alerting the reader to expect a shift in ideas.

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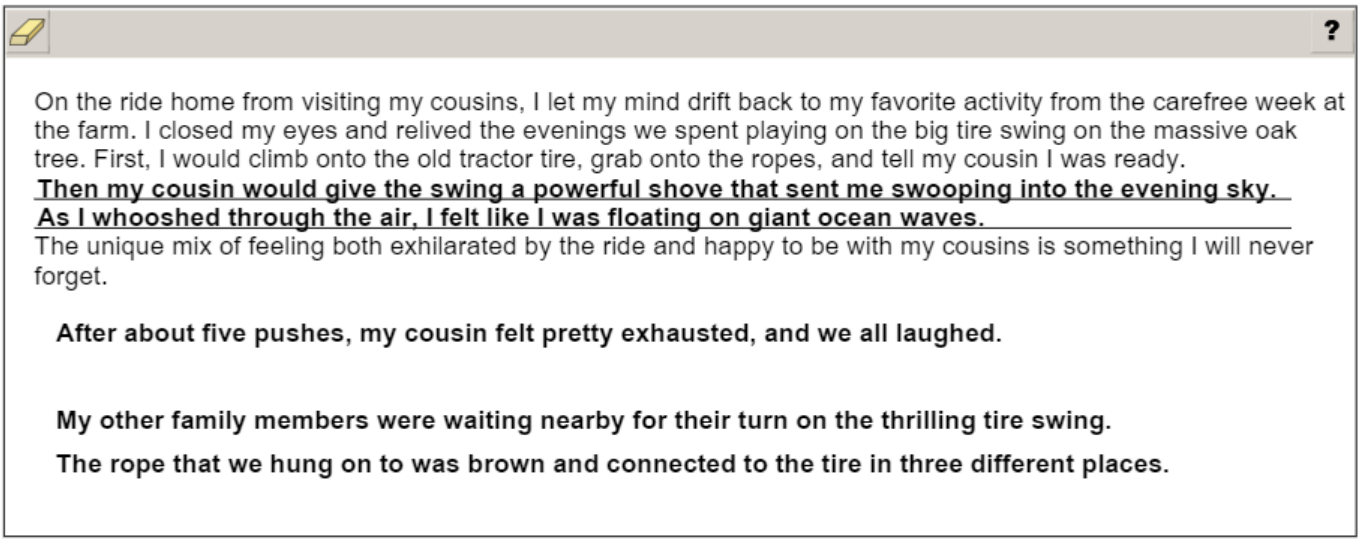
Item 20

Scoring Rubric

Points	Description
2	The student correctly fills in both blanks.
1	The student correctly fills in one blank.
0	The student does not correctly fill in either blank.

Exemplar Response

The correct response is shown below.


On the ride home from visiting my cousins, I let my mind drift back to my favorite activity from the carefree week at the farm. I closed my eyes and relived the evenings we spent playing on the big tire swing on the massive oak tree. First, I would climb onto the old tractor tire, grab onto the ropes, and tell my cousin I was ready.
Then my cousin would give the swing a powerful shove that sent me swooping into the evening sky.
As I whooshed through the air, I felt like I was floating on giant ocean waves.
The unique mix of feeling both exhilarated by the ride and happy to be with my cousins is something I will never forget.

After about five pushes, my cousin felt pretty exhausted, and we all laughed.

My other family members were waiting nearby for their turn on the thrilling tire swing.

The rope that we hung on to was brown and connected to the tire in three different places.

The correct response for the first blank is “Then my cousin would give the swing a powerful shove that sent me swooping into the evening sky.” This response provides the action that most logically follows the sequence of the cousin pushing the narrator on the swing. In addition, this sentence provides sensory language that allows the reader to visualize the actions. The correct response for the second blank is “As I whooshed through the air, I felt like I was floating on giant ocean waves.” This response is correct because it also follows the sequence established by the previous two sentences; in addition, the use of sensory description and figurative language allows the reader to feel like he or she is also experiencing the event. These options provide more precise and more effective sensory descriptions than the more general language employed in the other options. NOTE: Response order does affect scoring.

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Item 21

Scoring Rubric

Points	Description
1	The student correctly selects both drop-down menu options.
0	The student does not correctly select both drop-down menu options.

Exemplar Response

The correct response is shown below.

The colonists had strong emotions and attitudes about freedom. Filled with this [passion,] they formed a [rebellion] against the British government.

In the first drop-down menu, the correct response is “passion,” because when the suffix sound /shun/ follows an s (the root “pas”), it takes the -sion spelling. In the second drop-down menu, the correct response is “rebellion” because in a word with more than one syllable with the vowel/consonant pattern at the end of the word, such as “rebel,” the final consonant is doubled when adding a suffix (-ion).

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Item 22

Scoring Rubric

Points	Description
2	The student correctly fills in all three rows.
1	The student correctly fills in two rows, the middle column, or the last column.
0	The student correctly fills in one row or does not correctly fill in any row.

Exemplar Response

The correct response is shown below.

?

Word or Phrase	Is It a Participle, Infinitive, or Gerund?	How Does It Function in the Sentence?
Exercising	gerund	It functions as a noun.
borrowed	participle	It functions as an adjective.
to incorporate	infinitive	It functions as a direct object.

The correct responses in the first row are “gerund” in the middle column and “It functions as a noun.” in the last column. The word “Exercising” is a gerund because it is performing the function that is typically performed by a noun/noun phrase, even though the root word “exercise” is a verb. The correct responses in the second row are “participle” in the middle column and “It functions as an adjective.” in the last column. The word “borrowed” is a participle because it is performing the function that is typically performed by an adjective, even though the root word “borrow” is a verb. The correct responses in the third row are “infinitive” in the middle column and “It functions as a direct object.” in the last column. The phrase “to incorporate” is an infinitive because the verb “incorporate” is preceded by the word “to,” and it is the direct object of “prefer.”

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ENGLISH LANGUAGE ARTS (ELA) WRITING RUBRICS

Grade 8 items that are not machine-scored—i.e., constructed-response, extended constructed-response, and extended writing-response items—are manually scored using either a holistic rubric or a two-trait rubric.

Four-Point Holistic Rubric

Genre: Narrative

A holistic rubric essentially has one main trait. On the Georgia Milestones EOG assessment, a holistic rubric contains a single point scale ranging from zero to four. Each point value represents a qualitative description of the student's work. To score an item on a holistic rubric, a scorer or reader need only choose the criteria and associated point value that best represents the student's work. Increasing point values represent a greater understanding of the content and, thus, a higher score.

Seven-Point, Two-Trait Rubric

Genre: Argumentative or Informational/Explanatory

A two-trait rubric, on the other hand, is an analytic rubric with two traits. On the Georgia Milestones EOG assessment, a two-trait rubric contains two point scales, one for each trait, ranging from zero to four on one scale (ideas) and zero to three on the other (conventions). A score is given for each of the two traits, for a total of seven possible points for the item. To score an item on a two-trait rubric, a scorer or reader must choose the criteria and associated point value for each trait that best represents the student's work. The two scores are added together. Increasing point values represent a greater understanding of the content and, thus, a higher score.

On the following pages are the rubrics that will be used to evaluate writing on the Georgia Milestones Grade 8 English Language Arts (ELA) EOG assessment.

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Four-Point Holistic Rubric

Genre: Narrative

Writing Trait	Points	Criteria
This trait examines the writer's ability to effectively develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences based on a text that has been read.	4	*The student's response is a well-developed narrative that fully develops a real or imagined experience based on text as a stimulus.* • Effectively establishes a situation and a point of view and introduces a narrator and/or characters • Organizes an event sequence that unfolds naturally and logically • Effectively uses narrative techniques, such as dialogue, description, pacing, and reflection, to develop rich, interesting experiences, events, and/or characters • Uses a variety of words and phrases consistently and effectively to convey the sequence of events, signal shifts from one time frame or setting to another, and show the relationships among experiences and events • Uses precise words, phrases, and sensory language to convey experiences and events and capture the action • Provides a conclusion that follows from the narrated experiences or events • Integrates ideas and details from source material effectively • Has very few or no errors in usage and/or conventions that interfere with meaning*
	3	*The student's response is a complete narrative that develops a real or imagined experience based on text as a stimulus.* • Establishes a situation and introduces one or more characters • Organizes events in a clear, logical order • Uses narrative techniques, such as dialogue, description, pacing, and reflection, to develop experiences, events, and/or characters • Uses words and/or phrases to indicate sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events • Uses words, phrases, and details to capture the action and convey experiences and events • Provides an appropriate conclusion • Integrates some ideas and/or details from source material • Has a few minor errors in usage and/or conventions that interfere with meaning*
	2	*The student's response is an incomplete or oversimplified narrative based on text as a stimulus.* • Introduces a vague situation and at least one character • Organizes events in a sequence but with some gaps or ambiguity • Attempts to use a narrative technique, such as dialogue, description, pacing, or reflection, to develop experiences, events, and/or characters • Uses occasional signal words inconsistently and ineffectively to indicate sequence, signal shifts from one time frame or setting to another, or show the relationships among experiences and events • Uses some words or phrases inconsistently and ineffectively to convey experiences, and events, and capture the action • Provides a weak or ambiguous conclusion • Attempts to integrate ideas or details from source material • Has frequent errors in usage and conventions that sometimes interfere with meaning*

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Four-Point Holistic Rubric

Genre: Narrative
(continued)

Writing Trait	Points	Criteria
This trait examines the writer's ability to effectively develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences based on a text that has been read.	1	*The student's response provides evidence of an attempt to write a narrative based on text as a stimulus.* • Response is a summary of the story. • Provides a weak or minimal introduction of a situation or character • May be too brief to demonstrate a complete sequence of events, or signal shifts in one time frame or setting to another, or show relationships among experiences and events • Shows little or no attempt to use dialogue, description, pacing, or reflection to develop experiences, events, and/or characters • Uses words that are inappropriate, overly simple, or unclear • Provides few, if any, words to convey experiences, or events, or capture the action • Provides a minimal or no conclusion • May use few, if any, ideas or details from source material • Has frequent major errors in usage and conventions that interfere with meaning*
	0	*The student will receive a condition code for various reasons:* • Blank • Copied • Too Limited to Score/Illegible/Incomprehensible • Non-English/Foreign Language • Off Topic/Off Task/Offensive

*Students are responsible for language conventions learned in their current grade as well as in prior grades. Refer to the language skills for each grade to determine the grade-level expectations for grammar, syntax, capitalization, punctuation, and spelling. Also refer to the "Language Progressive Skills, by Grade" chart in the Appendix for those standards that need continued attention beyond the grade in which they were introduced.

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Seven-Point, Two-Trait Rubric

Trait 1 for Informational/Explanatory Genre

Writing Trait	Points	Criteria
Idea Development, Organization, and Coherence *This trait examines the writer's ability to effectively establish a controlling idea, support the idea with evidence from the text(s) read, and elaborate on the idea with examples, illustrations, facts, and other details. The writer must integrate the information from the text(s) into his/her own words and arrange the ideas and supporting evidence (from the text[s] read) in order to create cohesion for an informative/ explanatory essay.*	4	*The student's response is a well-developed informative/explanatory text that examines a topic in depth and conveys ideas and information clearly based on text as a stimulus.* • Effectively introduces a topic • Effectively develops the topic with multiple, relevant facts, definitions, concrete details, quotations, or other information and examples related to the topic • Effectively organizes ideas, concepts, and information using various strategies such as definition, classification, comparison/contrast, and cause/effect • Effectively uses appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts • Uses precise language and domain-specific vocabulary to inform about or explain the topic • Establishes and maintains a formal style • Provides a strong concluding statement or section that follows from and supports the information or explanation presented
	3	*The student's response is a complete informative/explanatory text that examines a topic and presents information based on text as a stimulus.* • Introduces a topic • Develops the topic with a few facts, definitions, concrete details, quotations, or other information and examples • Generally organizes ideas, concepts, and information • Uses some transitions to connect and clarify relationships among ideas, but relationships may not always be clear • Uses some precise language and domain-specific vocabulary to explain the topic • Maintains a formal style, for the most part • Provides a concluding statement or section
	2	*The student's response is an incomplete or oversimplified informative/explanatory text that cursorily examines a topic based on text as a stimulus.* • Attempts to introduce a topic • Attempts to develop a topic with too few details • Ineffectively organizes ideas, concepts, and information • Uses few transitions to connect and clarify relationships among ideas • Uses limited language and vocabulary that does not inform or explain the topic • Uses a formal style inconsistently or uses an informal style • Provides a weak concluding statement or section
	1	*The student's response is a weak attempt to write an informative/explanatory text that examines a topic based on text as a stimulus.* • May not introduce a topic or topic is unclear • May not develop a topic • May be too brief to group any related ideas together • May not use any linking words to connect ideas • Uses vague, ambiguous, or repetitive language • Uses a very informal style • Provides a minimal or no concluding statement or section
	0	*The student will receive a condition code for various reasons:* • Blank • Copied • Too Limited to Score/Illegible/Incomprehensible • Non-English/Foreign Language • Off Topic/Off Task/Offensive

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Seven-Point, Two-Trait Rubric

Trait 2 for Informational/Explanatory Genre

Writing Trait	Points	Criteria
Language Usage and Conventions *This trait examines the writer's ability to demonstrate control of sentence formation, usage, and mechanics as embodied in the grade-level expectations of the language standards.*	3	*The student's response demonstrates full command of language usage and conventions.* • Effectively varies sentence patterns for meaning, reader/listener interest, and style • Shows command of language and conventions when writing • Any errors in usage and conventions do not interfere with meaning*
	2	*The student's response demonstrates partial command of language usage and conventions.* • Varies some sentence patterns for meaning, reader/listener interest and style • Shows some knowledge of language and conventions when writing • Has minor errors in usage and conventions with no significant effect on meaning*
	1	*The student's response demonstrates weak command of language usage and conventions.* • Has fragments, run-ons, and/or other sentence structure errors • Shows little knowledge of language and conventions when writing • Has frequent errors in usage and conventions that interfere with meaning*
	0	*The student will receive a condition code for various reasons:* • Blank • Copied • Too Limited to Score/Illegible/Incomprehensible • Non-English/Foreign Language • Off Topic/Off Task/Offensive

*Students are responsible for language conventions learned in their current grade as well as in prior grades. Refer to the language skills for each grade to determine the grade-level expectations for grammar, syntax, capitalization, punctuation, and spelling. Also refer to the "Language Progressive Skills, by Grade" chart in the Appendix for those standards that need continued attention beyond the grade in which they were introduced.

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Seven-Point, Two-Trait Rubric

Trait 1 for Argumentative Genre

Writing Trait	Points	Criteria
Idea Development, Organization, and Coherence *This trait examines the writer's ability to effectively establish a claim as well as to address counterclaims, to support the claim with evidence from the text(s) read, and to elaborate on the claim with examples, illustrations, facts, and other details. The writer must integrate the information from the text(s) into his/her own words and arrange the ideas and supporting evidence in order to create cohesion for an argument essay.*	4	*The student's response is a well-developed argument that effectively relates and supports claims with clear reasons and relevant text-based evidence.* • Effectively introduces claim(s) • Uses an organizational strategy to present reasons and relevant evidence logically • Supports claim(s) with clear reasons and relevant evidence using specific, well-chosen facts, details, or other information from credible sources and demonstrates a good understanding of the topic or texts • Acknowledges and counters opposing claim(s), as appropriate • Uses words, phrases, and/or clauses that effectively connect and show direct, strong relationships among claim(s), reasons, and evidence • Establishes and maintains a formal style that is appropriate for the task, purpose, and audience • Provides a strong concluding statement or section that logically follows from the argument presented
	3	*The student's response is a complete argument that relates and supports claims with some text-based evidence.* • Clearly introduces claim(s) • Uses an organizational strategy to present some reasons and evidence • Uses specific facts, details, definitions, examples, and/or other information from sources to develop claim(s) • Attempts to acknowledge and/or counter opposing claim(s), as appropriate • Uses words and/or phrases to connect ideas and show relationships among claim(s), reasons, and evidence • Uses a formal style fairly consistently for task, purpose, and audience • Provides a concluding statement or section that follows from the argument presented
	2	*The student's response is an incomplete or oversimplified argument that partially supports claims with loosely related text-based evidence.* • Attempts to introduce claim(s) • Attempts to use an organizational structure which may be formulaic • Develops, sometimes unevenly, reasons and/or evidence to support claim(s) • Makes little, if any, attempt to acknowledge or counter opposing claim(s) • Attempts to support claim(s) with facts, reasons, and other evidence sometimes, but logic and relevancy are often unclear • Uses few words or phrases to connect ideas; connections are not always clear • Uses a formal style inconsistently or an informal style that does not fit task, purpose, or audience • Provides a weak concluding statement or section that may not follow the argument presented
	1	*The student's response is a weak attempt to write an argument and does not support claims with adequate text-based evidence.* • May not introduce claim(s)/claims(s) must be inferred • May be too brief to demonstrate an organizational structure, or no structure is evident • Has minimal support for claim(s) • Makes no attempt to acknowledge or counter opposing claim(s) • Uses minimal or no words or phrases to connect ideas • Uses a very informal style that is not appropriate for task, purpose, or audience • Provides a minimal or no concluding statement or section
	0	*The student will receive a condition code for various reasons:* • Blank • Copied • Too Limited to Score/Illegible/Incomprehensible • Non-English/Foreign Language • Off Topic/Off Task/Offensive

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Seven-Point, Two-Trait Rubric

Trait 2 for Argumentative Genre

Writing Trait	Points	Criteria
Language Usage and Conventions *This trait examines the writer's ability to demonstrate control of sentence formation, usage, and mechanics as embodied in the grade-level expectations of the language standards.*	3	*The student's response demonstrates full command of language usage and conventions.* • Effectively varies sentence patterns for meaning, reader/listener interest, and style • Shows command of language and conventions when writing • Any errors in usage and conventions do not interfere with meaning*
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	1	*The student's response demonstrates weak command of language usage and conventions.* • Has fragments, run-ons, and/or other sentence structure errors • Shows little knowledge of language and conventions when writing • Has frequent errors in usage and conventions that interfere with meaning*
	0	*The student will receive a condition code for various reasons:* • Blank • Copied • Too Limited to Score/Illegible/Incomprehensible • Non-English/Foreign Language • Off Topic/Off Task/Offensive

*Students are responsible for language conventions learned in their current grade as well as in prior grades. Refer to the language skills for each grade to determine the grade-level expectations for grammar, syntax, capitalization, punctuation, and spelling. Also refer to the "Language Progressive Skills, by Grade" chart in the Appendix for those standards that need continued attention beyond the grade in which they were introduced.

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MATHEMATICS

DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones Mathematics EOG assessment is a criterion-referenced test, designed to provide information about how well a student has mastered the grade-level state-adopted content standards in Mathematics. The assessment consists of both operational items and field test items (newly written items that are being tried out and do not contribute to the student's score). Each student will receive one of four Achievement Level designations, depending on how well the student has mastered the content standards. The four Achievement Level designations are Beginning Learner, Developing Learner, Proficient Learner, and Distinguished Learner. In addition to criterion-referenced information, the Georgia Milestones measures will also produce an estimate of how Georgia students are achieving relative to their peers nationally. The norm-referenced information provided is supplementary to the criterion-referenced Achievement Level designation and will not be utilized in any manner other than to serve as a barometer of national comparison. Only the criterion-referenced scores and Achievement Level designations will be utilized in the accountability metrics associated with the assessment program (such as student growth measures, educator-effectiveness measures, or the CCRPI).

The table on the following page outlines the number and types of items included on the Grade 8 Mathematics EOG assessment.

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Grade 8 Mathematics EOG Assessment Design

Description	Number of Items	Number of Points
1-point Selected-Response and Technology-Enhanced Items[1, 2]	42	42
2-point Technology-Enhanced Items[1]	8	16
Field Test Items[3]	5	0
Total[4]	**55**	**58**

[1] **Technology-Enhanced:** Possible variants of the technology-enhanced item types used for Mathematics include multiple-part selected-response, multiple-select, drag-and-drop, drop-down, graphing, and keypad-input.
[2] **1-point Selected-Response and Technology-Enhanced Items:** The ratio of selected-response to technology-enhanced items may vary. The target range of 1-point technology-enhanced items is 0 to 5.
[3] **Field Test Items:** Field test items may include 1-point selected-response, 1-point technology-enhanced, and 2-point technology-enhanced items.
[4] **Total:** Of the total 55 items, 50 contribute to the student's Mathematics score.

The test will be given in two sections. Section 1 is divided into two parts. Students may have up to 65 minutes per section to complete Sections 1 and 2. The total estimated testing time for the Grade 8 Mathematics EOG assessment ranges from approximately 60 to 130 minutes. Total testing time describes the amount of time students have to complete the assessment. It does not take into account the time required for the test examiner to complete pre-administration and post-administration activities (such as reading the standardized directions to students). Sections 1 and 2 must be scheduled such that both will be completed in a single day or over the course of two consecutive days (one section each day) and should be completed within the same week following the district's testing protocols for the EOG measures (in keeping with state guidance).

During the Mathematics EOG assessment, a formula sheet will be available for students to use. There is an example of the formula sheet in the Mathematics Additional Sample Items section of this guide. Another feature of the Grade 8 Mathematics EOG assessment is that students may use a scientific calculator in Part B of Section 1 and in all of Section 2.

CONTENT MEASURED

The Grade 8 Mathematics assessment will measure the Grade 8 standards that are described at www.georgiastandards.org.

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The content of the assessment is organized into four groupings, or domains, of standards for the purposes of providing feedback on student performance. A content domain is a reporting category that *broadly* describes and defines the content of the course, as measured by the EOG assessment. The standards for Grade 8 Mathematics are grouped into four domains: Numbers, Expressions, and Equations; Algebra and Functions; Geometry; and Statistics and Probability. Each domain was created by organizing standards that share similar content characteristics. The content standards describe the level of expertise that Grade 8 Mathematics educators should strive to develop in their students. Educators should refer to the content standards for a full understanding of the knowledge, concepts, and skills subject to be assessed on the EOG assessment.

The approximate proportional number of points associated with each domain is shown in the following table. A range of cognitive levels will be represented on the Grade 8 Mathematics EOG assessment. Educators should always use the content standards when planning instruction.

GRADE 8 MATHEMATICS: DOMAIN STRUCTURES AND CONTENT WEIGHTS

Reporting Categories and Content Standards

Reporting Category/Domain	Content Standards Assessed	Approximate # of Points	Approximate % of Test
Numbers, Expressions, and Equations	MGSE8.EE (1, 2, 3, 4)	12	20%
	MGSE8.NS (1, 2)		
Algebra and Functions	MGSE8.EE (5, 6, 7, 7a, 7b, 8, 8a, 8b, 8c)	23	40%
	MGSE8.F (1, 2, 3, 4, 5)		
Geometry	MGSE8.G (1, 2, 3, 4, 5, 6, 7, 8, 9)	16	28%
Statistics and Probability	MGSE8.SP (1, 2, 3, 4)	7	12%
	Total	**58**	**100%**

The Standards for Mathematical Practice (1–8) will be embedded within items aligned to the mathematical content standards.

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ITEM TYPES

The Mathematics portion of the Grade 8 EOG assessment consists of selected-response and technology-enhanced items.

A selected-response item, sometimes called a multiple-choice item, is defined as a question, problem, or statement that is followed by several answer choices, sometimes called options or response choices. The incorrect choices, called distractors, usually reflect common errors. The student's task is to choose, from the choices provided, the best answer to the question (the stem). The Mathematics selected-response items will have four answer choices.

A technology-enhanced item is an innovative way to measure student skills and knowledge by using scaffolding within a multi-step process. Technology-enhanced items are worth one or two points. If the item is worth two points, partial credit is awarded for special combinations of responses that do not include all the correct answers. For Mathematics, there are a number of specific technology-enhanced item types being used:

- In multi-select items, the student is asked to pick two or three correct responses from five or six answer options.
- In multi-part items, the student responds to a question, statement, or prompt that has two or more parts.
- In drag-and-drop items, the student uses a mouse, touchpad, or touchscreen to move responses to designated areas on the screen.
- In drop-down menu items, the student uses a mouse, touchpad, or touchscreen to open a drop-down menu and select an option from the menu. A drop-down menu item may have multiple drop-down menus.
- In keypad-input items, the student uses the physical keyboard or the pop-up keyboard on a touchscreen to type a number, expression, or equation into an answer box.
- In coordinate-graph items, the student uses a mouse, touchpad, or touchscreen to draw lines and/or plot points on a coordinate grid on the screen.
- In line-plot items, the student uses a mouse, touchpad, or touchscreen to place Xs above a number line to create a line plot.
- In bar-graph items, the student uses a mouse, touchpad, or touchscreen to select the height of each bar to create a bar graph.
- In number-line items, the student uses a mouse, touchpad, or touchscreen to plot a point and/or represent inequalities.
- Since some technology-enhanced items in this guide were designed to be used only in an online, interactive-delivery format, some of the item-level directions will not appear to be applicable when working within the format presented in this document (for example, "Move the clocks into the graph" or "Create a scatter plot").
- This icon ➲ identifies special directions that will help the student answer technology-enhanced items as shown in the format presented within this guide. These directions do not appear in the online version of the test but explain information about how the item works that would be easily identifiable if the student were completing the item in an online environment.

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To give students practice using technology-enhanced items in an online environment very similar to how they will appear on the online test, visit “Experience Online Testing Georgia.”

1. Go to the website “Welcome to Experience Online Testing Georgia” (http://gaexperienceonline.com/).
2. Select “Test Practice.”
3. On the right side of the page, you will see “End-of-Grade (EOG) Spring Main.” Select “Online Tools Training” which appears underneath it.
4. Select “EOG Test Practice.”
5. Select “Technology Enhanced Items.”
6. Select “All Grades.”
7. You will be taken to a login screen. Use the username and password provided on the screen to log in and practice navigating technology-enhanced items online.

Please note that Google Chrome is the only supported browser for this public version of the online testing environment.

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MATHEMATICS DEPTH OF KNOWLEDGE EXAMPLE ITEMS

Example items that represent the applicable DOK levels across various Grade 8 Mathematics content domains are provided.

All example and sample items contained in this guide are the property of the Georgia Department of Education.

Example Item 1

Selected-Response: 1 point

DOK Level: 1

Mathematics Grade 8 Content Domain: Numbers, Expressions, and Equations

Standard: MGSE8.NS.1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.

Which of these is an irrational number?

A. 4.25×10^{-2}

B. $0.\overline{73}$

C. $\sqrt{5}$

D. $\frac{456}{5}$

Correct Answer: C

Explanation of Correct Answer: The correct answer is choice (C) $\sqrt{5}$. The square root of a number that is not a perfect square is irrational. Choice (A) is incorrect because it is a terminating decimal in scientific notation, which is rational. Choice (B) is incorrect because it is a repeating decimal, which is rational. Choice (D) is incorrect because it is a fraction whose decimal expansion terminates, which is rational.

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Example Item 2

Selected-Response: 1 point

DOK Level: 2

Mathematics Grade 8 Content Domain: Algebra and Functions

Standard: MGSE8.EE.7. Solve linear equations in one variable.
b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

Solve.

$$7x - 3(4 + x) = 28$$

A. $x = 4$
B. $x = 5$
C. $x = 7$
D. $x = 10$

Correct Answer: D

Explanation of Correct Answer: The correct answer is choice (D) $x = 10$. Applying the distributive property gives the equation $7x - 12 - 3x = 28$. Grouping like terms gives the equation $4x = 40$. Dividing both sides of the equation by 4 gives the solution $x = 10$. Choice (A) is incorrect because it is the result of subtracting 12 from the right side instead of adding. Choice (B) is incorrect because it is the result of failing to distribute the –3 to the x term in the parentheses. Choice (C) is incorrect because it is the result of ignoring the term –12 when grouping like terms, so the variable terms are set equal to 28 instead of 40.

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Example Item 3

Selected-Response: 1 point

DOK Level: 3

Mathematics Grade 8 Content Domain: Algebra and Functions

Standard: MGSE8.EE.8. Analyze and solve pairs of simultaneous linear equations (systems of linear equations).

b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection.

Look at the system of equations.

$$y = x + 4$$
$$2y = 2x + 8$$

Which statement about this system of equations is true and why?

A. It has no solution because the lines are parallel when graphed.
B. It has no solution because the equations are the same line when graphed.
C. It has infinitely many solutions because the lines are parallel when graphed.
D. It has infinitely many solutions because the equations are the same line when graphed.

Correct Answer: D

Explanation of Correct Answer: The correct answer is choice (D) It has infinitely many solutions because the equations are the same line when graphed. The second equation is written as $y = x + 4$ in slope-intercept form, so it has the same slope, 1, and intercept, 4, as the first equation. Therefore, the equations are the same line and there are infinitely many solutions, represented by the points on the line. Choice (A) is incorrect because it assumes the lines are parallel rather than the same line. Choice (B) is incorrect because it misinterpreted coincident lines as having no common solutions. Choice (C) is incorrect because it assumes the lines are parallel and that parallel lines have infinitely many solutions.

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MATHEMATICS ADDITIONAL SAMPLE ITEMS

This section has two parts. The first part is a set of 21 sample items for the Mathematics portion of the EOG assessment. The second part contains a table that shows for each item the standard assessed, the DOK level, the correct answer (key), and a rationale/explanation about the key and distractors. The sample items can be utilized as a mini-test to familiarize students with the item formats found on the assessment.

All example and sample items contained in this guide are the property of the Georgia Department of Education.

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Grade 8 Mathematics Formula Sheet

Below are the formulas you may find useful as you take the test. However, you may find that you do not need to use all of the formulas. You may refer to this formula sheet as often as needed.

Slope Formula

$m = \frac{y_2 - y_1}{x_2 - x_1}$

Linear Equation

$y = mx + b$

Pythagorean Theorem

$a^2 + b^2 = c^2$

Perimeter

The perimeter of a polygon is equal to the sum of the lengths of its sides.

Volume

Cylinder	$V = \pi r^2 h$
Cone	$V = \frac{1}{3}\pi r^2 h$
Sphere	$V = \frac{4}{3}\pi r^3$

$\pi \approx 3.14$

You can find this mathematics formula sheet on the Georgia Milestones webpage at http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Assessment/Pages/Georgia-Milestones-EOG-Resources.aspx.

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Item 1

Selected-Response: 1 point

Sofia read that there are approximately 2×10^{11} stars in the Milky Way Galaxy. She also read that there are approximately 3×10^{22} stars in the entire universe.

How many times the number of stars in the Milky Way Galaxy is the number of stars in the universe?

A. 1.5×10^{2}
B. 1.5×10^{11}
C. 6×10^{11}
D. 6×10^{33}

Item 2

Selected-Response: 1 point

Solve for *x*.

$$x^2 = 81$$

A. $x = 162$
B. $x = 40.5$
C. $x = -9$ and $x = 9$
D. $x = -9$ and $x = -81$

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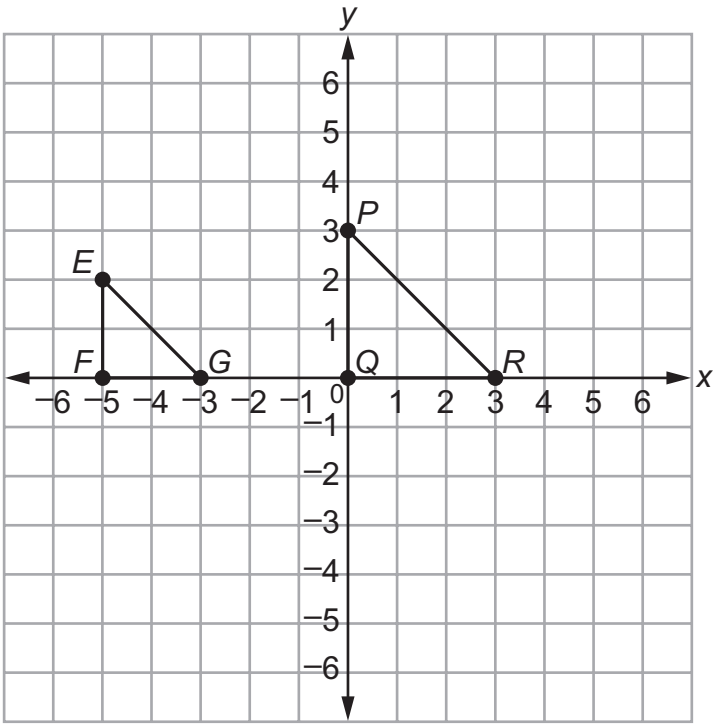
Item 3

Selected-Response: 1 point

Look at triangles *PQR* and *EFG*.



Which of these explains why triangles *PQR* and *EFG* are similar?

A. Triangle *EFG* is a result of dilating triangle PQR using a scale factor of $\frac{3}{2}$, with the origin as the center, and reflecting it across the y-axis.

B. Triangle *EFG* is a result of dilating triangle *PQR* using a scale factor of $\frac{2}{3}$, with the origin as the center, and reflecting it across the *y*-axis.

C. Triangle *EFG* is a result of dilating triangle *PQR* using a scale factor of $\frac{2}{3}$, with the origin as the center, and translating it 5 units to the left.

D. Triangle *EFG* is a result of dilating triangle *PQR* using a scale factor of $\frac{3}{2}$, with the origin as the center, and translating it 5 units to the left.

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Item 4

Selected-Response: 1 point

An expression is shown.

$$3^3 \times 3^{-2}$$

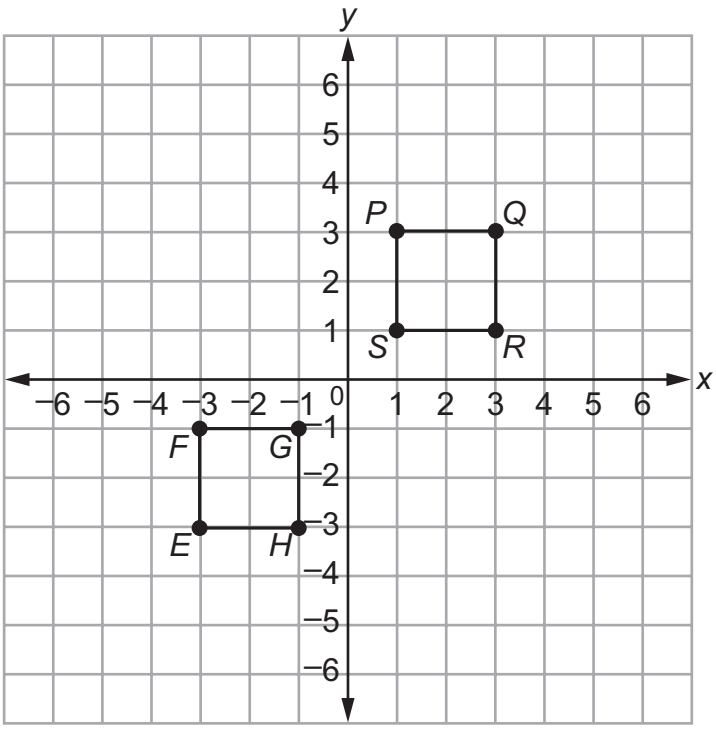
What is the value of the expression?

A. –54
B. –243
C. 243
D. 3

Item 5

Selected-Response: 1 point

Square *PQRS* is congruent to square *EFGH*.



Which series of transformations to square *PQRS* will result in square *EFGH*?

A. translation down by 3 units followed by reflection across the *y*-axis
B. reflection across the *y*-axis followed by translation down by 5 units
C. reflection across the *x*-axis followed by 45° clockwise rotation about the origin
D. translation to the left by 4 units followed by 90° counterclockwise rotation about the origin

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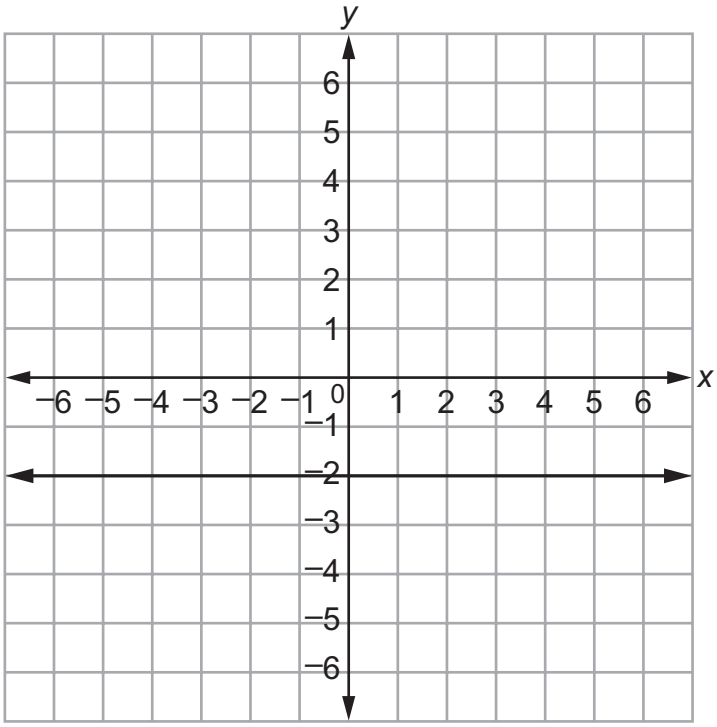
Item 6

Selected-Response: 1 point

Greg wants to compare two different relations. He drew a graph for one relation and created a table of values for the other relation.



x	y
2	2
2	0
2	−2
2	−4

Which statement about this graph and the values in this table is true?

A. Neither relation represents a function.
B. Both relations represent functions.
C. The graph represents a function, but the values in the table do not represent a function.
D. The graph does not represent a function, but the values in the table represent a function.

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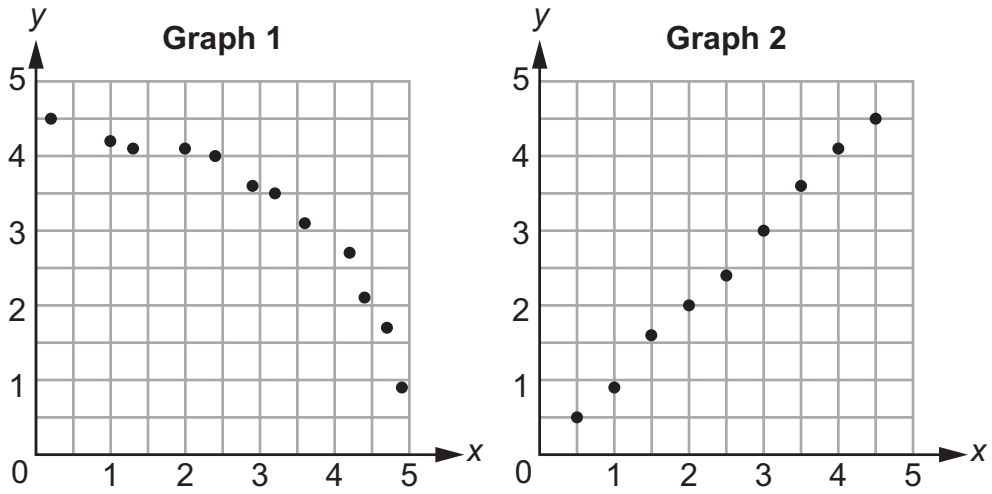
Item 7

Selected-Response: 1 point

Harry constructed two scatter plots to represent the relationship between *x* and *y* in two experiments.



Which statement BEST compares the two graphs?

A. Graph 1 shows a linear positive association, and Graph 2 shows a nonlinear negative association.
B. Graph 1 shows a linear negative association, and Graph 2 shows a nonlinear positive association.
C. Graph 1 shows a nonlinear positive association, and Graph 2 shows a linear negative association.
D. Graph 1 shows a nonlinear negative association, and Graph 2 shows a linear positive association.

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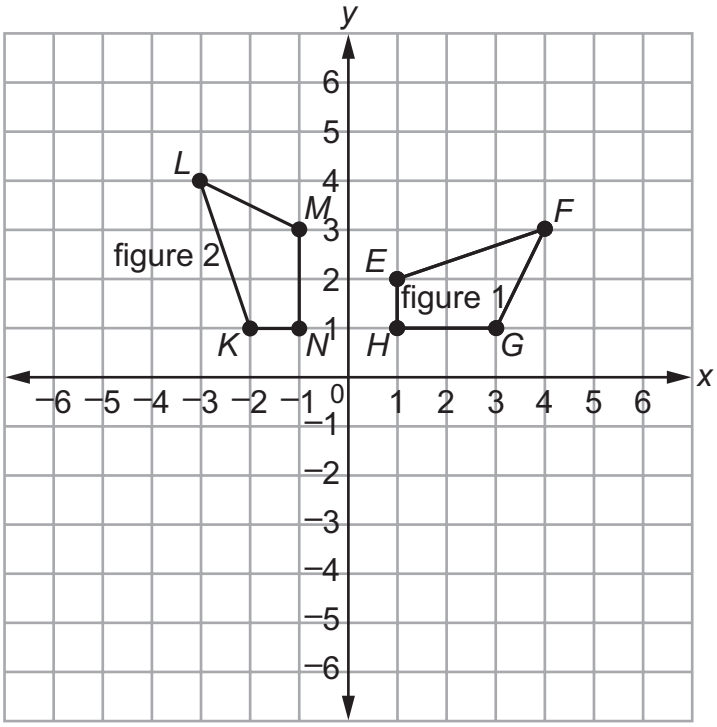
Item 8

Selected-Response: 1 point

Figure 1 is rotated counterclockwise by 90° about the origin to obtain figure 2.



Which statement about the angles in figure 1 and figure 2 is true?

A. $m\angle G = m\angle K$
B. $m\angle H = m\angle L$
C. $m\angle G = m\angle M$
D. $m\angle H = m\angle K$

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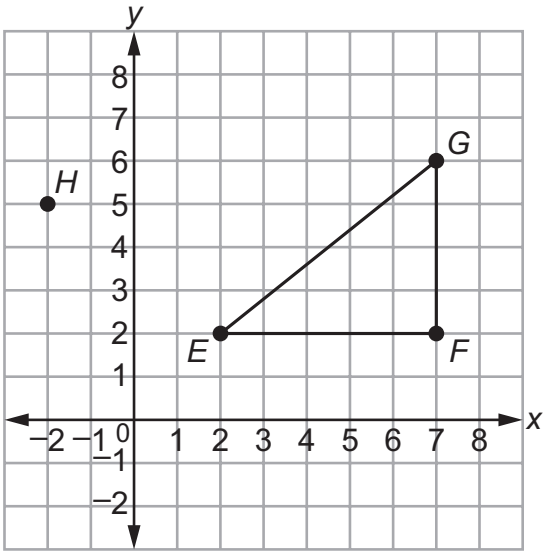
Item 9

Multi-Part Technology-Enhanced: 2 points

The coordinate grid shows right triangle *EFG* and point *H*.



Part A

What is the distance, in units, from point *E* to point *G*?

A. 3
B. $\sqrt{18}$
C. $\sqrt{41}$
D. 9

Part B

What is the distance, in units, from point *E* to point *H*?

A. $\sqrt{7}$
B. $\sqrt{14}$
C. 5
D. 75

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Item 10

Multi-Select Technology-Enhanced: 2 points

Select THREE equations whose graphs are straight lines.

A. $y = 7$

B. $y = 2x^2$

C. $y = \frac{1}{2}x$

D. $3x + y = 10$

E. $y = x^2 - 2$

F. $x^2 + y^2 = 1$

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Item 11

Multi-Part Multi-Select Technology-Enhanced: 2 points

The two-way table shows some survey results from when 100 Georgia residents were asked whether they were born in Georgia.

Georgia Residents

	Born in Georgia	Not Born in Georgia	Total
Female			66
Male	16		
Total		47	

The are values missing from the two-way table. You will need to determine the missing values from the two-way table.

Part A

How many of the males surveyed were not born in Georgia?

A. 16
B. 18
C. 29
D. 34

Part B

Select TWO statements that are true about the data.

A. There were more males born in Georgia than there were females born in Georgia.
B. More than half of all residents surveyed were born in Georgia.
C. More males were born in Georgia than were not born in Georgia.
D. More females were not born in Georgia than were born in Georgia.
E. There were more females not born in Georgia than there were males not born in Georgia.

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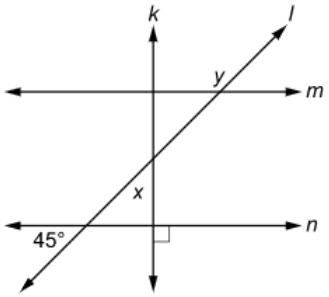
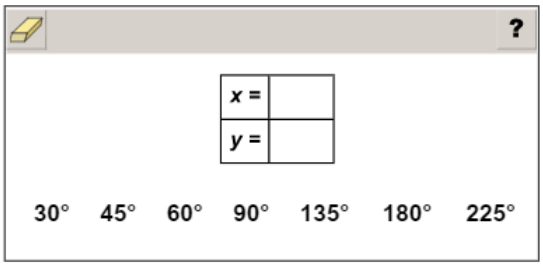
Item 12

Drag-and-Drop Technology-Enhanced: 2 points

In the figure shown, line *m* is parallel to line *n*.

Move an angle measure into each box to show the values of *x* and *y*.





Use a mouse, touchpad, or touchscreen to move an angle measure into each box. Each angle measure may be used twice.

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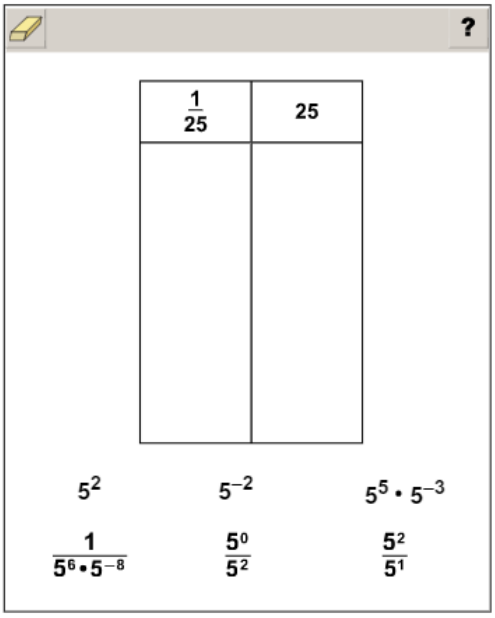
Item 13

Drag-and-Drop Technology-Enhanced: 2 points

Move expressions into the columns that are equivalent to the value given at the top of each column. Not all expressions will be used.



Use a mouse, touchpad, or touchscreen to move expressions into the columns. Each expression may be used once.

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Item 14

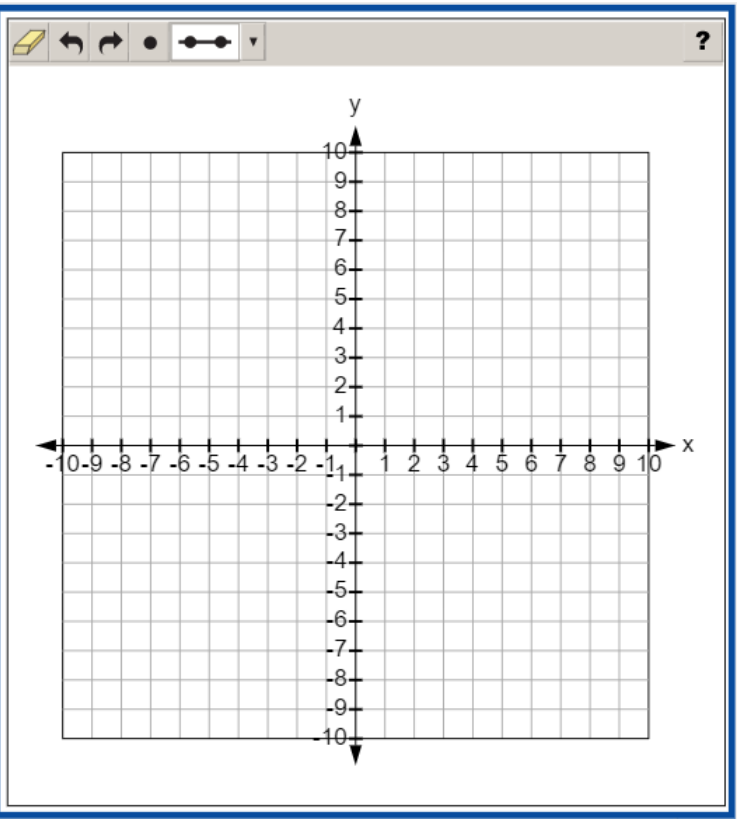
Coordinate-Graph Technology-Enhanced: 2 points

The equation and table shown represent different linear functions.

$y = 3.5x + 5$

x	y
0	4
2	10
4	16

Graph the line that represents the function with the greater rate of change.



Use a mouse, touchpad, or touchscreen to graph a line on the coordinate grid. At most 1 line and 3 points can be graphed.

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Item 15

Coordinate-Graph Multi-Part Technology-Enhanced: 2 points

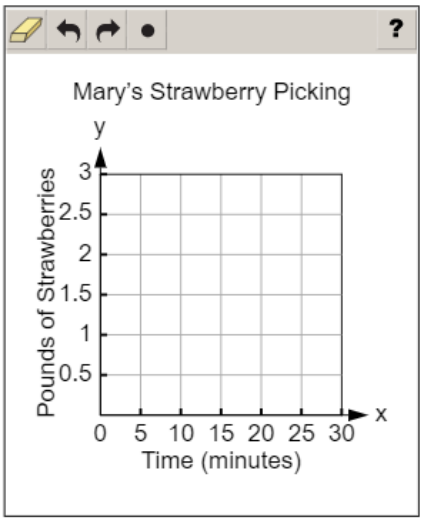
Part A

Mary picked strawberries each day for five days. The time, in minutes, she spent picking strawberries each day and the number of pounds of strawberries she picked each day are shown in the table.

Mary's Strawberry Picking

Time (minutes)	Pounds of Strawberries
10	0.5
20	1.0
15	0.9
30	1.5
20	1.2

Part A Create a scatter plot of Mary's strawberry picking based on the data.



Use a mouse, touchpad, or touchscreen to plot points on the coordinate grid. At most 5 points can be plotted.

Go on to the next page to finish item 15.

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Item 15. ***Continued.***

Part B

Mary picked strawberries each day for five days. The time, in minutes, she spent picking strawberries each day and the number of pounds of strawberries she picked each day are shown in the table.

Mary's Strawberry Picking

Time (minutes)	Pounds of Strawberries
10	0.5
20	1.0
15	0.9
30	1.5
20	1.2

Part B Mary went strawberry picking a sixth day and spent 45 minutes picking strawberries.

Which type of association between the time spent picking strawberries and the number of pounds of strawberries picked BEST explains why it is likely that Mary picked more than 1.5 pounds of strawberries on the sixth day?

(a) no association

(b) nonlinear association

(c) negative association

(d) positive association

Use a mouse, touchpad, or touchscreen to select a response.

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Item 16

Drag-and-Drop Technology-Enhanced: 2 points

A town is offering rentals of bicycles and electric scooters at the park. The rental cost in dollars, y, and the amount of time in minutes, x, are represented by the equations shown.

- **Bicycle Rental:** $y = 0.08x + 2$
- **Electric Scooter Rental:** $y = 0.16x + 1$

Move a number into each blank to complete each sentence.

The total cost to rent a bicycle for one hour is $_____.

The total cost to rent an electric scooter for one hour is $_____.

The cost of renting a bicycle and the cost of renting an electric scooter are the same when rented for _____ minutes.

0.08 0.16 1.00 2.00 6.80

8.80 9.60 10.60 12.50

Use a mouse, touchpad, or touchscreen to move a number into each blank. Each number may be used 3 times.

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Item 17

Keypad-Input Technology-Enhanced: 1 point

What is the value of $\sqrt{\pi}$ to the nearest tenth?

Use a mouse, touchpad, or touchscreen to enter a response.

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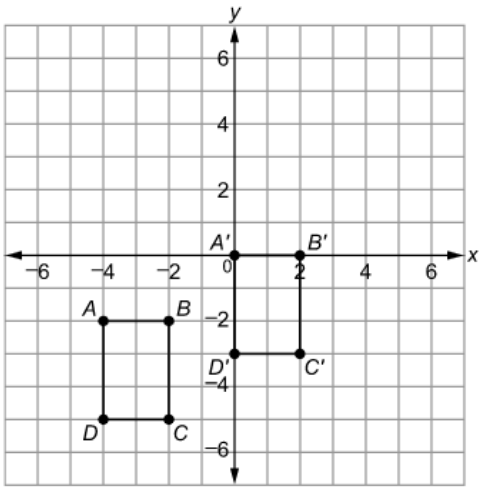
Item 18

Drop-Down Technology-Enhanced: 1 point

Quadrilateral *ABCD* is congruent to quadrilateral *A'B'C'D'*, as shown on the coordinate plane.



Use the drop-down menus to describe the sequence of transformations that can be used to map quadrilateral *ABCD* to quadrilateral *A'B'C'D'*.

Quadrilateral *ABCD* is translated [ ] and [ ]

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the two blank boxes. When you click the arrow, a drop-down menu will appear, showing you all the possible options for that blank. Each drop-down menu with its options is shown below.

Quadrilateral *ABCD* is translated [ ] and [ ]

2 units to the left.
4 units to the left.
2 units to the right.
4 units to the right.

2 units up
4 units up
2 units down
4 units down

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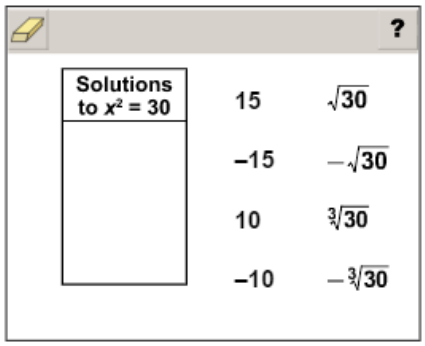
Item 19

Drag-and-Drop Technology-Enhanced: 1 point

An equation is shown.

$$x^2 = 30$$

Move values into the box to show ALL the solutions to the equation. Not all values will be used.



Use a mouse, touchpad, or touchscreen to move the numbers into the box. Each number may be used 1 time.

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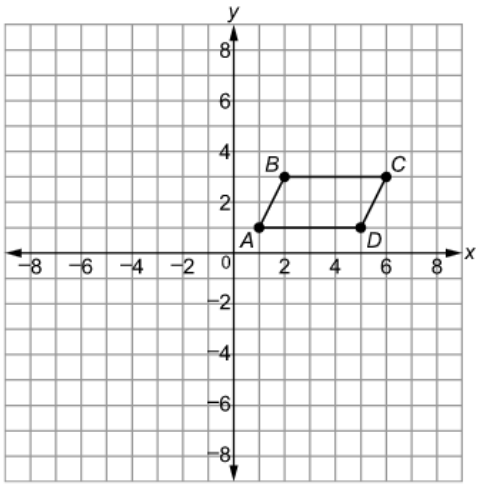
Item 20

Drop-Down Multi-Part Technology-Enhanced: 2 points

Parallelogram *ABCD* is shown on the coordinate plane.



Part A Parallelogram *ABCD* will be reflected over the *x*-axis to create parallelogram *A'B'C'D'*.

Use the drop-down menus to show the coordinates of point *C'* after the reflection of parallelogram *ABCD*.

C' (▾ , ▾)

Part B Parallelogram *ABCD* will be reflected over the *x*-axis. Then, it will be rotated 90° counterclockwise about the origin to create parallelogram *A"B"C"D"*.

Use the drop-down menus to show the coordinates of point *B"* after the series of transformations.

B" (▾ , ▾)

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the four blank boxes. When you click the arrow, a drop-down menu will appear, showing you all the possible options for that blank. Each drop-down menu with its options is shown below.

C' (▾ , ▾)

−6	−6
−3	−3
3	3
6	6

Part ABCD will be reflected over the *x*-axis. Then, it will be r ockwise about the origin to create para .

B" (▾ , ▾)

−3	−3
−2	−2
2	2
3	3

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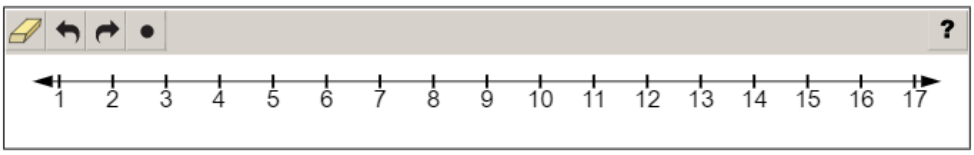
Item 21

Number-Line Technology-Enhanced: 1 point

Plot two points that represent the two consecutive integers that the value of $\sqrt{29}$ lies between.



Use a mouse, touchpad, or touchscreen to plot points on the number line. At most 2 points can be plotted.

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MATHEMATICS ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	MGSE8.EE.3	2	B	The correct answer is choice (B) 1.5×10^{11}. To divide numbers in scientific notation, divide the coefficients and subtract the exponents of the common base. Since $\frac{3}{2} = 1.5$ and $22 - 11 = 11$, the quotient is 1.5×10^{11}. Choice (A) is incorrect because it is the result of dividing the exponents instead of subtracting. Choice (C) is incorrect because it is the result of multiplying 3×2 instead of dividing. Choice (D) is incorrect because it is the product of the two quantities.
2	MGSE8.EE.2	1	C	The correct answer is choice (C) $x = -9$ and $x = 9$. Choice (A) is incorrect because it multiplies 81 by 2 instead of finding the square root. Choice (B) is incorrect because it divided 81 by 2. Choice (D) is incorrect because -81 is not a root of 81.
3	MGSE8.G.4	2	C	The correct answer is choice (C) Triangle *EFG* is a result of dilating triangle *PQR* using a scale factor of $\frac{2}{3}$, with the origin as the center, and translating it 5 units to the left. $\frac{EF}{PQ} = \frac{FG}{QR} = \frac{EG}{PR} = \frac{2}{3}$, so *EFG* is the result of dilating *PQR* using a scale factor of $\frac{2}{3}$. The vertices of *EFG* are 5 units to the left of the corresponding vertices in the dilated triangle, so *EFG* is the result of translating the dilated triangle 5 units to the left. Choice (A) is incorrect because it confuses translation and reflection and uses the reciprocal of the scale factor. Choice (B) is incorrect because it confuses translation and reflection. Choice (D) is incorrect because it uses the reciprocal of the scale factor.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
4	MGSE8.EE.1	1	D	The correct answer is choice (D) 3. The value of 3^3 is 27 and the value of 3^{-2} is $\frac{1}{9}$, and 27 times $\frac{1}{9}$ is 3. Choice (A) is incorrect because it multiplies the numbers instead of using the powers. Choices (B) and (C) are incorrect because they do not use the negative exponent correctly.
5	MGSE8.G.2	2	D	The correct answer is choice (D) translation to the left by 4 units followed by 90° counterclockwise rotation about the origin. Vertex *P* corresponds to vertex *E*, so *PQRS* must be translated 4 units to the left and then rotated 90° counterclockwise about the origin. Choices (A), (B), and (C) are incorrect because the images of *PQRS* will be oriented incorrectly and will not lie on *EFGH*.
6	MGSE8.F.4	2	C	The correct answer is choice (C) The graph represents a function, but the values in the table do not represent a function. The graph represents a function because it is a horizontal line, but the values in the table do not represent a function because there are multiple values for *y* for a single value of *x*. A function has exactly one output for each input. The table does not represent a function because the input $x = 2$ has more than one value for *y*. Choice (A) is incorrect because it assumes that a horizontal line is not a function. Choice (B) is incorrect because it assumes that all straight-line graphs represent functions. Choice (D) is incorrect because it confuses the definitions of functions and non-functions.
7	MGSE8.SP.1	2	D	The correct answer is choice (D) Graph 1 shows a nonlinear negative association, and Graph 2 shows a linear positive association. The points on Graph 1 can be best approximated with a curve, and *y*-values decrease as *x*-values increase. The points on Graph 2 can be best approximated with a line, and *y*-values increase as *x*-values increase. Choice (A) is incorrect because it confuses the descriptions of Graph 1 and Graph 2. Choice (B) is incorrect because it misidentifies the patterns in the graph. Choice (C) is incorrect because it confuses positive and negative association.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
8	MGSE8.G.1	2	C	The correct answer is choice (C) $m\angle G = m\angle M$. A rotation is a rigid motion, so figure 1 is congruent to figure 2 and corresponding angles are congruent. Since angle *G* corresponds to angle *M*, the measures of the angles are equal. Choices (A), (B), and (D) are incorrect because they equate the measures of angles that are not congruent.
9	MGSE8.G.8	2	Part A: C Part B: C	Part A: The correct answer is choice (C) $\sqrt{41}$. Using the Pythagorean Theorem results in the square root of 41 for the distance from point *E* to point *G*. Choices (A), (B), and (D) are incorrect because they all give the incorrect distance from point *E* to point *G*. Part B: The correct answer is choice (C) 5. Using the Pythagorean Theorem results in a distance of 5 from point *E* to point *H*. Choices (A), (B), and (D) are incorrect because they all give the incorrect distance from point *E* to point *H*.
10	MGSE8.F.3	2	A/C/D	The correct answer is choices (A), (C), and (D). They all make straight lines when graphed. Choices (B), (E), and (F) are all incorrect because the graphs are not straight lines.
11	MGSE8.SP.4	3	Part A: B Part B: B/E	Part A: The correct answer is choice (B) 18. After finding the missing values in the table, the number of males not born in Georgia is 18. Choices (A), (C), and (D) are incorrect because they have the incorrect number of males not born in Georgia. Part B: The correct answer is choices (B) and (E). They are true statements about the data. Choices (A), (C), and (D) are incorrect statements.
12	MGSE8.G.5	2	N/A	See scoring rubric and exemplar response on page 105.
13	MGSE8.EE.1	2	N/A	See scoring rubric and exemplar response on page 106.
14	MGSE8.F.2	2	N/A	See scoring rubric and exemplar response on page 107.
15	MGSE8.SP.1	2	N/A	See scoring rubric and exemplar response on page 108.
16	MGSE8.EE.8c	2	N/A	See scoring rubric and exemplar response on page 109.
17	MGSE8.NS.2	1	N/A	See scoring rubric and exemplar response on page 110.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
18	MGSE8.G.2	2	N/A	See scoring rubric and exemplar response on page 111.
19	MGSE8.EE.2	2	N/A	See scoring rubric and exemplar response on page 112.
20	MGSE8.G.3	2	N/A	See scoring rubric and exemplar response on page 113.
21	MGSE8.NS.2	2	N/A	See scoring rubric and exemplar response on page 114.

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MATHEMATICS EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

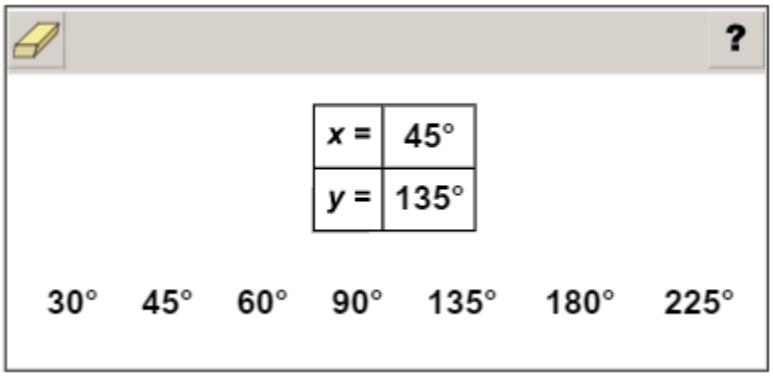
Item 12

Scoring Rubric

Points	Description
2	The student correctly answers both the *x*-value and the *y*-value.
1	The student correctly answers either the *x*-value or the *y*-value.
0	The student does not correctly answer either the *x*-value or the *y*-value.

Exemplar Response

The correct response is shown below.



Lines *k*, *l*, and *n* form a triangle. Angle *x* is one of the interior angles of the triangle, and the other two angles in the triangle are vertical angles with the 45° and 90° angles given. The sum of the interior angles of a triangle is 180°, so $x + 45° + 90° = 180°$; therefore, $x = 45°$. Line *l* is a transversal of parallel lines *m* and *n*. Angle *y* and the 45° angle given are same-side exterior angles of the parallel lines. Same-side exterior angles are supplementary, so $y + 45° = 180°$; therefore, $y = 135°$.

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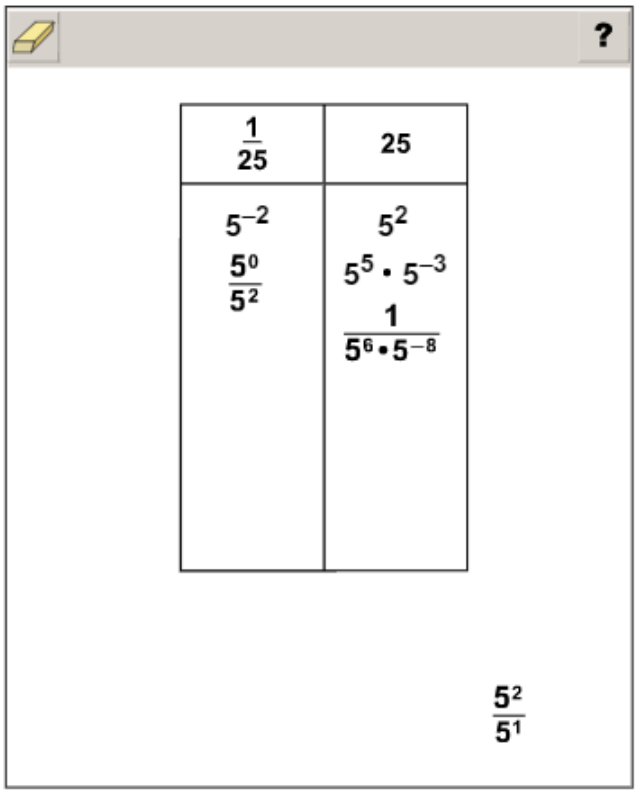
Item 13

Scoring Rubric

Points	Description
2	The student correctly answers both columns.
1	The student correctly answers only one column.
0	The student does not correctly answer either column.

Exemplar Response

The correct response is shown below.



When multiplying exponential expressions with the same base, the exponents can be added to make an equivalent expression, and a negative exponent is equivalent to the reciprocal of the expression with positive exponents. In the first column, both "5^{-2}" and "$\frac{5^0}{5^2}$" are equivalent to $\frac{1}{5^2}$, which has the same value as $\frac{1}{25}$. In the second column, "5^2" is equal to 5 × 5, which equals 25. The exponents in "$5^5 \bullet 5^{-3}$" can be added to get 5^2, so it is equal to 5^2 or 25. And "$\frac{1}{(5^6 \bullet 5^{-8})}$" has the exponents that can also be added to get the expression $\frac{1}{5^{-2}}$, which is also equal to 25. The remaining expression, "$\frac{5^2}{5^1}$" is not equivalent to either $\frac{1}{25}$ or 25, so it is left out of the table.

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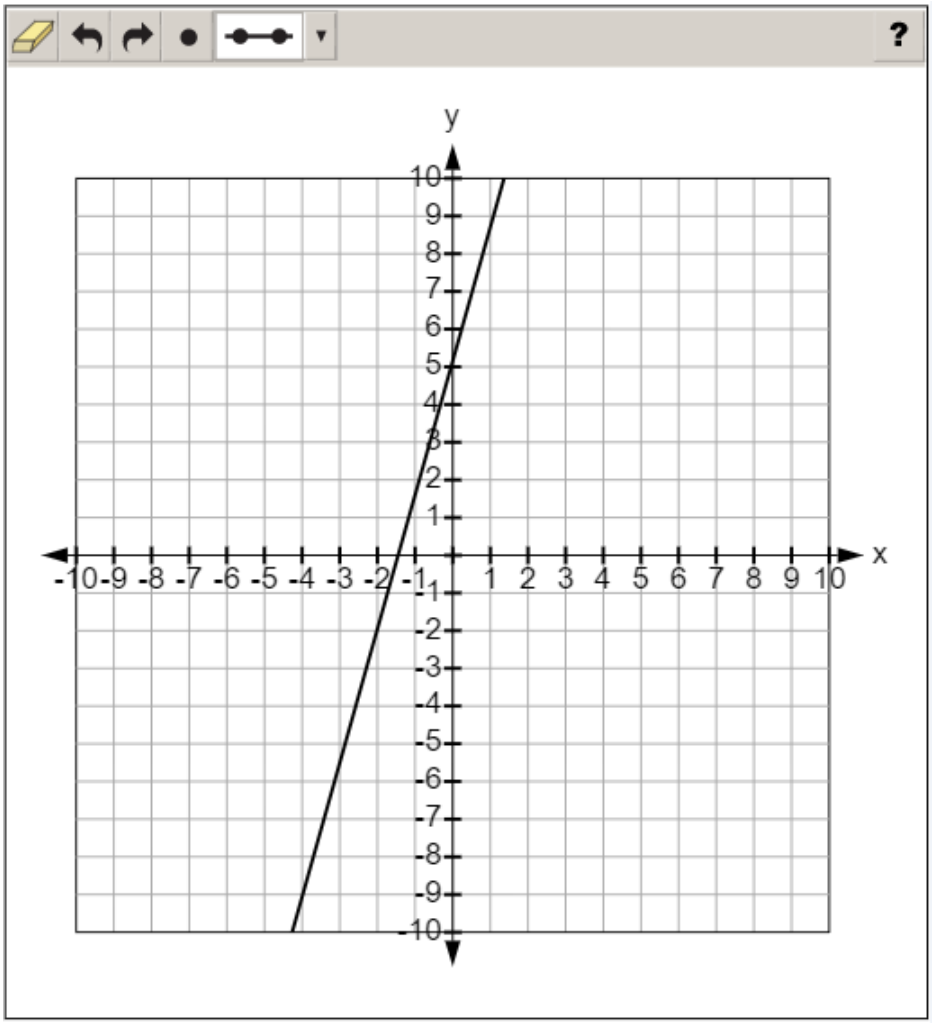
Item 14

Scoring Rubric

Points	Description
2	The student chooses to graph the function shown by the equation and correctly graphs the function.
1	The student correctly graphs the function shown by the table.
0	The student does not correctly graph either of the given functions.

Exemplar Response

The correct response is shown below.



The rate of change in the equation is 3.5, and the rate of change in the table is 3, so the equation has the greater rate of change and is graphed on the coordinate grid. To graph the equation, the line passes through the *y*-intercept, which is at (0, 5), and one other point that can be found using the slope, such as (–2, –2) or (1, 8.5).

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Item 15

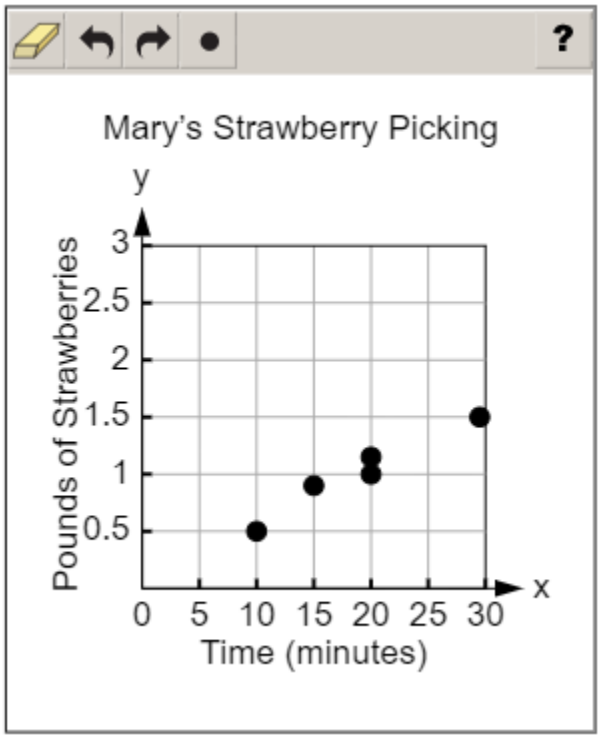
Scoring Rubric

Points	Description
2	The student correctly answers both Part A and Part B.
1	The student correctly answers either Part A OR Part B.
0	The student does not correctly answer either part.

Exemplar Response

Part A

The correct response is shown below.



The table of values can be represented as a set of coordinate pairs: (10, 0.5), (20, 1.0), (15, 0.9), (30, 1.5), and (20, 1.2). These points are then plotted on the coordinate grid with the first number representing the time (*x*-axis) and the second number representing pounds of strawberries (*y*-axis).

Part B

The correct answer is choice (D) positive association. As the time increases, the pounds of strawberries should increase as well. Choice (A) is incorrect because no association means that no conclusions can be drawn from the data. Choice (B) is incorrect because the data appear to form a straight line. Choice (C) is incorrect because negative association would mean the pounds of strawberries decreases as the time increases.

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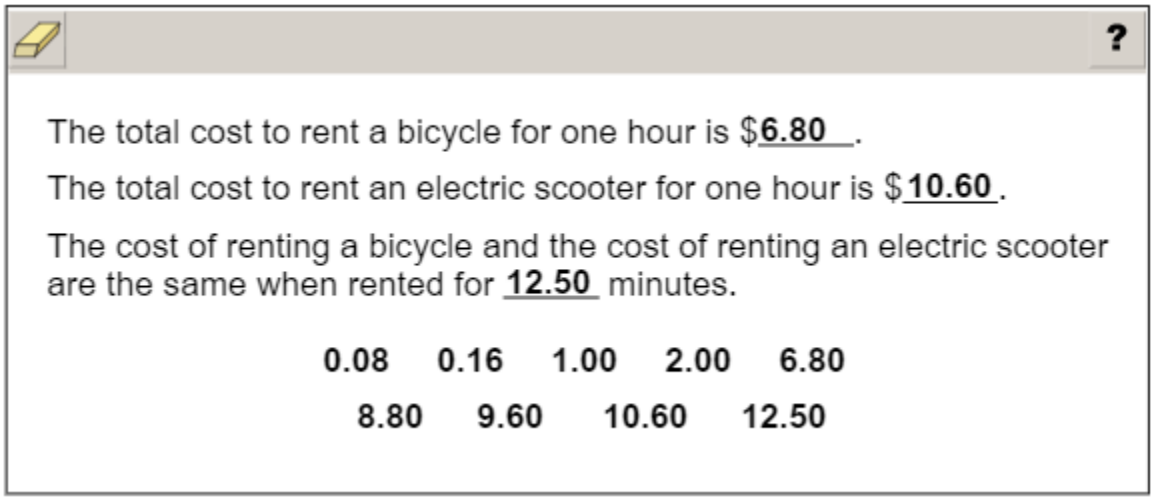
Item 16

Scoring Rubric

Points	Description
2	The student correctly completes all three statements.
1	The student correctly completes any two of the three statements.
0	The student correctly completes one or none of the statements.

Exemplar Response

The correct response is shown below.



The first statement is complete with the number “6.80” because the cost to rent a bicycle for 1 hour (60 minutes) can be calculated by using the number 60 for x in the equation for the bicycle rental; $0.08 \times 60 + 2 = 4.8 + 2 = 6.8$, which means the cost of renting the bicycle for one hour is $6.80. The second statement is complete with the number “10.60” because the cost to rent an electric scooter for one hour (60 minutes) can be calculated by using 60 for x in the equation for the electric scooter rental; $0.16 \times 60 + 1 = 9.6 + 1 = 10.6$, which means the cost of renting the electric scooter for one hour is $10.60. The third statement is complete with the number “12.50” because in order to determine when the cost would be the same, the equations must be equal to each other; $0.08x + 2 = 0.16x + 1$, which simplifies to $1 = 0.08x$ and then $x = 12.5$.

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Item 17

Scoring Rubric

Points	Description
1	The student correctly answers the question.
0	The student does not correctly answer the question.

Exemplar Response

The correct response is shown below.

This is the correct response because the square root is between 1.7 and 1.8; 1.7^2 is 2.89, and 1.8^2 is 3.24. The value of pi is closer to 3.24, so its square root is nearer to 1.8.

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Item 18

Scoring Rubric

Points	Description
1	The student correctly selects both of the drop-down menu options.
0	The student does not correctly select both of the drop-down menu options.

Exemplar Response

The correct response is shown below.

Quadrilateral *ABCD* is translated [2 units up ▾] and [4 units to the right. ▾]

Quadrilateral *A'B'C'D'* is 2 units higher than and 4 units to the right of quadrilateral *ABCD*. Therefore, to map quadrilateral *ABCD* to quadrilateral *A'B'C'D'*, the translation of each point of quadrilateral *ABCD* is 2 units up and 4 units to the right.

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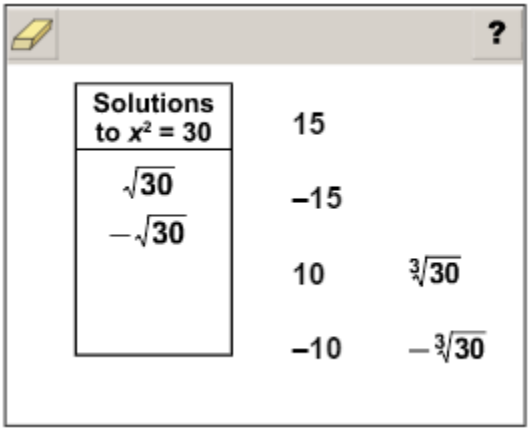
Item 19

Scoring Rubric

Points	Description
1	The student selects the two correct solutions to the equation.
0	The student does not correctly select both solutions to the equation.

Exemplar Response

The correct response is shown below.



This is the correct response because solving for *x* results in the positive or negative square root of 30.

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Item 20

Scoring Rubric

Points	Description
2	The student correctly answers both Part A and Part B.
1	The student correctly answers either Part A OR Part B.
0	The student does not correctly answer either part.

Exemplar Response

Part A

The correct response is shown below.

C' (6 , –3)

This is the correct response because a reflection over the *x*-axis keeps the *x*-coordinate the same and reverses the sign of the *y*-coordinate, bringing C' to (6, –3).

Part B

The correct response is shown below.

B'' (3 , 2)

This is the correct response because a reflection over the *x*-axis keeps the *x*-coordinate the same and reverses the sign of the *y*-coordinate, bringing B' to (2, –3). Then the rotation of 90 degrees counterclockwise switches the *x*- and *y*-coordinates and reverses the sign of the original *y*-coordinate, bringing B'' to (3, 2).

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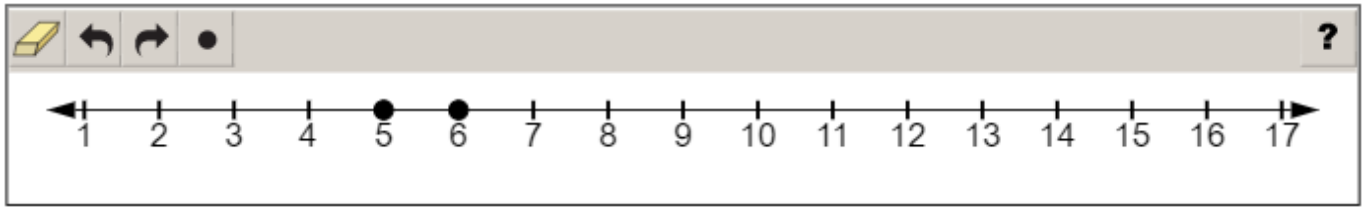
Item 21

Scoring Rubric

Points	Description
1	The student correctly plots the two points.
0	The student does not correctly plot the two points.

Exemplar Response

The correct response is shown below.



This is the correct response because the value of $\sqrt{29}$ lies between 5 and 6.

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SCIENCE

DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones Science EOG assessment is a criterion-referenced test, designed to provide information about how well a student has mastered the grade-level state-adopted content standards in Science. The assessment consists of both operational items and field test items (newly written items that are being tried out and do not contribute to the student's score). Each student will receive one of four Achievement Level designations, depending on how well the student has mastered the content standards. The four Achievement Level designations are Beginning Learner, Developing Learner, Proficient Learner, and Distinguished Learner. In addition to criterion-referenced information, the Georgia Milestones measures will also produce an estimate of how Georgia students are achieving relative to their peers nationally. The norm-referenced information provided is supplementary to the criterion-referenced Achievement Level designation and will not be utilized in any manner other than to serve as a barometer of national comparison. Only the criterion-referenced scores and Achievement Level designations will be utilized in the accountability metrics associated with the assessment program (such as student growth measures, educator-effectiveness measures, or the CCRPI).

The table on the following page outlines the number and types of items included on the Grade 8 Science EOG assessment.

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Grade 8 Science EOG Assessment Design

Description	Number of Items	Number of Points
1-point Selected-Response and Technology-Enhanced Items[1, 2]	30	30
2-point Technology-Enhanced Items[1]	8	16
Field Test Items[3]	4	0
Total[4]	**42**	**46**

[1] **Technology-Enhanced:** Possible variants of the technology-enhanced item types used for Science include multiple-part selected-response, multiple-select, drag-and-drop, and drop-down.
[2] **1-point Selected-Response and Technology-Enhanced Items:** The ratio of selected-response to technology-enhanced items may vary. The target range of 1-point technology-enhanced items is 0 to 5.
[3] **Field Test Items:** Field test items may include 1-point selected-response, 1-point technology-enhanced, and 2-point technology-enhanced items.
[4] **Total:** Of the total 42 items, 38 contribute to the student's Science score.

The test will be given in two sections. Students may have up to 40 minutes per section to complete Sections 1 and 2. The total estimated testing time for the Grade 8 Science EOG assessment ranges from approximately 40 to 80 minutes. Total testing time describes the amount of time students have to complete the assessment. It does not take into account the time required for the test examiner to complete pre-administration and post-administration activities (such as reading the standardized directions to students). Sections 1 and 2 must be scheduled such that both will be completed in a single day or over the course of two consecutive days (one section each day) and should be completed within the same week following the district's testing protocols for the EOG measures (in keeping with state guidance).

CONTENT MEASURED

The Grade 8 Science assessment will measure the Grade 8 standards that are described at www.georgiastandards.org.

The content of the assessment is organized into three groupings, or domains, of standards for the purposes of providing feedback on student performance. A content domain is a reporting category that *broadly* describes and defines the content of the course, as measured by the EOG assessment. The standards for Grade 8 Science are grouped into five domains: Matter, Energy, Motion, Waves, and Force. Each domain was created by organizing standards that share similar content characteristics. The content standards describe the level of expertise that Grade 8 Science educators should strive to develop in their students. Educators should refer to the content standards for a full understanding of the knowledge, concepts, and skills subject to be assessed on the EOG assessment.

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The approximate proportional number of points associated with each domain is shown in the following table. A range of cognitive levels will be represented on the Grade 8 Science EOG assessment. Educators should always use the content standards when planning instruction.

GRADE 8 SCIENCE: DOMAIN STRUCTURES AND CONTENT WEIGHTS

Reporting Categories and Content Standards

Reporting Category/Domain	Content Standards Assessed	Approximate # of Points	Approximate % of Test
Matter	S8P1 (a, b, c, d, e, f)	13	28%
Energy	S8P2 (a, b, c, d)	8	18%
Motion	S8P3 (a, b, c)	7	15%
Waves	S8P4 (a, b, c, d, e, f, g)	11	24%
Force	S8P5 (a, b, c)	7	15%
	Total	**46**	**100%**

ITEM TYPES

The Science portion of the Grade 8 EOG assessment consists of selected-response and technology-enhanced items.

A selected-response item, sometimes called a multiple-choice item, is defined as a question, problem, or statement that is followed by several answer choices, sometimes called options or response choices. The incorrect choices, called distractors, usually reflect common errors. The student's task is to choose, from the choices provided, the best answer to the question (the stem). The Science selected-response items will have four answer choices.

A technology-enhanced item is an innovative way to measure student skills and knowledge by using scaffolding within a multi-step process. Technology-enhanced items are worth one or two points. If the item is worth two points, partial credit is awarded for special combinations of responses that do not include all the correct answers. For Science, there are a number of specific technology-enhanced item types being used:

- In multi-select items, the student is asked to pick two correct responses from six answer options.
- In multi-part items, the student responds to a two-part item that combines multiple-choice items. For these item types, the student selects the responses from the choices provided.
- In drag-and-drop items, the student uses a mouse, touchpad, or touchscreen to move responses to designated areas on the screen.
- In drop-down menu items, the student uses a mouse, touchpad, or touchscreen to open a drop-down menu and select an option from the menu. A drop-down menu item may have multiple drop-down menus.

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- Since some technology-enhanced items in this guide were designed to be used in an online, interactive-delivery format, some of the item-level directions will not appear to be applicable when working within the format presented in this document (for example, “Move the characteristics into boxes” or “Click To Respond”).
- This icon ➡ identifies special directions that will help the student answer technology-enhanced items as shown in the format presented within this guide. These directions do not appear in the online version of the test but explain information about how the item works that would be easily identifiable if the student was completing the item in an online environment.

To give students practice using technology-enhanced items in an online environment very similar to how they will appear on the online test, visit “Experience Online Testing Georgia.”

1. Go to the website “Welcome to Experience Online Testing Georgia” (http://gaexperienceonline.com/).
2. Select “Test Practice.”
3. On the right side of the page, you will see “End-of-Grade (EOG) Spring Main.” Select “Online Tools Training” which appears underneath it.
4. Select “EOG Test Practice.”
5. Select “Technology Enhanced Items.”
6. Select “All Grades.”
7. You will be taken to a login screen. Use the username and password provided on the screen to log in and practice navigating technology-enhanced items online.

Please note that Google Chrome is the only supported browser for this public version of the online testing environment.

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SCIENCE DEPTH OF KNOWLEDGE EXAMPLE ITEMS

Example items that represent the applicable DOK levels across various Grade 8 Science content domains are provided.

All example and sample items contained in this guide are the property of the Georgia Department of Education.

Example Item 1

Selected-Response: 1 point

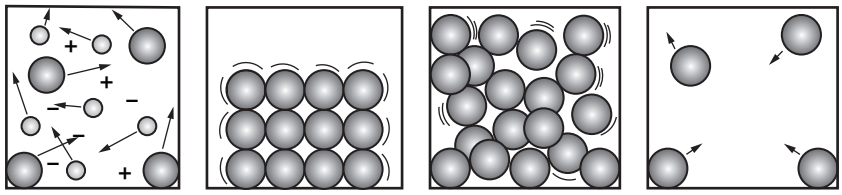
DOK Level: 1

Science Grade 8 Content Domain: Matter

Standard: S8P1. Obtain, evaluate, and communicate information about the structure and properties of matter.

> b. Develop and use models to describe the movement of particles in solids, liquids, gases, and plasma states when thermal energy is added or removed.

Look at the illustrations.



Model 1 **Model 2** **Model 3** **Model 4**

Which model shows the structure and movement of particles in a solid?

A. model 1
B. model 2
C. model 3
D. model 4

Correct Answer: B

Explanation of Correct Answer: The correct answer is choice (B) model 2. Model 2 shows particles that are held in a fixed position. Choice (A) is incorrect because model 1 shows plasma. The particles in plasma move more freely and have electrical charges. Choice (C) is incorrect because model 3 shows a liquid. Particles in a liquid are more randomly distributed and move more freely than those in a solid. Choice (D) is incorrect because model 4 shows a gas. Particles in a gas are spread far apart and move randomly.

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Example Item 2

Selected-Response: 1 point

DOK Level: 2

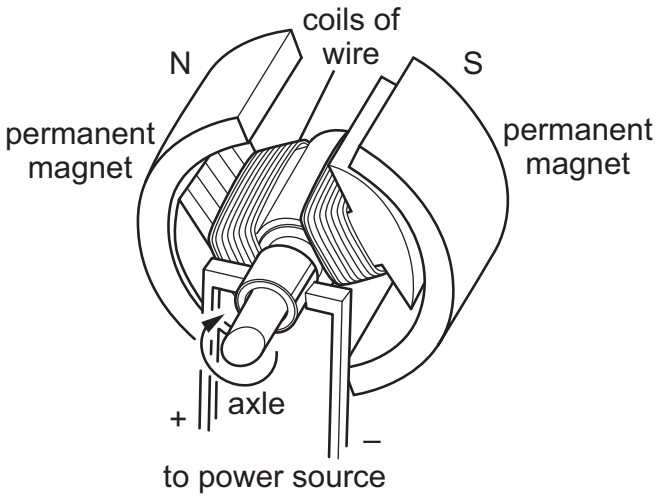
Science Grade 8 Content Domain: Force

Standard: S8P5. Obtain, evaluate, and communicate information about gravity, electricity, and magnetism as major forces acting in nature.

> c. Plan and carry out investigations to identify the factors (e.g., distance between objects, magnetic force produced by an electromagnet with varying number of wire turns, varying number or size of dry cells, and varying size of iron core) that affect the strength of electric and magnetic forces. (*Clarification statement*: Including, but not limited to, generators or motors.)

A group of students is investigating the different factors that affect the strength of an electric motor. A diagram of the motor is shown.

Inner Workings of an Electric Motor



What step should the students take next in the investigation to increase the strength of the motor?

A. Reduce the size of the axle running through the center of the motor.
B. Increase the number of coils of wire within the two sections of the motor.
C. Decrease the voltage of the power source being used to operate the motor.
D. Place the permanent magnets and coils of wire farther apart inside the motor.

Correct Answer: B

Explanation of Correct Answer: The correct answer is choice (B) Increase the number of coils of wire within the two sections of the motor. Increasing the number of coils of wire makes each loop of the coil closer to the other coils. This makes the magnetic fields from each coil overlap more, so their strengths add up. This makes the total magnetic field of both parts of the motor stronger, which makes the motor stronger. Choice (A) is incorrect because reducing the size of the axle might allow the motor to spin faster, but it will not increase the strength of the motor. Choice (C) is incorrect because a decrease in the battery voltage will cause less current and result in less strength for the motor. Choice (D) is incorrect because moving the magnets and coils farther apart will reduce the magnetic field strength and strength for the motor.

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Example Item 3

Selected-Response: 1 point

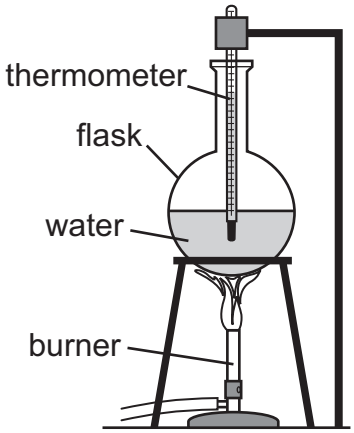
DOK Level: 2

Science Grade 8 Content Domain: Energy

Standard: S8P2. Obtain, evaluate, and communicate information about the law of conservation of energy to develop arguments that energy can transform from one form to another within a system.

d. Plan and carry out investigations on the effects of heat transfer on molecular motion as it relates to the collision of atoms (conduction), through space (radiation), or in currents in a liquid or a gas (convection).

A student is planning an investigation in which different modes of heat transfer will be used to heat a thermometer. The diagram shows the setup used to conduct the first part of the investigation.



Go on to the next page to finish example item 3.

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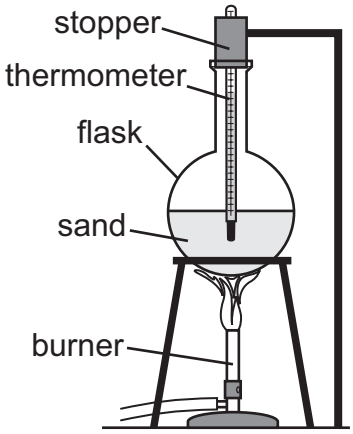
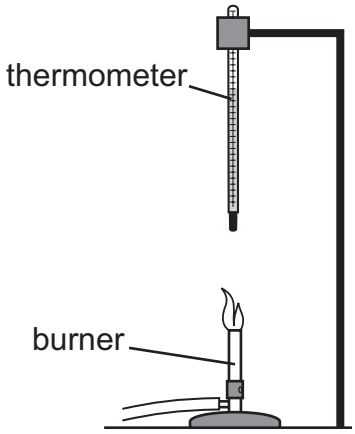
Example Item 3. *Continued*.

In this setup, the thermometer is being heated by conduction and convection. How should the student change the setup to heat the thermometer by using only radiation?

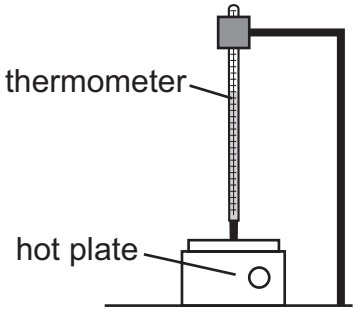
A.



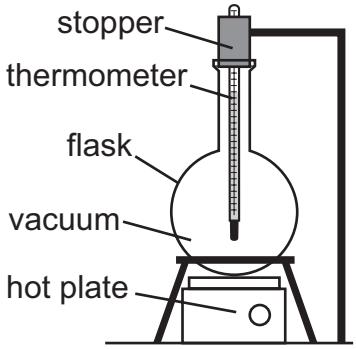
B.



C.



D.



Correct Answer: D

Explanation of Correct Answer: The correct answer is choice (D). Choice (D) shows the thermometer surrounded by a vacuum; therefore, conduction and convection cannot transfer thermal energy to the thermometer since they require the movement of energy through matter. Radiation, however, can transfer through a vacuum. Choice (A) is incorrect because this would eliminate heat transfer by convection, which does not occur in solids or masses of granular solids like sand, but not conduction and would not add radiation. Choice (B) is incorrect because convection is still occurring to transfer thermal energy from the flame to the thermometer and conduction still occurs to transfer thermal energy from the air to the thermometer itself. Choice (C) is incorrect because a hot plate touching the thermometer would heat the thermometer by conduction.

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Example Item 4

Selected-Response: 1 point

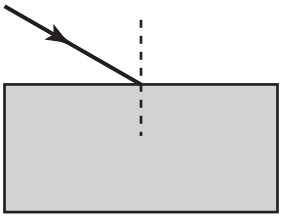
DOK Level: 3

Science Grade 8 Content Domain: Energy

Standard: S8P4. Obtain, evaluate, and communicate information to support the claim that electromagnetic (light) waves behave differently than mechanical (sound) waves.

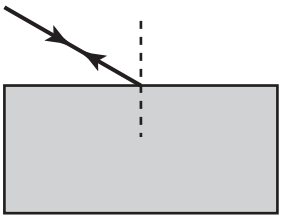
d. Develop and use a model to compare and contrast how light and sound waves are reflected, refracted, absorbed, diffracted, or transmitted through various materials.

A student is drawing a diagram of a light ray as it enters a pane of transparent glass.

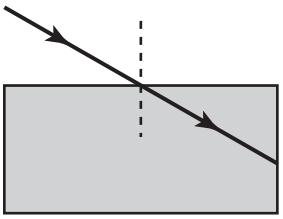


Which of these shows the correctly completed diagram?

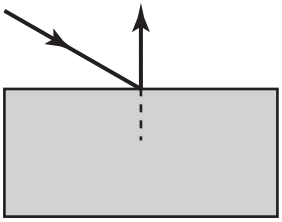
A.



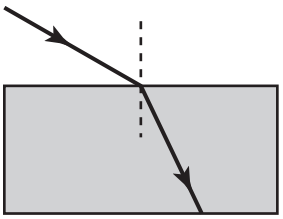
B.



C.



D.



Correct Answer: D

Explanation of Correct Answer: The correct answer is choice (D) because the diagram shows the light ray bending, or refracting, as it enters the pane of glass. As a light ray moves from one medium into another, the ray changes speed. If the light ray enters the new medium at an angle other than 0° from the normal (represented in this diagram by the dashed line), this change of speed causes the ray to change direction. Choices (A) and (C) are incorrect because glass is transparent; light rays pass through glass, and they are not reflected off glass. Choice (B) is incorrect because the light ray in this diagram enters the glass at an angle other than 0° from the normal; therefore, it will change direction as the medium changes.

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Example Item 5

Selected-Response: 1 point

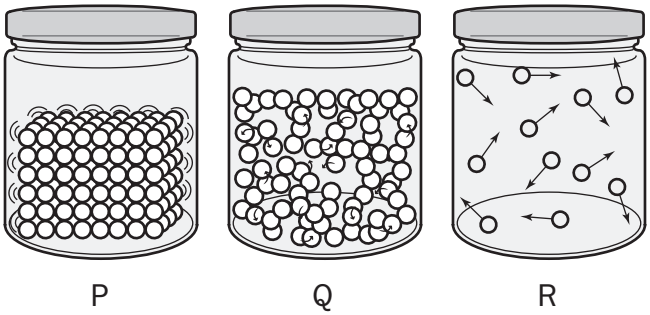
DOK Level: 3

Science Grade 8 Content Domain: Matter

Standard: S8P1. Obtain, evaluate, and communicate information about the structure and properties of matter.

b. Develop and use models to describe the movement of particles in solids, liquids, gases, and plasma states when thermal energy is added or removed.

The three jars show the movement of particles in three states of matter.



Dry ice is solid carbon dioxide. As dry ice is heated, it goes directly from a solid to a gas through a process called sublimation.

Which sequence of jars shows the change in the motion of particles of dry ice as it sublimes?

A. jar P to jar Q
B. jar P to jar R
C. jar Q to jar R
D. jar R to jar P

Correct Answer: B

Explanation of Correct Answer: The correct answer is choice (B) jar P to jar R. Jar P represents a solid; the particles are arranged in orderly, fixed positions. Jar R represents a gas; the particles move freely past each other, and there is a lot of space between them. Choices (A) and (C) are incorrect because jar Q represents a liquid; the particles slide around each other, but they remain close together. Choice (D) is incorrect because sublimation happens when a solid (jar P) becomes a gas (jar R), not the reverse.

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SCIENCE ADDITIONAL SAMPLE ITEMS

This section has two parts. The first part is a set of 23 sample items for the Science portion of the EOG assessment. The second part contains a table that shows for each item the standard assessed, the DOK level, the correct answer (key), and a rationale/explanation about the key and distractors. The sample items can be utilized as a mini-test to familiarize students with the item formats found on the assessment.

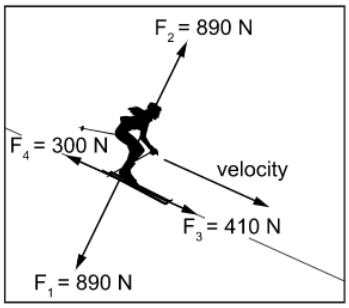
All example and sample items contained in this guide are the property of the Georgia Department of Education.

Item 1

Drop-Down Technology-Enhanced: 1 point

A force diagram for a downhill skier is shown.

Force Diagram for Downhill Skier



Use the diagram, Newton's laws of motion, and the drop-down menus to complete the statement explaining the skier's speed.

The skier's speed increases going down the hill because forces [ ] are [ ] and acting [ ] the direction of the velocity, which causes the speed to change.

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the three blank boxes. When you click the arrow, a drop-down menu will appear showing you all the possible options for that blank. Each drop-down menu with its options is shown below.

The skier's speed increases going down the hill because forces [ ] are [ ] and acting [ ] the direction of the velocity, which

perpendicular to
in the same direction as

F_1 and F_2
F_3 and F_4

balanced
unbalanced

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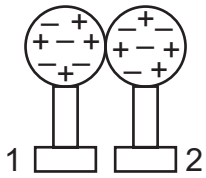
Item 2

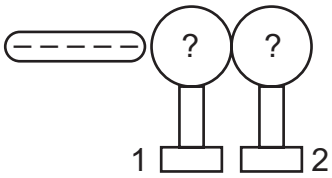
Selected-Response: 1 point

A student is investigating how a negatively charged rubber rod affects how charges are distributed on two stainless steel spheres that are touching each other. A diagram showing two steps of the investigation is shown.

Investigation of the Process of Induction



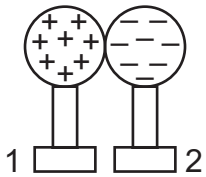
Step 1
Place two stainless steel spheres, both on hard rubber stands, in contact with each other.



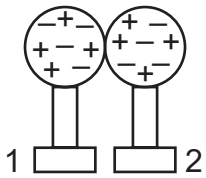
Step 2
Bring a negatively charged rubber rod near sphere 1.

Which diagram for step 2 correctly predicts the distribution of charges on the stainless steel spheres?

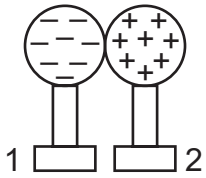
A.



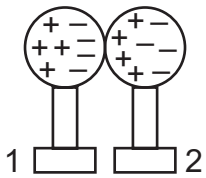
B.



C.



D.



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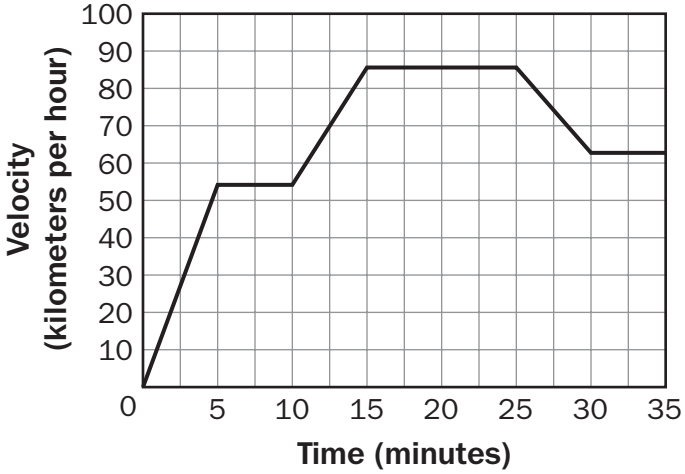
Item 3

Selected-Response: 1 point

The graph shows the velocity of a moving train over time.



During which two intervals of time was the train moving with a constant, positive acceleration?

A. 0–5 minutes and 10–15 minutes
B. 5–10 minutes and 15–25 minutes
C. 10–15 minutes and 25–30 minutes
D. 15–20 minutes and 30–35 minutes

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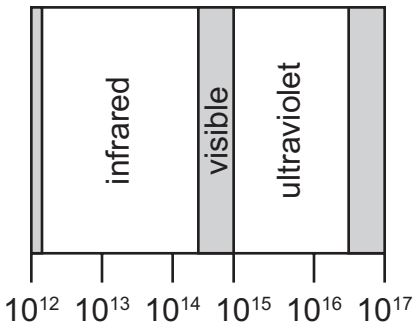
Item 4

Selected-Response: 1 point

The diagram shows three types of electromagnetic radiation and their range of frequencies.

Portion of Electromagnetic Spectrum



Frequency, *f* (Hz)

Which explanation correctly uses the data in the diagram to show how infrared radiation and ultraviolet radiation are related in terms of energy?

A. Ultraviolet radiation has less energy than infrared radiation because energy is inversely proportional to frequency and the frequency of ultraviolet radiation is higher.

B. Ultraviolet radiation has more energy than infrared radiation because energy is inversely proportional to frequency and the frequency of ultraviolet radiation is lower.

C. Ultraviolet radiation has less energy than infrared radiation because energy is proportional to frequency and the frequency of ultraviolet radiation is lower.

D. Ultraviolet radiation has more energy than infrared radiation because energy is proportional to frequency and the frequency of ultraviolet radiation is higher.

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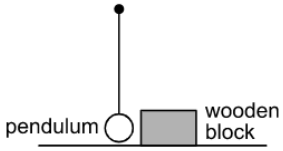
Item 5

Drop-Down Technology-Enhanced: 1 point

A student wishes to use the pendulum and wooden block shown to investigate the relationship between kinetic energy and potential energy.



The boxes show two possible procedures the student can use in the investigation.

Procedure W

step 1. Release the pendulum from a measured height and allow it to swing down and collide with the wooden block at the bottom of the swing.
step 2. Allow the wooden block to come to rest, then measure the distance the block slid.
step 3. Repeat steps 1 and 2 using different starting heights for the pendulum. Compare the data for the different starting heights.

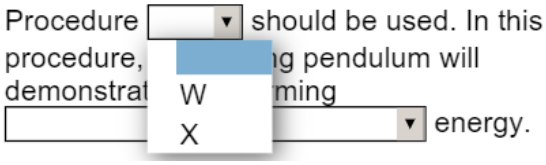
Procedure X

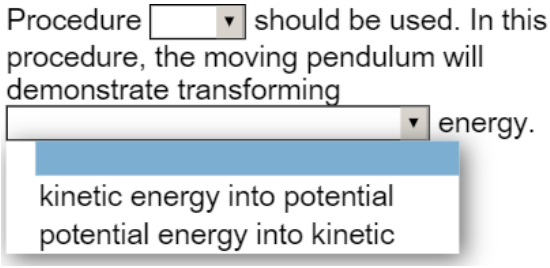
step 1. Pull the pendulum back and throw it downward, allowing it to swing down and collide with the wooden block at the bottom of the swing.
step 2. Allow the wooden block to come to rest, then measure the distance the block slid.
step 3. Repeat steps 1 and 2, throwing the pendulum with different amounts of force. Compare the data for the different throws.

Use the drop-down menus to explain the procedure that will BEST allow the student to complete measurements for the investigation.

Procedure [ ] should be used. In this procedure, the moving pendulum will demonstrate transforming [ ] energy.

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the two blank boxes. When you click the arrow, a drop-down menu will appear showing you all the possible options for that blank. Each drop-down menu with its options is shown below.





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Item 6

Selected-Response: 1 point

A student is planning an investigation to explore different properties of matter.

Which investigation will help the student explore a physical property of matter?

A. **investigation:** Place a solid in a beaker and add a small amount of liquid.
observation: The beaker becomes warm to the touch.

B. **investigation:** Add a small amount of solid to a liquid in a beaker.
observation: The solid dissolves in the liquid.

C. **investigation:** Add a small amount of solid to a liquid in a beaker.
observation: The solution starts to fizz and overflows the container.

D. **investigation:** Place a solid in a beaker and add a small amount of liquid.
observation: Bubbles form on the top of the solid.

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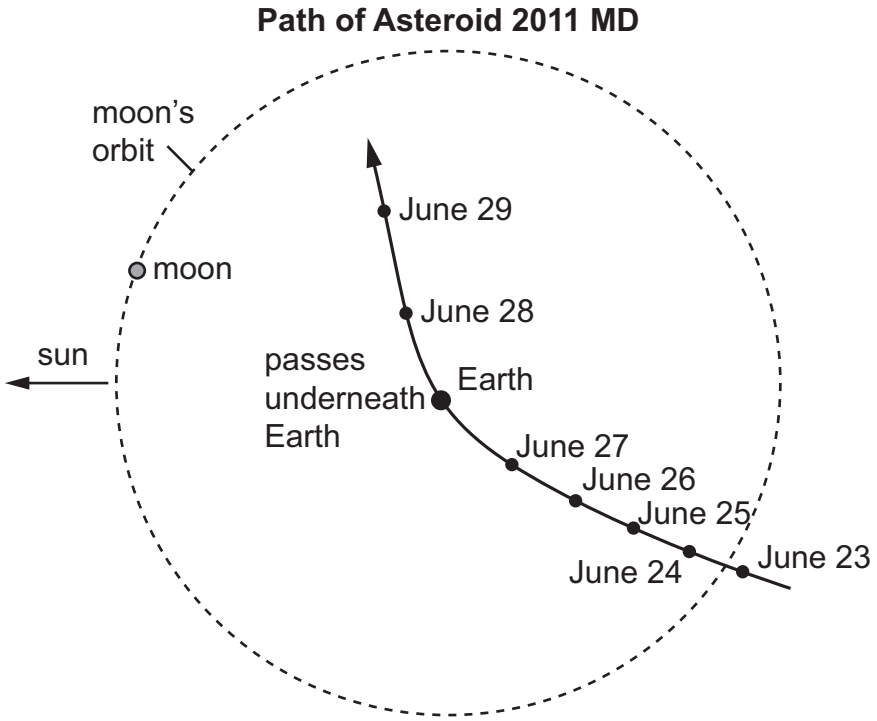
Item 7

Selected-Response: 1 point

A space agency tracked the path of an asteroid named 2011 MD, which passed within 12,300 kilometers of Earth's surface. The path of the asteroid is projected onto the plane of the moon's orbit around Earth in the diagram.



Space scientists claimed that Earth's strong gravitational field was responsible for the path of asteroid 2011 MD. Which argument BEST supports this claim?

A. The velocity of the asteroid changed as evidenced by the changing direction of the asteroid.

B. The velocity of the asteroid changed as evidenced by the straight line path after it passes Earth.

C. The position of the asteroid bends slightly away from Earth as evidenced by the different locations relative to Earth.

D. The position of the asteroid bends slightly toward the sun as evidenced by the different locations relative to the sun.

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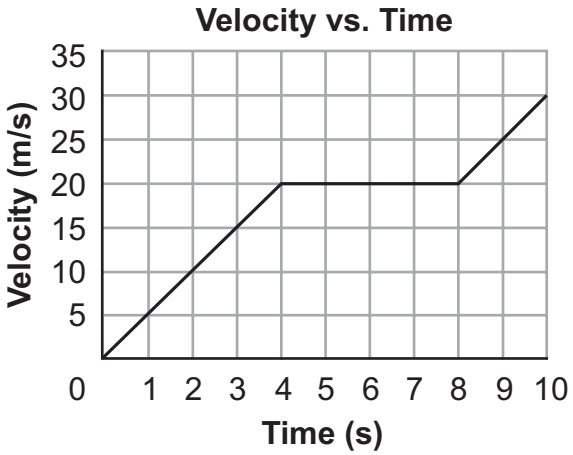
Item 8

Selected-Response: 1 point

A physics student used radar to measure the velocity of a vehicle over a 10-second period. The student presented the data in the graph shown.



Go on to the next page to finish item 8.

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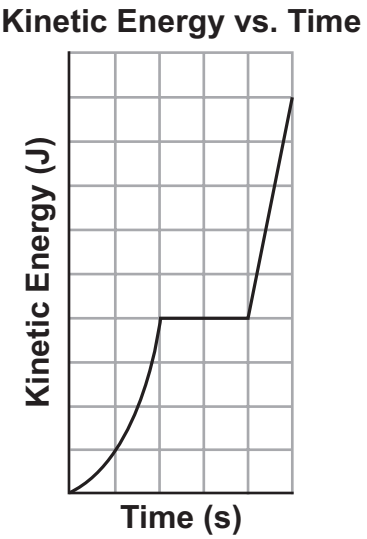
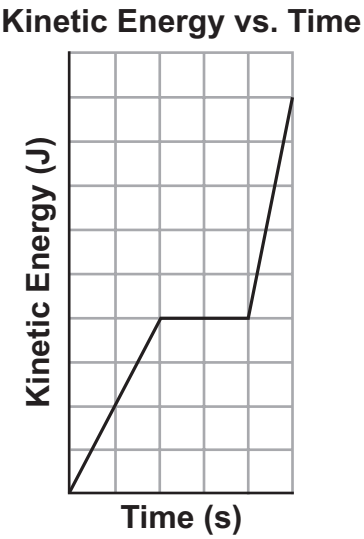
Item 8. *Continued*.

Which graph of the kinetic energy of the vehicle versus time corresponds to the velocity versus time graph?

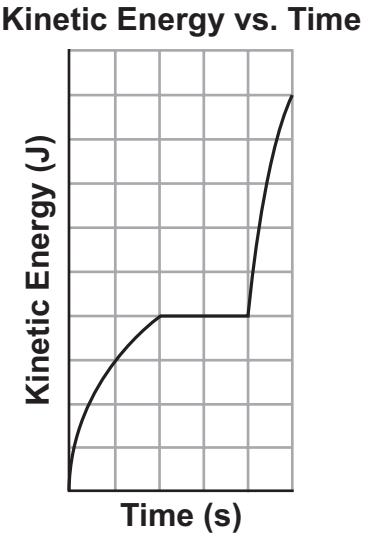
A.



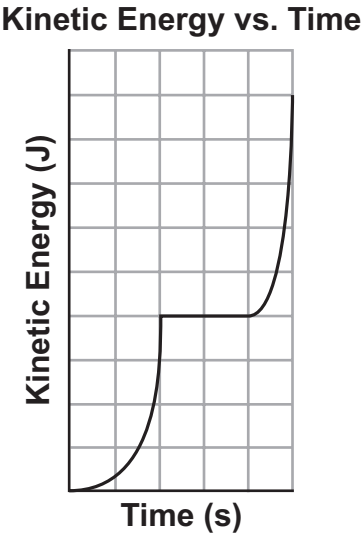
B.



C.



D.



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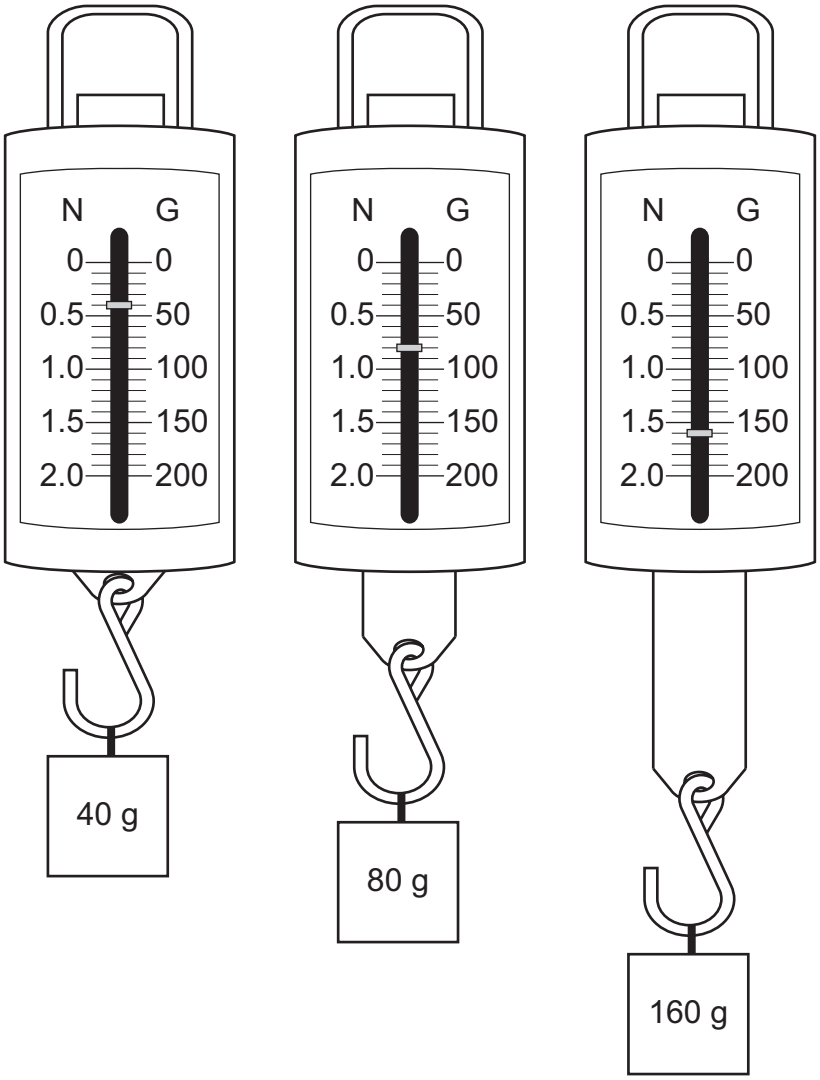
Item 9

Selected-Response: 1 point

A lab group is investigating how Earth's gravitational acceleration affects the force exerted on toy blocks of different masses. The diagram shows the results of their investigation.

Force vs. Mass Investigation



The group claims that the amount of force needed to accelerate a toy block is directly proportional to its inertia.

Go on to the next page to finish item 9.

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Item 9. *Continued*.

Which explanation presents the BEST argument for whether the group's claim is true?

A. The claim is false because every time the mass of the metal cube is increased, the pointer on the spring scale moves downward.

B. The claim is true because every time the mass of the metal cube is doubled, the gravitational force doubles.

C. The claim is false because every time the volume of the metal cube is increased, the pointer on the spring scale moves downward.

D. The claim is true because every time the volume of the metal cube is doubled, the gravitational force doubles.

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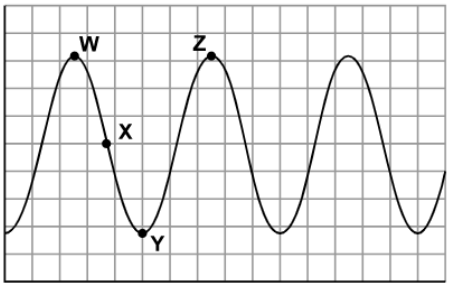
Item 10

Drop-Down Technology-Enhanced: 1 point

A student drew the diagram shown to model an electromagnetic wave from the sun.

Model of Electromagnetic Wave from Sun



Scientists have shown that ultraviolet light from the sun that has a wavelength of 315 to 400 nanometers can damage the retina.

Use the drop-down menus to create the BEST question for the student to ask to determine whether the electromagnetic wave modeled will cause damage to the retina.

What is the [ ] distance between point [ ] on the model?

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the two blank boxes. When you click the arrow, a drop-down menu will appear showing you all the possible options for that blank. Each drop-down menu with its options is shown below.

What is the [ ] distance between point [ ] on the model?

vertical
horizontal

Y and point Z
X and point Y
W and point Z
W and point Y

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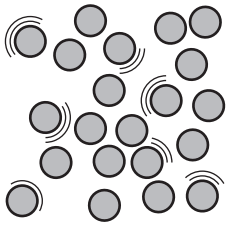
Item 11

Multi-Part Technology-Enhanced: 2 points

A student is shown a simple model of particles that make up a liquid, as shown.



Part A

How should the model be changed to show the particles of a solid?

A. Increase the velocities of the particles, and increase the space between the particles.
B. Increase the velocities of the particles, and decrease the space between the particles.
C. Decrease the velocities of the particles, and increase the space between the particles.
D. Decrease the velocities of the particles, and decrease the space between the particles.

Part B

How should the model be changed to show the particles of a liquid at a higher temperature?

A. Separate the particles into positive and negative charges, and increase the space between the particles.
B. Separate the particles into positive and negative charges, but maintain the same space between the particles.
C. Decrease the velocities of the particles, and decrease the space between the particles.
D. Increase the velocities of the particles, but maintain the same space between the particles.

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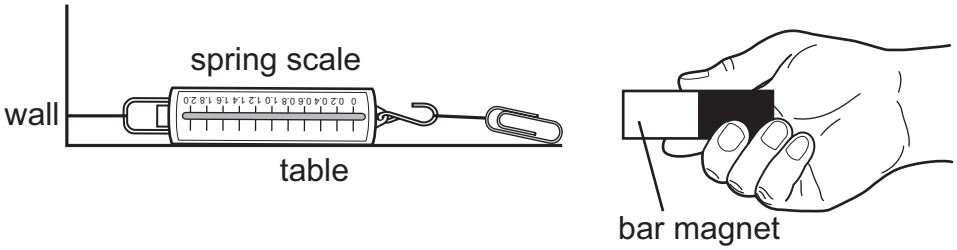
Item 12

Multi-Select Technology-Enhanced: 2 points

A magnet is moved toward a paper clip, as shown in the drawing. Students want to investigate how the strength of the force between the paper clip and a magnet changes under different conditions.



Which TWO factors should the students vary to BEST investigate the strength of the force between the paper clip and a magnet?

A. Attach the spring scale to the table.
B. Move the magnet farther away from the paper clip.
C. Replace the bar magnet with a horseshoe magnet.
D. Replace the spring scale with a larger spring scale.
E. Increase the length of the string attaching the spring scale to the wall.
F. Increase the length of the string attaching the spring scale to the paper clip.

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Item 13

Multi-Part Technology-Enhanced: 2 points

A student is asked to conduct an investigation that will determine a physical property of a cube-shaped solid block of salt sample.

Part A

Which procedure BEST measures a physical property of the sample?

A. 1. Measure 10 mL of vinegar (acetic acid) in a graduated cylinder.
2. Pour the acetic acid into a beaker.
3. Drop the sample into the beaker of acetic acid to determine what happens to the sample.
4. Record your observations.

B. 1. Gently break the solid sample into smaller pieces using a hammer.
2. Use long-handled forceps to pick up one of the small sample pieces.
3. Hold the small sample piece in the flame of a Bunsen burner for a few seconds to determine what happens to the sample.
4. Record your observations.

C. 1. Use a ruler to measure the length of one side of the sample.
2. Record this value to the nearest millimeter.
3. Cube the value in step 2.
4. Place the cubed sample on the digital balance.
5. Record this value to the nearest tenth of a gram.
6. Divide the value in step 5 by the value in step 3.

D. 1. Cut away two different-sized pieces of the sample and place into a container on a hot plate.
2. Place two thermometers in the containers, one touching each sample.
3. Record the time it takes the temperature of the smaller sample to increase 1°C.
4. Continue to heat the sample.
5. Record the time it takes the temperature of the larger sample to increase 1°C.
6. Subtract the value in step 3 from the value in step 5.

Part B

Which statement supports the answer to Part A?

A. The physical property being tested is density; the procedure selected measures the mass and the volume of the sample.

B. The physical property being tested is reactivity; the procedure selected determines whether the sample will change to a different substance due to mixing with acetic acid.

C. The physical property being tested is melting point; the procedure selected measures the temperature at which the sample changes to a liquid.

D. The physical property being tested is combustibility; the procedure selected determines whether the sample will begin to burn due to exposure to a flame.

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Item 14

Multi-Select Technology-Enhanced: 2 points

A student questioned how the properties of different materials affect the speed of sound waves traveling through them. The student found the following data in a chemistry handbook for the speed of sound in gases, liquids, and solids.

Speed of Sound in Different Materials at Room Temperature

State	Material	Density (kg/m^3)	Speed of Sound (m/s)
gas	carbon dioxide	1.842	267
	helium	0.166	1,007
	methane	0.668	446
liquid	benzene	874	1,310
	ethanol	789	1,162
	water	1,000	1,497
solid	aluminum	2,700	6,420
	copper	8,790	5,010
	gold	19,290	3,240

The student analyzed the data to make predictions about the speed of sound on materials with various densities and states of matter. Which TWO predictions can be made based on the data shown in the table?

A. The speed of sound generally increases as it moves from gases to liquids to solids.
B. The speed of sound generally increases as it moves from liquids to gases to solids.
C. The speed of sound generally increases as it moves from solids to gases to liquids.
D. As the density of liquids and solids increases, the speed of sound generally increases.
E. As the density of gases and liquids increases, the speed of sound generally decreases.
F. As the density of solids and gases increases, the speed of sound generally decreases.

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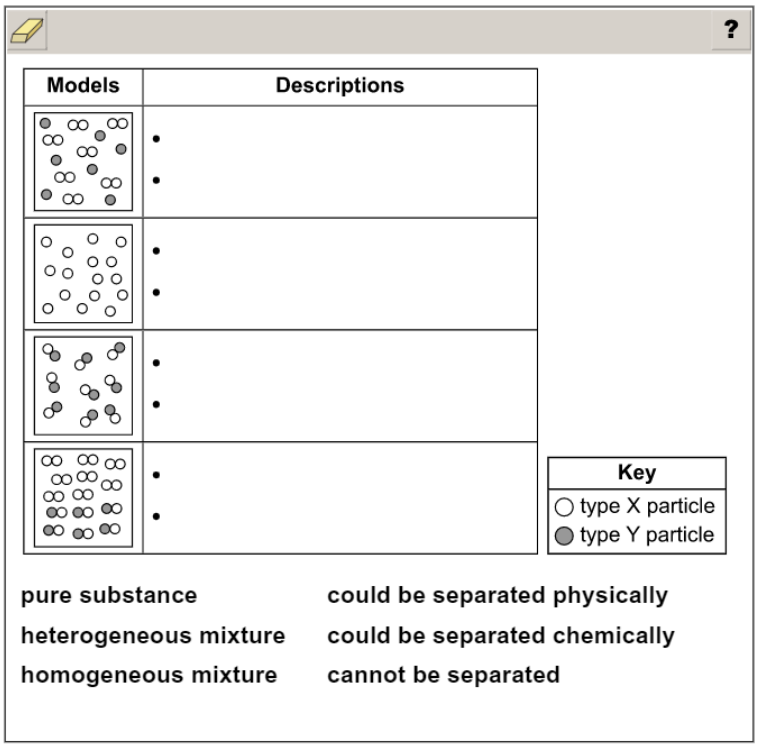
Item 15

Drag-and-Drop Technology-Enhanced: 2 points

A student draws four models to represent the different types of pure substances and mixtures.

Move the descriptions into the table to correctly identify each model. Descriptions may be used more than once.



Use a mouse, touchpad, or touchscreen to move the descriptions below the table into the boxes in the table. Each description can be used more than once.

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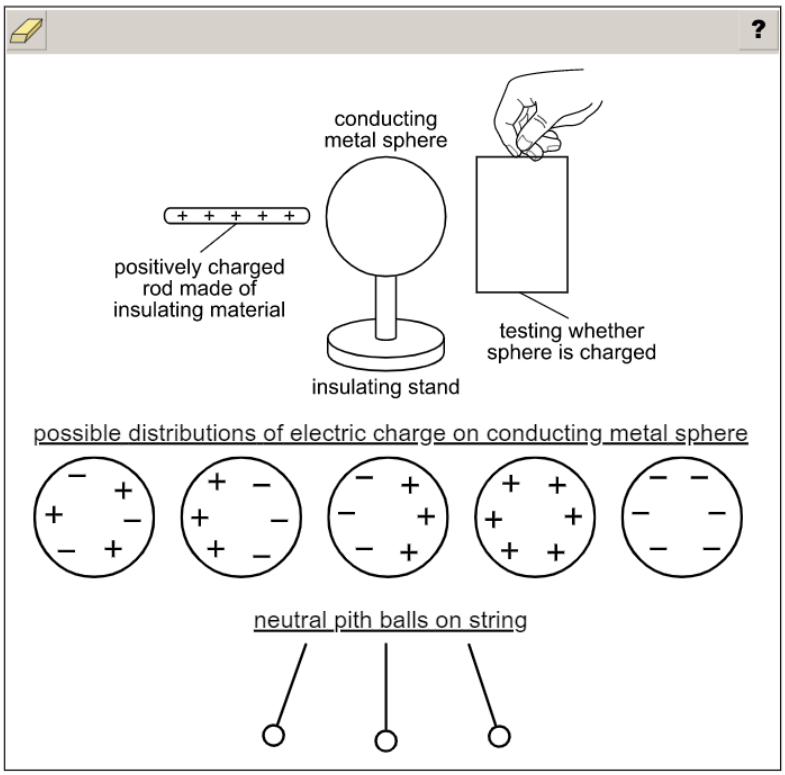
Item 16

Drag-and-Drop Technology-Enhanced: 2 points

A student wants to investigate how to apply an electric charge to a conducting metal sphere by using an electrically charged rod made of insulating material. Pith is a light material that easily picks up an electrical charge. The student will then show that the charge remains on the sphere after the charged rod is removed by holding a neutral pith ball hanging from a string near the sphere and observing its behavior.

Move a circle showing the distribution of electric charge onto the conducting metal sphere to show how electric charge will be distributed on the metal sphere after the positively charged rod is touched to the sphere and then removed. Next, move the correct image of the pith ball hanging from a string into the box labeled "testing whether sphere is charged" to show how the pith ball and string will behave if the charge remains on the sphere.



Use a mouse, touchpad, or touchscreen to move a circle with the correct distribution of electric charge onto the conducting metal sphere picture and move a neutral pith ball on string picture into the "testing whether sphere is charged" box in the diagram.

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Item 17

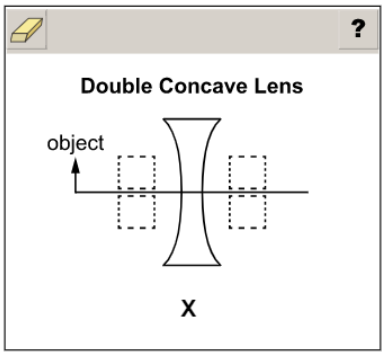
Drag-and-Drop Multi-Part Technology-Enhanced: 2 points

Part A

A student is modeling the image that will be produced by a double concave lens as shown.

Part A

Move the X into the box that shows the location of the image that will be produced.



Use a mouse, touchpad, or touchscreen to move the X into the correct box. After the response is entered and the OK button is clicked, Part B will appear on the screen.

Go on to the next page to finish item 17.

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Item 17. *Continued*.

Part B

A student is modeling the image that will be produced by a double concave lens as shown.

Part B

Move the correct words into the table to describe the image.

Image from a Double Concave Lens

Characteristic	Description
real or virtual?	
upright or inverted?	
size compared to object?	

real	**upright**	**same size**
virtual	**inverted**	**larger size**
		smaller size

Use a mouse, touchpad, or touchscreen to move the correct words into the boxes in the table.

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Item 18

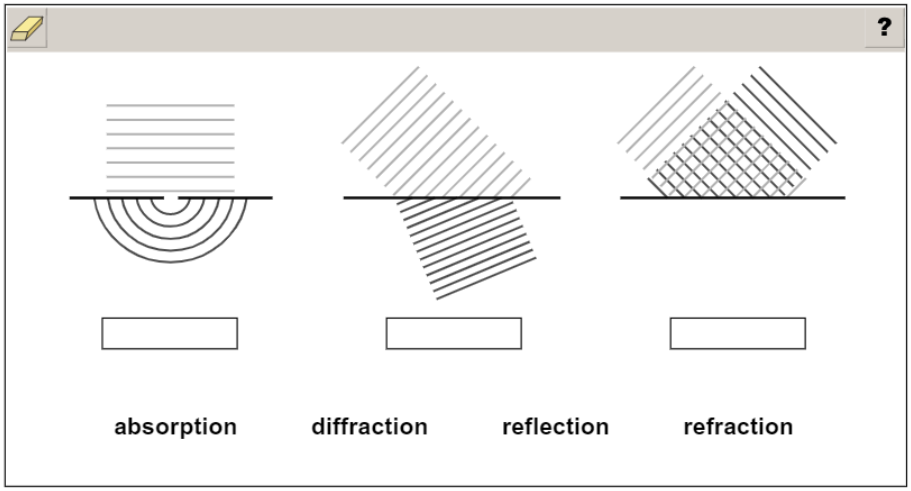
Drag-and-Drop Multi-Part Technology-Enhanced: 2 points

Part A

A student is making models of incoming sound waves' interactions with a surface.

Part A

Move one interaction term into each box to correctly identify each model. Not all of the interaction terms will be used.



Use a mouse, touchpad, or touchscreen to move the correct words into the boxes. After the response is entered and the OK button is clicked, Part B will appear on the screen.

Go on to the next page to finish item 18.

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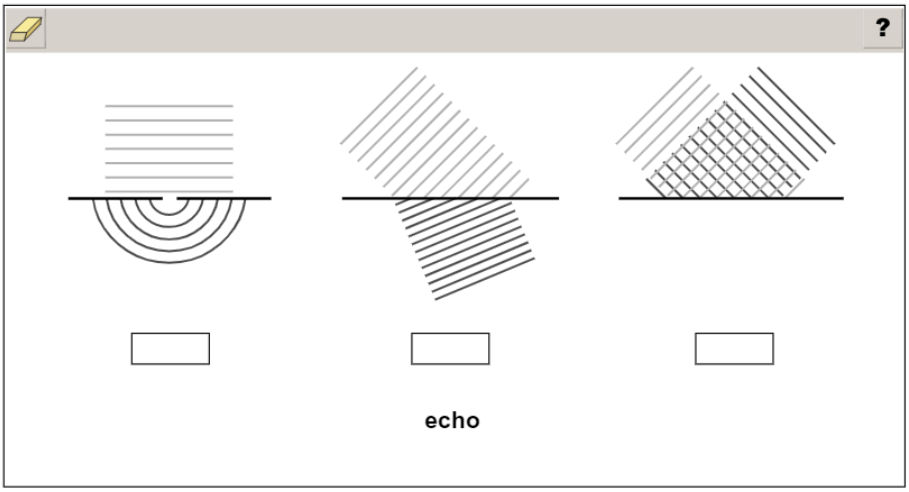
Item 18. *Continued*.

Part B

A student is making models of incoming sound waves' interactions with a surface.

Part B

Move the word "echo" into the box under the interaction that shows an echo.



Use a mouse, touchpad, or touchscreen to move the word "echo" into the correct box.

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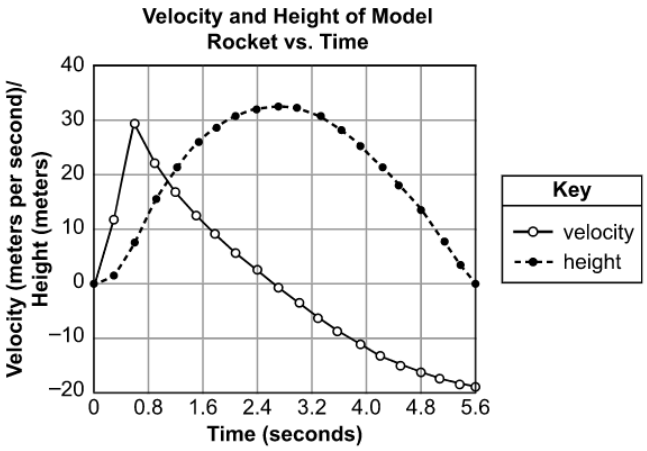
Item 19

Drag-and-Drop Technology-Enhanced: 2 points

A hobbyist launched a flying model rocket and recorded the motion data shown in the graph. The model rocket is launched at time 0 and lands back on the ground after 5.6 seconds.



Move the words describing the direction of the rocket's acceleration and motion during the flight into the correct boxes in the table. Each word will be used more than once.

Time (s)	Acceleration	Motion
0.0–0.6		
0.6–2.7		
2.7–5.6		

upward downward

Use a mouse, touchpad, or touchscreen to move the correct words into the boxes in the table.

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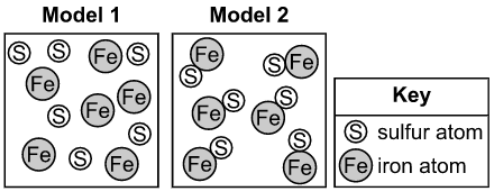
Item 20

Drag-and-Drop Technology-Enhanced: 1 point

Iron can be found as a gray powder, and sulfur can be found as a yellow powder. The diagram shows models of two substances made of iron (Fe) and sulfur (S).



Move the correct classification and description text into the boxes in the table to classify and describe the appearances of the substances. One classification will not be used.

Model	Classification	Appearance
1		
2		

Classification	Appearance
pure substance	**uniform**
homogeneous mixture	**gray and yellow particles visible but evenly distributed**
heterogeneous mixture	

Use a mouse, touchpad, or touchscreen to move the classification and description text into the boxes in the table. Each option can be used once. One classification will not be used.

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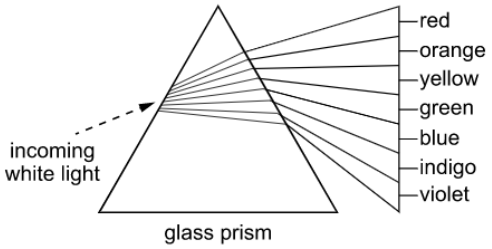
Item 21

Drop-Down Multi-Part Technology-Enhanced: 2 points

The diagram is a model of a narrow beam of white light encountering a prism.

White Light Encountering a Prism



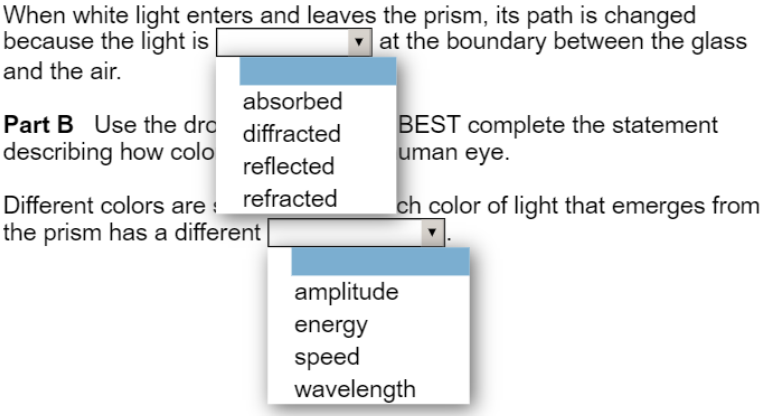
Part A Use the drop-down menu to BEST complete the statement about how light interacts with the prism.

When white light enters and leaves the prism, its path is changed because the light is [ ] at the boundary between the glass and the air.

Part B Use the drop-down menu to BEST complete the statement describing how color is seen by the human eye.

Different colors are seen because each color of light that emerges from the prism has a different [ ].

Use a mouse, touchpad, or touchscreen to click the arrow beside each of the two blank boxes. When you click the arrow, a drop-down menu will appear showing you all the possible options for that blank. Each drop-down menu with its options is shown below.



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Item 22

Selected-Response: 1 point

A student reads that a number of electrical devices utilize electromagnets. Some of these devices require strong magnetic fields. The student decides to investigate how to increase the strength of a basic electromagnet.

How can the student test whether the magnetic field produced by an electromagnet is increasing in strength?

A. A stronger magnet will require less wire for the coils.
B. A stronger magnet will have more widely spaced coils.
C. A stronger magnet will have a reduced measurable current.
D. A stronger magnet will attract a greater number of metallic items.

Item 23

Selected-Response: 1 point

The densities of four different materials at the same temperature are shown in the table.

Densities of Four Materials

Material	Density (g/cm^3)
W	0.000178
X	0.00138
Y	1.00
Z	8.90

Based on the densities shown in the table, in which material will a light wave MOST LIKELY travel at the GREATEST speed?

A. Material W
B. Material X
C. Material Y
D. Material Z

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SCIENCE ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	S8P3b	3	N/A	See scoring rubric and exemplar response on page 159.
2	S8P5b	2	A	The correct answer is choice (A). Choice (A) is correct because the negatively charged rod will repel negative charges from the nearer (left) sphere, so that they will flow into the more distant sphere. Similarly, positive charges in the more distant (right) sphere will be attracted to the negatively charged rod, so will flow into the left sphere. Choice (B) is incorrect because the charges on the two spheres don't simply mix to form a uniform distribution of charges on both spheres, but rather the positive charges should accumulate on the left sphere and negative charges on the right sphere. Choice (C) is incorrect because the negatively charged rod attracts opposite charges, not like charges, thus the positive charges should accumulate on the left sphere and negative charges on the right sphere. Choice (D) is incorrect because this would be the distribution of charges if the two spheres were located close together but not touching when the negatively charged rod is brought near the left sphere.
3	S8P3a	2	A	The correct answer is choice (A) 0–5 minutes and 10–15 minutes. For these intervals, the graph has a constant, positive slope; this means that each minute the train's velocity increases by the same rate. Choices (B) and (D) are incorrect because for each of these intervals the graph's slope is flat; this means that the train is moving at a constant velocity. Choice (C) is incorrect because between 25 minutes and 30 minutes the graph has a negative slope; during this interval of time, the train is slowing down.
4	S8P4b	2	D	The correct answer is choice (D) Ultraviolet radiation has more energy than infrared radiation because energy is proportional to frequency and the frequency of ultraviolet radiation is higher. Choice (A) is incorrect because the energy is inversely proportional to the wavelength of the radiation, not the frequency, so the ultraviolet radiation should have more energy than infrared radiation. Choice (B) is incorrect because the energy is inversely proportional to the wavelength of the radiation, not the frequency, and the frequency of ultraviolet radiation is higher, not lower. Choice (C) is incorrect because the frequency of ultraviolet radiation is higher, not lower; thus it should have more energy, not less energy, than infrared radiation.
5	S8P2b	2	N/A	See scoring rubric and exemplar response on page 160.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
6	S8P1c	2	B	The correct answer is choice (B) **investigation:** Add a small amount of solid to a liquid in a beaker. **observation:** The solid dissolves in the liquid. This is correct because the investigation tests the solubility of the solid substance, and solubility is a physical property. Choices (A), (C), and (D) are incorrect because reactivity is a chemical property.
7	S8P5a	2	A	The correct answer is choice (A) The velocity of the asteroid changed as evidenced by the changing direction of the asteroid. Choice (B) is incorrect because a straight line path does not necessarily indicate a change in velocity and not enough points are shown for this latter stage of the asteroid's path to make that determination. Choice (C) is incorrect because the path of the asteroid bends toward Earth, not away from it. Choice (D) is incorrect because the asteroid's positions indicate that the asteroid is not bending toward the sun.
8	S8P2a	3	D	The correct answer is choice (D). Choice D is correct because the graph shows the kinetic energy increasing as the square of the velocity during the two time periods when the object is increasing in speed. Choice (A) is incorrect because the last section is linear rather than proportional to the square of the velocity. Choice (B) is incorrect because the relationship to the velocity is linear between these values instead of proportional to the square of the velocity. Choice (C) is incorrect because the curvature of the line indicates that the vehicle's kinetic energy increases less as its velocity continues to linearly increase.
9	S8P3c	2	B	The correct answer is choice (B) The claim is true because every time the mass of the metal cube is doubled, the gravitational force doubles. Choice (A) is incorrect because the claim is true. Choice (C) is incorrect because the claim is true and inertia depends on mass, not volume. Choice (D) is incorrect because the mass of the metal cube is a better representation of the inertia than the volume which is not represented quantitatively in the investigation to determine a proportionality with gravitational force.
10	S8P4b	2	N/A	See scoring rubric and exemplar response on page 161.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
11	S8P1b	3	D, D	The correct answer for Part A is choice (D) Decrease the velocities of the particles, and decrease the space between them. Choice (A) is incorrect because it would increase the temperature and not produce a solid. Choice (B) is incorrect because it would increase the temperature and density but would not produce a solid. Choice (C) is incorrect because the space between the particles would decrease. The correct answer for Part B is choice (D) Increase the velocities of the particles, but maintain the same space between them. Choices (A) and (B) are incorrect because they would show a change of state to a plasma. Choice (C) is incorrect because that would show a lower temperature.
12	S8P5c	3	B, C	The correct answers are choice (B) Move the magnet farther away from the paper clip, and choice (C) Replace the bar magnet with a horseshoe magnet. Each of these changes a characteristic/factor that influences the strength of the magnetic force. Choice (A) is incorrect because changing where the scale is attached does not test the strength of the magnetic force. Choice (D) is incorrect because the size of the scale does not test the strength of the magnetic force. Choice (E) is incorrect because the length of the string attached to the wall does not test the strength of the magnetic force. Choice (F) is incorrect because the length of the string attached to the paper clip does not test the strength of the magnetic force.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
13	S8P1c	3	C, A	The correct answer for Part A is choice (C) 1. Use a ruler to measure the length of one side of the sample. 2. Record this value to the nearest millimeter. 3. Cube the value in step 2. 4. Place the cubed sample on the digital balance. 5. Record this value to the nearest tenth of a gram. 6. Divide the value in step 5 by the value in step 3. This choice is correct because this process allows the student to measure the density of the block of salt, which is a physical property. Choices (A) and (B) are incorrect because this is testing a chemical property. Choice (D) is incorrect because the time it takes the sample to increase in temperature is not a physical property. The correct answer for Part B is choice (A) The physical property being tested is density; the procedure selected measures the mass and the volume of the sample. Choice (B) is incorrect because reactivity is a chemical property. Choice (C) is incorrect because none of the options in Part A actually tests the melting point of a sample. Choice (D) is incorrect because combustibility is a chemical property.
14	S8P4e	3	A, F	The correct answers are choice (A) The speed of sound generally increases as it moves from gases to liquids to solids, and choice (F) As the density of solids and gases increases, the speed of sound generally decreases. Choice (B) is incorrect because the general trend is increasing speed from gases to liquids. Choice (C) is incorrect because the speed of sound generally increases as it moves from gases to liquids to solids, not solids to gases to liquids. Choice (D) is incorrect because this statement is true of gases, but not solids. Choice (E) is incorrect because this statement is true of gases, but not liquids.
15	S8P1a	3	N/A	See scoring rubric and exemplar response beginning on page 162.
16	S8P5b	3	N/A	See scoring rubric and exemplar response on page 164.
17	S8P4g	3	N/A	See scoring rubric and exemplar response beginning on page 166.
18	S8P4d	2	N/A	See scoring rubric and exemplar response beginning on page 168.
19	S8P3a	3	N/A	See scoring rubric and exemplar response on page 170.
20	S8P1a	2	N/A	See scoring rubric and exemplar response on page 171.
21	S8P4d	2	N/A	See scoring rubric and exemplar response on page 172.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
22	S8P5c	1	D	The correct answer is choice (D) A stronger magnet will attract a greater number of metallic items. Choices (A), (B), and (C) are incorrect because none of these changes are tests of increasing the strength of an electromagnet. In addition, choices (A), (B), and (C) would all reduce the strength of an electromagnet.
23	S8P4e	1	D	The correct answer is choice (D) Material Z. This is the correct choice because according to the table Material Z has the greatest density and the density is very high indicating that the material is most likely a solid. The speed of sound is typically highest in solid materials. The other options are incorrect because they have densities typical of gases in choices (A) and (B) or water in choice (C).

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SCIENCE EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

Item 1

Scoring Rubric

Points	Description
1	The student correctly selects all three drop-down menu options.
0	The student does not correctly select all three drop-down menu options.

Exemplar Response

The correct response is shown below.

The skier's speed increases going down the hill because forces [F_3 and F_4] are [unbalanced] and acting [in the same direction as] the direction of the velocity, which causes the speed to change.

"F_3 and F_4" is the correct response for the first menu because the F_1 and F_2 forces are equal, and therefore are balanced, so these two forces will have no net effect. "Unbalanced" is the correct response for the second drop-down menu because balanced forces do not result in a change in speed. "In the same direction as" is the correct response for the third drop-down menu because again, the F_3 and F_4 forces are the forces that will affect the velocity down the hill.

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Item 5

Scoring Rubric

Points	Description
1	The student correctly selects both drop-down menu options.
0	The student does not correctly select both drop-down menu options.

Exemplar Response

The correct response is shown below.

Procedure [W ▾] should be used. In this procedure, the moving pendulum will demonstrate transforming [potential energy into kinetic ▾] energy.

"W" is the correct response for the first drop-down menu because this is a fair test that does not risk varying starting forces. "Potential energy into kinetic" (energy) is the correct response for the second drop-down menu because raising a weight such as a pendulum to a height gives it potential energy, which is then transformed into kinetic energy as the pendulum falls. Pushing a pendulum would just give it kinetic energy to start with, which would not demonstrate a relationship between potential and kinetic energy.

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Item 10

Scoring Rubric

Points	Description
1	The student correctly selects both drop-down menu options.
0	The student does not correctly select both drop-down menu options.

Exemplar Response

The correct response is shown below.

What is the [horizontal ▾] distance between point [W and point Z ▾] on the model?

"Horizontal" Is the correct response for the first drop-down menu because the wavelength is the horizontal distance between the same relative locations on two successive wave oscillations. "W and point Z" is the correct response for the second drop-down menu because these are the same relative locations, the peaks on two successive wave oscillations.

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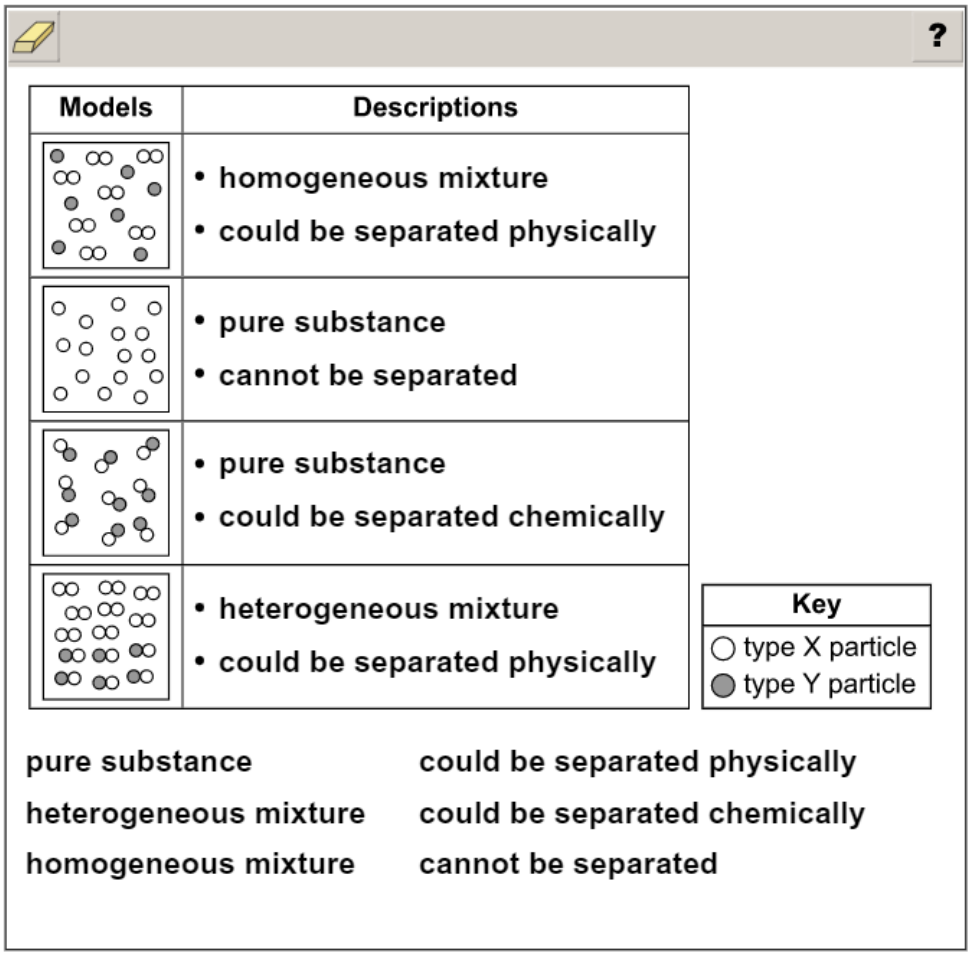
Item 15

Scoring Rubric

Points	Description
2	The student correctly fills in all four boxes (order within each box does not matter).
1	The student correctly fills in two or three boxes (order within each box does not matter).
0	The student does not correctly fill in at least two boxes.

Exemplar Response

The correct response is shown below.



This is a correct response because the first model, at the top, is a homogenous mixture. The two different types of particles in the mixture are distributed equally. Homogeneous mixtures can be separated by physical processes. NOTE: The order in which the descriptions are placed within any box does not matter as long as correct descriptions are assigned in each box.

Go on to the next page to finish item 15.

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Item 15

The second model is also correctly described. It contains only one kind of particle, which is a pure substance, and the particles are a single type of atom so must be an element, which cannot be separated.

The third model is also correctly described. It contains two types of particles, which are all attached to each other, so these form a compound. Compounds are pure substances because all the particles of the compound are the same, and cannot be separated physically but can be separated by chemical processes.

The fourth model is also correctly described. The type X and type Y particles are combined either together (two type X) or with each other (one type X and one type Y). While these particles are together in the box, they are separated from each other, so this is a heterogeneous mixture. Heterogeneous mixtures can be separated by physical processes.

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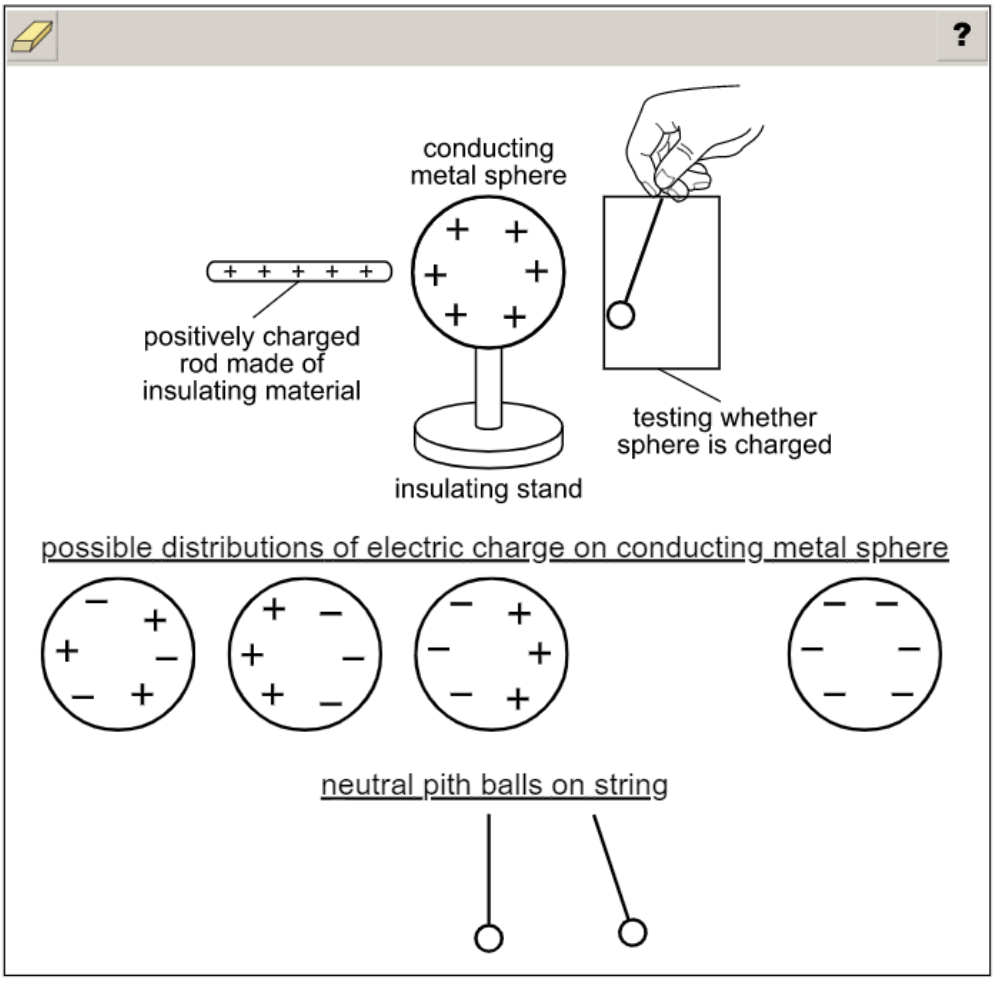
Item 16

Scoring Rubric

Points	Description
2	The student fills in the correct charge distribution and the correct neutral pith ball picture.
1	The student fills in the correct charge distribution OR the correct neutral pith ball picture.
0	The student fills in neither the correct charge distribution nor the correct neutral pith ball picture.

Exemplar Response

The correct response is shown below.



This is the correct response because touching the positively charged rod to the conducting metal sphere will transfer some of the positive charge to the sphere. In addition, because the sphere is conducting, the positive charge will remain on the sphere and become evenly distributed on the surface of the sphere. The other options are wrong because they show either no net charge on the sphere, charges that accumulate on one side or the other side of the sphere instead of being distributed evenly, or the sphere having an evenly distributed negative charge. The neutral pith ball will be attracted to the charged sphere and move toward the sphere (regardless of whether the sphere is positively or negatively charged).

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Item 17

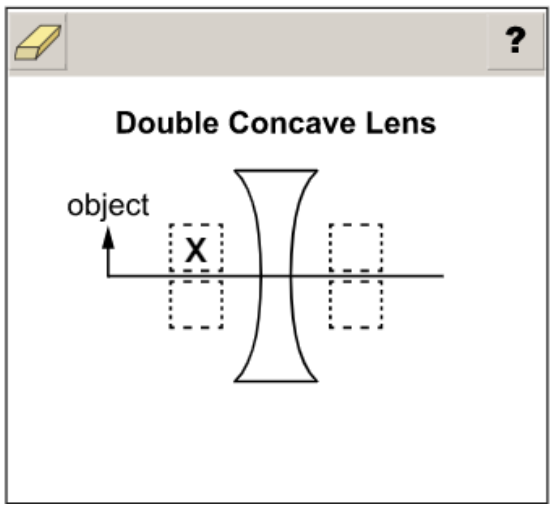
Scoring Rubric

Points	Description
2	The student correctly answers both Part A and Part B.
1	The student correctly answers either Part A OR Part B.
0	The student does not correctly answer either part.

Exemplar Response

Part A

The correct response is shown below.



This is the correct response because the image formed by a double concave lens will be on the same side of the lens as the object and will be on the same side relative to a line through the center of the lens.

Go on to the next page to finish item 17.

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Item 17

Part B

The correct response is shown below.

Image from a Double Concave Lens

Characteristic	Description
real or virtual?	**virtual**
upright or inverted?	**upright**
size compared to object?	**smaller size**

real **same size**

inverted **larger size**

This is the correct response because double concave lenses will always produce an upright image at a smaller size than the object. In addition, because the image is on the same side of the lens as the object, the image will be virtual, instead of real.

Part B must be completely correct to receive 1 point, and there are no alternate answers for Part B that would receive 1 point.

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Item 18

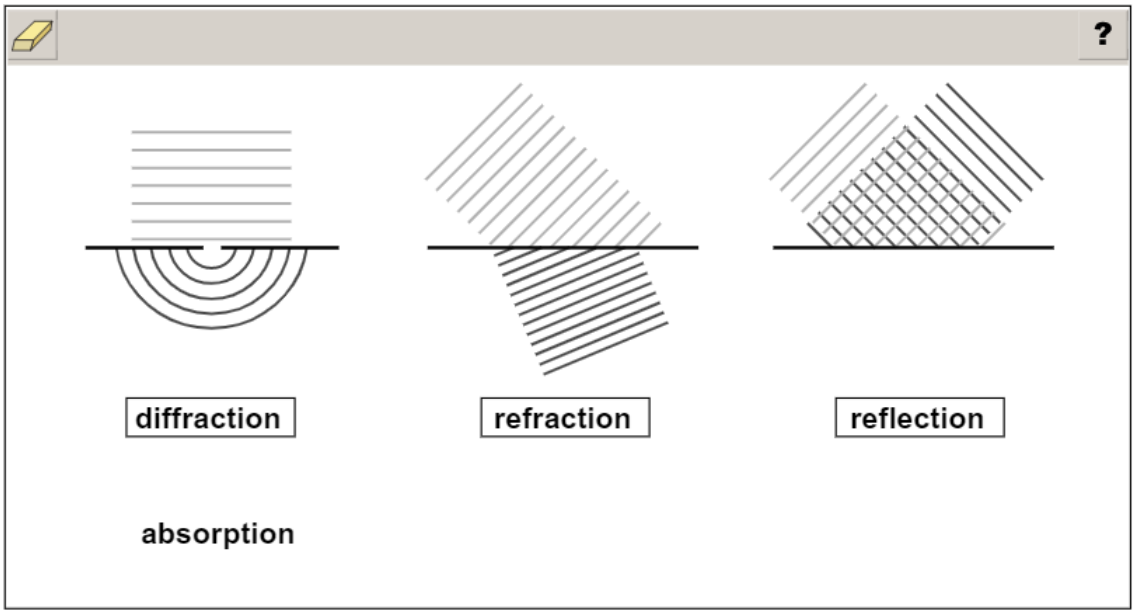
Scoring Rubric

Points	Description
2	The student correctly answers both Part A and Part B.
1	The student correctly answers either Part A OR Part B.
0	The student does not correctly answer either part.

Exemplar Response

Part A

The correct response is shown below.



This is the correct response because each model is correctly identified. The model on the left shows diffraction, which occurs when waves spread as they travel after passing through an opening or passing by a corner. The center model shows refraction, which occurs when waves bend as they pass from one medium to another. The model on the right shows reflection, which occurs when waves bounce off a surface.

Go on to the next page to finish item 18.

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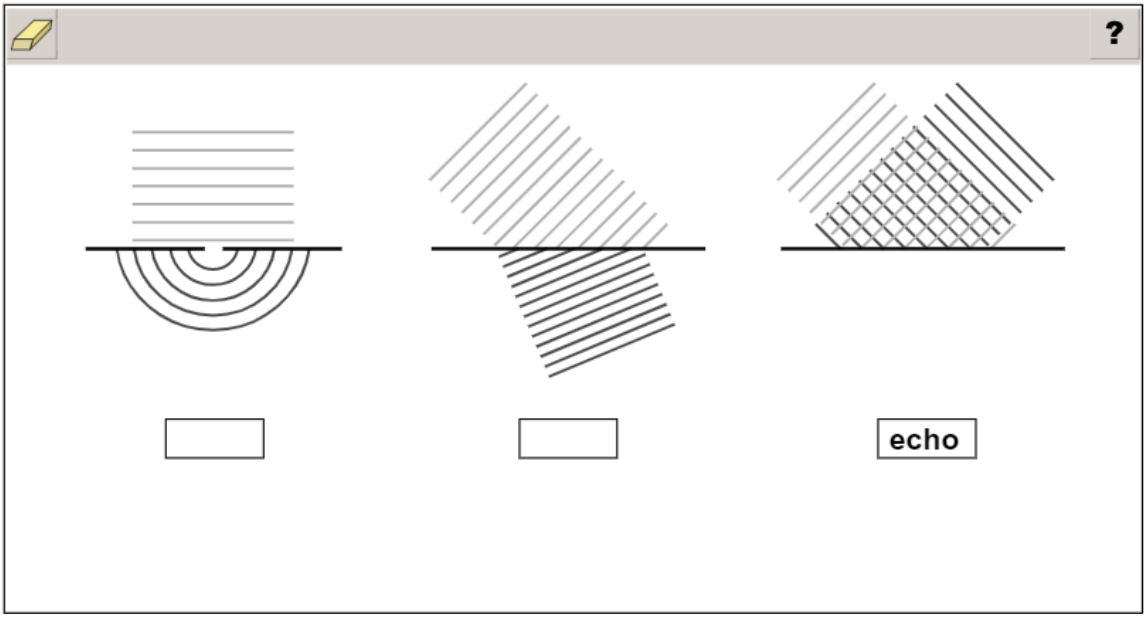
Item 18

Part B

The correct response is shown below.



An echo is a sound wave reflection, so the response correctly places “echo” in the box on the right.

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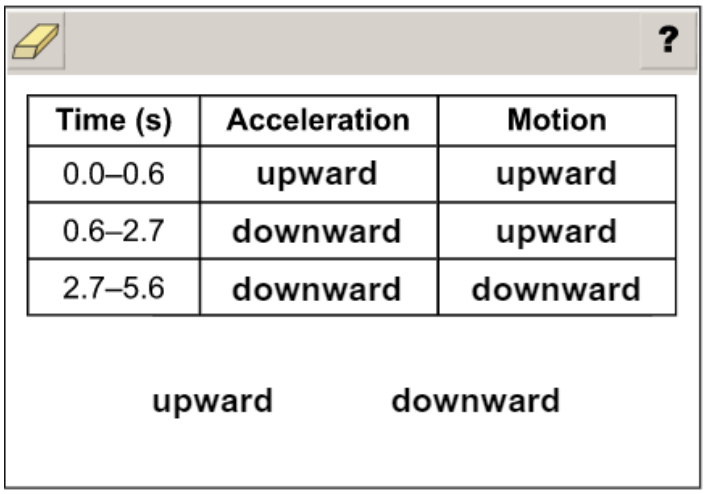
Item 19

Scoring Rubric

Points	Description
2	The student correctly fills in all boxes.
1	The student correctly fills in three, four, or five boxes.
0	The student does not correctly fill in at least two boxes.

Exemplar Response

The correct response is shown below.



Time (s)	Acceleration	Motion
0.0–0.6	upward	upward
0.6–2.7	downward	upward
2.7–5.6	downward	downward

upward downward

This is the correct response because according to the graph the model rocket has an upward acceleration in the first indicated time period, but the acceleration is downward in the next two time periods. (Downward acceleration reflects the pull of gravity. Remember that acceleration can be downward even though motion is upward because negative acceleration represents slowing down). The rocket's motion is upward for the first two time periods because the motor is pushing it at first and because it still travels upward for a while after the motor burns out. However, after the rocket reaches its height distance it begins to fall back toward the ground, so its motion is downward.

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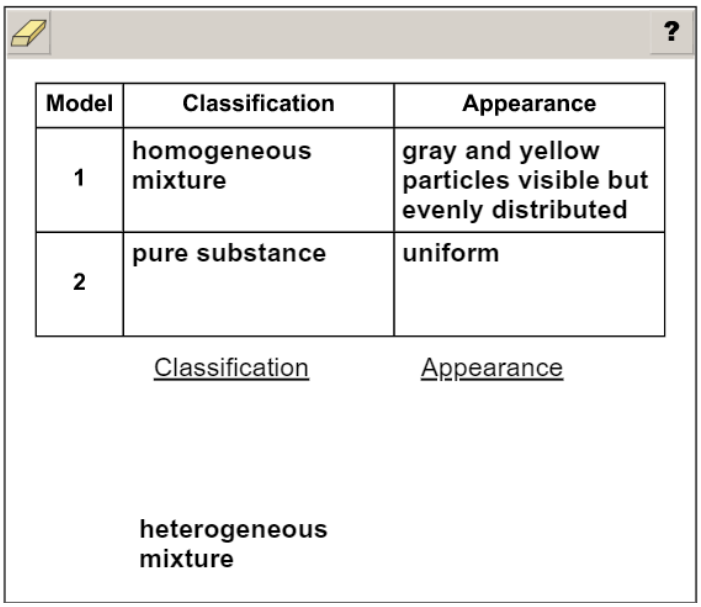
Item 20

Scoring Rubric

Points	Description
1	The student correctly fills in all four boxes.
0	The student does not correctly fill in all four boxes.

Exemplar Response

The correct response is shown below.



Model	Classification	Appearance
1	homogeneous mixture	gray and yellow particles visible but evenly distributed
2	pure substance	uniform

Classification Appearance

heterogeneous mixture

This is the correct response because Model 1 shows a homogeneous mixture where the particles are evenly distributed and retain their identity, so their different colors show. Model 2 is a pure substance because the pictures indicate the particles are combined to form a compound. A pure substance will have a uniform appearance.

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Item 21

Scoring Rubric

Points	Description
2	The student correctly selects the drop-down menu option for Part A AND Part B.
1	The student correctly selects the drop-down menu option for Part A OR Part B.
0	The student does not correctly select the drop-down menu options for either part.

Exemplar Response

The correct response is shown below.

Part A

When white light enters and leaves the prism, its path is changed because the light is [refracted ▾] at the boundary between the glass and the air.

"Refracted" is the correct response for the first drop-down menu because light waves bend when passing the boundary between two materials that have different speeds of light, and the term for this bending is refraction.

Part B

Different colors are seen because each color of light that emerges from the prism has a different [wavelength ▾].

"Wavelength" is the correct response for the second drop-down menu because the characteristic of visible light that determines the color seen by the human eye is its wavelength.

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SOCIAL STUDIES

DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones Social Studies EOG assessment is a criterion-referenced test, designed to provide information about how well a student has mastered the grade-level state-adopted content standards in Social Studies. The assessment consists of both operational items and field test items (newly written items that are being tried out and do not contribute to the student's score). Each student will receive one of four Achievement Level designations, depending on how well the student has mastered the content standards. The four Achievement Level designations are Beginning Learner, Developing Learner, Proficient Learner, and Distinguished Learner. In addition to criterion-referenced information, the Georgia Milestones measures will also produce an estimate of how Georgia students are achieving relative to their peers nationally. The norm-referenced information provided is supplementary to the criterion-referenced Achievement Level designation and will not be utilized in any manner other than to serve as a barometer of national comparison. Only the criterion-referenced scores and Achievement Level designations will be utilized in the accountability metrics associated with the assessment program (such as student growth measures, educator-effectiveness measures, or the CCRPI).

The table on the following page outlines the number and types of items included on the Grade 8 Social Studies EOG assessment.

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Grade 8 Social Studies EOG Assessment Design

Description	Number of Items	Number of Points
1-point Selected-Response and Technology-Enhanced Items[1, 2]	30	30
2-point Technology-Enhanced Items[1]	8	16
Field Test Items[3]	4	0
Total[4]	**42**	**46**

[1] **Technology-Enhanced:** Possible variants of the technology-enhanced item types used for Social Studies include multiple-part selected-response, multiple-select, drag-and-drop, and drop-down.
[2] **1-point Selected-Response and Technology-Enhanced Items:** The ratio of selected-response to technology-enhanced items may vary. The target range of 1-point technology-enhanced items is 0 to 5.
[3] **Field Test Items:** Field test items may include 1-point selected-response, 1-point technology-enhanced, and 2-point technology-enhanced items.
[4] **Total:** Of the total 42 items, 38 contribute to the student's Social Studies score.

The test will be given in two sections. Students may have up to 35 minutes per section to complete Sections 1 and 2. The total estimated testing time for the Grade 8 Social Studies EOG assessment ranges from approximately 30 to 70 minutes. Total testing time describes the amount of time students have to complete the assessment. It does not take into account the time required for the test examiner to complete pre-administration and post-administration activities (such as reading the standardized directions to students). Sections 1 and 2 must be scheduled such that both will be completed in a single day or over the course of two consecutive days (one section each day) and should be completed within the same week following the district's testing protocols for the EOG measures (in keeping with state guidance).

CONTENT MEASURED

The Grade 8 Social Studies assessment will measure the Grade 8 standards that are described at https://www.georgiastandards.org/Georgia-Standards/Pages/Social-Studies-Grade-8.aspx.

The content of the assessment is organized into four groupings, or domains, of standards for the purposes of providing feedback on student performance. A content domain is a reporting category that *broadly* describes and defines the content of the course, as measured by the EOG assessment. The standards for Grade 8 Social Studies are grouped into four domains: History, Geography, Government and Civics, and Economics. Each domain was created by organizing standards that share similar content characteristics. The content standards describe the level of expertise that Grade 8 Social Studies educators should strive to develop in their students. Educators should refer to the content standards for a full understanding of the knowledge, concepts, and skills subject to be assessed on the EOG assessment.

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The approximate proportional number of points associated with each domain is shown in the following table. A range of cognitive levels will be represented on the Grade 8 Social Studies EOG assessment. Educators should always use the content standards when planning instruction.

GRADE 8 SOCIAL STUDIES: DOMAIN STRUCTURES AND CONTENT WEIGHTS

Reporting Categories and Content Standards

Reporting Category/Domain	Content Standards Assessed	Approximate # of Points	Approximate % of Test
History	SS8H1 (a, b, c)	23	50%
	SS8H2 (a, b, c, d, e)		
	SS8H3 (a, b, c, d)		
	SS8H4 (a, b, c, d, e)		
	SS8H5 (a, b)		
	SS8H6 (a, b, c, d, e)		
	SS8H7 (a, b, c, d)		
	SS8H8 (a, b, c, d, e)		
	SS8H9 (a, b, c)		
	SS8H10 (a, b, c)		
	SS8H11 (a, b, c)		
	SS8H12 (a, b, c, d)		
Geography	SS8G1 (a, b, c, d)	7	15%

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Reporting Category/Domain	Content Standards Assessed	Approximate # of Points	Approximate % of Test
Government/Civics	SS8CG1 (a, b, c, d, e)	9	20%
	SS8CG2 (a, b, c, d)		
	SS8CG3 (a, b)		
	SS8CG4 (a, b, c, d)		
	SS8CG5 (a, b, c)		
	SS8CG6 (a, b)		
Economics	SS8E1 (a, b)	7	15%
	SS8E2 (a, b, c)		
	SS8E3 (a, b, c, d)		
	Total	**46**	**100%**

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EXTENDED PROPER NOUN LIST FOR SOCIAL STUDIES

The Georgia Standards of Excellence (GSE) articulate what students should know and should be able to do for each content area at the conclusion of a given grade or course. As the GSE have been reviewed and implemented into Georgia Milestones for Social Studies, Georgia educators involved in the review process indicated that it would be helpful for educators across Georgia to receive an extended list of content-related proper nouns to supplement the language of the standards for use in assessment items.

Generally, under Georgia Milestones for Social Studies, proper nouns that are present in the text of the content standards are used in test items. However, Georgia educators involved in the item development process have indicated that there are additional terms that are inherent to the instruction of the content defined in the standards, and the Georgia Department of Education has determined that it is in the best interest of instruction across Georgia to bolster the clarity and accuracy of the test items by providing an extended list of proper nouns implied through the implementation of the GSE.

For example, in grade 5, consider standard SS5H4, “Explain America’s involvement in World War II.” While “Axis Powers” and “Allied Powers” are not stated explicitly in the standards, Georgia educators involved in the review process understand that those terms are necessary in the instruction process for this standard and that avoiding those two terms would create less clarity in the test items. Instead of simply saying “Axis Powers,” ambiguous phrasing would have to be created to describe “countries that fought on the side of Germany during the war” or “countries that fought against the United States during the war,” thereby increasing the reading load for the student and decreasing clarity.

Georgia educators believe that the terms provided in the extended proper noun lists are inseparable from the content being assessed, and as such, are terms that students will have had an opportunity to learn in the course of their regular instruction.

Please note that not all terms identified in the teacher notes, study guides, and assessment guides are included in this list. This is a limited list of additional proper nouns to be used when teaching and assessing Social Studies content based on the recommendations of Georgia educators. Educators should ensure that their students are familiar with this extended list of proper nouns so that students are prepared when they take the Georgia Milestones Assessment in Social Studies.

The Extended Proper Noun List for Grade 8 Social Studies can be found in the following table.

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Extended Proper Noun List for Grade 8 Georgia Standards of Excellence

Standard/ Element	Term
SS8H1a	Mississippian American Indians
Various	England/English
SS8H1c	Catholic
SS8H1c, SS8H2a	South Carolina, Florida
SS8H3b	Continental Congress, Button Gwinnett, Lyman Hall, George Walton
SS8H4e	Oklahoma
SS8H4a, SS8H5, SS8H6	Confederate/Confederacy, the North, the South
SS8H5, SS8H6	Republicans, Democrats
SS8H9	Japan/Japanese
SS8H9a	Allies
SS8H11b, SS8H12b	Nobel Prize/Nobel Peace Prize
SS8H1, SS8G1a, SS8G1c	Northern, Southern, Eastern, and Western hemispheres; names of other continents in addition to North America
SS8H4e, SS8H5a, SS8H7b, SS8H11a	U.S. Supreme Court
SS8G1a	Southeast, Southwest, Northeast, Northwest, Midwest, West
SS8G1b	Blue Ridge Mountains, Valley and Ridge, Appalachian Plateau, Piedmont, Coastal Plain
Various	Asia, France

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ITEM TYPES

The Social Studies portion of the Grade 8 EOG assessment consists of selected-response and technology-enhanced items.

A selected-response item, sometimes called a multiple-choice item, is defined as a question, problem, or statement that is followed by several answer choices, sometimes called options or response choices. The incorrect choices, called distractors, usually reflect common errors. The student's task is to choose, from the choices provided, the best answer to the question (the stem). The Social Studies selected-response items will have four answer choices.

A technology-enhanced item is an innovative way to measure student skills and knowledge by using scaffolding within a multi-step response. Technology-enhanced items are worth one or two points. If the item is worth two points, partial credit is awarded for special combinations of responses that do not include all the correct answers. For Social Studies, there are a number of specific technology-enhanced item types being used:

- In multi-select items, the student is asked to pick two correct responses from six possible answer options.
- In multi-part items, the student responds to a two-part item that may combine multiple-choice and/or drag-and-drop formats. For these item types, the student selects the responses from the choices provided.
- In drag-and-drop items, the student uses a mouse, touchpad, or touchscreen to move responses to designated areas on the screen.
- In drop-down menu items, the student uses a mouse, touchpad, or touchscreen to open a drop-down menu and select an option from the menu. A drop-down menu item may have multiple drop-down menus.
- Since some technology-enhanced items in this guide were designed to be used only in an online, interactive-delivery format, some of the item-level directions will not appear to be applicable when working within the format presented in this document (for example, "Move and place characteristics into the correct boxes" or "Complete the diagram by moving and placing . . .").
- This icon ➲ identifies special directions that will help the student answer technology-enhanced items as shown in the format presented within this guide. These directions do not appear in the online version of the test but explain information about how the item works that would be easily identifiable if the student were completing the item in an online environment.

To give students practice using technology-enhanced items in an online environment very similar to how they will appear on the online test, visit "Experience Online Testing Georgia."

1. Go to the website "Welcome to Experience Online Testing Georgia" (http://gaexperienceonline.com/).
2. Select "Test Practice."
3. On the right side of the page, you will see "End-of-Grade (EOG) Spring Main." Select "Online Tools Training" which appears underneath it.
4. Select "EOG Test Practice."
5. Select "Technology Enhanced Items."
6. Select "All Grades."
7. You will be taken to a login screen. Use the username and password provided on the screen to log in and practice navigating technology-enhanced items online.

Please note that Google Chrome is the only supported browser for this public version of the online testing environment.

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SOCIAL STUDIES DEPTH-OF-KNOWLEDGE EXAMPLE ITEMS

Example items that represent the applicable DOK levels across various Grade 8 Social Studies content domains are provided.

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Example Item 1

Selected-Response: 1 point

DOK Level: 1

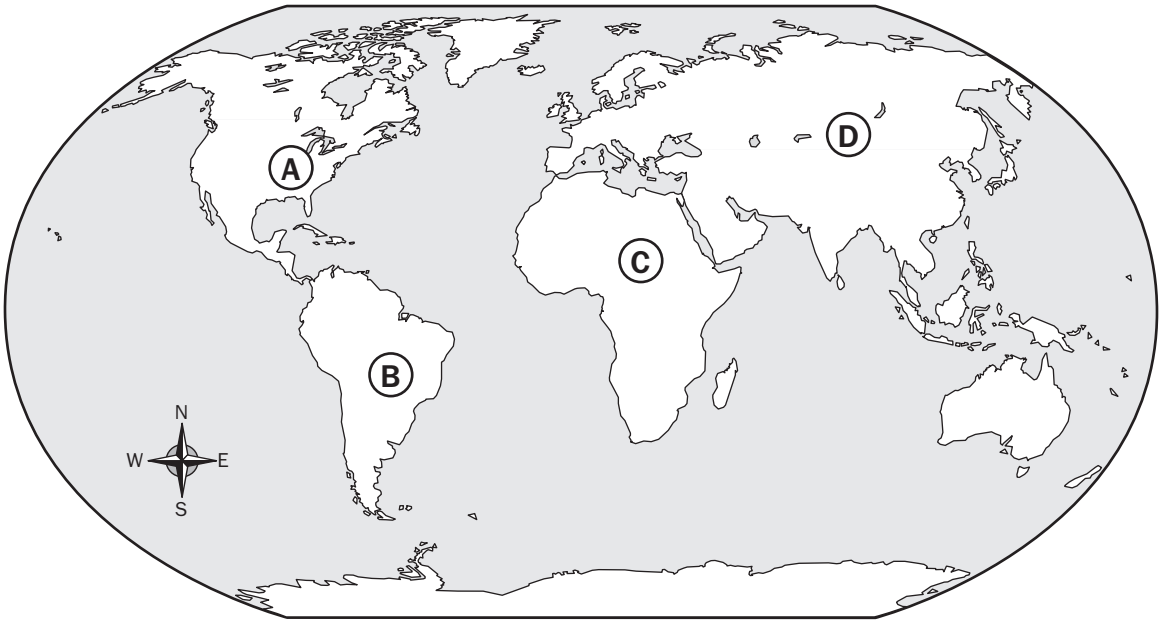
Social Studies Grade 8 Content Domain: Geography

Standard: SS8G1. Describe Georgia's geography and climate.

a. Locate Georgia in relation to region, nation, continent, and hemispheres.

Look at the map.

World Map



Which letter on the map indicates the location of Georgia?

A. A
B. B
C. C
D. D

Correct Answer: A

Explanation of Correct Answer: The correct answer is choice (A) A. Georgia is located in the United States, which is in North America. Choice (B) is incorrect because it shows South America. Choice (C) is incorrect because it shows Africa. Choice (D) is incorrect because it shows Asia.

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Example Item 2

Selected-Response: 1 point

DOK Level: 2

Social Studies Grade 8 Content Domain: Government and Civics

Standard: SS8CG4. Analyze the role of the judicial branch in Georgia state government.

c. Explain the difference between criminal law and civil law.

How is a civil case different from a criminal case?

A. In a civil case, a plaintiff sues a defendant.
B. In a civil case, the state prosecutes a defendant.
C. In a civil case, the defendant may be sentenced to jail.
D. In a civil case, the defendant is accused of breaking the law.

Correct Answer: A

Explanation of Correct Answer: The correct answer is choice (A) In a civil case, a plaintiff sues a defendant. A civil case deals with a legal dispute between citizens rather than government prosecution against a person accused of breaking the law. Choices (B), (C), and (D) are incorrect because they describe criminal cases.

Example Item 3

Selected-Response: 1 point

DOK Level: 2

Social Studies Grade 8 Content Domain: Government and Civics

Standard: SS8CG1. Describe the foundations of Georgia's government.

b. Explain separation of powers and checks and balances among Georgia's three branches of government.

Which is the BEST example of checks and balances?

A. The governor can veto bills.
B. The governor can propose policies.
C. The governor can give an annual speech about the state's condition.
D. The governor can call on the state's military forces to help in natural disasters.

Correct Answer: A

Explanation of Correct Answer: The correct answer is choice (A) The governor can veto bills. An example of checks and balances is that the executive branch can veto bills that have passed the legislative branch. Choices (B), (C), and (D) are incorrect because they describe powers of the governor that do not involve one branch of government checking the power of another.

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Example Item 4

Selected-Response: 1 point

DOK Level: 3

Social Studies Grade 8 Content Domain: History

Standard: SS8H10. Evaluate key post–World War II developments in Georgia.

a. Explain how technology transformed agriculture and created a population shift within the state.

Read the information in the box.

Changes in Georgia's Agriculture Industry Since World War II

- more diversity in types of crops
- improvements in seed technology
- increased use of harvesters and tractors on farms
- improvements in farming practices such as crop rotation and erosion control

Which conclusion can be drawn from the information in this box?

A. Modernization has kept cotton as the most important crop in the state.
B. Modernization has led to a decrease in the number of farms in the state.
C. Changes in the state's agriculture industry have led to more people working on farms.
D. Improvements in farming methods have led to more government involvement in the state's agriculture industry.

Correct Answer: B

Explanation of Correct Answer: The correct answer is choice (B) Modernization has led to a decrease in the number of farms in the state. As a result of new agricultural technology, farms became more efficient, needing fewer farm workers to produce large amounts of crops. Farms became larger and their number decreased. Choice (A) is incorrect because the changes do not relate exclusively to cotton. Choice (C) is incorrect because the changes resulted in a reduction in farms and farm workers, not an increase. Choice (D) is incorrect because a conclusion about the amount of government involvement in the state's agricultural industry cannot be supported by the changes listed.

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Example Item 5

Selected-Response: 1 point

DOK Level: 3

Social Studies Grade 8 Content Domain: History

Standard: SS8H12. Explain the importance of developments in Georgia since the late 20th century.

d. Analyze Georgia's role in the national and global economy of the 21st century, with regard to tourism, Savannah port expansion, and the film industry.

A production company is considering filming a movie in Georgia. Which statement would probably be MOST persuasive in convincing the company to film in Georgia?

A. Georgia's rivers provide recreational opportunities for production companies.
B. Georgia's many hotels and restaurants are available to serve production companies.
C. Georgia's state and local governments offer financial incentives to production companies.
D. Georgia's unemployed people are available for temporary work with production companies.

Correct Answer: C

Explanation of Correct Answer: The correct answer is choice (C) Georgia's state and local governments offer financial incentives to production companies. Georgia's state government has offered significant tax credits to film and television production companies as an incentive to attract new business to the state. Choices (A), (B), and (D) are incorrect because although Georgia's physical features, hospitality services, and available workers would be attractive to production companies, these would not likely be the most persuasive factors in determining film locations.

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SOCIAL STUDIES ADDITIONAL SAMPLE ITEMS

This section has two parts. The first part is a set of 22 sample items for the Social Studies portion of the EOG assessment. The second part contains a table that shows for each item the standard assessed, the DOK level, the correct answer (key), and a rationale/explanation about the key and distractors. The sample items can be utilized as a mini-test to familiarize students with the item formats found on the assessment.

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Item 1

Selected-Response: 1 point

Which of these describes the MAIN role of entrepreneurs?

A. They run for political office to represent citizens.
B. They work as employees for large corporations.
C. They serve as volunteers at polling places on election day.
D. They create businesses that produce goods and services.

Item 2

Selected-Response: 1 point

How does the state of Georgia acquire MOST of the money it uses for government expenses?

A. by collecting fees
B. by collecting taxes
C. by selling products to citizens
D. by seeking donations from businesses

Item 3

Selected-Response: 1 point

Savannah was the location of the first colonial settlement in Georgia. Which geographic feature of the area was probably MOST important in the development of Savannah?

A. a river that provided water and transportation
B. a forest that could be used for building shelters
C. a bluff that could be used as a defensive position
D. an ocean that provided fish and marine mammals

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Item 4

Selected-Response: 1 point

Which of these is a qualification for voting in Georgia's elections?

A. pay state taxes
B. pass a literacy test
C. be born in the state
D. be eighteen years old

Item 5

Selected-Response: 1 point

Look at the chart.

Types of Government

A	B
Run by a commission	Run by a mayor-council
Created by the state legislature to help the state carry out programs	Created by a group of citizens who want more government services

Which type of government is described in column A?

A. city government
B. county government
C. national government
D. special-purpose government

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Item 6

Selected-Response: 1 point

What is the purpose of the committee system in the Georgia General Assembly?

A. to lobby for special interests
B. to elect leaders of the legislature
C. to allow bills to be studied carefully
D. to ensure members of each political party vote the same way

Item 7

Selected-Response: 1 point

Which statement is true about Martin Luther King Jr. and John Lewis?

A. They both represented the state of Georgia in the U.S. Congress.
B. They both argued for civil rights in cases before the U.S. Supreme Court.
C. They both helped organize the March on Washington for Jobs and Freedom.
D. They both founded the Student Nonviolent Coordinating Committee (SNCC).

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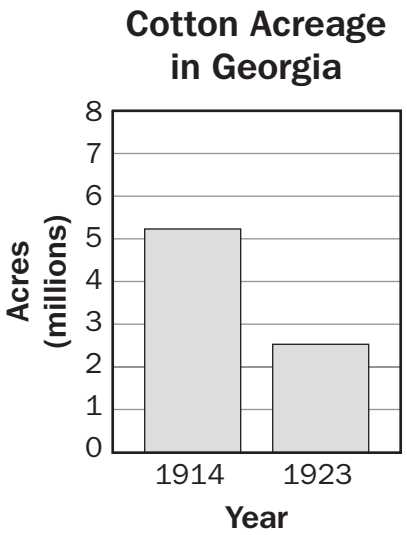
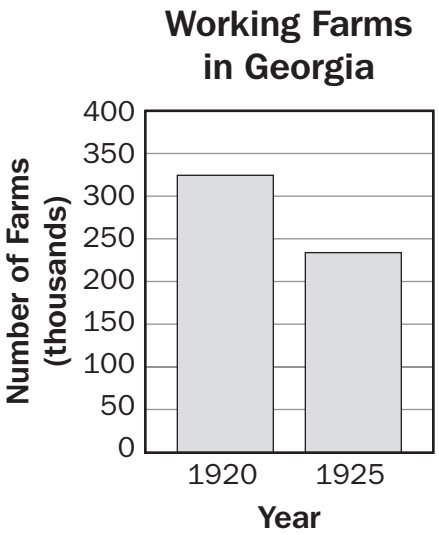
Item 8

Selected-Response: 1 point

Look at the graphs.





The boll weevil came to Georgia in 1915, and a severe drought hit Georgia in 1924. According to the graphs, what impact did these events have on Georgia?

A. Farmers grew less cotton, and some gave up farming altogether.
B. The price of cotton went up, and growing cotton became very profitable.
C. Cotton became easier to grow, and fewer people were needed to grow it.
D. The demand for cotton went down, and fewer fabrics were made from cotton.

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Item 9

Selected-Response: 1 point

Look at the information in the box.

?

- 1962—elected to Georgia's state senate
- 1970—elected governor of Georgia
- 1976—elected president of the United States
- 2002—received the Nobel Peace Prize

Which person is being described in the box?

A. Jimmy Carter
B. Maynard Jackson
C. William B. Hartsfield
D. Franklin D. Roosevelt

Item 10

Selected-Response: 1 point

During the American Revolution, many people in Georgia called themselves patriots. Which of these describes what the patriots supported?

A. the fight for independence from Great Britain
B. the plan for Georgia to become an independent nation
C. the actions taken against rebellious colonists in Georgia
D. the idea that Great Britain and the colonies could resolve their differences

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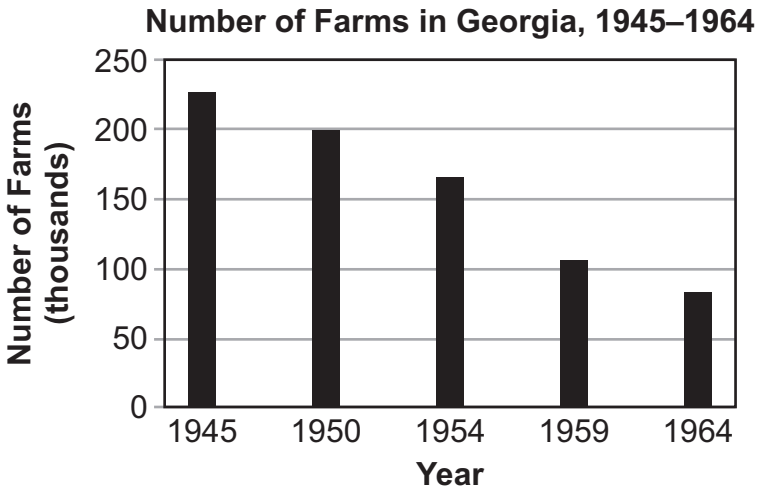
Item 11

Multi-Part Technology-Enhanced: 2 points

Examine the graph.



Source: U.S. Department of Agriculture

Part A

What was MOST LIKELY a major cause of the trend shown on the graph?

A. the slowed growth of suburbs
B. an infestation of agricultural pests
C. the continuation of a long-term drought
D. an increased use of agricultural technology

Part B

Based on the graph, which conclusion can BEST be made about Georgia between 1945 and 1964?

A. There was a shortage of farm workers in the state.
B. There was a population shift to urban areas of the state.
C. There was a surge of immigration to rural areas of the state.
D. There was a decreased demand for farm products in the state.

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Item 12

Multi-Part Technology-Enhanced: 2 points

Read the information in the box.

> Matt and Jenna are married. They each have jobs that allow them to pay their bills and save money each month. They would like to have children in the next few years.

Part A

Based on the circumstances described in the box, which type of debt would probably be the MOST reasonable for Matt and Jenna to incur?

A. using a credit card to pay for an extended vacation
B. getting a loan from a bank to buy a new sports car
C. using a credit card to buy the latest personal electronics
D. getting a loan from a mortgage company to purchase a home

Part B

What would be the MOST LIKELY risk to Matt and Jenna if they were to incur debt?

A. having fewer job opportunities
B. having to decline credit card offers
C. being unable to save for emergencies
D. being unable to establish a household budget

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Item 13

Multi-Select Technology-Enhanced: 2 points

Read the information in the box.

> The Civilian Conservation Corps (CCC), a public work relief program, was part of the New Deal. Operating between 1933 and 1942, it employed young men to work on conservation projects around the country. Its goals were to provide jobs for young men who had trouble finding work, to provide financial relief for their families, and to develop and conserve natural resources in public rural areas.

Which type of evidence would BEST help determine whether the CCC had been successful in meeting the goals listed in the passage? Select TWO responses.

A. maps showing locations of CCC camps
B. letters to family written by CCC participants
C. legislation authorizing the creation of the CCC
D. records showing the number of CCC participants
E. posters encouraging men to apply to join the CCC
F. estimates of the value of CCC improvements to public lands

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Item 14

Multi-Select Technology-Enhanced: 2 points

Civil law and criminal law have similarities and differences. Select the TWO statements that are true ONLY about civil law.

A. Trials are held in superior courts.
B. Juries can determine the outcome of a trial.
C. A plaintiff brings a lawsuit against a defendant.
D. A government brings charges against a defendant.
E. A defendant can be sentenced to serve time in prison.
F. A private party tries to settle a disagreement with another private party.

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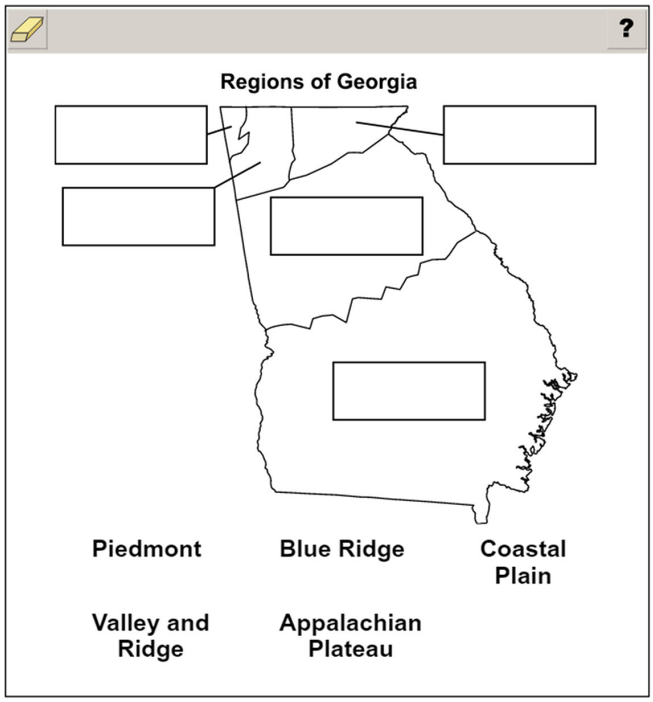
Item 15

Drag-and-Drop Technology-Enhanced: 2 points

Move and place each region name into the correct box on the map.



Use a mouse, touchpad, or touchscreen to move each region name into the correct box on the map. All region names should be used.

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Item 16

Drag-and-Drop Technology-Enhanced: 2 points

The list in the box describes one accomplishment of Mayor Andrew Young. Complete the list by moving the THREE additional accomplishments of Mayor Young into the box.

Accomplishments of Atlanta Mayor Andrew Young

- hosted the Democratic National Convention
-
-
-

led the expansion of Atlanta's airport

attracted new businesses to the region

brought professional sports teams to the city

worked to bring the Olympic Games to the city

led the development of Atlanta's rapid transit system

brought billions of dollars of investment to Atlanta

Use a mouse, touchpad, or touchscreen to move the correct accomplishments into the box. The accomplishments can be placed in any order in the box. Some accomplishments will not be used.

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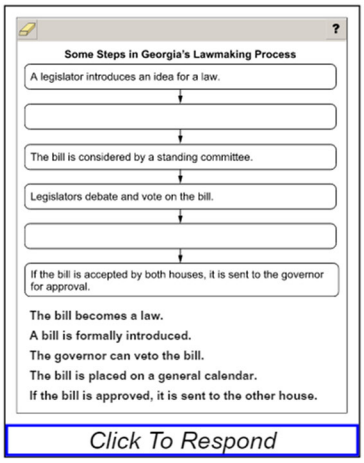
Item 17

Drag-and-Drop Technology-Enhanced: 2 points

Complete the diagram by moving and placing the correct steps into the TWO empty boxes.



Due to the size of the response area, this item has a "Click To Respond" button on the screen. Clicking this button with your mouse or tapping with your finger will bring up the response area at full size.

Go on to the next page to finish item 17.

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Item 17. ***Continued.***

Some Steps in Georgia's Lawmaking Process

A legislator introduces an idea for a law.

↓

[ ]

↓

The bill is considered by a standing committee.

↓

Legislators debate and vote on the bill.

↓

[ ]

↓

If the bill is accepted by both houses, it is sent to the governor for approval.

The bill becomes a law.

A bill is formally introduced.

The governor can veto the bill.

The bill is placed on a general calendar.

If the bill is approved, it is sent to the other house.

Use a mouse, touchpad, or touchscreen to move the two missing steps into the correct boxes in the diagram. Some steps will not be used.

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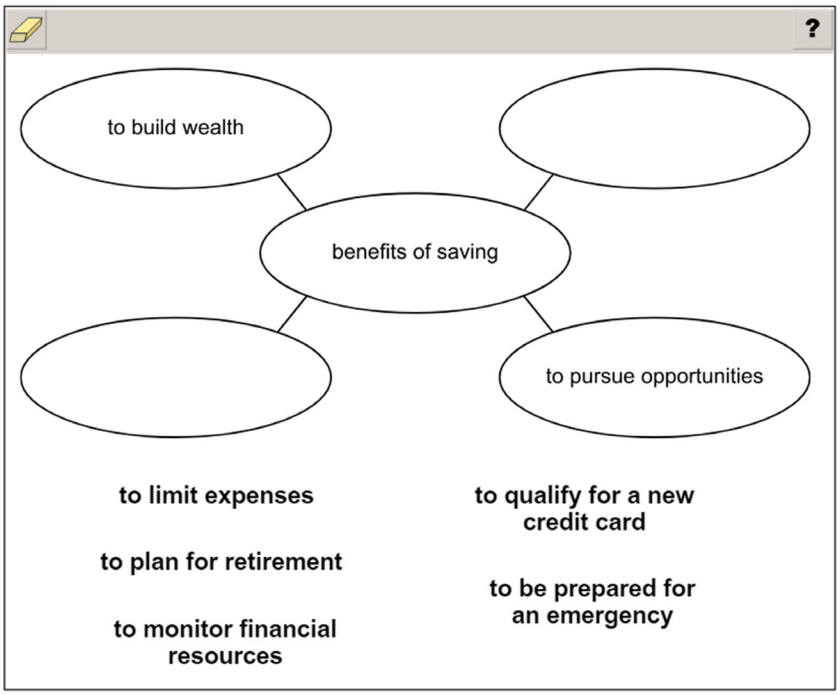
Item 18

Drag-and-Drop Technology-Enhanced: 2 points

Complete the diagram by moving and placing the TWO correct phrases into the empty ovals.



Use a mouse, touchpad, or touchscreen to move the correct phrases into the empty ovals. The phrases can be placed in either oval. Some phrases will not be used.

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Item 19

Drop-Down Technology-Enhanced: 2 points

Complete the paragraph by selecting the correct phrase from each drop-down menu.

The Mississippians were American Indians who lived in Georgia when Europeans first arrived in the mid-1500s. These Indians had several unique characteristics. Their shelters were mostly made from [ ]. They obtained most of their food by [ ].

Use a mouse, touchpad, or touchscreen to click on the arrow beside each of the two blank boxes. When you click on the arrow, a drop-down menu will appear, showing you all the possible options for that blank box. Each drop-down menu with its options is shown below.

The Mississippians were American Indians who lived in Georgia when Europeans first arrived in the mid-1500s. These Indians had several unique characteristics. Their shelters were mostly made from [ ]. They obtained most of their food by [ ].

growing crops
raising animals
hunting whales
hunting buffalo

adobe bricks
cedar planks
sticks and mud or clay
buffalo hides and wooden poles

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Item 20

Drop-Down Technology-Enhanced: 1 point

Complete the paragraph by selecting the correct phrase from the drop-down menu.

During Reconstruction, Democrats in the Georgia General Assembly expelled the recently elected African American/Black members. One reason for this action was [ ].

Use a mouse, touchpad, or touchscreen to click on the arrow beside the blank box. When you click on the arrow, a drop-down menu will appear, showing you all the possible options for the blank box. The drop-down menu with its options is shown below.

During Reconstruction, Democrats in the Georgia General Assembly expelled the recently elected African American/Black members. One reason for this action was [ ].

- to end Jim Crow laws
- to gain political power
- to reinforce military rule
- to promote New South goals

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Item 21

Drag-and-Drop Technology-Enhanced: 1 point

Complete the list by moving and placing the correct phrase into the box.

The Bourbon Triumvirate

- developed railroad and mining industries
- consisted of powerful political leaders in the post-Reconstruction era
-

opposed New South industrial growth

supported the goals of the Populists

opposed the segregation of public schools

supported the interests of former plantation owners

Use a mouse, touchpad, or touchscreen to move the correct phrase into the box.

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Item 22

Drag-and-Drop Technology-Enhanced: 1 point

Complete the list by moving and placing the correct phrase into the box.

Some Powers of the Georgia Governor

- can veto legislation
- enforces the state's laws
- oversees the state's executive branch
-

passes the state's operating budget

commands the state's military forces

holds trials in civil and criminal cases

votes on proposed constitutional amendments

Use a mouse, touchpad, or touchscreen to move the correct phrase into the box.

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SOCIAL STUDIES ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	SS8E2b	2	D	The correct answer is choice (D) They create businesses that produce goods and services. An entrepreneur is someone who starts a business. Choices (A), (B), and (C) are incorrect because entrepreneurs do not necessarily do any of these things.
2	SS8CG2d	2	B	The correct answer is choice (B) by collecting taxes. Most Georgia state revenue comes from taxes. Choice (A) is incorrect because although the state does collect fees, it is not the main source of revenue. Choices (C) and (D) are incorrect because selling products and seeking donations are ways that private businesses and nongovernmental organizations raise money.
3	SS8G1d	3	A	The correct answer is choice (A) a river that provided water and transportation. Choices (B), (C), and (D) are incorrect because although forests, a defensive location, and food sources are all important in the success of a colony, these were not the most important geographic features.
4	SS8CG1d	1	D	The correct answer is choice (D) be eighteen years old. Eighteen is the minimum voting age for Georgia voters. Choices (A), (B), and (C) are incorrect because these are not requirements for voting in Georgia.
5	SS8CG6a	2	B	The correct answer is choice (B) county government. A Georgia county government is run by a commission and is created by the state legislature to help the state carry out specific services, such as elections, road building, and health programs. Choice (A) is incorrect because column B describes a city government. Choice (C) is incorrect because a national government is not run by a commission or created by the state legislature. Choice (D) is incorrect because a special-purpose government is not run by a commission.
6	SS8CG2b	2	C	The correct answer is choice (C) to allow bills to be studied carefully. In the Georgia General Assembly, committees are formed to study and evaluate bills before the legislature votes on them. Choices (A), (B), and (D) are incorrect because they do not describe the roles and responsibilities of committees.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
7	SS8H11b	2	C	The correct answer is choice (C) They both helped organize the March on Washington for Jobs and Freedom. Choices (A) and (D) are incorrect because they describe only John Lewis. Choice (B) is incorrect because it describes other civil rights leaders.
8	SS8H8b	3	A	The correct answer is choice (A) Farmers grew less cotton, and some gave up farming altogether. Boll weevils and droughts both destroyed many cotton fields in Georgia, and the graphs show that cotton acreage and the number of working farms both decreased in the mid-1920s. Choice (B) is incorrect because growing cotton became less profitable. Choice (C) is incorrect because growing cotton became more difficult. Choice (D) is incorrect because the supply of cotton was affected more than the demand was.
9	SS8H12b	2	A	The correct answer is choice (A) Jimmy Carter. Carter served as a Georgia state senator and governor before he was elected as president of the United States in 1976. Choices (B), (C), and (D) are incorrect because none of these people fit the description in the box.
10	SS8H3c	1	A	The correct answer is choice (A) the fight for independence from Great Britain. Patriots were people who wanted the colonies to become independent. Choice (B) is incorrect because patriots wanted all the colonies to form a new nation together, not just Georgia. Choices (C) and (D) are incorrect because they describe loyalists, or people in the colonies who remained loyal to Great Britain and opposed independence.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
11	SS8H10a	3	D, B	**Part A** The correct answer for Part A is choice (D) an increased use of agricultural technology. Choice (A) is incorrect because urban and suburban areas grew during this time period. Choice (B) is incorrect because although the boll weevil did cause widespread damage to Georgia's farms, this occurred during an earlier time period. Choice (C) is incorrect because although drought did affect parts of the United States during the 1930s, this was not a cause of the reduction in farms in Georgia in the post–World War II period. **Part B** The correct answer for Part B is choice (B) There was a population shift to urban areas of the state. Choice (A) is incorrect because many farm workers lost their jobs during this time period. Choice (C) is incorrect because any immigrants were more likely to move to urban areas where there were more jobs. Choice (D) is incorrect because although there were fewer farms, they were more productive, and a growing population would have continued demand for farm products.
12	SS8E3d	3	D, C	**Part A** The correct answer for Part A is choice (D) getting a loan from a mortgage company to purchase a home. Choices (A), (B), and (C) are incorrect because these are considered luxuries rather than needs. **Part B** The correct answer for Part B is choice (C) being unable to save for emergencies. Choice (A) is incorrect because incurring debt does not necessarily result in fewer job opportunities. Choice (B) is incorrect because declining credit card offers is not considered a particular risk. Choice (D) is incorrect because incurring debt does not prevent someone from establishing a household budget.
13	SS8H8e	3	D, F	The correct answers are choice (D) records showing the number of CCC participants, and choice (F) estimates of the value of CCC improvements to public lands. Choices (A), (B), (C), and (E) are incorrect because although these pieces of evidence would provide information about the CCC and the program's participants, they would not be especially useful in determining whether the CCC had been successful in meeting the goals listed in the passage.

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Item	Standard/ Element	DOK Level	Correct Answer	Explanation
14	SS8CG4c	3	C, F	The correct answers are choice (C) A plaintiff brings a lawsuit against a defendant, and choice (F) A private party tries to settle a disagreement with another private party. Choices (A) and (B) are incorrect because they are true about both civil and criminal law. Choices (D) and (E) are incorrect because they are true about only criminal law.
15	SS8G1b	1	N/A	See scoring rubric and exemplar response on page 208.
16	SS8H12a	2	N/A	See scoring rubric and exemplar response on page 209.
17	SS8CG2c	2	N/A	See scoring rubric and exemplar response on page 210.
18	SS8E3c	2	N/A	See scoring rubric and exemplar response on page 211.
19	SS8H1a	2	N/A	See scoring rubric and exemplar response on page 212.
20	SS8H6d	2	N/A	See scoring rubric and exemplar response on page 213.
21	SS8H7a	2	N/A	See scoring rubric and exemplar response on page 214.
22	SS8CG3a	2	N/A	See scoring rubric and exemplar response on page 215.

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SOCIAL STUDIES EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

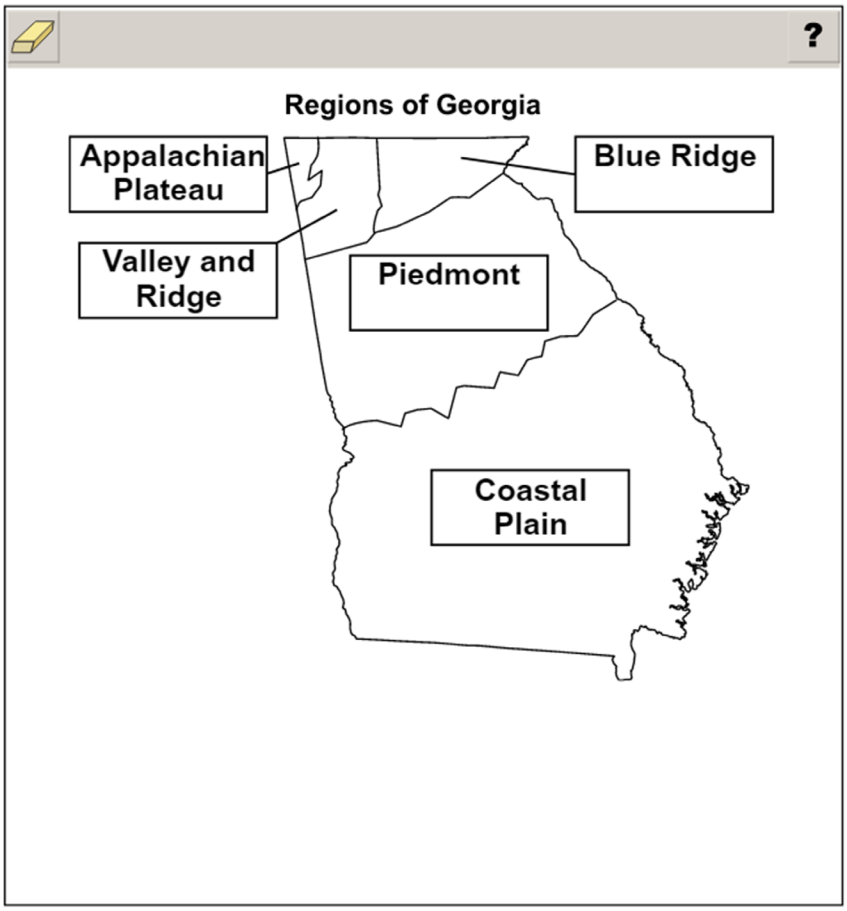
Item 15

Scoring Rubric

Points	Description
2	The student correctly labels all five regions.
1	The student correctly labels two, three, or four regions.
0	The student correctly labels one or no regions.

Exemplar Response

The correct response is shown below.



The Georgia region located in the northwestern corner of the state is the Appalachian Plateau. Bordering this region to the east is the Valley and Ridge region. The region in the northeastern corner is the Blue Ridge region. The middle region is the Piedmont, and the southernmost region is the Coastal Plain. Incorrect responses would consist of placing labels in the wrong regions or not labeling one or more regions.

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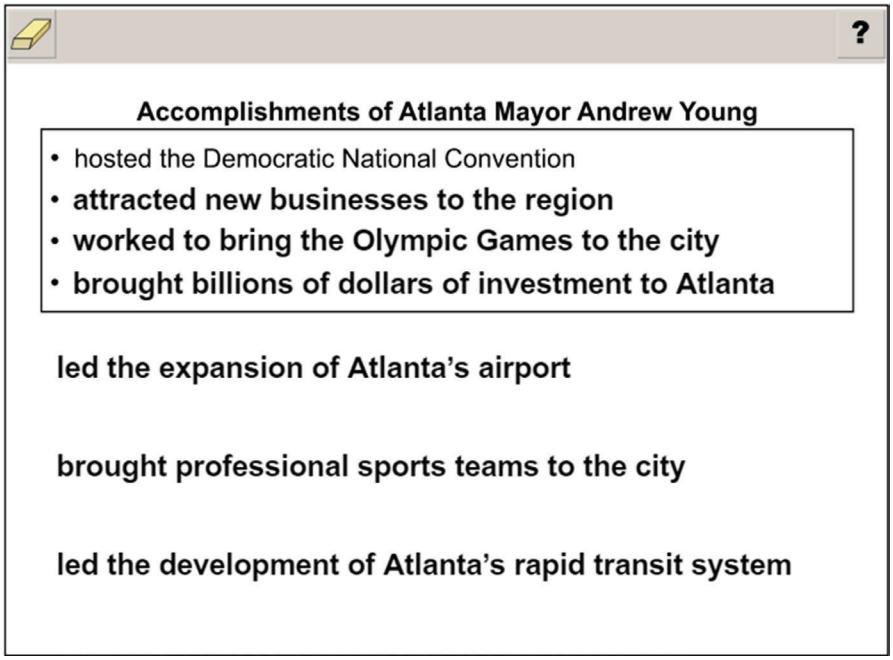
Item 16

Scoring Rubric

Points	Description
2	The student correctly identifies three accomplishments.
1	The student correctly identifies two accomplishments.
0	The student correctly identifies one or no accomplishments.

Exemplar Response

The correct response is shown below.



The correct responses are "attracted new businesses to the region," "worked to bring the Olympic Games to the city," and "brought billions of dollars of investment to Atlanta." Mayor Young brought more than 1,000 new businesses and one million jobs to the region. While mayor, Young initiated a campaign to host the Olympic Games and later became co-chairman of the 1996 Olympic Games in Atlanta. Young also brought billions of dollars of new investment to Atlanta. The response "led the expansion of Atlanta's airport" is incorrect because Young was not involved in that effort. Another Atlanta mayor, Maynard Jackson, was instrumental in leading the expansion of Atlanta's airport. The response "brought professional sports teams to the city" was an accomplishment of Atlanta mayor Ivan Allen Jr. The response "led the development of Atlanta's rapid transit system" is incorrect, as it refers to an accomplishment of Atlanta mayor Maynard Jackson.

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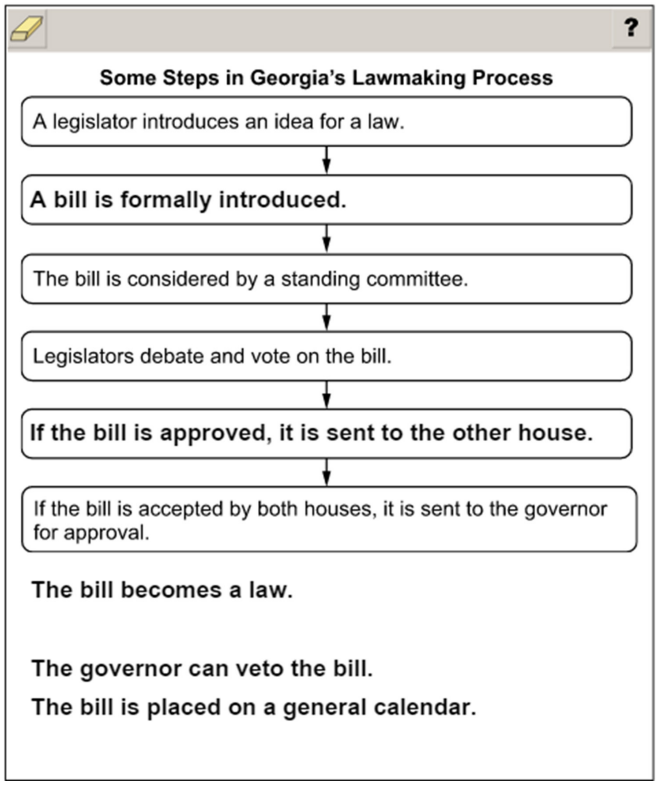
Item 17

Scoring Rubric

Points	Description
2	The student correctly completes two steps.
1	The student correctly completes one step.
0	The student does not correctly complete any step.

Exemplar Response

The correct response is shown below.



The correct response for the first blank box is "A bill is formally introduced." This step occurs after a legislator introduces an idea for a law and files a bill with the Clerk of the House or the Secretary of the Senate. After that, the bill is formally introduced. The correct response for the second blank box is "If the bill is approved, it is sent to the other house." The other house will follow the lawmaking process and will have to pass the bill for it to go to the governor for approval. The responses "The bill becomes a law" and "The governor can veto the bill" are steps that occur after the bill is passed by both houses of the legislature. The response "The bill is placed on a general calendar" is a step that occurs before it is approved by either the House or the Senate.

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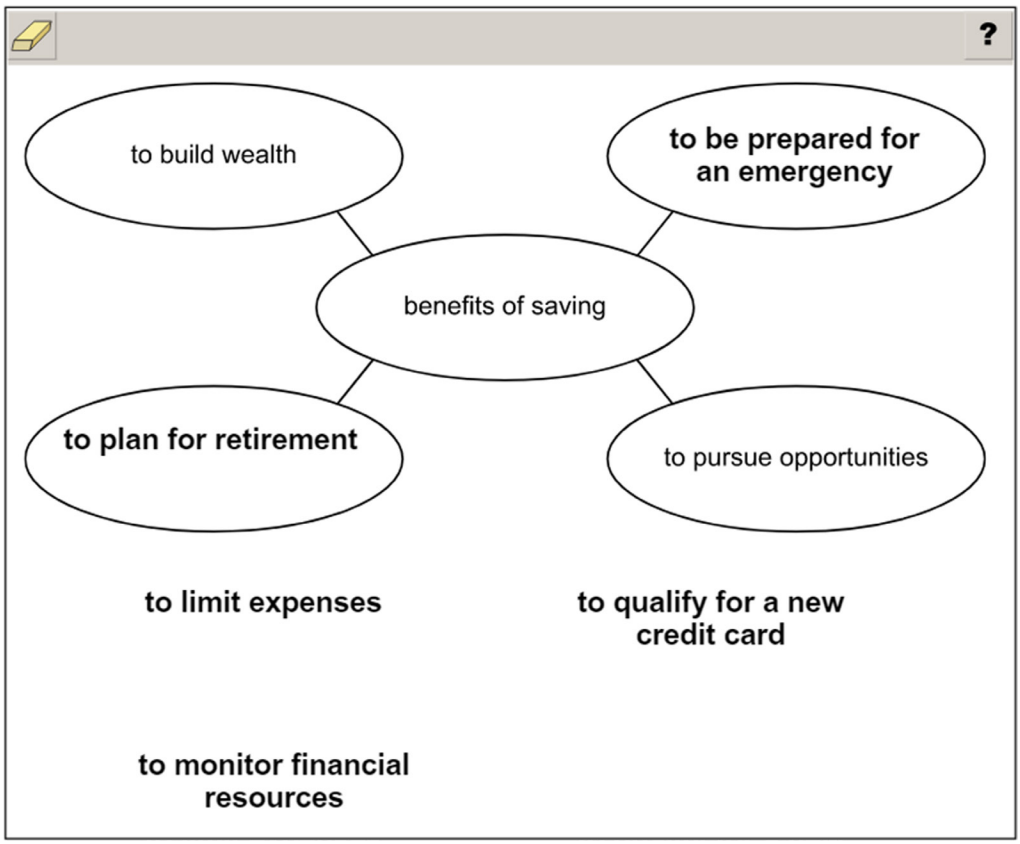
Item 18

Scoring Rubric

Points	Description
2	The student correctly identifies two benefits.
1	The student correctly identifies one benefit.
0	The student does not correctly identify any benefits.

Exemplar Response

The correct response is shown below.



The correct responses that should be moved into the blank ovals in the diagram are “to plan for retirement” and “to be prepared for an emergency.” When people save money over time, they will be better prepared to support themselves when they no longer work and to pay for unexpected costs. The responses “to limit expenses” and “to monitor financial resources” are ways people can save and keep track of their finances, but they do not describe the benefits of saving. The response “to qualify for a new credit card” can help people in certain circumstances, but it does not describe a benefit of saving.

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Item 19

Scoring Rubric

Points	Description
2	The student correctly selects both drop-down menu options.
1	The student correctly selects one drop-down menu option.
0	The student correctly selects no drop-down menu options.

Exemplar Response

The correct response is shown below.

The Mississippians were American Indians who lived in Georgia when Europeans first arrived in the mid-1500s. These Indians had several unique characteristics. Their shelters were mostly made from [sticks and mud or clay ▾]. They obtained most of their food by [growing crops ▾].

The correct responses are “sticks and mud or clay” and “growing crops.” The Mississippians constructed one-room, circular wattle and daub shelters, with walls made from interwoven sticks covered with mud or clay. They also practiced agriculture, growing corn and other crops.

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Item 20

Scoring Rubric

Points	Description
1	The student correctly selects the drop-down menu option.
0	The student does not correctly select the drop-down menu option.

Exemplar Response

The correct response is shown below.

During Reconstruction, Democrats in the Georgia General Assembly expelled the recently elected African American/Black members. One reason for this action was [to gain political power ▾].

The correct response is “to gain political power.” The Democrats, along with their white Republican supporters, voted for this expulsion to maintain their political power and to deny the rights of African Americans/Blacks.

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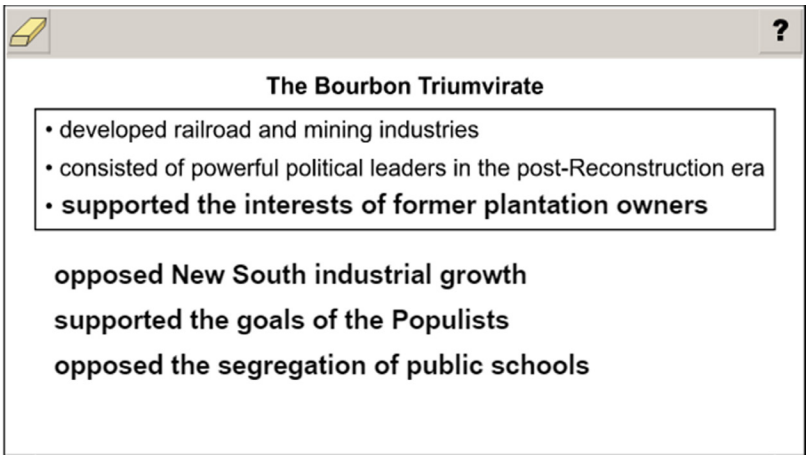
Item 21

Scoring Rubric

Points	Description
1	The student correctly completes the list.
0	The student does not correctly complete the list.

Exemplar Response

The correct response is shown below.



The correct response is “supported the interests of former plantation owners.” The Bourbon Triumvirate was a group of three politicians (Joseph E. Brown, Alfred H. Colquitt, and John B. Gordon) who had an important influence on Georgia during the New South Era. Their goals included developing railroad and mining industries, lowering taxes, and supporting the interests of former plantation owners.

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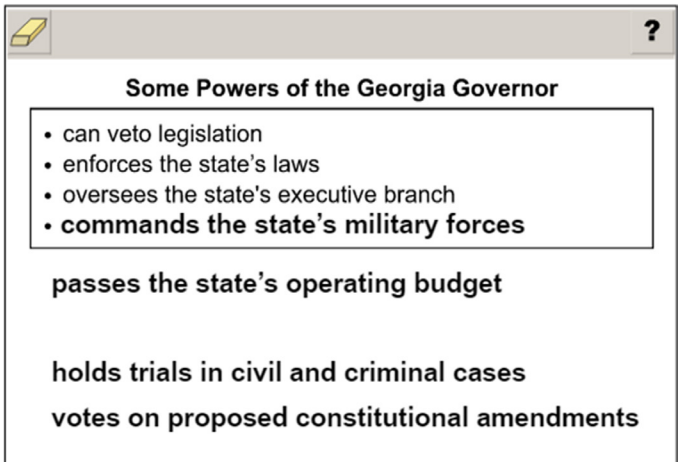
Item 22

Scoring Rubric

Points	Description
1	The student correctly completes the list.
0	The student does not correctly complete the list.

Exemplar Response

The correct response is shown below.



The correct response is "commands the state's military forces." The governor of Georgia is the commander in chief of the state's National Guard and the Georgia State Patrol. The governor may call these organizations into service during an emergency or in other special situations.

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APPENDIX: LANGUAGE PROGRESSIVE SKILLS, BY GRADE

The following skills, marked with an asterisk (*) in Language standards 1–3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Standard	Grade(s)							
	3	4	5	6	7	8	9–10	11–12
L.3.1f. Ensure subject-verb and pronoun-antecedent agreement.								
L.3.3a. Choose words and phrases for effect.								
L.4.1f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.								
L.4.1g. Correctly use frequently confused words (e.g., *to/too/two; there/their*).								
L.4.3a. Choose words and phrases to convey ideas precisely.*								
L.4.3b. Choose punctuation for effect.								
L.5.1d. Recognize and correct inappropriate shifts in verb tense.								
L.5.2a. Use punctuation to separate items in a series.†								
L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person.								
L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style.‡								
L.6.3b. Maintain consistency in style and tone.								
L.7.1c. Places phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
L.7.3a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
L.8.1d. Recognize and correct inappropriate shifts in verb voice and mood.								
L.9-10.1a. Use parallel structure.								

* Subsumed by L.7.3a
† Subsumed by L.9-10.1a
‡ Subsumed by L.11-12.3a

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END OF GRADE 8

EOG ASSESSMENT GUIDE

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Assessment Guide
Grade 8
End-of-Grade