

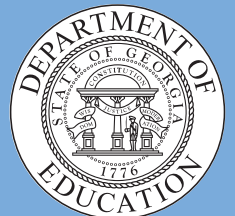
Georgia  
**Milestones**  
Assessment System



**Assessment Guide**  
**Grade 8**



**Assessment Guide**



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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 3–8 take an end-of-grade assessment in each content area, while high school students take an end-of-course assessment for each of the ten 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:

- open-ended (constructed-response) items in Language Arts and Mathematics (all grades and courses);
- a writing component (in response to passages read by students) at every grade level and course within the Language Arts assessment;
- norm-referenced items in all content areas and courses to complement the criterion-referenced information and to provide a national comparison; and
- a transition to online administration over time, with online administration considered the primary mode of administration and paper/pencil as a backup until the transition is complete.

The primary mode of administration for the Georgia Milestones program is online, with the goal of completing the transition from paper/pencil within five years after the inaugural administration (i.e., the 2014–2015 school year). Paper/pencil test materials (such as Braille) will remain available for students with disabilities who may require them in order to access the assessment.

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
- accelerates the transition to online administration, allowing—over time—for the inclusion of 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), Mathematics, Science, and Social Studies in grades 3 through 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.

## 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](http://www.georgiastandards.org).

## **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.

## 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.



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
<p style="text-align: center;">Level 1 Recall of Information</p>	<ul style="list-style-type: none"> <li>• Make observations</li> <li>• Recall information</li> <li>• Recognize formulas, properties, patterns, processes</li> <li>• Know vocabulary, definitions</li> <li>• Know basic concepts</li> <li>• Perform one-step processes</li> <li>• Translate from one representation to another</li> <li>• Identify relationships</li> </ul>	<ul style="list-style-type: none"> <li>• Tell what, when, or where</li> <li>• Find</li> <li>• List</li> <li>• Define</li> <li>• Identify; label; name</li> <li>• Choose; select</li> <li>• Compute; estimate</li> <li>• Express as</li> <li>• Read from data displays</li> <li>• Order</li> </ul>
<p style="text-align: center;">Level 2 Basic Reasoning</p>	<ul style="list-style-type: none"> <li>• Apply learned information to abstract and real-life situations</li> <li>• Use methods, concepts, theories in abstract and real-life situations</li> <li>• Perform multi-step processes</li> <li>• Solve problems using required skills or knowledge (requires more than habitual response)</li> <li>• Make a decision about how to proceed</li> <li>• Identify and organize components of a whole</li> <li>• Extend patterns</li> <li>• Identify/describe cause and effect</li> <li>• Recognize unstated assumptions; make inferences</li> <li>• Interpret facts</li> <li>• Compare or contrast simple concepts/ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Apply</li> <li>• Calculate; solve</li> <li>• Complete</li> <li>• Describe</li> <li>• Explain how; demonstrate</li> <li>• Construct data displays</li> <li>• Construct; draw</li> <li>• Analyze</li> <li>• Extend</li> <li>• Connect</li> <li>• Classify</li> <li>• Arrange</li> <li>• Compare; contrast</li> </ul>

Level	Skills Demonstrated	Question Cues
<p style="text-align: center;">Level 3 Complex Reasoning</p>	<ul style="list-style-type: none"> <li>• Solve an open-ended problem with more than one correct answer</li> <li>• Create a pattern</li> <li>• Generalize from given facts</li> <li>• Relate knowledge from several sources</li> <li>• Draw conclusions</li> <li>• Make predictions</li> <li>• Translate knowledge into new contexts</li> <li>• Compare and discriminate between ideas</li> <li>• Assess value of methods, concepts, theories, processes, formulas</li> <li>• Make choices based on a reasoned argument</li> <li>• Verify the value of evidence, information, numbers, data</li> </ul>	<ul style="list-style-type: none"> <li>• Plan; prepare</li> <li>• Predict</li> <li>• Create; design</li> <li>• Ask “what if?” questions</li> <li>• Generalize</li> <li>• Justify; explain why; support; convince</li> <li>• Assess</li> <li>• Rank; grade</li> <li>• Test; judge</li> <li>• Recommend</li> <li>• Select</li> <li>• Conclude</li> </ul>
<p style="text-align: center;">Level 4 Extended Reasoning</p>	<ul style="list-style-type: none"> <li>• Analyze and synthesize information from multiple sources</li> <li>• Examine and explain alternative perspectives across a variety of sources</li> <li>• Describe and illustrate how common themes are found across texts from different cultures</li> <li>• Apply mathematical models to illuminate a problem or situation</li> <li>• Design a mathematical model to inform and solve a practical or abstract situation</li> <li>• Combine and synthesize ideas into new concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Design</li> <li>• Connect</li> <li>• Synthesize</li> <li>• Apply concepts</li> <li>• Critique</li> <li>• Analyze</li> <li>• Create</li> <li>• Prove</li> </ul>

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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. Students will also receive a norm-referenced score based on a set of norm-referenced items included within the test; this score will allow comparison to a national norming group of students. 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 are machine scored. The Science and Social Studies assessments consist of only selected-response 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, constructed-response, extended constructed-response, and extended writing-response. Likewise, the Mathematics assessment consists of selected-response, constructed-response, and extended constructed-response items. Items that are not machine scored—i.e., constructed-response, extended constructed-response, and extended writing-response items—require rubrics for manual scoring.

## ENGLISH LANGUAGE ARTS (ELA)

### DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones English Language Arts (ELA) EOG assessment is primarily 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). 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 include a limited sample of nationally norm-referenced items to provide a signal 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 Grade 8 English Language Arts (ELA) EOG assessment consists of a total of 60 items, 54 of which are operational items (and contribute to a student's criterion-referenced and/or norm-referenced score) and 6 of which are field test items (newly written items that are being tried out and do not contribute to the student's score). The criterion-referenced score, and Achievement Level designation, is comprised of 44 items, for a total of 55 points. Students will respond to a variety of item types, including selected-response, constructed-response, extended constructed-response, and extended writing-response items. Of the 54 operational items, 20 will be norm-referenced and will provide a national comparison in the form of a national percentile rank. Ten of the items have been verified as aligned to the course content standards by Georgia educators and will therefore contribute to the criterion-referenced Achievement Level designation. The other 10 items will contribute only to the national percentile rank and be provided as supplemental information. Only items that are aligned to the state-adopted content standards will be utilized to inform the criterion-referenced score.

With the inclusion of the norm-referenced items, students may encounter items for which they have not received direct instruction. These items will not contribute to the students' criterion-referenced Achievement Level designation; only items that align to the course content standards will contribute to the criterion-referenced score. Students should be instructed to try their best should they ask about an item that is not aligned to the content they have learned as part of the course.

## Grade 8 English Language Arts (ELA) EOG Assessment Design

Description	Number of Items	Points for CR <sup>1</sup> Score	Points for NRT <sup>2</sup> Feedback
CR Selected-Response Items	30	30	0
NRT Selected-Response Items	20 <sup>3</sup>	10 <sup>4</sup>	20
CR Constructed-Response Items	2	4	0
CR Extended Constructed-Response Items	1	4	0
CR Extended Writing-Response Items	1	7	0
CR Field Test Items	6	0	0
<b>Total Items/Points<sup>5</sup></b>	<b>60</b>	<b>55</b>	<b>20</b>

<sup>1</sup>CR—Criterion-Referenced: items aligned to state-adopted content standards

<sup>2</sup>NRT—Norm-Referenced Test: items that will yield a national comparison; may or may not be aligned to state-adopted content standards

<sup>3</sup>Of these items, 10 will contribute to both the CR scores and NRT feedback. The other 10 of these items will contribute to NRT feedback only and will not impact the student's Achievement Level designation, scale score, or grade conversion.

<sup>4</sup>Alignment of national NRT items to course content standards was verified by a committee of Georgia educators. Only approved, aligned NRT items will contribute to a student's CR Achievement Level designation, scale score, and grade conversion score.

<sup>5</sup>Total number of items contributing to CR score: 44; total points: 55; total number of items contributing to NRT feedback: 20; total points: 20

The test will be given in three sections. Students may have up to 75 minutes per section to complete Sections 1 and 2. Students will be given a maximum of 90 minutes to complete Section 3, which includes the extended writing-response. The total estimated testing time for the Grade 8 English Language Arts (ELA) EOG assessment ranges from approximately 190 to 240 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 to be administered on the same day in one test session following the district's testing protocols for the EOG measures (in keeping with state guidance). Section 3, which focuses on writing, must be administered on a separate day following the completion of Sections 1 and 2.

## CONTENT MEASURED

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

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 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 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

Domain	Standard	Approximate Weight	
Reading and Vocabulary	ELAGSE8RI1	ELAGSE8RL2	53%
	ELAGSE8RI2	ELAGSE8RL3	
	ELAGSE8RI3	ELAGSE8RL4	
	ELAGSE8RI4	ELAGSE8RL5	
	ELAGSE8RI5	ELAGSE8RL6	
	ELAGSE8RI6	ELAGSE8RL9	
	ELAGSE8RI7	ELAGSE8L4	
	ELAGSE8RI8	(4a, 4b, 4c)	
	ELAGSE8RI9	ELAGSE8L5	
	ELAGSE8RL1	(5a, 5b, 5c)	
Writing and Language	ELAGSE8W1 (1a, 1b, 1c, 1d, 1e)	ELAGSE8W8 ELAGSE8W9	47%
	ELAGSE8W2 (2a, 2b, 2c, 2d, 2e, 2f)	ELAGSE8L1 (1a, 1b, 1c, 1d)	
	ELAGSE8W3 (3a, 3b, 3c, 3d, 3e)	ELAGSE8L2 (2a, 2b, 2c)	
	ELAGSE8W4	ELAGSE8L3	
	ELAGSE8W7	(3a)	

## ITEM TYPES

The English Language Arts (ELA) portion of the Grade 8 EOG assessment consists of selected-response, 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 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 correct.

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 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 correct.

The extended writing-response items require students to produce arguments or develop an informative 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 four items 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.

## **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.**



## Example Items 1 and 2

Read the article “Technology Nation: A Unique Vision” 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.

But with the help of technology, humans have found a way to *simulate*, or recreate, night vision in order to see in the dark. Developed and improved over decades, several night vision devices are now available. They are used for many different 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.

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

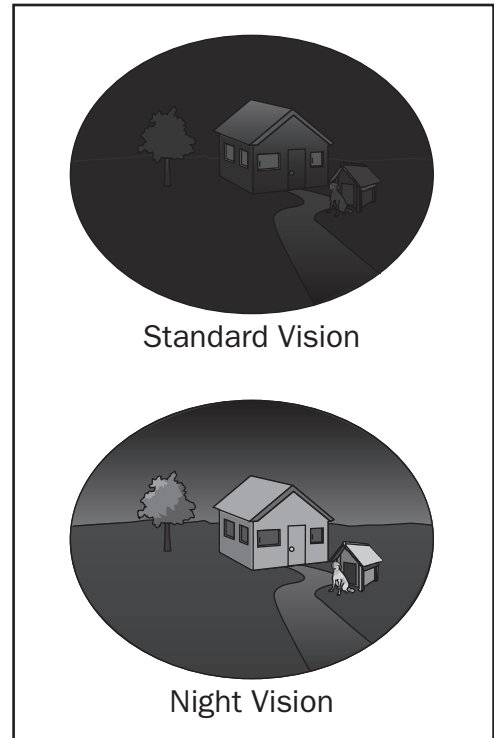
**Sergeant Tyson:** Around 1945, the Army realized that we could develop the technology to see at night. Night vision devices would greatly help our soldiers who need to see in the dark. Our research departments came up with a night vision scope that was given to 300 soldiers. This first type of night 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 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.

**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

#### 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 passage 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.

## Example Item 2

**DOK Level 3:**

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

**Standard:** ELAGSE8RI7. Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.

**What are the advantages of including the two images in the passage?**

**Use details from the passage to support your answer.**

### Scoring Rubric

Points	Description
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to explain the advantages of using images in the passage</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the use of images in the passage and supports it with clearly relevant information based on the text</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to explain the advantages of using images in the passage</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the use of images in the passage but supports it with vague/limited information based on the text</li> </ul>
0	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to explain the advantages of using images in the passage</li> </ul>

**Exemplar Response**

<b>Points Awarded</b>	<b>Sample Response</b>
2	The images show a comparison between how a person sees with their standard vision at night and how a person sees with the help of a night vision device. One advantage of using the images is that the reader can note the difference between standard vision and night vision; more specifically, how much light and detail can be seen at night with the help of a night vision device. The other advantage to having the images included is to show how nocturnal animals may see at night, as they served as inspiration for developing such technologies for people to use. Both advantages aid the reader in understanding vision differences through the use of images as a real-world example.
1	The images help the reader understand what it must look like having night vision capabilities when compared to our standard vision at night. For example, the reader can note how much light and detail can be seen at night with the help of a night vision device.
0	The images help the reader understand night vision.

## Example Item 3

### DOK Level 4:

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

**Standard:** ELAGSE8W2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

**In this section, you will read about the ongoing debate over the use of genetically modified (GM) food. What are the benefits and dangers of producing and consuming foods that have been genetically modified? You will write an argumentative essay in your own words supporting either side of the debate in which you argue for or against the use of GM food.**

**Before you begin planning and writing, you will read two passages. As you read the passages, think about what details from the passages you might use in your argumentative essay. These are the titles of the passages you will read:**

1. **GM Food Saves Lives**
2. **What We Don't Know About GM Food Can Kill Us**

### **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.

## **What We Don't Know About GM Food Can Kill Us 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 DDT (“dichlorodiphenyltrichloroethane”). 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.

**Now that you have read “GM Food Saves Lives” and “What We Don’t Know About GM Food Can Kill Us,” create a plan for and write your argumentative essay.**

## WRITING TASK

There is an ongoing debate over the use of genetically modified (GM) food. What are the benefits and dangers of producing and consuming foods that have been genetically modified?

Think about the ideas in the two passages. Then write an argumentative essay in your own words supporting either side of this debate.

Be sure to use information from BOTH passages as you write your argumentative essay. **Write your answer on the lines provided.**

### **Before you write, be sure to:**

- Think about ideas, facts, definitions, details, and other information and examples you want to use.
- Think about how you will introduce your topic and what the main topic will be for each paragraph.
- Develop your ideas clearly and use your own words, except when quoting directly from the passages.
- Be sure to identify the passages by title or number when using details or facts directly from the passages.
- You may use scratch paper if needed.

### **Now write your argumentative essay. Be sure to:**

- Introduce your claim.
- Support your claim with logical reasoning and relevant evidence from the passages.
- Acknowledge and address alternate or opposing claims.
- Organize the reasons and evidence logically.
- Use words, phrases, and clauses to connect your ideas and to clarify the relationships among claims, counterclaims, reasons, and evidence.
- Establish and maintain a formal style.
- Provide a concluding statement or section that follows from and supports the argument presented.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.



**The following is an example of a seven-point response. See the seven-point, two-trait rubric for a text-based argumentative response on pages 50 and 51 to see why this example would earn the maximum number of points.**

*Genetically modified food is a necessary and important step in our efforts to feed the people of the world and keep them healthy. Since it has 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 eating 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. Just like McLeod questions, “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, “[T]he use of genetics on crops 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.*

## **ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEMS**

This section has two parts. The first part is a set of 10 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.

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

**Items 1 through 8**

Use this passage to answer questions 1 through 8.

### 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. His juice pouch gurgled and went flat as he slurped the last of its contents.

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. “I don’t need your help! Just because I don’t get algebra—it doesn’t mean I’m stupid!” Brayden hurled his tent poles onto the heap of twisted nylon and stormed off toward the river.

Upriver, Brayden sat on his favorite boulder and watched the sun sink beneath the trees. The juice pouch in his back pocket crinkled. He grabbed the pouch and threw it at the water as hard as he could. He sighed and 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."

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. I made a mistake," Brayden sighed. "I've just been . . . mad. . . ." His father gave him a look of understanding and patted him affectionately 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

**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

**How does the word choice in the sentence add to the development of the story?**

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

- 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 suggests that carrying the backpack is a new experience for Brayden.

**Item 3**

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. flinched
- D. hesitated

**Item 4**

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.





## Items 9 and 10

In this section, you will read about the ongoing debate over the use of genetically modified (GM) food. What are the benefits and dangers of producing and consuming foods that have been genetically modified? You will write an argumentative essay in your own words supporting either side of the debate in which you argue for or against the use of GM food.

Before you begin planning and writing, you will read two passages. As you read the passages, think about what details from the passages you might use in your argumentative essay. These are the titles of the passages you will read:

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2. What We Don't Know About GM Food Can Kill Us

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#### **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.

**What We Don't Know About GM Food Can Kill Us  
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 DDT (“dichlorodiphenyltrichloroethane”). 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.

**Item 9**

**Rebecca Wilson claims in “GM Food Saves Lives” that genetically modified 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 Can Kill Us,” how sound is her reasoning about the safety of GM food?**

**Write your answer on the lines provided.**

Blank writing area with 20 horizontal lines for the student's response.

**Item 10**

Now that you have read “GM Food Saves Lives” and “What We Don’t Know About GM Food Can Kill Us,” create a plan for your argumentative essay.

**WRITING TASK**

There is an ongoing debate over the use of genetically modified (GM) food. What are the benefits and dangers of producing and consuming foods that have been genetically modified?

Think about the ideas in the two passages. Then write an argumentative essay in your own words supporting either side of this debate.

Be sure to use information from BOTH passages as you write your argumentative essay. **Write your answer on the lines provided.**

**Before you write, be sure to:**

- Think about ideas, facts, definitions, details, and other information and examples you want to use.
- Think about how you will introduce your topic and what the main topic will be for each paragraph.
- Develop your ideas clearly and use your own words, except when quoting directly from the passages.
- Be sure to identify the passages by title or number when using details or facts directly from the passages.
- You may use scratch paper if needed.

**Now write your argumentative essay. Be sure to:**

- Introduce your claim.
- Support your claim with logical reasoning and relevant evidence from the passages.
- Acknowledge and address alternate or opposing claims.
- Organize the reasons and evidence logically.
- Use words, phrases, and clauses to connect your ideas and to clarify the relationships among claims, counterclaims, reasons, and evidence.
- Establish and maintain a formal style.
- Provide a concluding statement or section that follows from and supports the argument presented.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

A large rectangular box with a black border, containing 25 horizontal lines for writing. The lines are evenly spaced and extend across the width of the box.



**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 tempered by the fact that he has to do summer school and continually feels like he is being told he is stupid. 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 passage. 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	3	A	The correct answer is choice (A) It indicates that the backpack is heavy. The word <i>hoisted</i> means “an act of raising or lifting something.” In most contexts, and particularly in this one, the word refers to lifting something heavy. Choice (B) is incorrect because <i>hoisted</i> 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 passage.
3	ELAGSE8L4a	2	B	The correct answer is choice (B) cringed. The word <i>recoiled</i> means “suddenly spring or flinch back in fear, horror, or disgust.” The word <i>cringed</i> means “bend one’s head and body in fear or in a servile manner.” The smell of pine repulses Brayden, and both <i>recoiled</i> and <i>cringed</i> can show this. Choices (A) and (D) are incorrect because they do not indicate disgust. Choice (C) is incorrect because flinching is a sudden reaction to surprise, fear, or pain and does not fit the context of the sentence.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
4	ELAGSE8L5a	3	C	The correct answer is choice (C) The coyote approves of Brayden's effort to correct his mistake. Brayden has just 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 indicates her approval. Choice (A) is incorrect because although the coyote does not seem to mind Brayden's presence, her nod contextually means that she approves of what Brayden has just done. He fixed his mistake, which the coyote witnessed. Choices (B) and (D) are incorrect because they are not supported by the passage, as the reader does not know that the coyote has seen him before or that she necessarily trusts him.
5	ELAGSE8RL2	3	N/A	See scoring rubric and exemplar responses on page 41.
6	ELAGSE8RL3	2	B	The correct answer is choice (B) hearing his father's story. The story teaches Brayden a lesson about the environment, namely that it does not belong to any one person. Everyone has to share it, so it needs to be kept clean and safe. Choice (A) is incorrect because Brayden saw the coyote after picking up the juice pouch. Choice (C) is incorrect because Brayden does not find other campers' trash in the river. Choice (D) is incorrect because Brayden never has a moment where he reflects on what he has learned about camping. His change in attitude is because of his father's campfire story.
7	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 passage. Choice (C) is incorrect because Coyote is female and, as such, not a "wise father figure."

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
8	ELAGSE8W3a	3	N/A	See exemplar responses on page 42 and the four-point holistic rubric beginning on page 46.
9	ELAGSE8RI8	3	N/A	See scoring rubric and exemplar responses on page 43.
10	ELAGSE8W1b	4	N/A	See exemplar response on page 44 and the seven-point, two-trait rubric beginning on page 50.



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

### Item 5

#### Scoring Rubric

Points	Description
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to determine the main theme and analyze its development over the course of a text</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the theme or gives an explanation of its development with clearly relevant information based on the text</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to determine the main theme and analyze its development over the course of a text</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the theme or gives an explanation of its development with vague/limited information based on the text</li> </ul>
0	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to determine the main theme or analyze its development over the course of a text</li> </ul>

#### Exemplar Response

Points Awarded	Sample Response
2	<p>The main theme of the story is that your actions can be harmful and steps must be taken to undo any damage you may have done. Brayden first lets his anger get the best of him, and he chooses to throw his juice pouch into the river out of frustration. After hearing a story about a bear who realizes his actions have polluted a river, Brayden admits he's made a mistake and fetches the juice pouch out of the water.</p>
1	<p>The main theme of the story is that your actions can be harmful and steps must be taken to undo any damage you may have done. Brayden throws his juice pouch in the river but then gets it back because he realizes he was wrong.</p>
0	<p>The main theme of the story is that your actions can be harmful and steps must be taken to undo any damage you may have done.</p>

## Item 8

To view the four-point holistic rubric for a text-based narrative response, see pages 46 and 47.

## Exemplar Response

Points Awarded	Sample Response
4	<p>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.</p> <p>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.</p> <p>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.</p>
3	<p>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.</p> <p>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.</p> <p>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.</p>
2	<p>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.</p> <p>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.</p>
1	<p>I took my kid camping, but he didn't wanna to go. He was mad because he wanted to be hanging out his friends instead. He stuck an empty juice pouch in his pocket instead of putting it in the car.</p>
0	<p>The response is completely irrelevant or incorrect, or there is no response.</p>

## Item 9

## Scoring Rubric

Points	Description
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to determine the main theme and analyze its development over the course of a text</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the theme or gives an explanation of its development with clearly relevant information based on the text</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to determine the main theme and analyze its development over the course of a text</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the theme or gives an explanation of its development with vague/limited information based on the text</li> </ul>
0	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to determine the main theme or analyze its development over the course of a text</li> </ul>

## Exemplar Response

Points Awarded	Sample Response
2	Rebecca Wilson’s reasoning for the safety of GM foods 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. Because of this bias, “believability of the studies” is in question. As McLeod says, “Their corporate dollars (may) 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.

## Item 10

**The following is an example of a seven-point response. See the seven-point, two-trait rubric for a text-based argumentative response on pages 50 and 51 to see why this example would earn the maximum number of points.**

*Genetically modified food is a necessary and important step in our efforts to feed the people of the world and keep them healthy. Since it has 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 eating 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. Just like McLeod questions, “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, “[T]he use of genetics on crops 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) 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 criterion. 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, the scorer or reader need only choose the description 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 criteria, or traits. On the Georgia Milestones EOG assessment, a two-trait rubric contains two point scales for each trait ranging from zero to three on one scale and zero to four on the other. A score is given for each of the two criteria/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 description and associated point value for each criteria/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.

## Four-Point Holistic Rubric

### Genre: Narrative

Writing Trait	Points	Criteria
<p><i>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.</i></p>	4	<p><i>The student's response is a well-developed narrative that fully develops a real or imagined experience based on a text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Effectively establishes a situation and a point of view and introduces a narrator and/or characters</li> <li>• Organizes an event sequence that unfolds naturally and logically</li> <li>• Effectively uses narrative techniques, such as dialogue, description, pacing, and reflection, to develop rich, interesting experiences, events, and/or characters</li> <li>• 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</li> <li>• Uses precise words, phrases, and sensory language to convey experiences and events and capture the action</li> <li>• Provides a conclusion that follows from the narrated experiences or events</li> <li>• Integrates ideas and details from source material effectively</li> <li>• Has very few or no errors in usage and/or conventions that interfere with meaning*</li> </ul>
	3	<p><i>The student's response is a complete narrative that develops a real or imagined experience based on text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Establishes a situation and introduces one or more characters</li> <li>• Organizes events in a clear, logical order</li> <li>• Uses narrative techniques, such as dialogue, description, pacing, and reflection, to develop experiences, events, and/or characters</li> <li>• 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</li> <li>• Uses words, phrases, and details to capture the action and convey experiences and events</li> <li>• Provides an appropriate conclusion</li> <li>• Integrates some ideas and/or details from source material</li> <li>• Has a few minor errors in usage and/or conventions that interfere with meaning*</li> </ul>
	2	<p><i>The student's response is an incomplete or oversimplified narrative based on text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Introduces a vague situation and at least one character</li> <li>• Organizes events in a sequence but with some gaps or ambiguity</li> <li>• Attempts to use a narrative technique, such as dialogue, description, pacing, or reflection, to develop experiences, events, and/or characters</li> <li>• 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</li> <li>• Uses some words or phrases inconsistently and ineffectively to convey experiences, and events, and capture the action</li> <li>• Provides a weak or ambiguous conclusion</li> <li>• Attempts to integrate ideas or details from source material</li> <li>• Has frequent errors in usage and conventions that sometimes interfere with meaning*</li> </ul>

## Four-Point Holistic Rubric

### Genre: Narrative (continued)

Writing Trait	Points	Criteria
<p><i>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.</i></p>	1	<p><i>The student's response provides evidence of an attempt to write a narrative based on text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Response is a summary of the story.</li> <li>• Provides a weak or minimal introduction of a situation or character</li> <li>• 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</li> <li>• Shows little or no attempt to use dialogue, description, pacing, or reflection to develop experiences, events, and/or characters</li> <li>• Uses words that are inappropriate, overly simple, or unclear</li> <li>• Provides few, if any, words to convey experiences, or events, or capture the action</li> <li>• Provides a minimal or no conclusion</li> <li>• May use few, if any, ideas or details from source material</li> <li>• Has frequent major errors in usage and conventions that interfere with meaning*</li> </ul>
	0	<p><i>The student's response is flawed for various reasons and will receive a condition code:</i></p> <ul style="list-style-type: none"> <li>• Code A: Blank</li> <li>• Code B: Copied</li> <li>• Code C: Too Limited to Score/Illegible/Incomprehensible</li> <li>• Code D: Non-English/Foreign Language</li> <li>• Code E: Off Topic/Off Task/Offensive</li> </ul>

\*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 Appendix A for those standards that need continued attention beyond the grade in which they were introduced.

## Seven-Point, Two-Trait Rubric

### Trait 1 for Informational/Explanatory Genre

Writing Trait	Points	Criteria
<p><b>Idea Development, Organization, and Coherence</b></p> <p><i>This trait examines the writer's ability to effectively establish a controlling idea and to support the idea with evidence from the text(s) read and to elaborate on the idea with examples, illustrations, facts, and other details in order. The writer must integrate the information from the text(s) into his/her own words and arrange the ideas and supporting evidence (from text that they have read) in order to create cohesion for an informative/explanatory essay.</i></p>	4	<p><i>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.</i></p> <ul style="list-style-type: none"> <li>• Effectively introduces a topic</li> <li>• Effectively organizes ideas, concepts, and information using various strategies such as definition, classification, comparison/contrast, and cause/effect</li> <li>• Effectively develops the topic with multiple, relevant facts, definitions, concrete details, quotations, or other information and examples related to the topic</li> <li>• Effectively uses appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts</li> <li>• Uses precise language and domain-specific vocabulary to inform about or explain the topic</li> <li>• Establishes and maintains a formal style</li> <li>• Provides a strong concluding statement or section that follows from and supports the information or explanation presented</li> </ul>
	3	<p><i>The student's response is a complete informative/explanatory text that examines a topic and presents information based on a text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Introduces a topic</li> <li>• Generally organizes ideas, concepts, and information</li> <li>• Develops the topic with a few facts, definitions, concrete details, quotations, or other information and examples</li> <li>• Uses some transitions to connect and clarify relationships among ideas, but relationships may not always be clear</li> <li>• Uses some precise language and domain-specific vocabulary to explain the topic</li> <li>• Maintains a formal style, for the most part</li> <li>• Provides a concluding statement or section</li> </ul>
	2	<p><i>The student's response is an incomplete or oversimplified informative/explanatory text that cursorily examines a topic.</i></p> <ul style="list-style-type: none"> <li>• Attempts to introduce a topic</li> <li>• Attempts to develop a topic with too few details</li> <li>• Ineffectively organizes ideas, concepts, and information</li> <li>• Uses limited language and vocabulary that does not inform or explain the topic</li> <li>• Uses few transitions to connect and clarify relationships among ideas</li> <li>• Uses a formal style inconsistently or uses an informal style</li> <li>• Provides a weak concluding statement or section</li> </ul>
	1	<p><i>The student's response is a weak attempt to write an informative/explanatory text that examines a topic.</i></p> <ul style="list-style-type: none"> <li>• May not introduce a topic or topic is unclear</li> <li>• May not develop a topic</li> <li>• May be too brief to group any related ideas together</li> <li>• May not use any linking words to connect ideas</li> <li>• Uses vague, ambiguous, or repetitive language</li> <li>• Uses a very informal style</li> <li>• Provides a minimal or no concluding statement or section</li> </ul>
	0	<p><i>The student's response is flawed for various reasons and will receive a condition code:</i></p> <ul style="list-style-type: none"> <li>• Code A: Blank</li> <li>• Code B: Copied</li> <li>• Code C: Too Limited to Score/Illegible/Incomprehensible</li> <li>• Code D: Non-English/Foreign Language</li> <li>• Code E: Off Topic/Off Task/Offensive</li> </ul>



## Seven-Point, Two-Trait Rubric

### Trait 2 for Informational/Explanatory Genre

Writing Trait	Points	Criteria
<b>Language Usage and Conventions</b> <i>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.</i>	3	<i>The student's response demonstrates full command of language usage and conventions.</i> <ul style="list-style-type: none"> <li>• Effectively varies sentence patterns for meaning, reader/listener interest, and style</li> <li>• Shows command of language and conventions when writing</li> <li>• Any errors in usage and conventions do not interfere with meaning*</li> </ul>
	2	<i>The student's response demonstrates partial command of language usage and conventions.</i> <ul style="list-style-type: none"> <li>• Varies some sentence patterns for meaning, reader/listener interest and style</li> <li>• Shows some knowledge of languages and conventions when writing</li> <li>• Has minor errors in usage and conventions with no significant effect on meaning*</li> </ul>
	1	<i>The student's response demonstrates weak command of language usage and conventions.</i> <ul style="list-style-type: none"> <li>• Has fragments, run-ons, and/or other sentence structure errors</li> <li>• Shows little knowledge of languages and conventions when writing</li> <li>• Has frequent errors in usage and conventions that interfere with meaning*</li> </ul>
	0	<i>The student's response is flawed for various reasons and will receive a condition code:</i> <ul style="list-style-type: none"> <li>• Code A: Blank</li> <li>• Code B: Copied</li> <li>• Code C: Too Limited to Score/Illegible/Incomprehensible</li> <li>• Code D: Non-English/Foreign Language</li> <li>• Code E: Off Topic/Off Task/Offensive</li> </ul>

\*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 Appendix A for those standards that need continued attention beyond the grade in which they were introduced.

## Seven-Point, Two-Trait Rubric

### Trait 1 for Argumentative Genre

Writing Trait	Points	Criteria
<p><b>Idea Development, Organization, and Coherence</b></p> <p><i>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.</i></p>	4	<p><i>The student's response is a well-developed argument that effectively relates and supports claims with clear reasons and relevant text-based evidence.</i></p> <ul style="list-style-type: none"> <li>• Effectively introduces claim(s)</li> <li>• Uses an organizational strategy to present reasons and relevant evidence logically</li> <li>• 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</li> <li>• Acknowledges and counters opposing claim(s), as appropriate</li> <li>• Uses words, phrases, and/or clauses that effectively connect and show direct, strong relationships among claim(s), reasons, and evidence</li> <li>• Establishes and maintains a formal style that is appropriate for the task, purpose, and audience</li> <li>• Provides a strong concluding statement or section that logically follows from the argument presented</li> </ul>
	3	<p><i>The student's response is a complete argument that relates and supports claims with some text-based evidence.</i></p> <ul style="list-style-type: none"> <li>• Clearly introduces claim(s)</li> <li>• Uses an organizational strategy to present some reasons and evidence</li> <li>• Uses specific facts, details, definitions, examples, and/or other information from sources to develop claim(s)</li> <li>• Attempts to acknowledge and/or counter opposing claim(s), as appropriate</li> <li>• Uses words and/or phrases to connect ideas and show relationships among claim(s), reasons, and evidence</li> <li>• Uses a formal style fairly consistently for task, purpose, and audience</li> <li>• Provides a concluding statement or section that follows from the argument presented</li> </ul>
	2	<p><i>The student's response is an incomplete or oversimplified argument that partially supports claims with loosely related text-based evidence.</i></p> <ul style="list-style-type: none"> <li>• Attempts to introduce claim(s)</li> <li>• Attempts to use an organizational structure which may be formulaic</li> <li>• Develops, sometimes unevenly, reasons and/or evidence to support claim(s)</li> <li>• Makes little, if any, attempt to acknowledge or counter opposing claim(s)</li> <li>• Attempts to support claim(s) with facts, reasons, and other evidence sometimes, but logic and relevancy are often unclear</li> <li>• Uses few words or phrases to connect ideas; connections are not always clear</li> <li>• Uses a formal style inconsistently or an informal style that does not fit task, purpose, or audience</li> <li>• Provides a weak concluding statement or section that may not follow the argument presented</li> </ul>
	1	<p><i>The student's response is a weak attempt to write an argument and does not support claims with adequate text-based evidence.</i></p> <ul style="list-style-type: none"> <li>• May not introduce claim(s)/claims(s) must be inferred</li> <li>• May be too brief to demonstrate an organizational structure, or no structure is evident</li> <li>• Has minimal support for claim(s)</li> <li>• Makes no attempt to acknowledge or counter opposing claim(s)</li> <li>• Uses minimal or no words or phrases to connect ideas</li> <li>• Uses a very informal style that is not appropriate for task, purpose, or audience</li> <li>• Provides a minimal or no concluding statement or section</li> </ul>
	0	<p><i>The student's response is flawed for various reasons and will receive a condition code:</i></p> <ul style="list-style-type: none"> <li>• Code A: Blank</li> <li>• Code B: Copied</li> <li>• Code C: Too Limited to Score/Illegible/Incomprehensible</li> <li>• Code D: Non-English/Foreign Language</li> <li>• Code E: Off Topic/Off Task/Offensive</li> </ul>

## Seven-Point, Two-Trait Rubric

### Trait 2 for Argumentative Genre

Writing Trait	Points	Criteria
<b>Language Usage and Conventions</b> <i>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.</i>	3	<i>The student's response demonstrates full command of language usage and conventions.</i> <ul style="list-style-type: none"> <li>• Effectively varies sentence patterns for meaning, reader/listener interest, and style</li> <li>• Shows command of language and conventions when writing</li> <li>• Any errors in usage and conventions do not interfere with meaning*</li> </ul>
	2	<i>The student's response demonstrates partial command of language usage and conventions.</i> <ul style="list-style-type: none"> <li>• Varies some sentence patterns for meaning, reader/listener interest, and style</li> <li>• Shows some knowledge of languages and conventions when writing</li> <li>• Has minor errors in usage and conventions with no significant effect on meaning*</li> </ul>
	1	<i>The student's response demonstrates weak command of language usage and conventions.</i> <ul style="list-style-type: none"> <li>• Has fragments, run-ons, and/or other sentence structure errors</li> <li>• Shows little knowledge of languages and conventions when writing</li> <li>• Has frequent errors in usage and conventions that interfere with meaning*</li> </ul>
	0	<i>The student's response is flawed for various reasons and will receive a condition code:</i> <ul style="list-style-type: none"> <li>• Code A: Blank</li> <li>• Code B: Copied</li> <li>• Code C: Too Limited to Score/Illegible/Incomprehensible</li> <li>• Code D: Non-English/Foreign Language</li> <li>• Code E: Off Topic/Off Task/Offensive</li> </ul>

\*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 Appendix A for those standards that need continued attention beyond the grade in which they were introduced.

# MATHEMATICS

## DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones Mathematics EOG assessment is primarily a criterion-referenced test, designed to provide information about how well a student has mastered the grade-level state-adopted content standards in Mathematics. 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 include a limited sample of nationally norm-referenced items to provide a signal 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 Grade 8 Mathematics EOG assessment consists of a total of 73 items, 63 of which are operational items (and contribute to a student's criterion-referenced and/or norm-referenced score) and 10 of which are field test items (newly written items that are being tried out and do not contribute to the student's score). The criterion-referenced score, and Achievement Level designation, is comprised of 53 items, for a total of 58 points. Students will respond to a variety of item types, including selected-response, constructed-response, and extended constructed-response items. Of the 63 operational items, 20 will be norm-referenced and will provide a national comparison in the form of a national percentile rank. Ten of the items have been verified as aligned to the course content standards by Georgia educators and will therefore contribute to the criterion-referenced Achievement Level designation. The other 10 items will contribute only to the national percentile rank and be provided as supplemental information. Only items that are aligned to the state-adopted content standards will be utilized to inform the criterion-referenced score.

With the inclusion of the norm-referenced items, students may encounter items for which they have not received direct instruction. These items will not contribute to the students' criterion-referenced Achievement Level designation; only items that align to the course content standards will contribute to the criterion-referenced score. Students should be instructed to try their best should they ask about an item that is not aligned to the content they have learned as part of the course.

## Grade 8 Mathematics EOG Assessment Design

Description	Number of Items	Points for CR <sup>1</sup> Score	Points for NRT <sup>2</sup> Feedback
CR Selected-Response Items	40	40	0
NRT Selected-Response Items	20 <sup>3</sup>	10 <sup>4</sup>	20
CR Constructed-Response Items	2	4	0
CR Extended Constructed-Response Items	1	4	0
CR Field Test Items	10	0	0
<b>Total Items/Points<sup>5</sup></b>	<b>73</b>	<b>58</b>	<b>20</b>

<sup>1</sup>CR—Criterion-Referenced: items aligned to state-adopted content standards

<sup>2</sup>NRT—Norm-Referenced Test: items that will yield a national comparison; may or may not be aligned to state-adopted content standards

<sup>3</sup>Of these items, 10 will contribute to both the CR scores and NRT feedback. The other 10 of these items will contribute to NRT feedback only and will not impact the student's Achievement Level designation, scale score, or grade conversion.

<sup>4</sup>Alignment of national NRT items to course content standards was verified by a committee of Georgia educators. Only approved, aligned NRT items will contribute to a student's CR Achievement Level designation, scale score, and grade conversion score.

<sup>5</sup>Total number of items contributing to CR score: 53; total points: 58; total number of items contributing to NRT feedback: 20; total points: 20

The test will be given in two sections. Section 1 is divided into two parts. Students may have up to 85 minutes per section to complete Sections 1 and 2. The total estimated testing time for the Grade 8 Mathematics EOG assessment ranges from approximately 120 to 170 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 to be administered on the same day in one test session 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 1 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](http://www.georgiastandards.org).

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

Domain	Standard		Approximate Weight
Numbers, Expressions, and Equations	MGSE8.NS.1 MGSE8.NS.2 MGSE8.EE.1	MGSE8.EE.2 MGSE8.EE.3 MGSE8.EE.4	20%
Algebra and Functions	MGSE8.EE.5 MGSE8.EE.6 MGSE8.EE.7 MGSE8.EE.8 MGSE8.F.1	MGSE8.F.2 MGSE8.F.3 MGSE8.F.4 MGSE8.F.5	40%
Geometry	MGSE8.G.1 MGSE8.G.2 MGSE8.G.3 MGSE8.G.4 MGSE8.G.5	MGSE8.G.6 MGSE8.G.7 MGSE8.G.8 MGSE8.G.9	28%
Statistics and Probability	MGSE8.SP.1 MGSE8.SP.2	MGSE8.SP.3 MGSE8.SP.4	12%

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## ITEM TYPES

The Mathematics portion of the Grade 8 EOG assessment consists of selected-response, constructed-response, and extended constructed-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 Mathematics selected-response items will have four answer choices.

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 correct.

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 extended constructed-response items on the EOG assessment will be worth four points. Partial credit may be awarded if part of the response is correct.

## 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

#### 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.  $4.25 \times 10^{-2}$
- 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.



## Example Item 2

**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 that the variable terms are set equal to 28 instead of 40.

**Example Item 3****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. *For example,  $3x + 2y = 5$  and  $3x + 2y = 6$  have no solution because  $3x + 2y$  cannot simultaneously be 5 and 6.*

**Look at the system of equations.**

$$\begin{aligned}y &= x + 4 \\2y &= 2x + 8\end{aligned}$$

**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

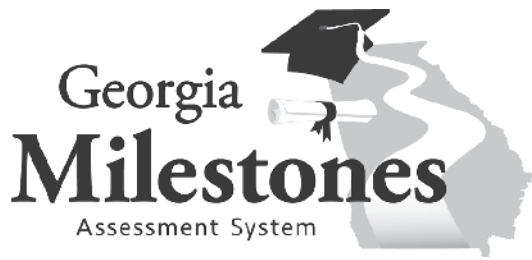
**Explanation of Correct Answer:** The correct answer is choice (D) It has infinitely many solutions because the equations are the same line when graphed. The second equation is written as  $y = x + 4$  in slope-intercept form, so it has the same slope, 1, and intercept, 4, as the first equation. Therefore, 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 10 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.

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# Mathematics Formula Sheet

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**You can find mathematics formula sheets on the Georgia Milestones webpage at <http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Assessment/Pages/Georgia-Milestones-Assessment-System.aspx>.**

**Look under “EOG Resources.”**

**Item 1**

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

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

- A.  $1.5 \times 10^2$
- B.  $1.5 \times 10^{11}$
- C.  $6 \times 10^{11}$
- D.  $6 \times 10^{33}$

**Item 2**

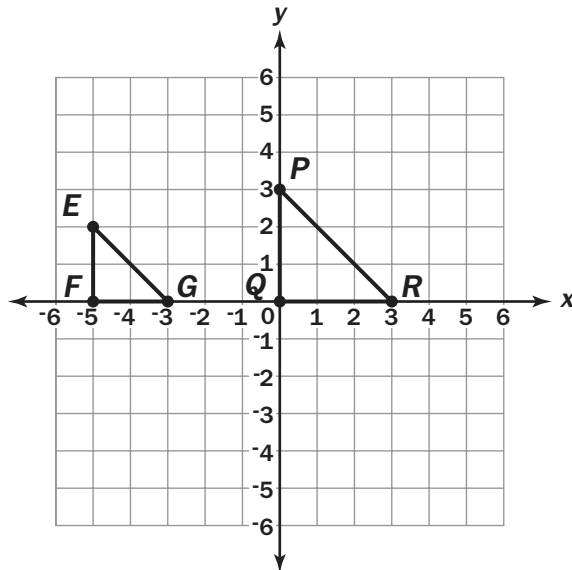
The graph of a line passes through the points (0, 6) and (6, 0).

Which of these is the equation of this line?

- A.  $y = -6x$
- B.  $y = 6x$
- C.  $y = x + 6$
- D.  $y = -x + 6$

**Item 3**

Look at triangles  $PQR$  and  $EFG$ .

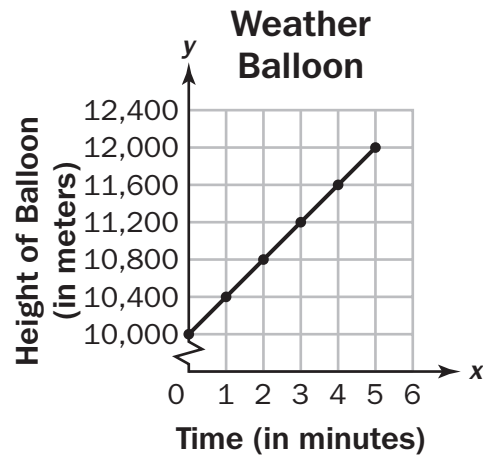


Which of these explains why triangles  $PQR$  and  $EFG$  are similar?

- 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.

**Item 4**

A weather balloon is released from a height of 10,000 meters. It rises at a constant rate. The graph shows how the balloon's height changes over time.

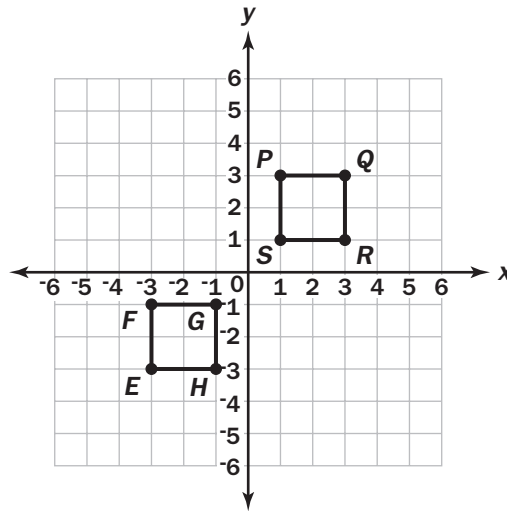


What is the rate of change of the balloon's height, in meters per minute?

- A. 400
- B. 2,000
- C. 2,400
- D. 10,400

**Item 5**

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



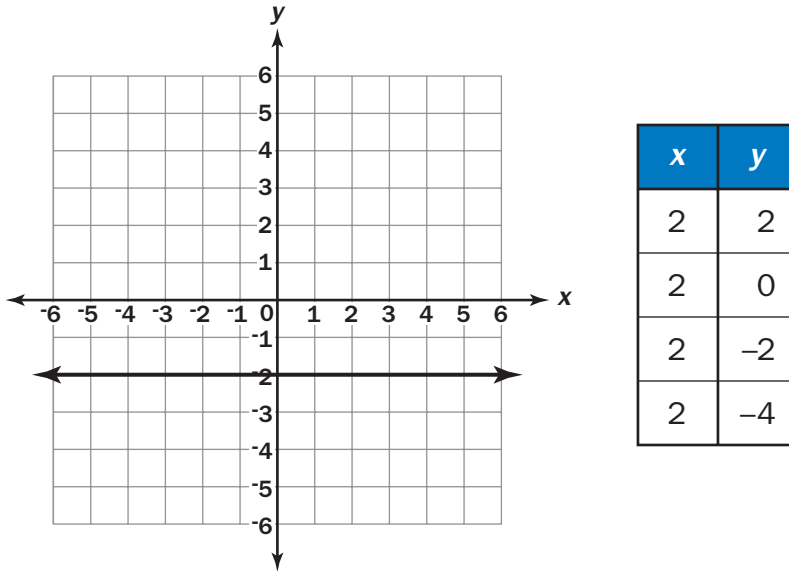
Which series of transformations to square  $PQRS$  will result in square  $EFGH$ ?

- 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  $45^\circ$  clockwise rotation about the origin
- D. translation to the left by 4 units followed by  $90^\circ$  counterclockwise rotation about the origin



## Item 6

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

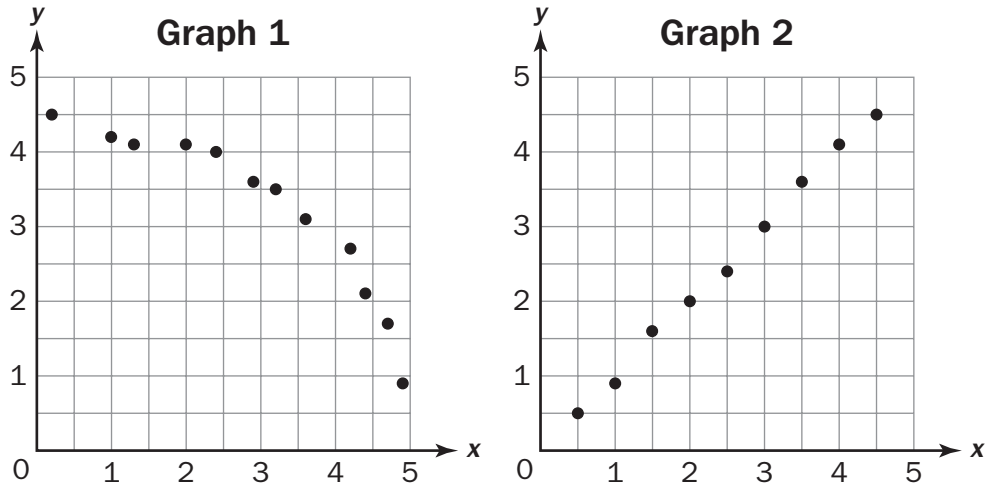


Which statement about this graph and the values in this table is true?

- A. Both do not represent functions because they do not pass through the origin.
- B. Both represent functions because they are graphically represented as straight lines.
- C. 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  $x$ .
- D. The graph does not represent a function because it is not a vertical line, but the values in the table represent a function because there are multiple values for  $y$  for a single value of  $x$ .

**Item 7**

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

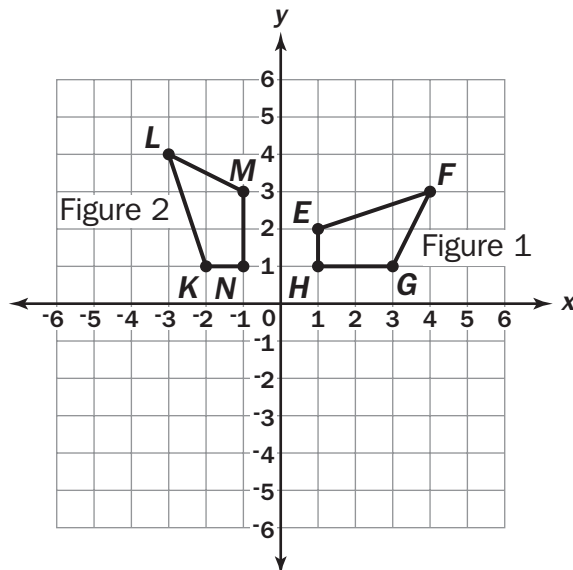


Which statement **BEST** compares the two graphs?

- 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.

**Item 8**

Figure 1 is rotated counterclockwise by  $90^\circ$  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.  $m\angle H = m\angle K$



**Item 10**

The United States has an approximate population of  $3 \times 10^8$  people. Each person in the United States consumes an average of about 14,000 grams of rice per year.

Brazil has an approximate population of  $2 \times 10^8$  people. Each person in Brazil consumes an average of about  $5 \times 10^4$  grams of rice per year.

**Part A:** About how much rice does the United States consume each year?

\_\_\_\_\_ grams

**Part B:** About how much rice does Brazil consume each year?

\_\_\_\_\_ grams

**Part C:** Which country consumes more rice each year, and how many times more rice does it consume than the other country? Show or explain your work and write your answer on the lines.

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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) $1.5 \times 10^{11}$ . To divide numbers in scientific notation, divide the coefficients and subtract the exponents of the common base. $\frac{3}{2} = 1.5$ and $22 - 11 = 11$ , so the quotient is $1.5 \times 10^{11}$ . 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 $3 \times 2$ instead of dividing. Choice (D) is incorrect because it is the product of the two quantities.
2	MGSE8.EE.6	2	D	The correct answer is choice (D) $y = -x + 6$ . The slope of the line is the ratio of the change in $y$ -values to the change in $x$ -values: $\frac{0 - 6}{6 - 0} = -1$ . The $y$ -intercept is the $y$ -coordinate when $x = 0$ , which is 6. So, the equation of the line is $y = -x + 6$ . Choices (A) and (B) are incorrect because the $y$ -intercept is confused with the slope. Choice (C) is incorrect because the slope has the incorrect sign.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
3	MGSE8.G.4	2	C	<p>The correct answer is choice (C) Triangle <math>EFG</math> is a result of dilating triangle <math>PQR</math> using a scale factor of <math>\frac{2}{3}</math>, with the origin as the center, and translating it 5 units to the left. <math>\frac{EF}{PQ} = \frac{FG}{QR} = \frac{EG}{PR} = \frac{2}{3}</math>, so <math>EFG</math> is the result of dilating <math>PQR</math> using a scale factor of <math>\frac{2}{3}</math>.</p> <p>The vertices of <math>EFG</math> are 5 units to the left of the corresponding vertices in the dilated triangle, so <math>EFG</math> 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.</p> <p>Choice (D) is incorrect because it uses the reciprocal of the scale factor.</p>

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
4	MGSE8.F.4	2	A	The correct answer is choice (A) 400. The rate of change of the balloon's height is equal to the slope of the line in the graph. The balloon rises 2,000 meters in 5 minutes, so the rate of change is $\frac{2,000}{5} = 400$ . Choice (B) is incorrect because it is the change in height of the balloon. Choice (C) is incorrect because it calculates the rate of change by dividing 12,000 by 5. Choice (D) is incorrect because it is the height at 1 minute, which is not equal to the rate of change because the graph does not show a proportional relationship.
5	MGSE8.G.2	2	D	The correct answer is choice (D) translation to the left by 4 units followed by $90^\circ$ counterclockwise rotation about the origin. Vertex $P$ corresponds to vertex $E$ , so $PQRS$ must be translated 4 units to the left and then rotated $90^\circ$ 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 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 $y$ for one $x$ -value. Choice (A) is incorrect because it assumes that the graphs of functions always pass through the origin. 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.



Item	Standard/ Element	DOK Level	Correct Answer	Explanation
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.
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 with 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.EE.7a	2	N/A	See scoring rubric and exemplar responses beginning on page 74.
10	MGSE8.EE.4	3	N/A	See scoring rubric and exemplar responses beginning on page 75.

## MATHEMATICS EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

### Item 9

#### Scoring Rubric

Points	Description
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates a complete understanding of identifying the number of solutions to a linear equation.</li> <li>Give 2 points for two key elements that are complete and correct. Response is correct and complete.</li> <li>Response shows application of a reasonable and relevant strategy.</li> <li>Mathematical ideas are expressed coherently through clear, complete, logical, and fully developed responses using words, calculations, and/or symbols as appropriate.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates a partial understanding of identifying the number of solutions to a linear equation.</li> <li>Give 1 point for one correct key element; allow for correct parts based on a previous incorrect response(s).</li> <li>Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> <li>Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>
0	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates limited to no understanding of identifying the number of solutions to a linear equation.</li> <li>Response shows no application of a strategy or application of an irrelevant strategy.</li> <li>Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>

#### Exemplar Response

Points Awarded	Sample Response
2	<p>One solution AND When I solved for <math>p</math>, I got <math>p = -\frac{1}{2}</math>.</p>

Points Awarded	Sample Response
1	One solution OR When I solved for $p$ , I got $p = -\frac{1}{2}$ . OR A valid conclusion based on an error in the explanation, which implies the equation was solved incorrectly, OR similar.
0	No correct responses

### Item 10

#### Scoring Rubric

Points	Description
4	The response achieves the following: <ul style="list-style-type: none"> <li>• Response demonstrates a complete understanding of performing operations with numbers expressed in scientific notation.</li> <li>• Give 4 points if student response indicates the correct yearly rice consumption for both countries AND that Brazil consumes 2.4 times more rice each year than the United States. Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently through clear, complete, logical, and fully developed responses using words, calculations, and/or symbols as appropriate.</li> </ul>
3	The response achieves the following: <ul style="list-style-type: none"> <li>• Response demonstrates a near complete understanding of how to perform operations with numbers expressed in scientific notation.</li> <li>• Give 3 points if student response indicates the correct yearly rice consumption for both countries AND that Brazil consumes more rice each year than the United States, but with a calculation error in Part C. Response is nearly completely correct.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently through clear, complete, logical, and fully developed responses using words, calculations, and/or symbols as appropriate.</li> </ul>

Points	Description
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• Response demonstrates some understanding of how to perform operations with numbers expressed in scientific notation.</li><li>• Give 2 points if student response indicates the correct yearly rice consumption for both countries OR indicates the correct yearly consumption for one of the countries and a correct process for finding how many times more rice one country consumes than the other country based on the incorrect consumption determined in Part A or Part B. Response is only partially correct.</li><li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li><li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li></ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• Response demonstrates minimal understanding of how to perform operations with numbers expressed in scientific notation.</li><li>• Give 1 point if student response indicates the correct yearly rice consumption for the United States OR the correct yearly rice consumption for Brazil. Response is only partially correct.</li><li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li><li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li></ul>
0	<p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• Response demonstrates no understanding of how to perform operations with numbers expressed in scientific notation.</li><li>• The student is unable to calculate the total rice consumption for either country or to determine how many times more rice Brazil consumes than the United States.</li><li>• Response shows no application of a strategy or application of an irrelevant strategy.</li><li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li></ul>

## Exemplar Response

Points Awarded	Sample Response
4	Part A: $4.2 \times 10^{12}$ grams AND Part B: $1 \times 10^{13}$ grams AND Part C: $\frac{1 \times 10^{13}}{4.2 \times 10^{12}} \approx 0.24 \times 10^1 = 2.4$ Brazil consumes about 2.4 times as much rice as the United States.
3	Part A: $4.2 \times 10^{12}$ grams AND Part B: $1 \times 10^{13}$ grams AND Part C: $\frac{1 \times 10^{13}}{4.2 \times 10^{12}} \approx 0.24$ Brazil consumes 0.24 times as much rice as the United States.
2	Part A: $4.2 \times 10^{13}$ grams AND Part B: $1 \times 10^{13}$ grams AND Part C: $\frac{4.2 \times 10^{13}}{1 \times 10^{13}} = 4.2$ Brazil consumes 4 times as much rice as the United States.
1	Part A: $4.2 \times 10^{12}$ grams OR Part B: $1 \times 10^{13}$ grams
0	Response is irrelevant, inappropriate, or not provided.

## SCIENCE

### DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones Science EOG assessment is primarily a criterion-referenced test, designed to provide information about how well a student has mastered the grade-level state-adopted content standards in Science. 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 include a limited sample of nationally norm-referenced items to provide a signal 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 Grade 8 Science EOG assessment consists of a total of 75 selected-response items, 68 of which are operational items (and contribute to a student's criterion-referenced and/or norm-referenced score) and 7 of which are field test items (newly written items that are being tried out and do not contribute to the student's score). The criterion-referenced score, and Achievement Level designation, is comprised of 55 items, for a total of 55 points. Of the 68 operational items, 20 will be norm-referenced and will provide a national comparison in the form of a national percentile rank. Seven of the items have been verified as aligned to the course content standards by Georgia educators and will therefore contribute to the criterion-referenced Achievement Level designation. The other 13 items will contribute only to the national percentile rank and be provided as supplemental information. Only items that are aligned to the state-adopted content standards will be utilized to inform the criterion-referenced score.

With the inclusion of the norm-referenced items, students may encounter items for which they have not received direct instruction. These items will not contribute to the students' criterion-referenced Achievement Level designation; only items that align to the course content standards will contribute to the criterion-referenced score. Students should be instructed to try their best should they ask about an item that is not aligned to the content they have learned as part of the course.

## Grade 8 Science EOG Assessment Design

Description	Number of Items	Points for CR <sup>1</sup> Score	Points for NRT <sup>2</sup> Feedback
CR Selected-Response Items	48	48	0
NRT Selected-Response Items	20 <sup>3</sup>	7 <sup>4</sup>	20
CR Field Test Items	7	0	0
<b>Total Items/Points<sup>5</sup></b>	<b>75</b>	<b>55</b>	<b>20</b>

<sup>1</sup>CR—Criterion-Referenced: items aligned to state-adopted content standards

<sup>2</sup>NRT—Norm-Referenced Test: items that will yield a national comparison; may or may not be aligned to state-adopted content standards

<sup>3</sup>Of these items, 7 will contribute to both the CR scores and NRT feedback. The other 13 of these items will contribute to NRT feedback only and will not impact the student's Achievement Level designation, scale score, or grade conversion.

<sup>4</sup>Alignment of national NRT items to course content standards was verified by a committee of Georgia educators. Only approved, aligned NRT items will contribute to a student's CR Achievement Level designation, scale score, and grade conversion score.

<sup>5</sup>Total number of items contributing to CR score: 55; total points: 55; total number of items contributing to NRT feedback: 20; total points: 20

The test will be given in two sections. Students may have up to 70 minutes per section to complete Sections 1 and 2. The total estimated testing time for the Grade 8 Science EOG assessment ranges from approximately 90 to 140 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 to be administered on the same day in one test session 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](http://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 three domains: Structure of Matter, Force and Motion, and Energy and Its Transformation. 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.

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

Domain	Standard	Approximate Weight
Structure of Matter	S8P1	30%
Force and Motion	S8P3 S8P5a, c	30%
Energy and Its Transformation	S8P2 S8P4 S8P5b	40%

## ITEM TYPES

The Science portion of the Grade 8 EOG assessment consists of selected-response items only.

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 Science selected-response items will have four answer choices.



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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

**DOK Level 1:**

**Science Grade 8 Content Domain:** Structure of Matter

**Standard:** S8P1. Students will examine the scientific view of the nature of matter.

a. Distinguish between atoms and molecules.

**Which of these BEST describes an atom?**

- A. a particle of matter that carries an overall positive charge
- B. a particle of matter that is formed by the bonding of two or more molecules
- C. the smallest particle of an element that shows all the properties of that element
- D. the smallest particle of an element that can be broken down further to form molecules

**Correct Answer:** C

**Explanation of Correct Answer:** The correct answer is choice (C) the smallest particle of an element that shows all the properties of that element. Although atoms can be broken down into subatomic particles, subatomic particles do not show all the properties of elements. Choice (A) is incorrect because this defines one kind of ion, not an element. Choices (B) and (D) are incorrect because atoms bond to form molecules, which bond to form larger molecules.

## Example Item 2

**DOK Level 2:**

**Science Grade 8 Content Domain:** Energy and Its Transformation

**Standard:** S8P5. Students will recognize characteristics of gravity, electricity, and magnetism as major kinds of forces acting in nature. b. Demonstrate the advantages and disadvantages of series and parallel circuits and how they transfer energy.

**Light bulbs on a string of lights are connected using parallel circuits.**

**Which of these BEST explains why parallel circuits are used instead of series circuits?**

- A. Parallel circuits use less energy.
- B. Parallel circuits are easier to make.
- C. If one light goes out on a parallel circuit, no other lights go out.
- D. If one light goes out on a parallel circuit, all the other lights will go out.

**Correct Answer:** C

**Explanation of Correct Answer:** The correct answer is choice (C) If one light goes out on a parallel circuit, no other lights go out. A parallel circuit contains multiple branches through which current may travel. If a light on one branch goes out, current will still reach lights on the other branches. Choices (A) and (B) are incorrect because compared to series circuits, parallel circuits do not use less energy, nor are they easier to make. Choice (D) is incorrect because the opposite is true: If one light goes out on a parallel circuit, the other lights do not go out.

### Example Item 3

**DOK Level 2:**

**Science Grade 8 Content Domain:** Energy and Its Transformation

**Standard:** S8P4. Students will explore the wave nature of sound and electromagnetic radiation. a. Identify the characteristics of electromagnetic and mechanical waves.

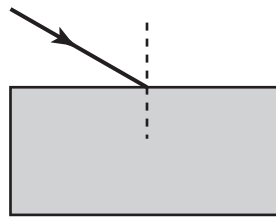
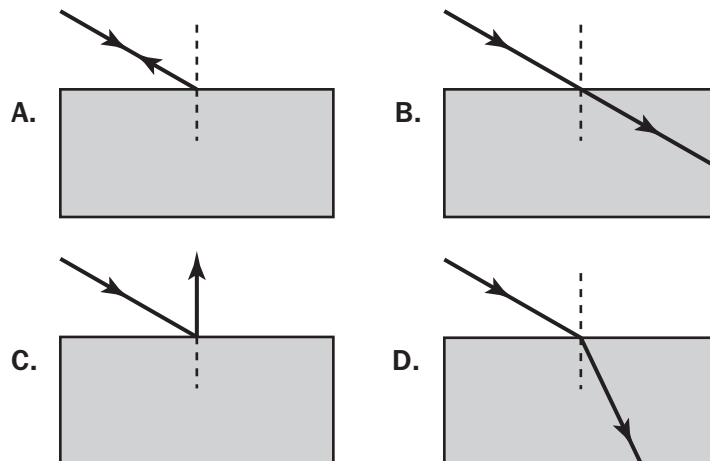
**Many movies have shown scenes where explosions can be seen and heard in outer space.**

**Which statement BEST describes why these scenes are not correct?**

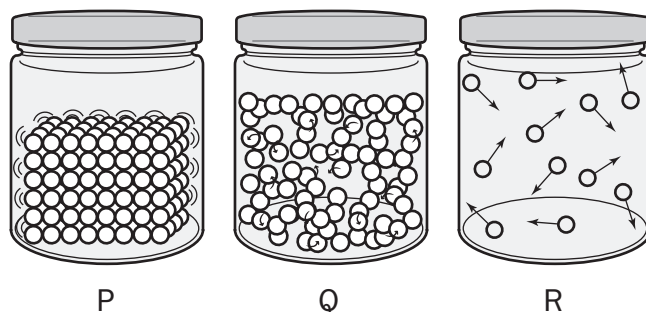
- A. Sound waves are unable to travel in outer space.
- B. Light waves travel too slowly to be seen in outer space.
- C. Light and sound travel at different speeds in outer space.
- D. Light and sound travel in different directions in outer space.

**Correct Answer:** A

**Explanation of Correct Answer:** The correct answer is choice (A) Sound waves are unable to travel in outer space. Sound waves are caused by vibrating particles. In the vacuum of space, there are essentially no particles to vibrate; therefore, explosions in outer space may be seen but not heard. Choice (B) is incorrect because no waves travel faster than light waves in the vacuum of space. Choices (C) and (D) are incorrect because sound waves cannot travel at all through outer space.

**Example Item 4****DOK Level 3:****Science Grade 8 Content Domain:** Energy and Its Transformation**Standard:** S8P4. Students will explore the wave nature of sound and electromagnetic radiation. b. Describe how the behavior of light waves is manipulated causing reflection, refraction, diffraction, and absorption.**A student is drawing a diagram of a light ray as it enters a pane of glass.****Which of these shows the correctly completed diagram?****Correct Answer:** D

**Explanation of Correct Answer:** The correct answer is choice (D) the diagram that 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  $0^\circ$  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; 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  $0^\circ$  from the normal; therefore, it will change direction as it changes medium.

**Example Item 5****DOK Level 3:****Science Grade 8 Content Domain:** Structure of Matter**Standard:** S8P1. Students will examine the scientific view of the nature of matter.  
c. Describe the movement of particles in solids, liquids, and gases states.**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 sublimates?**

- 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 lots 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.

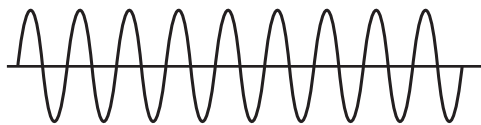
## **SCIENCE ADDITIONAL SAMPLE ITEMS**

This section has two parts. The first part is a set of 10 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.

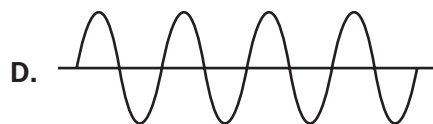
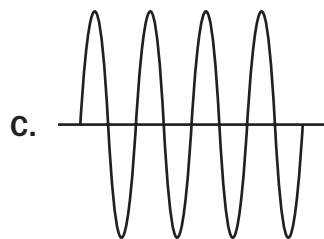
**All example and sample items contained in this guide are the property of the Georgia Department of Education.**

**Item 1**

A machine converts sound into a transverse wave as shown.



If the sound becomes louder, what would the new wave look like?



**Item 2**

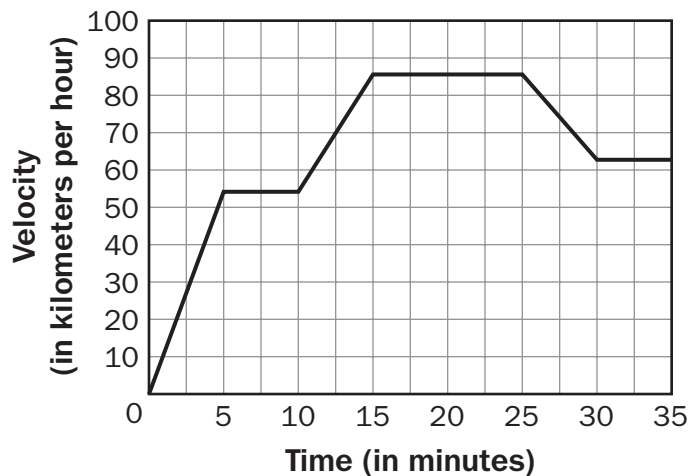
A student is heating water to make hot chocolate. He begins thinking about the effect of heating on the particles of water.

Which of these statements correctly describes how the particles of water are affected as the water is heated?

- A. The particles start moving faster.
- B. The particles start moving slower.
- C. The particles start vibrating in fixed positions.
- D. The particles start expanding to take up more space.

**Item 3**

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



**Item 4**

While conducting an experiment, a student determines the gravitational force between two objects of equal mass. He uses this as his control for the experiment. He then conducts five additional experiments. He performs the experiments with the changes listed, measuring the effect of each on the gravitational force between the objects and comparing the result to the information from the control.

Experiment 1. Replace one control object with an object that is double the mass of the objects in the control at the control distance.

Experiment 2. Replace both control objects with objects that are double the mass of the objects in the control at the control distance.

Experiment 3. Using the control objects, double the distance between the objects compared to the control.

Experiment 4. Using the control objects, reduce the distance between the objects by half compared to the distance in the control.

Experiment 5. Replace one control object with an object that is half the mass of the objects in the control at the control distance.

Which pair of experiments BOTH resulted in a decrease in the gravitational force between the two objects compared to the control?

- A. 1 and 3
- B. 2 and 4
- C. 3 and 5
- D. 4 and 5

**Item 5**

When a roller-coaster car reaches the top of a hill and starts going downward, there is a change in the direction and speed of the car.

Which of these can also be concluded about the roller-coaster car as it is going downward?

- A. Its kinetic energy decreases as its potential energy proportionally increases.
- B. Its potential energy decreases as its kinetic energy proportionally increases.
- C. Both its potential and kinetic energy proportionally increase.
- D. Both its potential and kinetic energy proportionally decrease.

### Item 6

A student performs an investigation to determine the properties of an iron nail. The list shows her findings.

<p>The nail can rust.</p> <p>The nail is denser than water.</p> <p>The nail is very hard.</p> <p>The nail can be bent.</p>
--

Which statement is correct about the student's findings?

- A. Rusting is a physical property of iron.
- B. Hardness is a chemical property of iron.
- C. Rusting and bending are chemical properties of iron.
- D. Density and hardness are physical properties of iron.

### Item 7

In order to boil an egg, a student puts the egg in a pan of water and heats the pan on the stove.

Which methods of heat transfer are used to transfer the majority of the heat to the water and to the egg?

- A. radiation and convection
- B. radiation and conduction
- C. conduction and convection
- D. conduction, convection, and radiation

### Item 8

Student 1 claims that energy can only be transferred by particles inside a medium. Student 2 does not agree with Student 1.

Which statement should Student 2 use as evidence that Student 1 is INCORRECT?

- A. Light energy can travel without a medium.
- B. Sound energy can travel without a medium.
- C. All types of energy can travel without a medium.
- D. Mechanical energy can travel without a medium.

### Item 9

A cart is being pushed over a smooth surface with a constant force. After five seconds, the cart starts moving over a rough surface.

How will the cart be affected once the surface changes?

- A. The cart's inertia will increase.
- B. The cart's velocity will increase.
- C. The cart's friction will decrease.
- D. The cart's acceleration will decrease.

### Item 10

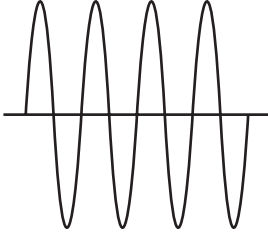
The table identifies characteristics of two substances, P and Q.

P	Q
Composed of the same type of atoms	Composed of two types of atoms
Has fixed melting point	Does not have fixed melting point

Which of these can be concluded about substances P and Q?

- A. P and Q are both compounds.
- B. P is an element and Q is a mixture.
- C. P is a mixture and Q is a compound.
- D. P is a compound and Q is an element.

**SCIENCE ADDITIONAL SAMPLE ITEM KEYS**

Item	Standard/ Element	Characteristics of Science	DOK Level	Correct Answer	Explanation
1	S8P4f	S8CS5a	3	C	<p>The correct answer is choice (C).</p>  <p>A sound wave's amplitude determines the volume of the sound it produces. This diagram shows waves with the same wavelengths but with greater amplitudes. Waves with greater amplitudes produce louder sounds. Choice (A) is incorrect because compared to the original waves, these waves have smaller amplitudes and wavelengths; they will produce quieter sounds with higher pitches. Choice (B) is incorrect because compared to the original waves, these waves have smaller amplitudes; they will produce quieter sounds. Choice (D) is incorrect because compared to the original waves, these waves have longer wavelengths; they will produce sounds with lower pitches.</p>
2	S8P1c	S8CS5a	2	A	<p>The correct answer is choice (A) The particles start moving faster. Heating water increases the energy of the water particles. Particles with more energy move more quickly than particles with less energy. Choice (B) is incorrect because the opposite is true; cooling the water would cause the particles to move more slowly. Choice (C) is incorrect because particles in solids vibrate in fixed positions; to become a solid, a liquid must be cooled. Choice (D) is incorrect because heat energy does not cause particles to expand.</p>
3	S8P3a	S8CS6b	2	A	<p>The correct answer is choice (A) 0–5 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 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 and 30 minutes the graph has a negative slope; during this interval of time, the train is slowing down.</p>

Item	Standard/ Element	Characteristics of Science	DOK Level	Correct Answer	Explanation
4	S8P5a	S8CS9a	2	C	The correct answer is choice (C) 3 and 5. The gravitational force between two objects is affected by the masses of the objects and the distance between them. Increasing the distance between the objects, as in experiment 3, decreases the gravitational force between the objects, as does reducing the mass of an object, as in experiment 5. Choice (A) is incorrect because increasing an object's mass increases the gravitational force it exerts on other objects. Choices (B) and (D) are incorrect because decreasing the distance between the objects, as in experiment 4, increases the gravitational force between the objects.
5	S8P2b	S8CS5a	2	B	The correct answer is choice (B) Its potential energy decreases as its kinetic energy proportionally increases. A roller-coaster car has its greatest potential energy at the top of the hill. As the car moves down the hill, its potential energy is converted to kinetic energy. Choices (A) and (D) are incorrect because kinetic energy is the energy of motion; as the car moves down the hill, its kinetic energy increases. Choice (C) is incorrect because the car's potential energy decreases as it moves down the hill.
6	S8P1d	S8CS9a	2	D	The correct answer is choice (D) Density and hardness are physical properties of iron. An object's physical properties can be observed and measured without changing the chemical identity of the object. Choice (A) is incorrect because rusting is a chemical property; it happens only through a chemical reaction. Choice (B) is incorrect because hardness is a physical property. Choice (C) is incorrect because bending is a physical property.

Item	Standard/ Element	Characteristics of Science	DOK Level	Correct Answer	Explanation
7	S8P2d	S8CS5a	2	C	The correct answer is choice (C) conduction and convection. Heat is transferred by conduction from the stove to the pan, from the pan to the water, and from the water to the egg; as particles in each substance vibrate, they transfer their energy to neighboring particles. Heat is also transferred by convection through the water; as water molecules gain energy, they move toward the surface of the water, and as they cool, they sink back toward the bottom of the pan. Choices (A), (B), and (D) are incorrect because radiation is energy that moves in the form of electromagnetic waves.
8	S8P4a	S8CS7a	2	A	The correct answer is choice (A) Light energy can travel without a medium. Light energy travels in the form of electromagnetic waves; because electromagnetic waves do not require a medium, they can travel through the vacuum of space. Choices (B), (C), and (D) are incorrect because mechanical waves, including sound waves, can travel only through a medium.
9	S8P3b	S8CS5a	2	D	The correct answer is choice (D) The cart's acceleration will decrease. When the cart moves over a rough surface, it will encounter more friction; due to this friction, the cart will slow down as it loses energy as heat. Choice (A) is incorrect because inertia is a body's tendency to remain at rest or in uniform motion unless the body is acted on by an external force; inertia is not changed by forces. Choice (B) is incorrect because the cart's velocity will decrease as it loses energy to the force of friction. Choice (C) is incorrect because friction is not a property of the cart; it is a force caused by the rubbing of the cart against the rough surface.

Item	Standard/ Element	Characteristics of Science	DOK Level	Correct Answer	Explanation
10	S8P1b	S8CS6c	2	B	The correct answer is choice (B) P is an element and Q is a mixture. An element is made up of the same type of atoms and has characteristic properties such as a fixed melting point. A mixture is made up of two or more types of atoms; each type of atom retains its own properties, so the mixture itself does not have characteristic properties. Choices (A), (C), and (D) are incorrect because substance P cannot be a compound or a mixture if it is composed of only one type of atom.

## SOCIAL STUDIES

### DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Georgia Milestones Social Studies EOG assessment is primarily 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. 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 include a limited sample of nationally norm-referenced items to provide a signal 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 Grade 8 Social Studies EOG assessment consists of a total of 75 selected-response items, 66 of which are operational items (and contribute to a student's criterion-referenced and/or norm-referenced score) and 9 of which are field test items (newly written items that are being tried out and do not contribute to the student's score). The criterion-referenced score, and Achievement Level designation, is comprised of 55 items, for a total of 55 points. Of the 66 operational items, 20 will be norm-referenced and will provide a national comparison in the form of a national percentile rank. Nine of the items have been verified as aligned to the course content standards by Georgia educators and will therefore contribute to the criterion-referenced Achievement Level designation. The other 11 items will contribute only to the national percentile rank and be provided as supplemental information. Only items that are aligned to the state-adopted content standards will be utilized to inform the criterion-referenced score.

With the inclusion of the norm-referenced items, students may encounter items for which they have not received direct instruction. These items will not contribute to the students' criterion-referenced Achievement Level designation; only items that align to the course content standards will contribute to the criterion-referenced score. Students should be instructed to try their best should they ask about an item that is not aligned to the content they have learned as part of the course.



## Grade 8 Social Studies EOG Assessment Design

Description	Number of Items	Points for CR <sup>1</sup> Score	Points for NRT <sup>2</sup> Feedback
CR Selected-Response Items	46	46	0
NRT Selected-Response Items	20 <sup>3</sup>	9 <sup>4</sup>	20
CR Field Test Items	9	0	0
<b>Total Items/Points<sup>5</sup></b>	<b>75</b>	<b>55</b>	<b>20</b>

<sup>1</sup>CR—Criterion-Referenced: items aligned to state-adopted content standards

<sup>2</sup>NRT—Norm-Referenced Test: items that will yield a national comparison; may or may not be aligned to state-adopted content standards

<sup>3</sup>Of these items, 9 will contribute to both the CR scores and NRT feedback. The other 11 of these items will contribute to NRT feedback only and will not impact the student's Achievement Level designation, scale score, or grade conversion.

<sup>4</sup>Alignment of national NRT items to course content standards was verified by a committee of Georgia educators. Only approved, aligned NRT items will contribute to a student's CR Achievement Level designation, scale score, and grade conversion score.

<sup>5</sup>Total number of items contributing to CR score: 55; total points: 55; total number of items contributing to NRT feedback: 20; total points: 20

The test will be given in two sections. Students may have up to 70 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 90 to 140 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 to be administered on the same day in one test session 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 [www.georgiastandards.org](http://www.georgiastandards.org).

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/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.

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**

Domain	Standard	Approximate Weight
History	SS8H1	47%
	SS8H2	
	SS8H3	
	SS8H4	
	SS8H5	
	SS8H6	
	SS8H7	
	SS8H8	
	SS8H9	
	SS8H10	
	SS8H11	
	SS8H12	
Geography	SS8G1	12%
	SS8G2	
Government/Civics	SS8CG1	25%
	SS8CG2	
	SS8CG3	
	SS8CG4	
	SS8CG5	
	SS8CG6	
Economics	SS8E2	16%
	SS8E3	
	SS8E4	
	SS8E5	
	SS8E5	

## ITEM TYPES

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

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 Social Studies selected-response items will have four answer choices.

## 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.

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

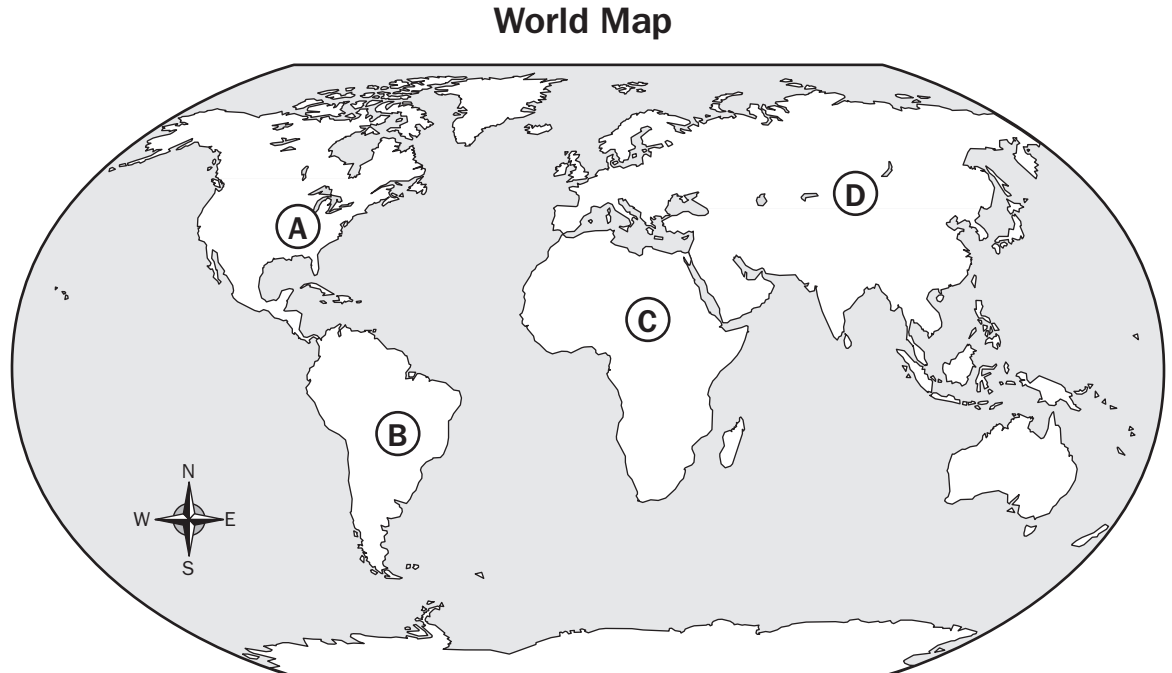
### Example Item 1

**DOK Level 1:**

**Social Studies Grade 8 Content Domain:** Geography

**Standard:** SS8G1. The student will describe Georgia with regard to physical features and location. a. Locate Georgia in relation to region, nation, continent, and hemispheres.

Look at the 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.

## Example Item 2

**DOK Level 2:**

**Social Studies Grade 8 Content Domain:** Government/Civics

**Standard:** SS8CG4. The student will analyze the role of the judicial branch in Georgia state government. b. 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 (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

**DOK Level 2:**

**Social Studies Grade 8 Content Domain:** Government/Civics

**Standard:** SS8CG1. The student will describe the role of citizens under Georgia's constitution. b. Explain the concepts of separation of powers and checks and balances.

**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.

### Example Item 4

**DOK Level 3:**

**Social Studies Grade 8 Content Domain:** History

**Standard:** SS8H10. The student will evaluate key post-World War II developments of Georgia from 1945 to 1970. a. Analyze the impact of the transformation of agriculture on Georgia's growth.

**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 (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.

**Example Item 5****DOK Level 3:****Social Studies Grade 8 Content Domain:** History

**Standard:** SS8H12. The student will explain the importance of significant social, economic, and political developments in Georgia since 1970. e. Evaluate the importance of new immigrant communities to the growth and economy of Georgia.

**Look at the list.**

- |  |
|--|
| ?  |
| <ul style="list-style-type: none"><li>• New business opened.</li><li>• Local tax revenue increased.</li><li>• The state became more multicultural.</li></ul> |

**Which of these is the BEST title for this list?**

- A. Impact of the Great Depression in Georgia
- B. Benefits of Ending the County Unit System
- C. Effects of Immigrant Communities in Georgia
- D. Accomplishments of the Civil Rights Movement

**Correct Answer:** C

**Explanation of Correct Answer:** The correct answer is choice (C) Effects of Immigrant Communities in Georgia. Immigrant communities in Georgia have opened new businesses and made the state more multicultural. Choices (A), (B), and (D) are incorrect because they do not relate to the statements in the list.

## **SOCIAL STUDIES ADDITIONAL SAMPLE ITEMS**

This section has two parts. The first part is a set of 10 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.

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



**Item 1**

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**

Why must Georgia lawmakers determine how much money state programs will receive?

- A. The government relies on private citizens to fund most state programs.
- B. The government wants to avoid funding programs that are controversial.
- C. The government has a limited amount of resources to fund state programs.
- D. The government only gives funding to programs that are popular with citizens.

**Item 3**

Read the quotation in the box.

“The Colony of Georgia lying about the same latitude with part of China, Persia, Palestine, and the Madeiras, it is highly probable that when hereafter it shall be wellpeopled and rightly cultivated, England may be supplied from thence with raw Silk, Wine, Oil, Dyes, [Medicines], and many other materials for manufactures, which she is obliged to purchase from Southern countries.”

—James Oglethorpe, 1733

Which statement about early Georgia settlers is BEST supported by the information in the quotation?

- A. They believed they were dependent on importing goods from England.
- B. They thought they could benefit from the area’s warm climate and fertile soil.
- C. They thought they could trade goods with many countries in Asia and the Middle East.
- D. They believed the area’s resources would allow them to specialize in limited agricultural products.

**Item 4**

**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**

**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

**Item 6**

**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

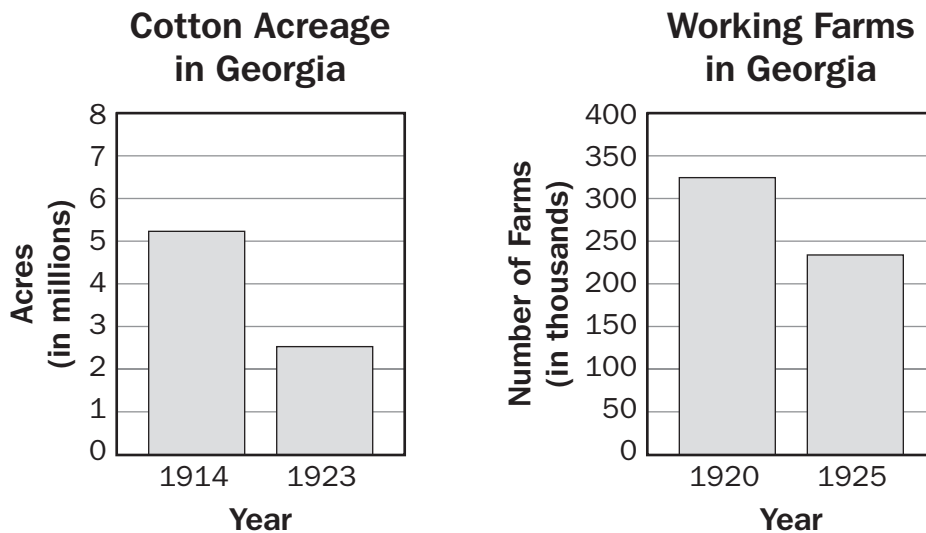
### Item 7

What role did Hamilton Holmes and Charlayne Hunter play in the civil rights movement of the 1960s?

- A. They helped eliminate poll taxes.
- B. They helped plan the March on Washington.
- C. They helped organize voter registration drives.
- D. They helped integrate the University of Georgia.

### Item 8

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.

### Item 9

Look at the information in the box.

<p>?</p> <hr/>
<ul style="list-style-type: none"><li>• 1962—elected to Georgia’s state senate</li><li>• 1970—elected governor of Georgia</li><li>• 1976—elected president of the United States</li><li>• 2002—received the Nobel Peace Prize</li></ul>

Which person is being described in the box?

- A. Al Gore
- B. Jimmy Carter
- C. Walter Mondale
- D. Ronald Reagan

### Item 10

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

## SOCIAL STUDIES ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	SS8E3b	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	SS8E4c	2	C	The correct answer is choice (C) The government has a limited amount of resources to fund state programs. The government must operate on a budget, so it must determine how much money to give to different state programs. Choice (A) is incorrect because the government, not private citizens, fund most state programs. Choices (B) and (D) are incorrect because the government does not make budget decisions based only on whether a program is popular or controversial.
3	SS8G1d	3	B	The correct answer is choice (B) They thought they could benefit from the area's warm climate and fertile soil. The quotation refers to cultivating the land of Georgia to produce materials such as silk, wine, oil, dyes, and medicines. Choice (A) is incorrect because the quotation describes Georgia exporting goods to England rather than the other way around. Choice (C) is incorrect because the quotation does not mention trade with Asia. Choice (D) is incorrect because the quotation does not refer to specialization of agricultural products.
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.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
5	SS8CG5a	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.
7	SS8H11b	2	D	The correct answer is choice (D) They helped integrate the University of Georgia. Holmes and Hunter won a lawsuit against the University of Georgia and were accepted as the college's first two African American students. Choices (A), (B), and (C) are incorrect because Holmes and Hunter are not know for these things.
8	SS8H8a	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	B	The correct answer is choice (B) Jimmy Carter. Carter served as a Georgia state senator and governor before he was elected as president of the United States in 1976. Choices (A), (C), and (D) are incorrect because none of these people fit the description in the box.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
10	SS8H3b	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.

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

\*Subsumed by L.7.3a

†Subsumed by L.9-10.1a

‡Subsumed by L.11-12.3a



## APPENDIX B: CONDITION CODES

The student response is flawed for various reasons and will receive a condition code. Students who receive a condition code have a score of zero (0).

- For the extended writing tasks, both traits receive a score of 0. For Trait 1: Ideas 0 out of 4 possible points and for Trait 2: Language Usage 0 out of 3 points. (Or 0 points out of a possible 7 points.)
- For the narrative item, the score is 0 out of a possible 4 points.

CODE	Performance Scoring: Code Description	Full Description
A	Blank	<ul style="list-style-type: none"> <li>• Blank</li> <li>• Student’s response did not contain words.</li> <li>• In some instances, student may have drawn pictures.</li> </ul>
B	Copied	<ul style="list-style-type: none"> <li>• Student’s response is not his/her own work.</li> <li>• Student does not clearly attribute words to the text(s).</li> <li>• Student copies from the text(s) that serve as writing stimulus.</li> </ul>
C	Too Limited to Score/Illegible/ Incomprehensible	<ul style="list-style-type: none"> <li>• Student’s response is not long enough to evaluate his/her ability to write to genre or his/her command of language conventions.</li> <li>• Response is not able to be deciphered.</li> <li>• An illegible response does not contain enough recognizable words to provide a score.</li> <li>• An incomprehensible paper contains few recognizable English words or it may contain recognizable English words arranged in such a way that no meaning is conveyed.</li> </ul>
D	Non-English/ Foreign Language	<ul style="list-style-type: none"> <li>• Written in some language other than English.</li> <li>• The writing items/tasks on the test require the student to write in English.</li> </ul>
E	Off Topic/Off Task/ Offensive	<ul style="list-style-type: none"> <li>• Student may have written something that is totally off topic (e.g., major portion of response is unrelated to the assigned task).</li> <li>• Student response did not follow the directions of the assigned task (i.e., off task).</li> <li>• Student uses inappropriate or offensive language/picture.</li> </ul>

Assessment Guide  
Grade 8  
End-of-Grade

