

# Georgia Milestones

Assessment System



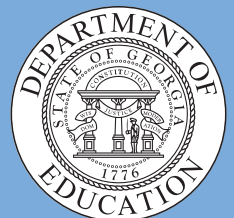
## Study/Resource Guide for Students and Parents Grade 6



The Study/Resource Guides are intended to serve as a resource for parents and students. They contain practice questions and learning activities for each content area. The standards identified in the Study/Resource Guides address a sampling of the state-mandated content standards.

For the purposes of day-to-day classroom instruction, teachers should consult the wide array of resources that can be found at [www.georgiastandards.org](http://www.georgiastandards.org).

**Study/Resource Guide**



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# THE GEORGIA MILESTONES ASSESSMENT SYSTEM



## Dear Student,

This **Georgia Milestones Grade 6 Study/Resource Guide for Students and Parents** is intended as a resource for parents and students. It contains sample questions and helpful activities to give you an idea of what test questions look like on Georgia Milestones and what the Grade 6 End-of-Grade (EOG) assessment covers.

These sample questions are fully explained and will tell you why each answer is either correct or incorrect.

**Get ready—open this guide—and get started!**

## HOW TO USE THIS GUIDE

### *Let's get started!*

#### \* **Get it together!**

- This guide
- Pen or pencil
- Highlighter
- Paper
- Basic calculator



#### \* **Gather materials**

- Classroom notebooks
- Textbooks

#### \* **Study space**

- Find a comfortable place to sit.
- Use good lighting.
- Time to focus—no TV, games, or phones!

#### \* **Study time**

- Set aside some time after school.
- Set a goal—how long are you going to study?
- Remember—you cannot do this all at one time.
- Study a little at a time every day.

#### \* **Study buddy**

- Work with a friend, sister, brother, parent—anyone who can help!
- Ask questions—it is better to ask now and get answers.
- Make sure you know what you need to do—read the directions before you start.
- Ask your teacher if you need help.

#### \* **Test-taking help**

- Read each question and all of the answer choices carefully.
- Be neat—use scratch paper.
- Check your work!

## PREPARING FOR TAKING TESTS

### *Getting ready!*



### Here are some ideas to think about before you take a test.

- Get plenty of rest and eat right. Take care of your body and your mind will do the rest.
- If you are worried about a test, don't be. Talk with a teacher, parent, or friend about what is expected of you.
- Review the things you have learned all year long. Feel good about it.
- Remember that a test is just one look at what you know. Your class work, projects, and other tests will also show your teachers how much you have learned throughout the year.

### *Try your best!*

# OVERVIEW OF THE END-OF-GRADE ASSESSMENT

## *What is on the End-of-Grade Assessment?*

\* English Language Arts (ELA)

\* Mathematics

## TYPES OF ITEMS

\* **Selected-response items**—also called multiple-choice questions

- English Language Arts (ELA) and Mathematics
- There is a question, problem, or statement that is followed by four answer choices.
- There is only ONE right answer, so read EACH answer choice carefully.
- Start by eliminating the answers that you know are wrong.
- Then look for the answer that is the BEST choice.

\* **Technology-enhanced items**—also called multi-part or multi-select questions

- English Language Arts (ELA), Mathematics, Science, and Social Studies
- There is a question, problem, or statement.
- In a multiple-select question, you will be asked to select more than one right answer.
- In evidence-based selected-response (EBSR) questions, you will be asked to answer the first part of the question. Then, you will answer the second part of the question based on how you answered the first part.
- Read the directions for each question carefully.
- Start by eliminating the answers you know are wrong.

\* **Constructed-response items**

- English Language Arts (ELA) and Mathematics
- There is a question, problem, or statement but no answer choices.
- You have to write your answer or work out a problem.
- Read the question carefully and think about what you are asked to do.
- In English Language Arts (ELA), go back to the passage to look for details and information.
- You will be scored on accuracy and how well you support your answer with evidence.

\* **Extended constructed-response items**

- English Language Arts (ELA) and Mathematics
- These are similar to the constructed-response items.
- Sometimes they have more than one part, or they require a longer answer.
- Check that you have answered all parts of the question.

\* **Extended writing-response**

- English Language Arts (ELA) only
- There is a question, problem, or statement.
- You may be asked to do more than one thing.
- In English Language Arts (ELA), you will be asked to read two passages and then write an essay.
- You will be scored on how well you answer the question and the quality of your writing.
- Organize your ideas clearly.
- Use correct grammar, punctuation, and spelling.
- Support your answer with evidence from the text.

## DEPTH OF KNOWLEDGE

Test questions are designed with a Depth of Knowledge (DOK) level in mind. As you go from Level 1 to Level 4, the questions get more and more challenging. They take more thinking and reasoning to answer. You may have experienced these types of questions in your classroom as your teachers find ways to challenge you each day.

A Level 1 item may not require as much thinking as a Level 4 item—but that does not mean it’s easy.

A Level 4 item may have more than one part or ask you to write something.

Here is some information to help you understand just what a DOK level really is.

### **Level 1 (Recall of Information)**

- \* Identify, list, or define something.
- \* Questions may start with *who*, *what*, *when*, and *where*.
- \* Recall facts, terms, or identify information.

### **Level 2 (Basic Reasoning)**

- \* Think about things—it is more than just remembering something.
- \* Describe or explain something.
- \* Answer the questions “how” or “why.”

### **Level 3 (Complex Reasoning)**

- \* Go beyond explaining or describing “how and why.”
- \* Explain or justify your answers.
- \* Give reasons and evidence for your response.
- \* Make connections and explain a concept or a “big idea.”

### **Level 4 (Extended Reasoning)**

- \* Complex thinking required!
- \* Plan, investigate, or apply a deeper understanding.
- \* These items will take more time to write.
- \* Connect and relate ideas.
- \* Show evidence by doing a task, creating a product, or writing a response.



## Depth of Knowledge

### Level 1—Recall of Information

Level 1 asks you to identify, list, or define. You may be asked to recall *who*, *what*, *when*, and *where*. You may also be asked to recall facts and terms or identify information in documents, quotations, maps, charts, tables, graphs, or illustrations. Items that ask you to “describe” and/or “explain” could be Level 1 or Level 2. A Level 1 item requires that you just recall, recite, or repeat information.

Skills Demonstrated	Question Cues
<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 who, 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>

### Level 2—Basic Reasoning

Level 2 includes some thinking that goes beyond recalling or repeating a response. A Level 2 “describe” and/or “explain” item would require that you go beyond a description or explanation of information to describe and/or explain a result or “how” or “why.”

Skills Demonstrated	Question Cues
<ul style="list-style-type: none"> <li>• Apply learned information to abstract and real-life situations</li> <li>• Use methods, concepts, and 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>• Make basic inferences or logical predictions from data or text</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> <li>• Predict</li> </ul>

**Level 3—Complex Reasoning**

Level 3 requires reasoning, using evidence, and thinking on a higher level than Level 1 and Level 2. You will go beyond explaining or describing “how and why” to justifying the “how and why” through reasons and evidence. Level 3 items often involve making connections across time and place to explain a concept or a “big idea.”

Skills Demonstrated	Question Cues
<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>• Translate knowledge into new contexts</li> <li>• Compare and discriminate between ideas</li> <li>• Assess value of methods, concepts, theories, processes, and formulas</li> <li>• Make choices based on a reasoned argument</li> <li>• Verify the value of evidence, information, numbers, and data</li> </ul>	<ul style="list-style-type: none"> <li>• Plan; prepare</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>

**Level 4—Extended Reasoning**

Level 4 requires the complex reasoning of Level 3 with the addition of planning, investigating, applying deeper understanding, and/or developing that will require a longer period of time. You may be asked to connect and relate ideas and concepts *within* the content area or *among* content areas in order to be at this highest level. The Level 4 items would be a show of evidence—through a task, a product, or an extended response—that the higher level demands have been met.

Skills Demonstrated	Question Cues
<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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## ENGLISH LANGUAGE ARTS (ELA)

### DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Grade 6 English Language Arts (ELA) EOG assessment has a total of 61 items.

You will answer a variety of item types on the test. Some of the items are selected-response (multiple-choice), which means you choose the correct answer from four choices. Some items will ask you to write your response using details from the text. There will also be a writing prompt that will ask you to write an essay.

The test will be given in three sections.

- Section 1 will be given on Day 1. You will be given a maximum of 90 minutes to complete the section.
- Sections 2 and 3 will be given over one or two days. You may have up to 85 minutes to complete each section.

### CONTENT

The Grade 6 English Language Arts (ELA) EOG assessment will measure the Grade 6 standards that are described at [www.georgiastandards.org](http://www.georgiastandards.org).

The content of the assessment covers standards that are reported under these domains:

- Reading and Vocabulary
- Writing and Language

There are two kinds of texts—literary and informational text.

There are two kinds of essays—an argumentative essay and an informational/explanatory essay.

Students will also write an extended constructed-response using narrative techniques. Students may be asked to continue a story or perhaps write a new beginning, for example. The stimulus text may be literary or informational. (Item 5 on page 31 gives an example of a prompt that requires a narrative response.)

### ITEM TYPES

The English Language Arts (ELA) portion of the Grade 6 EOG assessment consists of selected-response (multiple-choice), technology-enhanced (two-part questions that are evidence-based selected-response [EBSR] or multiple-select questions), constructed-response, extended constructed-response, and extended writing-response items.

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

Example items that represent applicable DOK levels are provided for you on the following pages. The items and explanations of what is expected of you to answer them will help you prepare for the test.

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

### Example Item 1

#### Selected-Response

**DOK Level 1:** This is a DOK level 1 item because it requires students to recognize the correct spelling of grade-level words.

**English Language Arts (ELA) Grade 6 Content Domain II: Writing and Language**

**Standard:** ELAGSE6L2b. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

b. Spell correctly.

**The sentence below contains a spelling error.**

I did not mock the candidate's reason for his absense because he seemed so honorable.

**Which underlined word is NOT spelled correctly?**

- A. mock
- B. candidate's
- C. absense
- D. honorable

**Correct Answer:** C

**Explanation of Correct Answer:** The correct answer is choice (C) absense. The correct spelling is "absence." Choices (A), (B), and (D) are all spelled correctly.

Read the poem and answer example items 2 and 3.

### **The Moon**

by Emily Dickinson

The moon was but a chin of gold  
A night or two ago,  
And now she turns her perfect face  
Upon the world below.

Her forehead is of amplest blond;  
Her cheek like beryl stone;  
Her eye unto the summer dew  
The likest I have known.

Her lips of amber never part;  
But what must be the smile  
Upon her friend she could bestow  
Were such her silver will!

And what a privilege to be  
But the remotest star!  
For certainly her way might pass  
Beside your twinkling door.

Her bonnet is the firmament,  
The universe her shoe,  
The stars the trinkets at her belt,  
Her dimities of blue.

## Example Item 2

### Selected-Response

**DOK Level 2:** This is a DOK level 2 item because the student is asked to apply knowledge of the text in order to answer the question. The student must interpret ideas as presented in the text.

**English Language Arts (ELA) Grade 6 Content Domain I:** Reading and Vocabulary

**Genre:** Literary

**Standard:** ELAGSE6RL1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

**Which line from the poem BEST expresses the poet’s opinion of the moon?**

- A. Upon the world below.
- B. Her lips of amber never part;
- C. And what a privilege to be
- D. Her dimities of blue.

**Correct Answer:** C

**Explanation of Correct Answer:** The correct answer is choice (C) And what a privilege to be. The word *privilege* demonstrates that the poet is appreciative of her location and would be even if she were the remotest star hoping to see the moon. Choice (A) is incorrect. The line expresses that the moon is above the poet but that does not help to express the poet’s opinion of the moon. Choice (B) is incorrect. The line expresses a description of the moon, but that description does not provide the best evidence of the poet’s opinion of the moon. Choice (D) is incorrect. The line expresses a concluding thought about the poet’s visual comparison of the moon but does not support the poet’s opinion of the moon.



### Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to analyze the impact of word choice on tone</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the tone or gives an explanation of its development with clearly relevant information based on the text</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to analyze the impact of word choice on tone</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the tone or gives an explanation of its development with vague/limited information based on the text</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to analyze the impact of word choice on tone</li> </ul>

### Exemplar Response

Points Awarded	Sample Response
2	<p>The author’s word choice creates a tone of admiration. The author uses words like “gold,” “perfect,” “amplest,” and “privilege” to show positive feelings about the subject of the poem—the moon. In the last stanza, the imagery clearly shows the author’s admiration of the moon’s beauty. “The stars the trinkets at her belt” reveals that even the lovely stars are minor and unimpressive next to the moon.</p>
1	<p>The author’s word choice includes “gold” and “perfect” as descriptions of the moon. This shows a positive feeling about the moon.</p>
0	<p>The poem says, “The moon was but a chin of gold.”</p>



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## Example Item 4

### Extended Writing-Response

**DOK Level 4:** This is a DOK level 4 item because it goes beyond explaining to analyzing and synthesizing information from different sources. The student must combine ideas from the two passages and write an essay in response to an extended writing prompt.

### English Language Arts (ELA) Grade 6 Content Domain II: Writing and Language

**Genre:** Informational/Explanatory

**Standards:**

ELAGSE6W2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

ELAGSE6L1. Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.

ELAGSE6L2. Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.

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

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

As you read the passages, think about details you may use in an explanatory essay about the use of pesticides.

**These are the titles of the passages you will read:**

1. The World Needs Honeybees
2. A Farmer's Letter to the Editor

## **The World Needs Honeybees**

Governments should make strict rules about the use of harmful chemicals, or pesticides, on commercial crops. Farmers should volunteer to cut their use of pesticides and make safer choices, but governments should also step in if needed. These harmful chemicals may kill weeds and unwanted insects, but they also kill honeybees. We need honeybees to grow crops in the first place.

### **What is the purpose of honeybees?**

For years, honeybees have been disappearing. Many people think the only purpose for bees is to make honey. However, bees do so much more. The scent of pollen draws them to plants and flowers. Bees then pollinate those crops. Without bees, the world's entire food supply would be in danger.

### **What is threatening honeybees?**

Bees have many enemies. Some, like diseases, are found in nature. Others, such as pesticides, are made by people. When farmers spray their crops with chemicals, bees eat the chemicals during pollination. The chemicals can injure or even kill the bees. Without bees, there is nothing to pollinate the crops. This leaves farmers with fewer crops to sell.

Different pesticides affect bees in different ways. Some kill bees instantly. Others cause bees to die after they deposit the chemicals in their hives. Still other pesticides kill only young bees. Some pesticides, called neonicotinoids, are especially harmful. These chemicals confuse bees so that they forget what they are supposed to do. They are no longer drawn to the scent of pollen, so they can't pollinate plants. Studies show that bees affected by neonicotinoids also have fewer offspring. As it turns out, neonicotinoids are the most popular pesticides in the United States.

### **How can the world save its honeybees?**

Farmers can help honeybees survive by changing their farming habits. Bees prefer to work during the day, so limiting the use of pesticides to evenings will help. Also, farmers can use liquid pesticides, which are less toxic than other forms. Farmers should use chemicals only when absolutely necessary and never while crops are blooming.

Other citizens can help too. They can encourage farmers to limit their chemical use. They can share their thoughts about pesticides with their government representatives. If everyone works together, we can save honeybees—and our food supply.

### **A Farmer's Letter to the Editor**

To Whom It May Concern:

Lately, I've been hearing about a drop in the world's bee population and how farmers are likely to blame. After all, we use chemicals to protect our crops from disease and destruction.

It might surprise you to know that nobody is more committed to saving bees than farmers. But there is no guarantee that eliminating pesticides will save the bees. If farmers do stop using certain chemicals, their crops could be destroyed by insects and disease, and then it won't matter if there are bees or not. No one will have a food supply.

Furthermore, it is unfair to force farmers to make decisions that would hurt their businesses. Farmers should enjoy the freedom to choose how they grow their own crops, just like individuals enjoy the freedom to purchase their own food. If the government is allowed to tell us which chemicals we can use, what's next? Will they start forcing us to grow certain crops? I don't want to find out.

Sincerely,  
Edward Malloy

## WRITING TASK

There is much discussion about the use of pesticides and their impact on the bee population.

Think about the ideas in BOTH passages. Then write an **explanatory essay** in your own words explaining why people have conflicting opinions about the use of pesticides.

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

### Writer's Checklist

**Be sure to:**

- Introduce the topic clearly, provide a focus, and organize information in a way that makes sense.
- Use information from the two passages so that your essay includes important details.
- Develop the topic with facts, definitions, details, quotations, or other information and examples related to the topic.
- Identify the passages by title or number when using details or facts directly from the passages.
- Develop your ideas clearly and use your own words, except when quoting directly from the passages.
- Use appropriate and varied transitions to connect ideas and to clarify the relationships among ideas and concepts.
- Use clear language and vocabulary.
- Establish and maintain a formal style.
- Provide a conclusion that supports the information presented.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

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

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**The following is an example of a seven-point response. See the seven-point, two-trait rubric for a text-based informational/explanatory response on pages 81 and 82 to see why this example would earn the maximum number of points.**

**Example of a Seven-Point Response:**

*It seems like people disagree about pesticides based on whether they are more concerned with honeybees or crops. The author of “The World Needs Honeybees” is more concerned with the bees. The author of “A Farmer’s Letter to the Editor” is more concerned with farming with pesticides and less concerned with honeybees. The differing opinions are the result of different viewpoints. One author is a farmer, and the other seems to be a concerned citizen.*

*The author of “The World Needs Honeybees” claims that bees do such important work that it is wrong to place them in danger. Pesticides can harm honeybees. Pesticides can kill them immediately or make it tough for them to do their job, which is to pollinate crops. The author suggests that pesticide use be changed to keep honeybees healthy. The author suggests pesticides be used more carefully, like in liquid form or put on crops in evenings when bees aren’t so active.*

*On the other hand, Edward Malloy claims that farmers need these chemicals to “protect our crops from disease and destruction.” He says farmers shouldn’t be asked to do things that interfere with them making a living. If pesticides are limited, he thinks crops will be threatened and then the honeybee issue won’t matter anyway because “no one will have a food supply.”*

*To summarize, the authors of the passages have conflicting opinions about the use of pesticides because they have different viewpoints. Maybe if we look at the use of pesticides from different viewpoints, we can find a solution that will still save the honeybees that are so important to the earth.*

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## ENGLISH LANGUAGE ARTS (ELA) CONTENT DESCRIPTION AND ADDITIONAL SAMPLE ITEMS

In this section, you will find information about what to study in order to prepare for the Grade 6 English Language Arts EOG assessment. This includes main ideas and important vocabulary words. This section also contains practice questions, with explanations of the correct answers, and activities that you can do on your own or with your classmates or family to prepare for the test.

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

### Unit 1: Reading Literary Text

#### READING PASSAGES: LITERARY TEXT

##### CONTENT DESCRIPTION

The literary passages in the English Language Arts (ELA) test are used to identify main ideas and details, cite evidence, make inferences, determine themes, and understand vocabulary.

##### Key Ideas and Details

- Think about the passage and visualize, or make a mental picture, as you read.
- Look for key ideas and details that tell you what the passage is about.
- Use these ideas and details when writing or speaking about the passage.
- Look for a theme and/or central idea as you read. Think about how the author conveys this theme or central idea with particular details.
- Think about the way in which the author develops elements of plot and characterization.
- Summarize the important ideas and details from the passage without including your own opinion.

##### Craft and Structure

- Make sure you understand the words and phrases as you read, including figurative language (e.g., simile, metaphor, hyperbole, personification).
- Think about how specific word choice impacts the meaning and tone.
- Look at the structure of the passage. Think about how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
- Think about how the author develops the point of view of the narrator or speaker in the passage.

##### Integration of Knowledge and Ideas

- Compare and contrast passages in different forms or genres (e.g., stories and poems, historical novels and fantasy stories) in how they approach similar themes and topics.

## KEY TERMS

**Literary texts:** Literary texts are passages that are stories, dramas, or poems. (RL)

**Inference:** To infer means to come to a reasonable conclusion based on evidence found in the text. By contrast, an **explicit** idea or message is fully stated or revealed by the author. The author tells the reader exactly what he or she needs to know. (RL1)

**Theme:** The theme of a literary text is its lesson or message. For example, a story could be about two friends who like to do things together, and the theme might be the importance of friendship. (RL2)

**Central idea:** The central idea is the most important point or idea that the author is making in a text. The central idea is also known as the main idea. (RL2)

**Objective summary:** An objective summary is an overview of a text. It captures the main points but does not give every detail and does not include opinions. (RL2)

**Plot:** The specific order of a series of events that form a story is known as the plot. (RL3)

**Resolution:** In most stories, there is a **conflict** or problem. The resolution is the solution to the problem or the end of the main dramatic conflict. (RL3)

**Characterization:** Characterization refers to the way an author develops a character over the course of a text. (RL3)

**Figurative language:** To understand figurative language, you need to distinguish between literal and figurative meanings of words and phrases. **Literal** refers to the actual meaning of a word or phrase. For example, if someone tells you to *open the door*, you can open a physical door. If someone tells you to *open the door to your heart*, you are not expected to find a door in your chest. Instead, you open up your feelings and emotions. (RL4, L5)

The following are examples of figurative language:

- **Personification:** When an author describes an object as if it were a person, he or she is using personification. For example, *The trees sighed in the afternoon breeze*. The trees cannot really sigh but seemed to as they moved gently in the breeze. (RL4, L5)
- **Simile:** A simile is a comparison using *like* or *as*. For example, *She is as pretty as a picture*. (RL4, L5)
- **Metaphor:** A metaphor is a direct comparison that states one thing is another. It isn't meant to be literal, but descriptive. For example, if someone describes recess by saying that *it was a zoo*, he or she is using a metaphor. Recess was chaotic, with lots of different people running around; it was not literally a zoo. (RL4, L5)
- **Hyperbole:** Hyperbole is exaggeration beyond belief. *My father can lift two tons* is an example of hyperbole. (RL4, L5)

**Connotative meaning:** A meaning beyond the explicit meaning of a word is known as a connotative meaning. For example, the word *childlike* connotes innocence. Connotations are meanings inferred from certain words. (RL4)

**Tone:** Tone is the attitude of an author about a subject or an audience. The author chooses words and language to create a tone and express a viewpoint in a text. (RL4)



**Structure:** In a literary writing, writers use structure to convey meaning. This structure helps break longer pieces of writing into smaller portions that are grouped together because they happened around the same time or because they share a similar meaning. (RL5)

- **Chapter:** A chapter is a section of a book. Books are often divided into chapters. (RL5)
- **Scene:** A scene is a section of a drama or play. Plays are often divided into scenes. (RL5)
- **Stanza:** A stanza is a section of a poem. Poems are often divided into stanzas. (RL5)

**Setting:** Setting refers to where and when a story takes place, including the time of day, the season, or the location. (RL5)

**Point of view:** The perspective from which a story is told is called the point of view. The point of view depends on who the narrator or speaker is and how much he or she knows. The point of view could be first person (*I* went to the store), second person (*You* went to the store), or third person (*He* went to the store). (RL6)

**Narrator:** The character who tells the story in a literary text from his or her point of view is called the narrator of the story. (RL6)

**Speaker:** The speaker is the voice of a literary text that speaks about the writer's feelings or situation. The speaker is not always the author because the author may be writing the text from a different perspective. In poems and stories, the speaker may not be an actual person but an imagined one. In poems, the speaker is often not named or identified by gender or any other characteristics. (RL6)

**Compare and contrast:** Though similar, comparing is analyzing two things, such as characters or stories, in relation to each other, while contrasting is specifically analyzing the *differences* between two things, such as two different characters or stories. (RL9)

**Genre:** A genre is the category of a text, such as fiction or nonfiction. Each genre has a particular style, form, and content. (RL9)

### Important Tips

- ✍ Use details to support ideas and to answer *what* you know and *how* you know it.
- ✍ When responding to an item, try to answer the question being asked before you read the answer choices.
- ✍ Try to read the questions about a literary text before you read the entire text.
- ✍ Reread a literary text as you answer the questions to gain a better understanding.

## Sample Items 1–5

Read the story and answer questions 1 through 5.

### The Finish Line

Mother came into my bedroom. With her hands on her hips, she studied the cluttered floor and a wall of built-in bookshelves littered with art projects at every stage except *finished*. “What a mess,” she said. “You have projects here that you started in first grade, Maura. Maybe it’s time you finished them.”

She sat on the bed across from me and said, “Your baseball coach called. I know that you quit the team, but what I don’t get is why you didn’t come to your dad and me. We’re not the enemy, Maura, but we can’t help you unless you talk to us.”

I nodded and said, “I know.”

“All right, I better get you to your grandparents or I’m going to be late for my meeting. Downstairs in two, okay?”

I grabbed my sketchbook and headed downstairs, where I discovered that Mother was already outside. After I got in the car, minutes of awkward silence crawled. I wanted to explain why I’d quit the team without telling her, and I wanted her to know what it felt like to ride the bench because you weren’t as good as your teammates. But Mother didn’t understand this, because she had been born good at everything and didn’t realize that most people just weren’t like that. Some people were only talented at drawing.

When I arrived at my grandparents’ farm, Grandpa met me on the porch and said, “How would you like to go on a treasure hunt?”

I was excited for a moment but quickly realized that it was a trick. “You’re not *still* looking for Grandma’s ring, are you?” I asked suspiciously.

“Just until I find it,” he said, “and you’re part of my search team.”

Suddenly, my summer was not looking so good. I had heard the story a million times: when Grandma was young, her brothers had taken her ring and buried it somewhere on the property. To complicate matters, her parents and grandparents had frequently buried things they wanted to dig up later in fun family treasure hunts—old kitchen items, bottles, and anything else that might be fun to “discover” again—and Grandma’s brothers had followed their example. How were we going to find one ring in all those acres?

I followed Grandpa into the double garage that was his workshop. Tidy shelving, cupboards, and tool benches lined the perimeter. It did not resemble our garage, which was like a huge junk drawer with just enough space carved out for one car.

As I admired Grandpa’s organization, he retrieved his new metal detector, which looked like a cross between a vacuum cleaner and a weed trimmer. “You finally bought one!” I said.

“We have work to do,” he said, nodding.

We took the metal detector to the edge of the pasture, and Grandpa held the contraption out in front of him. Soon it began to hum and shake, indicating that it had found something.

I took the shovel and dug while Grandpa searched the upturned soil and fished out a penny. Not quite the payout we were looking for, but it was only our first attempt.

In the first few hours, we only managed to find coins, rusty nails, and an old fork. When I was about to give up, the machine jumped and rattled. “Maura, get the shovel!” Grandpa commanded.

I dug where he indicated, and my shovel immediately hit something—something a lot bigger than a ring. Grandpa reached into the dirt and retrieved a tin box. Some dirt had gotten through a crack in the lid, but the contents—a handful of tiny metal cars and toy soldiers, a few marbles, and a tarnished hair clip—appeared intact. There was no ring. “Failed again,” I said.

“What a beautiful clip for Grandma’s hair,” Grandpa marveled.

“Beautiful?!” I exclaimed. “Grandpa, it’s disastrously tarnished—it’s not even supposed to be that color!”

“A little elbow grease will fix that,” he retorted.

We headed back to Grandpa’s workshop, where he produced a soft rag and told me to buff the clip back to its original shine.

I didn’t have much hope until a cluster of tiny crystals emerged. Then we applied some silver polish and buffed it again. When I pulled the cloth away, the clip shone like a new mirror. Grandpa admired it and said, “Let’s show your grandma.”

We went inside, where we found Grandma reading, and Grandpa slid the hair clip onto a page of her book.

“Goodness!” she said. “Did you find this with that absurd metal detector?”

“Courtesy of your backyard,” I confirmed.

As we admired Grandma’s new accessory, someone knocked at the door. I knew it would be my mother. As I headed for the door, I considered the bevy of art projects covering my shelves. They all looked better than that hair clip had, so maybe there was potential for them after all. When we got home, I opened the door to my room. I knew which piece I would work on first.

### Item 1

#### Selected-Response

Based on this sentence from the story, what can the reader conclude about Grandpa?

**“Just until I find it,” he said, “and you’re part of my search team.”**

- A. He is strict.
- B. He is sensitive.
- C. He is organized.
- D. He is determined.

### Item 2

#### Selected-Response

What is the MAIN purpose of this paragraph from the story?

**I followed Grandpa into the double garage that was his workshop. Tidy shelving, cupboards, and tool benches lined the perimeter. It did not resemble our garage, which was like a huge junk drawer with just enough space carved out for one car.**

- A. It teaches Maura the importance of being orderly.
- B. It identifies Grandpa’s workshop as the main setting of the story.
- C. It contrasts the organizational styles of Grandpa and Maura’s parents.
- D. It suggests that Maura’s mother inherited her habits from her father.

**Item 3****Evidence-Based Selected-Response Technology-Enhanced**

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

**Part A**

Which statement **BEST** expresses a theme of the story?

- A. Being kind to others is its own reward.
- B. Growing up is a challenge for everyone.
- C. Spending time with others can ease feelings of loneliness.
- D. Working hard when faced with difficulties can lead to success.

**Part B**

Which sentence from the story **BEST** supports the answer in Part A?

- A. We took the metal detector to the edge of the pasture, and Grandpa held the contraption out in front of him.
- B. I took the shovel and dug while Grandpa searched the upturned soil and fished out a penny.
- C. In the first few hours, we only managed to find coins, rusty nails, and an old fork.
- D. They all looked better than that hair clip had, so maybe there was potential for them after all.



**Item 5**

**Extended Constructed-Response**

**Write a conclusion to the story in which Maura goes home with her mother and expresses what she learned from her day on the farm.**

**Be sure to include what Maura and her mother say to each other and what Maura plans to do after they talk. Write your answer on the lines on your answer document.**

A large rectangular box containing 20 horizontal lines for writing an extended constructed response.

## Unit 2: Reading Informational Text

### READING PASSAGES: INFORMATIONAL TEXT

#### CONTENT DESCRIPTION

The informational passages in the English Language Arts test are used to determine central ideas, write objective summaries, analyze ideas, and provide supporting text evidence.

#### Key Ideas and Details

- Read closely to know exactly what the passage says.
- Look for key ideas and details that tell you what the passage is about.
- Use these key ideas and details when writing or speaking about the passage.
- Look for a central idea of the passage and think about how the author conveys this central idea through particular details.
- Think about how the author develops a key individual, event, or idea in the passage.
- Summarize the passage without including your personal opinion about the topic.

#### Craft and Structure

- Make sure you understand the words and phrases as they are used in the passage, including figurative, connotative, and technical meanings of words.
- Think about how specific sentences, paragraphs, chapters, and sections develop ideas. Pay attention to the differences in structure for paragraphs that present evidence, provide a quote, share an anecdote, or include other types of support.
- Think about the author's point of view or purpose in a passage.

#### Integration of Knowledge and Ideas

- Think about the argument and specific claims in a passage. Which claims are supported by reasons and evidence?
- Compare and contrast how two authors present information about a topic or an event.



## KEY TERMS

**Informational texts:** Informational texts are passages that explain or inform. (RI)

**Inference:** To infer means to come to a reasonable conclusion based on evidence found in the text. By contrast, an **explicit** idea or message is fully stated or revealed by the author. The author tells the reader exactly what he or she needs to know. (RI1)

**Central idea:** The central idea is the most important point or idea that the author is making in a text. The central idea is also known as the main idea. (RI2)

**Objective summary:** An objective summary is an overview of a text. It captures the main points but does not give every detail and does not include opinions. (RI2)

**Fact and opinion:** A fact is a statement that can be proven. An opinion is a statement that cannot be proven, as it states an author’s belief or judgment about something. Deciding whether a statement is a fact often comes down to a single question: “Is it something that can be proven?” If it can be proven, then it is a fact. If not, it is an opinion. (RI2)

**Anecdote:** An anecdote is a short story about an interesting person or event. An author may use an anecdote to support or demonstrate his or her main purpose or claim. (RI3)

**Figurative meaning:** Literal meaning refers to the actual meaning of a word or phrase. By contrast, figurative meaning refers to the symbolic meaning of words or phrases and uses figurative language such as personification (describing an object as if it were a person), simile (a comparison using *like* or *as*), metaphor (a descriptive comparison that states one thing is another), hyperbole (exaggeration beyond belief), and idiom (a quirky expression or saying that is specific to a language). The literal meaning of the phrase *open the door* is to open a physical door; however, the phrase *open the door to your heart* has a figurative meaning because we do not intend for the person to create an opening in his or chest. Instead, the phrase symbolizes opening up one’s feelings and emotions. (RI4)

**Connotative meaning:** A meaning beyond the explicit meaning of a word is known as a connotative meaning. For example, the word *childlike* connotes innocence. Connotations are meanings inferred from certain words. (RI4)

**Organization:** Organization refers to the way in which a piece of writing is structured. Each sentence, paragraph, or chapter fits into the overall structure of a text and contributes to the development of ideas.

**Organizational structures** include chronological order, cause and effect, compare and contrast, order of importance, and problem and solution. (RI5)

- **Chronological order:** Chronological order is the order in which a series of events happened. A text that is arranged in order of time from the beginning to the end is in chronological order. (RI5)
- **Cause and effect:** This is a relationship in which one thing causes another thing to happen. (RI5)
- **Compare and contrast:** The structure of compare and contrast analyzes the relationships between ideas in a text. Comparing analyzes the similarities, while contrasting analyzes the differences. (RI5, RI9)
- **Order of importance:** Order of importance organizes text by listing supporting details from most important to least important, or by least important to most important. (RI5)
- **Problem and solution:** Text that is organized by problem and solution identifies a problem and proposes one or more solutions. An author may use problem and solution to try to persuade readers about a certain topic or course of action. (RI5)

**Author’s purpose:** The author’s purpose is the author’s intention for his or her piece. All passages have a purpose, whether it is to persuade, inform, explain, or entertain. (RI6)

**Author’s point of view:** The opinion of the author is known as the author’s point of view. Your opinion may differ from the opinion of the author of a passage. (RI6)

**Integrate:** To integrate information means to put together key details and evidence from sources to show an understanding of the topic or issue. (RI7)

**Claim:** A claim is the main **argument** made by the author. A strong claim will be supported by reasons and evidence. (RI8)

**Reasons:** Reasons are details that support the author’s particular points in a text. (RI8)

**Evidence:** Evidence refers to something that proves the truth of something else. Informational texts may contain evidence in the form of key words, illustrations, maps, or photographs to prove that the information is correct. (RI8)

### **Important Tips**

- ✍ Try to read the questions about an informational text before you read the text so that you know what to look out for.
- ✍ Use evidence from a passage to help explain what is being said.
- ✍ Use facts and details to support ideas and to answer *what* you know and *how* you know it.

## Sample Items 6–9

Read the article and answer questions 6 through 9.

### Daylight Saving Time

#### History

In the eighteenth century, Benjamin Franklin had an idea that became what we know today as daylight saving time (DST). Franklin realized that in some seasons, people wasted several hours of daylight while they slept. Then, in the evenings, they had to rely on candles. Candles were very expensive, and Franklin wanted to save money. He did not suggest a change in the clock. Instead, he urged people to get up earlier and go to bed earlier. However, this idea eventually led to DST.

#### How It Works

The concept of DST is fairly simple. Every fall, we “fall back,” or set our clocks back by one hour. This helps us maximize winter’s minimal hours of daylight. Every spring, we “spring forward,” or set our clocks ahead by one hour. In essence, we gain an hour in the fall and lose an hour in the spring. In the United States, all states except Hawaii and most of Arizona participate in DST.

#### Public Opinion

Supporters of DST like having plenty of time to be active outside. When people are outside, they are not using electricity at home. Therefore, they may save money on energy costs. But critics claim that DST does not actually save energy. Some research suggests that increased electricity use in the morning cancels out decreased electricity use in the evening. For example, increased air conditioning costs cancel out decreased lighting costs.

Some people argue that an extra hour of evening daylight actually encourages people to spend money. For example, they leave the house to shop. If saving money is the goal of DST, it likely fails.

#### Health Concerns

Many people have trouble adjusting to the DST changes, especially in the spring. Some people are groggy for several days as their bodies adapt. Some researchers suggest that this adjustment period may damage the heart due to interrupted sleep cycles. Reduced sleep decreases productivity. It also increases tiredness and harms overall health.

#### Making the Adjustment Easier

Experts suggest that people ease into a DST shift. A few days before the change, in the spring, for example, people can start going to bed fifteen minutes earlier. Then they can gradually increase the change until they reach an hour. Experts also recommend taking a daily nap, as long as it is not too close to bedtime. Finally, moderate exercise several times per week helps people get higher-quality sleep.

### Item 6

#### Selected-Response

How does the section “Public Opinion” contribute to the article?

- A. It shows that DST is no longer controversial.
- B. It suggests that DST does not meet its goals.
- C. It provides a balanced report of both perspectives.
- D. It helps readers adjust to losing an hour each spring.

### Item 7

#### Selected-Response

Which conclusion about DST can the reader draw based on this detail from the article?

**In the United States, all states except Hawaii and most of Arizona participate in DST.**

- A. Each state has the option of participating in DST.
- B. In the South, DST has proven to be less effective.
- C. The government is considering changing DST rules.
- D. DST is only controversial in the western United States.

**Item 8**

**Constructed-Response**

**Why does the author MOST LIKELY include the section “Health Concerns”?**

**Use details from the article to support your answer. Write your answer on the lines on your answer document.**

A large rectangular box containing 18 horizontal lines for writing an answer.



## Unit 3: Writing Argumentative Texts

### CONTENT DESCRIPTION

Some passages in the English Language Arts test help you develop arguments and claims and support a point of view on a topic in an argumentative essay. In your writing, use evidence, examples, quotations, and reasons to develop and support your claims and arguments.

#### Text Type and Purpose

- An argumentative essay takes a stand, or presents an argument and claims, on a topic.
- When you state your claims, you need to support them with clear reasons and relevant evidence, using credible sources.

#### Production and Distribution of Writing

- Introduce a claim or claims and organize the reasons and evidence clearly.
- Produce writing with an organization and a style that fit the task, purpose, and audience.
- Provide a concluding statement or section that follows from the argument provided.
- Strengthen your writing by reviewing and revising, if needed.

#### Audience, Purpose, and Voice

- As you write, remember who your audience will be.
- Use words, phrases, and clauses to create cohesion and to clarify the relationships among the claim(s) and reasons.
- Remember, you are writing for a purpose—think about *what* you are writing and *why*.

#### Research to Build and Present Knowledge

- Conduct a short research project that uses several sources to answer a question.
- Gather relevant information from multiple sources, including print and digital sources. Make sure to consult multiple sources in multiple formats to establish the validity of your information.
- Avoid plagiarism by quoting or paraphrasing the data and conclusions of others. Give credit for work that you use by providing bibliographic information.
- Use evidence from literary or informational texts to support analysis, reflection, and research.

#### Range of Writing

- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### Scoring Rubric

- An argumentative scoring rubric can be found beginning on page 83. You may find it helpful to read and discuss this rubric with a classmate, parent, or another adult.
- The rubric shows you what is needed to produce a strong piece of argumentative writing.
- The rubric is important to understand. It tells you what to add to your argumentative writing.
- Argumentative writing on the EOG assessment will be scored using this rubric.

## KEY TERMS

**Argumentative texts:** Argumentative texts are forms of writing in which the writer makes a claim and supports that claim with reasons and evidence. (W1)

**Argument:** An argument is the main statement of an argumentative text, which usually appears in the introduction. The argument is the main point on which the writer will develop his or her work in order to convince readers. (W1)

**Claims:** Claims are ideas and opinions set forth by the writer. For example, a writer could make the claim that the school cafeteria food is too expensive. (W1)

**Introduction:** The introduction is the beginning of a piece of writing. The introduction should let readers know what they will be reading about, and it should set up the main idea, or thesis, of the writing. (W1a)

**Organization:** In writing, the organization helps present ideas and information more clearly. Writers use transitions to organize information. Also, an entire piece of writing has an organizational structure to it. Writers structure their texts to match their purpose and audience. For example, if you were writing an argumentative text in which you wanted to show the negative effects of something, you might choose cause and effect as an organizational structure. (W1a, W4)

**Reasons:** Reasons are the **evidence** given to support a writer's claims. For example, a writer could include information on the price of a school lunch or the number of students who don't want to buy it as reasons to support the claim that the school cafeteria food is too expensive. (W1b)

**Credible source:** For a claim to be effective, it must be supported with a credible source. Credible sources provide evidence and facts that support the writer's claim. (W1b)

**Relationships:** Relationships in writing refer to the ways in which ideas are connected. Writing should use words, phrases, and clauses to clarify the relationships between claims and reasons. (W1c)

**Formal style:** A formal style is less personal and is used in writing such as an essay, research paper, or business letter. When writing in a formal style, the writer chooses language that matches the audience and purpose and avoids informal language. (W1d)

**Concluding statement:** The conclusion is the end of a piece of writing. The concluding statement should sum up the main purpose of the writing and provide an overall takeaway for the reader. (W1e)

**Purpose:** The writer's intention for his or her piece is the writer's purpose. All writing has a purpose, whether it is to persuade, inform, explain, or entertain. (W4)

**Audience:** The people who will be reading the piece of writing are known as the audience. Writers should keep their audience in mind and adjust their ideas and vocabulary so that they can be best understood. (W4)

**Revision:** Revision is the process of editing and rewriting a piece of writing. All good writing requires revision to catch mistakes and clarify ideas. (W5)

**Research:** Research refers to gathering information in order to learn more about a topic. (W7, W9)

**Source:** A source is a book, article, website, person, or piece of media that contains information. (W7, W8)

**Credibility:** Credible sources provide evidence and facts that support the writer's claim. When a writer uses the evidence and facts from the source to support his or her reasoning and persuade the audience to agree with the writer's claim, the writer gains credibility. (W8)

**Paraphrase:** To paraphrase means to use someone else's ideas and express those ideas in your own words. Paraphrasing is an acceptable way to support your argument as long as you attribute the ideas to the author and cite the source in the text at the end of the sentence. (W8)



**Plagiarism:** Plagiarism refers to presenting the words, works, or ideas of someone else as though they are one's own and without providing attribution to the author. (W8)

**Evidence:** Evidence is something that proves the truth of something else. Informational texts may include facts, opinions of experts, quotes, statistics, and definitions that can be used as evidence. In literary text, the character's thoughts, words, or actions may be used as evidence. (W9)

### **Important Tips**

- ✍ Make sure that the arguments you make in your essay have clear reasons and relevant evidence. The evidence must strongly support your claims.
- ✍ Organize your writing by using chronological order, cause and effect, compare and contrast, or asking and answering questions.
- ✍ Make sure your writing has a concluding statement that supports the information or explanation presented.
- ✍ Always read over your writing several times to check your work and catch errors.

## Sample Items 10–13

[**NOTE:** The structure of the practice items for this unit and Unit 4 that follows is as it appears on the Georgia Milestones End-of-Grade assessment: 1) multiple-choice questions (three on the actual test); 2) a constructed-response item; and 3) an extended writing-response. Additionally, the instructions for the extended writing-response are in a format that is similar to the instructions on the End-of-Grade assessment. There is no extended writing-response for Unit 4.]

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

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

As you read the passages, think about details you may use in an argumentative essay about the use of genetically modified organisms, or GMOs.

**These are the titles of the passages you will read:**

1. GMOs Can Feed the World
2. Are GMOs Really Safe?

## GMOs Can Feed the World

Genetically modified organisms, or GMOs, are changing the way nations feed their people. In the past, farmers had to worry about droughts, disease, and other hardships. Now, crops can be bred to withstand these forces. The result is an abundance of food that will feed the world.

One benefit of GMOs is that crops can be strengthened. In this way, scientists can protect crops from harmful weeds and diseases. For example, wild sunflowers are found all over the United States. Each one contains a trait that could help human-grown sunflowers. For instance, a wild sunflower that grows in the desert has traits that allow it to survive on little water. Scientists can isolate this gene and transfer it to the DNA, or genetic material, of a commercial sunflower. This allows farmers to grow sunflowers even in regions that get little water. It also helps farmers in climates with four distinct seasons protect crops from dry spells.

GMOs have many health-related benefits. Scientists can create foods that taste better. If healthy fruits and vegetables taste better, people are more likely to eat them, which will in turn improve their health. In addition, some GMO crops actually have greater nutritional value than their commercial counterparts. Foods can also be bred to last longer. This allows people to store their fresh produce longer and prevent a lot of waste. All these benefits can be created in a laboratory.

Some critics caution that GMOs pose health risks. For instance, they blame GMOs for food allergies. Allergies are not a new phenomenon, however. Many studies have been done on GMOs, and there has never been any proof linking GMOs to health risks.

Finally, GMOs provide financial benefits. With more crops available, prices decline. This saves consumers money, which allows them to buy more healthful foods. It also gives farmers more money because they have more crops to sell.

Research continues every day. Soon, there will be GMO versions of other common crops. Tomatoes and potatoes, for instance, may soon be able to withstand disease and drought. Then other crops will follow. The possibilities are as endless as the benefits GMOs bring to your health.

### **Are GMOs Really Safe?**

Genetically modified organisms (GMOs) are plants or other organisms whose genetic structure has been changed by scientists. Scientists make these changes by taking desirable genes from other organisms. Then they add these genes to the DNA of plants. Corn and soy are often changed this way.

The purpose of this swap is to make crops stronger and more resistant to disease and parasites. Supporters believe that GMOs can also be used to produce crops that have a bigger yield. This would feed more people. Some crops can even be developed to survive droughts and hardships that would otherwise destroy them.

While all of these benefits sound good, some people have a bleaker outlook. Skeptics worry about the effects of GMOs on humans. Although the U.S. government has declared that GMOs are safe, some experts suspect that they cause food allergies in children and adults. The only way to find out for sure is to conduct long-term testing.

In addition to possibly causing food allergies, GMOs may also have a lower nutritional value than unmodified crops do. Until more studies are done, the public cannot know for sure.

Finally, people are concerned about the increased use of pesticides on GMO crops. It is true that these crops are engineered to survive pesticides. However, this has resulted in the growth of superbugs that require even greater amounts of pesticides. GMO crops are doused with extra chemicals. Later, they line the shelves of your local supermarket or become part of processed foods.

As of now, testing has not confirmed the risks associated with GMOs. Some consumers opt to purchase only non-GMO foods just to be safe. However, it is hard to tell which foods have GMOs. The United States does not require companies to label products that contain GMOs. However, any item labeled as organic and verified by the USDA does not have GMO ingredients.

The field is divided on GMOs for now. Producers proclaim the benefits. Meanwhile, some scientists ask for more testing to confirm the safety of these crops. Until then, consumers will have to educate themselves about the foods they buy.

### Item 10

#### Selected-Response

**What is one benefit of GMOs that BOTH authors acknowledge?**

- A. that genetic modifications can make crops more affordable
- B. that GMO crops can be engineered to survive droughts
- C. that genetic modifications can help people overcome allergies
- D. that GMO crops have greater nutritional value

### Item 11

#### Selected-Response

**How does the author of “Are GMOs Really Safe?” support an argument about GMOs and pesticides?**

- A. by stating that GMOs require increasing amounts of pesticides
- B. by suggesting that GMOs can process pesticides in a healthy way
- C. by claiming that pesticides damage GMO crops more than non-GMO crops
- D. by explaining that organic pesticides can be used effectively on GMOs



**Item 13****Extended Writing-Response****WRITING TASK**

There is currently a discussion about the benefits and risks of consuming foods that have been genetically modified.

Think about BOTH sides of the discussion. Then write an **argumentative essay** in your own words supporting either side. In your essay, you will argue for or against the use of GMOs.

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

**Writer's Checklist****Be sure to:**

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

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

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## Unit 4: Writing Informational/Explanatory Texts

### CONTENT DESCRIPTION

Some passages in the English Language Arts test will help you develop an informational/explanatory essay. In your writing, state ideas, summarize research, and use information from more than one source to develop and support your ideas.

#### Text Type and Purpose

- An informational/explanatory essay examines a topic and conveys ideas, concepts, and information through the selection, organization, and analysis of relevant information.
- When you develop your topic, use relevant facts, definitions, concrete details, quotations, and other information and examples.

#### Production and Distribution of Writing

- Introduce a topic clearly.
- Produce writing with an organization and a style that fit the task, purpose, and audience.
- Provide a concluding statement or section that follows from and supports the information or explanation presented in the essay.
- Strengthen your writing by reviewing and revising, if needed.

#### Audience, Purpose, and Voice

- As you write, remember who your audience will be.
- Use precise language to inform about or explain the topic.
- Use appropriate transitions to create clarity and cohesion among ideas and concepts.
- Remember, you are writing for a purpose—think about *what* you are writing and *why*.

#### Research to Build and Present Knowledge

- Conduct a short research project that uses several sources to answer a question.
- Gather relevant information from multiple sources, including print and digital sources. Make sure to consult multiple sources in multiple formats to establish the validity of your information.
- Avoid plagiarism by quoting or paraphrasing the data and conclusions of others. Give credit for work that you use by providing bibliographic information.
- Use evidence from literary or informational texts to support analysis, reflection, and research.

#### Range of Writing

- Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

#### Scoring Rubric

- An informational/explanatory scoring rubric can be found beginning on page 81. You may find it helpful to read and discuss this rubric with a classmate, parent, or another adult.
- The rubric shows you what is needed to produce a strong piece of informational/explanatory writing.
- The rubric is important to understand. It tells you what to add to your informational/explanatory writing.
- Informational/explanatory writing on the EOG assessment will be scored using this rubric.

## KEY TERMS

**Informational/explanatory texts:** Forms of writing that inform the reader or explain something are known as informational/explanatory texts. (W2)

**Topic:** A topic is what a piece of writing is about. (W2a)

**Introduction:** An introduction is the beginning of a piece of writing. The introduction should let readers know what they will be reading about and set up the main idea of the writing. (W2a)

**Organization:** Organization refers to the way in which a piece of writing is structured. Similar ideas and illustrations should be grouped together, and the order of the information should make sense. In informational/explanatory writing, organizational strategies may include definition, classification, compare and contrast, or cause and effect. Writers structure their texts to match their purpose and audience. For example, if you were writing an informational essay in which you want to show how two animals are similar or different, you might choose comparison and contrast as an organizational structure. (W2a, W4)

**Formatting:** Formatting is the way in which a piece of writing is organized, designed, and arranged. For example, a writer can use headings and subheadings to organize the writing and present the information in a clear way. (W2a)

**Multimedia:** Multimedia refers to a variety of media. Writing does not include only pen on paper or a typed essay. Other ways of enhancing writing can include media such as art, presentations, photographs, charts, and videos. (W2a)

**Transition:** A transition is a word, phrase, or clause that links one idea to the next. Writing should not jump from one idea to the next without transitions that guide the reader to the next idea. Examples include words such as *another*, *for example*, *also*, and *because*. (W2c)

**Precise language:** Good writers choose their words carefully. Specific and vivid words and phrases describe or explain and make meaning clear. The sentence *A bird was on the ground* is very general and does not use precise language. However, that sentence could be rewritten using more specific nouns and verbs: *A robin landed in the grassy field*. (W2d)

**Formal style:** A formal style is used in formal writing, such as an essay, research paper, or formal letter. When writing in a formal style, the writer chooses language that matches the audience and purpose and avoids informal language. (W2e)

**Concluding statement:** A conclusion is the end of a piece of writing. The concluding statement should sum up the main purpose of the writing and provide an overall takeaway for the reader. (W2f)

**Purpose:** The writer's intention for his or her piece is the writer's purpose. All writing has a purpose, whether it is to persuade, inform, explain, or entertain. (W4)

**Audience:** The people who will be reading the piece of writing are known as the audience. Writers should keep their audience in mind and adjust their ideas and vocabulary so that they can be best understood. (W4)

**Writing process:** Most informational or technical pieces require research and revision before they can be considered to be finished pieces. Even professional writers may struggle with their words. Drafting, revising, editing, and proofreading your writing are all essential parts of an effective writing process. The steps in the writing process are prewriting, drafting, revising and editing, proofreading, and publishing. (W5)

**Research:** Research refers to gathering information in order to learn more about a topic. (W7, W9)

**Source:** A source is a book, article, website, person, or piece of media that contains information. (W7, W8)

**Credibility:** Credible sources provide evidence and facts that support the writer’s claim. When a writer uses the evidence and facts from the source to support his or her reasoning and persuade the audience to agree with the writer’s claim, the writer gains credibility. (W8)

**Paraphrase:** To paraphrase means to use someone else’s ideas and express those ideas in your own words. Paraphrasing is an acceptable way to support your argument as long as you attribute the ideas to the author and cite the source in the text at the end of the sentence. (W8)

**Plagiarism:** Plagiarism refers to presenting the words, works, or ideas of someone else as though they are one’s own and without providing attribution to the author. (W8)

**Evidence:** Evidence is something that proves the truth of something else. Informational texts may include facts, opinions of experts, quotes, statistics, and definitions that can be used as evidence. In literary text, the character’s thoughts, words, or actions may be used as evidence. (W9)

### **Important Tips**

- ✍ Begin by organizing your ideas in different sections. You can use a graphic organizer such as a chart or Venn diagram, or you can create an outline of your piece. Then it will be easier to fill in the supporting details.
- ✍ Be sure to develop your writing with details such as facts, definitions, quotations, or other information that supports your topic.
- ✍ Organize your writing by using chronological order, cause and effect, compare and contrast, or asking and answering questions.
- ✍ Make sure your writing has a concluding statement that supports your central idea.
- ✍ Strengthen your writing by planning, revising, editing, rewriting, or trying a new approach.

## Sample Items 14–18

Read the article and answer questions 14 through 18.

### Circadian Rhythm

Everyone is born with an inner clock, or circadian (sər-'kā-dē-ən) rhythm. This inner clock determines whether a person is more productive in the morning or in the evening. It basically tells the brain when it needs to sleep. Some people assume that these clocks are set for life. However, new research suggests that circadian rhythms can change after all.

#### Perils of Artificial Light

It is hard to imagine life without artificial light from cell phones, computers, and televisions. As it turns out, this light greatly affects the body's inner clock. When there is too much light, even in the middle of the night, the body thinks it is time to be awake. The body sends this message to the brain, and the brain revives itself. This is why falling asleep after watching TV or checking email is difficult.

#### Changing One's Internal Clock

Some researchers conducted an experiment on the adaptability of a person's circadian rhythm. Their discoveries could change the way people label themselves.

Researchers took a small number of people camping for a week. No one was allowed to have electronics, including phones and computers. They lived only by natural light as they reset their internal clocks. By the end of the week, people who had been "night owls" had adjusted to the schedule of a morning person. They had little trouble getting up early. They also had more energy in the morning. This led researchers to draw several conclusions about light: excess light disturbs sleep, light keeps people awake at night, and light prevents people from being energetic in the morning.

#### Eliminating Light

Based on the results of this study, night owls can follow several steps to become less resistant to early wake-up times. First, people need to monitor their use of artificial light. While sunlight provides vital vitamin D, artificial light confuses the body. People can benefit from turning off their electronics before bed. Trying to fall asleep to the TV is counterproductive. The light from the screen keeps people alert instead of helping them become drowsy. Instead of watching TV, people should try relaxing in a dark area.

Everyone should have a sleep schedule. On weekdays and weekends, people should try to get up at about the same time. This helps the body develop a routine. When the body knows what to expect, it can perform optimally. With a schedule, a person can expect to wake up automatically without alarms.

**Item 14****Selected-Response**

In the section “Changing One’s Internal Clock,” how does the author support the section’s main idea?

- A. by explaining questions that researchers have
- B. by showing the importance of doing more research experiments
- C. by discussing different conclusions reached by researchers
- D. by describing a research experiment

**Item 15****Selected-Response**

Which sentence **BEST** states the author’s point of view in the text?

- A. It is easy for night owls and morning people to change their habits in a day or two.
- B. When people are deprived of screens before bedtime, they wake more frequently.
- C. It is important for people to limit light exposure before bedtime and get into a sleep routine.
- D. When morning people try to sleep, they generally have difficulty drifting off.

**Item 16****Selected-Response**

Read the sentences from the article.

Trying to fall asleep to the TV is counterproductive. The light from the screen keeps people alert instead of helping them become drowsy. Instead of watching TV, people should try relaxing in a dark area.

Which choice is closest in meaning to the word *counterproductive* as it is used in the article?

- A. not helpful
- B. not enjoyable
- C. not entertaining
- D. not difficult



**Item 18**

**Constructed-Response**

**How does the author illustrate the importance of limiting light when changing one’s internal clock?**

**Use details from the article to support your answer. Write your answer on the lines on your answer document.**

A large rectangular box containing 18 horizontal lines for writing an answer.

## Unit 5: Language

### CONTENT DESCRIPTION

The language portion of the English Language Arts test focuses on the conventions of Standard English, including grammar and usage and the proper use of capitalization, punctuation, and spelling.

#### Conventions of Standard English

- Show a command of the conventions of Standard English grammar and usage when writing.
- Show a command of the conventions of Standard English capitalization, punctuation (e.g., commas, parentheses, dashes), and spelling when writing.
- Understand pronoun types and match pronouns in number and person to the appropriate noun.

#### Knowledge of Language

- Express yourself clearly and in an interesting way.
- Choose your words carefully so readers understand what you are writing.
- Vary sentence patterns for meaning, reader interest, and style.
- Avoid use of wordy explanations, as well as overuse of common words (e.g., any, all, always, never, very).

#### Vocabulary Acquisition and Use

- Use different strategies (e.g., context, affixes, roots) to help you determine the meaning of unknown or multiple-meaning words.
- Show an understanding of figurative language (i.e., similes, metaphors, personification, hyperbole, idioms, onomatopoeia, alliteration, and assonance) and interpret figures of speech in context.
- Use the relationships between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.
- Think about the connotations of words with similar definitions.
- Use reference materials to determine or clarify a specific word's precise meaning or its part of speech.



## KEY TERMS

**Grammar:** Grammar refers to the set of rules for language. (L1)

**Usage:** Using the correct word when there is a choice is known as correct usage (*to, too, two*). (L1)

**Pronoun:** A pronoun is a part of speech that is used instead of a noun when the meaning of the noun is already understood. *I, we, he, she, they,* and *it* are all pronouns. (L1a, L1b, L1c, L1d)

- **Subjective/nominative pronoun:** Pronouns that act as the subject of a sentence are known as subjective/nominative pronouns. Examples are *I, we, he, she,* and *they*. In the sentence *They went to the beach,* *they* is the subject in the subject-verb-object structure. (L1a)
- **Objective pronoun:** Pronouns that act as the object of a sentence are known as objective pronouns. Examples are *me, us, him, her,* and *them*. In the sentence *He gave it to them,* *them* is the object in the subject-verb-object structure. (L1a)
- **Possessive pronoun:** Possessive pronouns are pronouns that show possession or ownership. Examples of possessive pronouns are *mine, his, hers, ours,* and *theirs*. For example, *Those cookies are mine.* (L1a)
- **Intensive pronoun:** An intensive pronoun is a pronoun that uses *-self* to emphasize the preceding noun. For example, *The boy felt proud of himself.* The intensive pronoun is *himself*, which refers to the noun *boy*. (L1b)
- **Indefinite pronoun:** Indefinite pronouns are pronouns that represent an object that may have already been identified or does not need explicit identification. Examples are *another, any, both, each, neither, none,* and *some*. (L1d)

**Antecedent:** An antecedent is a word or words that a pronoun refers to. In the sentence *When you see my mom, tell her I'll be late.* The pronoun in the sentence is *her* and the antecedent is *mom*. An **ambiguous antecedent** is an unclear antecedent. *She is happy about her win* contains ambiguous pronoun antecedents. The sentence does not clarify to whom *She* or *her* is referring. (L1d)

**Punctuation:** Punctuation refers to writing marks that help to separate and clarify ideas. Examples of punctuation are the period, comma, colon, dash, parentheses, exclamation mark, and question mark. (L2)

**Nonrestrictive/parenthetical elements:** Modifiers in a sentence that are not essential to the meaning of the sentence are known as nonrestrictive/parenthetical elements. A modifier is a word or a group of words that describes or limits other words, phrases, and clauses. Nonrestrictive or parenthetical elements can be set off from the rest of the sentence by commas, parentheses, and dashes. (L2a)

- **Commas:** Commas are used most often to separate nonessential information from the rest of the sentence. An example is *Mrs. Brown, who lives on Cherry Lane, takes her dog for a walk every morning.* (L2a)
- **Parentheses:** Parentheses are used to set off a modifier that clarifies or makes a comment about something in the sentence but seems out of place in the sentence. An example is *Louisa May Alcott (1832–1888) was an American novelist and poet.* (L2a)
- **Dashes:** Dashes are used to set off something that the writer wants to draw a lot of attention to, often an interruption to the sentence. Dashes are considered the least formal of these three types of punctuation. An example is *Mrs. Brown's poodle—an adorable little dog—brings in the newspaper from the driveway.* (L2a)

**Style:** Style refers to the particular form or way a writer chooses to write. There are many different writing styles. It is important to maintain consistent style throughout a piece of writing. (L3a, L3b)

**Tone:** Tone is the attitude of an author about a subject or an audience. The author chooses words and language to create a tone and express a viewpoint in a text. (L3b)

**Context:** Context refers to words and phrases that surround another word and help to explain its meaning. Sometimes a word cannot be understood without the context of the words and phrases around it. For example, the word *leaves* is a **multiple-meaning word** because it could mean several things. When a full sentence is included, *The leaves of the tree were swaying in the wind* or *She needs to remember to grab her backpack before she leaves for school*, the meaning is clear. (L4, L4a)

**Context clues:** Context clues are the words, facts, or ideas in a text that explain a difficult or unusual word. For example, *dehydrated* is a difficult word. However, you can use clues included in the context of a piece of writing to figure out the meaning of *dehydrated*. *After running in gym class, I was dehydrated. I felt much better after drinking two glasses of water.* Using the context clues in the sentences, it is clear the meaning of *dehydrated* is *in need of water*. (L4a)

**Root word:** The root word is also known as the base word. Knowing the meaning of the root word can help a reader determine the meaning of other forms of the word. For example, if you know that the root word *school* is a place that provides knowledge, you may be able to guess that a *scholar* is someone who is seeking knowledge. (L4b)

**Affix:** An affix is letters that are added to a root word that change its meaning. For example, when the prefix *dis-* is added to the word *interest*, the word *disinterest* means the opposite of the root word *interest*. (L4b)

**Dictionary:** A dictionary is a reference book that provides the **precise**, or exact, meanings of words and phrases. (L4c)

**Glossary:** A glossary is an alphabetical list of words and phrases and their meanings. A glossary is often found at the end of a text. (L4c)

**Figurative language:** To understand figurative language, you need to distinguish between literal and figurative meanings of words and phrases. **Literal** refers to the actual meaning of a word or phrase. For example, if someone tells you to *open the door*, you can open a physical door. If someone tells you to *open the door to your heart*, you are not expected to find a door in your chest. Instead, you open up your feelings and emotions. (L5)

The following are examples of figurative language:

- **Personification:** When a writer describes an object as if it were a person, he or she is using personification. For example, *The trees sighed in the afternoon breeze*. The trees cannot really sigh but seemed to as they moved gently in the breeze. (L5, L5a)
- **Simile:** A simile is a comparison using *like* or *as*. For example, *She is as pretty as a picture*. (L5)
- **Metaphor:** A metaphor is a direct comparison that states one thing is another. It isn't meant to be literal, but descriptive. For example, if someone describes recess by saying that *it was a zoo*, he or she is using a metaphor. Recess was chaotic, with lots of different people running around; it was not literally a zoo. (L5)
- **Hyperbole:** Hyperbole is exaggeration beyond belief. *My father can lift two tons* is an example of hyperbole. (L5)
- **Idiom:** Idioms are quirky sayings and expressions specific to a language. If a saying seems unfamiliar or is not understood, it may be an idiom that needs to be researched. (L5)
- **Onomatopoeia:** Onomatopoeia is a word that imitates the natural sound of something. Examples are *meow*, *pop*, *fizz*, and *clop*. (L5)
- **Alliteration:** Alliteration is the use of the same sound to start several words in a row. For example, *The beautiful butterfly blew by the bay*. (L5)
- **Assonance:** Assonance is the use of words that have repetition of similar vowel sounds but are not rhyming words. Examples are *cake* and *lane* or *eat* and *eel*. (L5)

- **Figure of speech:** A figure of speech is a word or phrase that has a meaning beyond the literal meaning of the word. Figures of speech are often used to emphasize an image, situation, or emotion for greater effect. The most common figures of speech are personification, simile, metaphor, hyperbole, idiom, onomatopoeia, and alliteration. (L5a)

**Connotative meaning:** A meaning beyond the explicit meaning of a word is known as a connotative meaning. For example, the word *childlike* connotes innocence. Connotations are meanings inferred from certain words. (L5c)

**Denotative meaning:** The explicit meaning of a word is the denotative meaning. For example, *helpful* has only one meaning and denotation, which is to be of service or assistance. (L5c)

### Important Tips

- ✍ To study for this part of the EOG assessment, concentrate on the kinds of errors you typically make in your own writing. Then review grammar rules for those specific kinds of errors. Use books or free online resources to find practice items that you can try. You can work with a partner and question each other on grammar rules or try editing sentences together. Focus your review time on strengthening the areas or skills that need to be reviewed the most.
- ✍ When you are faced with an unknown word, go back to the passage. Start reading two sentences before the word appears, and continue reading for two sentences afterward. If that doesn't give you enough clues, look elsewhere in the passage. By reading the context in which the word appears, you may be able to make an educated guess.

## Sample Items 19–28

### Item 19

#### Selected-Response

Which sentence does **NOT** have an error in pronoun use?

- A. Caleb is six years older than I.
- B. Our aunt visited Kiana and I yesterday.
- C. Who did Amelia share her lunch with today?
- D. Did Damian or me score the highest grades in class?

### Item 20

#### Selected-Response

What is the **BEST** way to combine the sentences to make the relationship between the ideas clear?

**Eve went to a hockey game tonight. It was her first hockey game. She went with her parents. She was impressed by the speed of the players. She was also impressed by the skill of the players.**

- A. Along with her parents, Eve went to her first hockey game where the speed of the players and their skill impressed her.
- B. The speed and skill of the players impressed Eve when she attended her first hockey game tonight along with her parents.
- C. Because she had never seen a hockey game before, Eve was impressed by the speed and skill of the players, and so were her parents.
- D. Having never seen a hockey game until tonight with her parents, Eve was impressed by the speed of the players and the skill of the players.

**Item 21****Selected-Response**

Which sentence could be added to the end of the paragraph and BEST maintain a consistent style?

**Like humans, animals need to visit their doctors regularly. Veterinarians provide regular shots that keep pets healthy. Veterinarians also check pets' teeth, just like dentists do, to make sure they have no dangerous plaque. Veterinarians can even provide grooming services to keep your pets' nails at a comfortable length.**

- A. I always take my pet to the vet to make sure it is healthy.
- B. If you take your pet to the vet, be ready to have an active, happy pet!
- C. With regular visits to the veterinarian, pets can enjoy long and healthy lives.
- D. Provided one visits with veterinarians quite regularly, pets will maintain their health.

**Item 22****Selected-Response**

Which sentence needs commas to set off parenthetical information?

- A. Jon Molinar who attended our middle school is a professional hockey player.
- B. I am the student who works in the office before school and during fifth period.
- C. The person who wrote the poem for the yearbook is my friend Miguel Weaver.
- D. We need a volunteer who is willing to create posters advertising the spelling bee.

### Item 23

#### Selected-Response

Read the paragraph.

<sup>1</sup>In the late 1800's, when he was travelling by train, the artist Claude Monet saw the town of Giverny, France. <sup>2</sup>He decided to try to live there. <sup>3</sup>He eventually bought a house, and he spent years growing colorful gardens, which inspired his paintings. <sup>4</sup>He also worked on creating a beautiful pond filled with waterlilies. <sup>5</sup>I often painted very large landscapes of what I saw outdoors. <sup>6</sup>Many of Monet's works are on display in museums around the world.

Which sentence contains an incorrect pronoun?

- A. sentence 2
- B. sentence 3
- C. sentence 4
- D. sentence 5

### Item 24

#### Selected-Response

Read the sentence.

I would of answered the phone if I had heard it ringing.

Which revision corrects the error in this sentence?

- A. I would have answered the phone if I had heard it ringing.
- B. Hearing it ringing, I would of answered the phone.
- C. I would of answered the phone if I had been hearing it ringing.
- D. If I had heard it ringing, I'd of answered the phone.

**Item 25****Selected-Response**

Read the draft of a letter to the school newspaper.

Dear Editor,

<sup>1</sup>I appreciate the article you printed in the March newspaper about school clubs and extracurriculars. <sup>2</sup>It is important to highlight ways students can become more involved in school activities. <sup>3</sup>Not everyone is tuned in to whatever’s going on, right? <sup>4</sup>Your proposal, to host an open house for clubs and extracurriculars, makes a lot of sense. <sup>5</sup>That way, students are not depending on sheer luck or knowing the “right” person to get into a club or activity. <sup>6</sup>Students can see what’s available, talk to others who are involved, and then decide for themselves if they want to join.

Which revision would maintain the formal style of the letter?

- A. Change sentence 1 to “I support your March article about clubs and extracurricular activities.”
- B. Change sentence 2 to “It is really important to show students ways they can do more things at school.”
- C. Change sentence 3 to “Not all students are fully aware of the range of activities they can join.”
- D. Change sentence 4 to “Your open house proposal of an open house for clubs is a very good idea.”

**Item 26****Selected-Response**

Which sentence uses the underlined pronoun correctly?

- A. Has Max itself looked at the directions to the party?
- B. It was clear that the council members herself supported the plan.
- C. Have you seen the homework assignment ourselves?
- D. It might be fun for the kids to make the cupcakes themselves.

## Item 27

### Selected-Response

Read the draft of a student's letter to the city council.

Dear Council Members,

My friends and I are excited about the new hike and bike trail being built from Old Bridge Park to downtown. However, we noticed on the map for the proposed route that the bike trail will stop on North Ferguson, a couple blocks short of Main Street. We would like to ask you to consider extending the bike trail all the way to Main Street. Main Street has more stores and bus routes, and it is many people's destination when they go downtown. Having the bike trail extend farther would provide a safe path for people who need to catch a bus or do other activities on Main Street.

Which sentence **BEST** concludes the letter?

- A. I think we all know what is the right thing to do for the citizens of our city.
- B. I hope that you will seriously consider this request and reach out to the community for more input.
- C. I wonder if you have really imagined how difficult it will be to get to Main Street with no bike trail?
- D. I thank you in advance for agreeing to my proposal and extending the bike trail another two blocks.

## Item 28

### Selected-Response

Taia is conducting research on the 1936 Olympic Games, but her research questions are drawing limited results. Which research question would provide the **MOST** information about this topic?

- A. Which city hosted the 1936 Olympics?
- B. What were some highlights of the 1936 Olympics?
- C. Which countries participated in the 1936 Olympics?
- D. How many medals were awarded at the 1936 Olympics?



## ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
1	ELAGSE6RL1 Literary	2	D	The correct answer is choice (D) He is determined. The context reveals that Grandpa has been looking for the ring for a long time, yet he is still determined to find it. Choices (A) and (B) are incorrect because although other details in the story support these traits, this example does not. Choice (C) is incorrect; the context of the quoted sentence does not support this conclusion about Grandpa.
2	ELAGSE6RL5 Literary	2	C	The correct answer is choice (C) It contrasts the organizational styles of Grandpa and Maura’s parents. Grandpa’s garage is neat and tidy, while Maura’s mother’s garage is messy and disorganized. Choice (A) is incorrect because the mere observation of Grandpa’s garage does not teach Maura a lesson. Choice (B) is incorrect because the characters are not in the garage for the majority of the action, so the garage is not the main setting. Choice (D) is incorrect because Maura’s mother has a messy garage, not an organized one like Grandpa’s.
3	ELAGSE6RL2 Literary	3	D/D	The correct answer is choice (D) Working hard when faced with difficulties can lead to success <b>and</b> choice (D) They all looked better than that hair clip had, so maybe there was potential for them after all. This is a theme that recurs throughout the story as Maura finds renewed enthusiasm for her art projects and understands that the time spent with her grandfather and the metal detector produces treasures, even though she thinks it is more trouble than it is worth initially. The answer choice for Part B of the item shows text that supports this theme.  In Part A, choice (A) is incorrect because Maura never behaves in an unkind manner. Choice (B) is incorrect because it is made clear that Maura believes her mother had “. . . been born good at everything.” Choice (C) is incorrect because there is no indication that Maura is lonely. The incorrect options in Part B support incorrect answer options in Part A.
4	ELAGSE6RL3 Literary	3	N/A	See scoring rubric and sample responses on page 70.
5	ELAGSE6W3	4	N/A	See scoring rubric beginning on page 79 and sample responses on page 71.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
6	ELAGSE6RI5 Informational/ Explanatory	2	B	The correct answer is choice (B) It suggests that DST does not meet its goals. The end of the section explicitly states, “If saving money is the goal of DST, it likely fails.” Choice (A) is incorrect because the existence of multiple perspectives implies that DST is, in fact, controversial. Choice (C) is incorrect because the section is not balanced; it is biased toward critics of DST. Choice (D) is incorrect because this section does nothing to help readers adjust to DST; this role is filled by the article’s final paragraph.
7	ELAGSE6RI1 Informational/ Explanatory	2	A	The correct answer is choice (A) Each state has the option of participating in DST. Since Hawaii and parts of Arizona do not participate, DST must be optional. Choice (B) is incorrect because although one of the non-participating states is in the Southwest, there is no indication that DST is not as effective there. Choice (C) is incorrect because the sentence does not express the government’s plans. Choice (D) is incorrect because the controversy is not limited to one area.
8	ELAGSE6RI5 Informational/ Explanatory	3	N/A	See scoring rubric and sample responses on page 72.
9	ELAGSE6RI6 Informational/ Explanatory	3	N/A	See scoring rubric and sample responses on page 73.
10	ELAGSE6RI9 Informational/ Explanatory	2	B	The correct answer is choice (B) that GMO crops can be engineered to survive droughts. Both authors mention this as a benefit of GMOs. Choice (A) is mentioned only in the first passage. Choices (C) and (D) show misinterpretations of information from the second passage.
11	ELAGSE6RI8 Informational/ Explanatory	2	A	The correct answer is choice (A) by stating that GMOs require increasing amounts of pesticides. This is correct as the author explains how GMO superbugs become resistant to pesticides, so more pesticides are required. Choices (B), (C), and (D) are misinterpretations of information from the passage.
12	ELAGSE6RI6 Informational/ Explanatory	3	N/A	See scoring rubric and sample responses on page 74.
13	ELAGSE6W1, ELAGSE6L1, ELAGSE6L2	4	N/A	See scoring rubric beginning on page 83 and sample response on page 75.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
14	ELAGSE6RI3 Informational/ Explanatory	2	D	The correct answer is choice (D) by describing a research experiment. This answer is correct because the section describes a sleep/wake study conducted to see if circadian rhythm is flexible. Choices (A), (B), and (C) are incorrect because although they speak to the idea of research and/or experimentation supporting an idea, they do not correspond to support in this passage.
15	ELAGSE6RI6 Informational/ Explanatory	2	C	The correct answer is choice (C) It is important for people to limit light exposure before bedtime and get into a sleep routine. These ideas are stated in the passage. Choices (A), (B), and (D) are incorrect because although they have key words/concepts from the passage, they are inaccurate.
16	ELAGSE6RI4 Informational/ Explanatory	3	A	The correct answer is choice (A) not helpful. The choice closest in meaning to <i>counterproductive</i> is <i>not helpful</i> . Choices (B), (C), and (D) are incorrect because <i>counterproductive</i> does not mean <i>not enjoyable</i> , <i>not entertaining</i> , or <i>not difficult</i> .
17	ELAGSE6RI2 Informational/ Explanatory	3	N/A	See scoring rubric and sample responses on page 76.
18	ELAGSE6RI3 Informational/ Explanatory	3	N/A	See scoring rubric and sample responses on page 77.
19	ELAGSE6L1a	2	A	The correct answer is choice (A) Caleb is six years older than I. This sentence has no errors in pronoun use. It requires the subjective pronoun <i>I</i> . Choice (B) is incorrect because it has an error in pronoun use. It needs the objective pronoun <i>me</i> instead of <i>I</i> because the pronoun is the direct object of the verb <i>visited</i> . Choice (C) is incorrect because it has an error in pronoun use. It needs the objective pronoun <i>whom</i> instead of <i>who</i> because the pronoun is the object of the preposition <i>with</i> . Choice (D) is incorrect because it has an error in pronoun use. It needs the subjective pronoun <i>I</i> because it is part of the sentence's subject.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
20	ELAGSE6L3a	3	B	The correct answer is choice (B) The speed and skill of the players impressed Eve when she attended her first hockey game tonight along with her parents. This sentence preserves the meaning of the original sentences and best clarifies the relationship between the ideas. Choice (A) is incorrect because “the speed of the players and their skill” is awkward; “the speed and skill of the players” would be a better combination. Choice (C) is incorrect because it indicates a false cause/effect relationship; we do not know if Eve was impressed <i>because</i> this was her first hockey game. Choice (D) is incorrect because “the speed of the players and the skill of the players” is unnecessarily and awkwardly repetitive.
21	ELAGSE6L3b	3	C	The correct answer is choice (C) With regular visits to the veterinarian, pets can enjoy long and healthy lives. This moderately formal, but not stiff, style is most consistent with the rest of the paragraph. Choices (A) and (B) are incorrect because they break the style with pronouns that are in the wrong voice and sound too informal ( <i>I</i> and <i>you</i> ). Choice (D) is incorrect because it is overly formal and stiff due to the use of the indefinite pronoun <i>one</i> instead of a personal pronoun, and it has a dramatic change in tone.
22	ELAGSE6L2a	2	A	The correct answer is choice (A) Jon Molinar who attended our middle school is a professional hockey player. The phrase “who attended our middle school” is parenthetical and must be set off with commas. Choices (B), (C), and (D) all have phrases that begin with “who,” but these phrases are not parenthetical.
23	ELAGSE6L1c	2	D	The correct answer is choice (D) sentence 5. This sentence shifts to a first-person pronoun when the rest of the paragraph shows a need for a third-person pronoun. Choices (A), (B), and (C) are all incorrect because they maintain a third-person pronoun.
24	ELAGSE6L1e	2	A	The correct answer is choice (A) I would have answered the phone if I had heard it ringing. The words <i>I would have</i> correct the common mistake of using <i>of</i> in place of <i>have</i> within the sentence. Choices (B), (C), and (D) are all incorrect as they contain grammatical errors and do not correct the errors in the sentence.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
25	ELAGSE6W1d	2	C	The correct answer is choice (C) Change sentence 3 to “Not all students are fully aware of the range of activities they can join.” This sentence would maintain the formal tone present in the rest of the letter. Choice (A) is incorrect because it is less cogent than the original and the original did not need more formal language. Choice (B) is incorrect because it is more vague than the sentence it is replacing and is no more formal. Choice (D) is incorrect because it rephrases the sentence and is repetitive.
26	ELAGSE6L1b	1	D	The correct answer is choice (D) It might be fun for the kids to make the cupcakes themselves. <i>Themselves</i> is the intensive pronoun that agrees with the plural <i>kids</i> . Choices (A), (B), and (C) are incorrect because they do not agree in gender, number, or both.
27	ELAGSE6W1e	2	B	The correct answer is choice (B) I hope that you will seriously consider this request and reach out to the community for more input. This choice finishes the letter in a formal style, and it hits the right note of encouragement. Choice (A) is incorrect because it is both vague and overstates the implied stakes. Choice (C) is incorrect because ending with an indirect question does not suit the purpose of a conclusion. Choice (D) is incorrect because it is presumptuous and unwarranted.
28	ELAGSE6W7	2	B	The correct answer is choice (B) What were some highlights of the 1936 Olympics? This inquiry will yield moderately broad results. Choices (A), (C), and (D) are incorrect because these inquiries will yield extremely limited results.

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

### Item 4

#### Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to describe how a character responds or changes as the plot moves toward a resolution</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the characterization or gives an explanation of its development with clearly relevant information based on the text</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to describe how a character responds or changes as the plot moves toward a resolution</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the characterization or gives an explanation of its development with vague/limited information based on the text</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to describe how a character responds or changes as the plot moves toward a resolution</li> </ul>

#### Exemplar Response

Points Awarded	Sample Response
2	<p>In the beginning of the story, Maura does not finish what she starts, but in the end, she understands the rewards that come with completion. When the story starts, Maura's mother points out shelves full of Maura's unfinished art projects (some from first grade). Also, we find out that Maura recently quit the baseball team early in the season. Then, when Maura and her grandpa find an old hair clip, Maura persists in cleaning it until it looks new again. This inspires her to go home and finish a project of her own.</p>
1	<p>By the end of the story, Maura actually finishes a project. She and Grandpa find something that doesn't look valuable but is. She polishes the hair clip until it looks brand-new. She thinks about what else she could finish.</p>
0	<p>Maura quits the baseball team. She has been giving up on art projects since first grade. Her room is messy, and she gets in trouble with her mom.</p>

## Item 5

To view the four-point holistic rubric for a text-based narrative response, see pages 79 and 80.

### Exemplar Response

Points Awarded	Sample Response
4	<p>I followed Mother into the kitchen. Mother asked, “How was your day?”</p> <p>“Good. Grandpa bought a new metal detector, so we went looking for Grandma’s ring again.”</p> <p>“Did you find it?”</p> <p>“No,” I said. “But somehow I think we actually might find the ring this summer. We did find a box of old toys and a tarnished hair clip. Grandpa and I cleaned it up, and it looked brand-new. Grandma was pretty excited when we gave it to her.”</p> <p>Mother pulled some dinner ingredients out of the refrigerator. “Sounds like you have a new summer plan.”</p> <p>“Yep. When we find that ring, Grandma’s going to be so happy.”</p> <p>As I climbed the stairs toward my room, Mother asked what I was doing. “I’m headed off to finish a drawing,” I said.</p>
3	<p>Mother and I went to the kitchen. She asked me about my day, and I told her that Grandpa had bought a metal detector that we’d used to find some old toys and a hair clip. “We cleaned up that dirty hair clip until it looked brand-new. Grandma was so happy. Next time I go to the farm, I will help Grandpa find her missing ring.”</p> <p>“Sounds like you have a new summer plan.”</p> <p>I ran upstairs to my room to pick out an art project to finish. I imagined how it would look framed on my grandparents’ wall.</p>
2	<p>Mother and I went into the kitchen, and she asked me about my day. I told her about my adventures with Grandpa and how we found an old hair clip and made it look brand-new.</p> <p>I told Mother that Grandma loved the clip, but we still had to look for her ring. I told her Grandpa and I would find it next time.</p> <p>I ran upstairs to my room.</p>
1	<p>My mother and I went to the kitchen when we got home. I told her about my day and she was happy that I had finished something. Then I talked to my dad about quitting baseball.</p>
0	<p>I went home with my mother after a day at the farm.</p>



## Item 8

## Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of how a section of a text contributes to the development of ideas in the text</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains how the section fits in with the text with clearly relevant information based on the text</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of how a section of a text contributes to the development of ideas in the text</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains how the section fits in with the text with vague/limited information based on the text</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of how a section of a text contributes to the development of ideas in the text</li> </ul>

## Exemplar Response

Points Awarded	Sample Response
2	<p>The author most likely includes the section “Health Concerns” to show that the DST issue isn’t only about saving money and changing your schedule. DST also affects your health. Some short-term effects include being tired. According to the information in this section, research shows that interrupted sleep cycles can hurt a person’s heart. Sleep is more important than many people realize. The author wants people to know that while one hour may not seem like a lot, it is enough to hurt your body.</p>
1	<p>The author most likely includes the “Health Concerns” section because people need to know that their sleep schedules are important. Changing them can result in health problems among other things.</p>
0	<p>The author includes the section “Health Concerns” to support the main idea.</p>



## Item 9

## Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to determine the author’s point of view 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 author’s point of view or gives an explanation of its development with clearly relevant information based on the text</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to determine the author’s point of view 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 author’s point of view or gives an explanation of its development with vague/limited information based on the text</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to determine the author’s point of view or analyze its development over the course of a text</li> </ul>

## Exemplar Response

Points Awarded	Sample Response
2	<p>The author provides a somewhat biased view of the controversy surrounding DST. In the “Public Opinion” section, the author reveals his or her true feelings by saying, “If saving money is the goal of DST, it likely fails.” This is the author’s opinion and conclusion. He or she also adds, in the “Health Concerns” section, details about DST’s negative effects on health to solidify his or her argument. The tips for making the transition easier are general tips for good health and don’t guarantee relief from symptoms. In fact, the author implies that there is no guaranteed relief.</p>
1	<p>Although the author tries to be fair in the other sections, he or she believes that DST is a failure. This reveals the author’s bias.</p>
0	<p>DST adds an extra hour to the clocks in the fall. It takes away an hour in the spring.</p>

## Item 12

## Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to determine each author’s point of view and explain how it is conveyed in the texts</li> <li>• Includes specific examples/details that make clear reference to the texts</li> <li>• Adequately shows the ability to explain how the authors’ viewpoints are different with clearly relevant information based on the texts</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <p>Gives limited evidence of the ability to determine each author’s point of view and explain how it is conveyed in the texts</p> <ul style="list-style-type: none"> <li>• Includes vague/limited examples/details that make reference to the texts</li> <li>• Explains how the authors’ viewpoints are different with vague/limited information based on the texts</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to determine each author’s point of view and explain how it is conveyed in the texts</li> </ul>

## Exemplar Response

Points Awarded	Sample Response
2	<p>The author of “GMOs Can Feed the World” thinks that GMOs offer a lot of solutions. For instance, GMOs can help plants be tougher and survive droughts. GMO foods can be “bred to last longer,” too, and cause less waste. The author of “Are GMOs Really Safe?” is worried that GMOs can affect humans in negative ways, like causing allergies. The author is also worried that GMOs might not be as healthy and “have a lower nutritional value” than non-GMO foods.</p>
1	<p>The two authors disagree because the author of “GMOs Can Feed the World” thinks GMOs are a good idea and the author of “Are GMOs Really Safe?” thinks GMOs are a bad idea.</p>
0	<p>The authors have different viewpoints about GMOs.</p>

**Item 13**

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 83 and 84 to see why this example would earn the maximum number of points.

**Example of a Seven-Point Response:**

*GMOs can have a huge impact on the world, and therefore, their growth should be encouraged. Some people are concerned about harmful side effects from GMOs, but according to the first article, “Many studies have been done on GMOs, and there has never been any proof linking GMOs to health risks.” If not one single link has been found, it is fair to conclude, at least for the time being, that GMOs must be safe.*

*Although the second article points out that skeptics worry about the nutritional value of GMOs, there is again no evidence to support this. In fact, some scientists claim that the reverse is actually true—that GMOs are more nutritious than commercial crops.*

*Finally, in the past, many crops have been destroyed by diseases, insects, and droughts. Through the process of genetic modification, scientists can breed crops “. . . to withstand these forces. The result is an abundance of food that will feed the world.” That promise is too exciting to ignore.*

*Scientists will probably continue to argue the benefits of GMOs moving forward. It is clear that the long-term effects of GMOs are still unknown. However, people need to give GMOs a chance to make a positive impact on our food supply.*

## Item 17

## Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to provide a summary of the text distinct from personal opinions or judgments</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately provides a summary of the text distinct from personal opinions or judgments with clearly relevant information based on the text</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to provide a summary of the text distinct from personal opinions or judgments</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Provides a summary of the text distinct from personal opinions or judgments with vague/limited information based on the text</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to provide a summary of the text distinct from personal opinions or judgments</li> </ul>

## Exemplar Response

Points Awarded	Sample Response
2	<p>Although people once thought that their inner clocks, or circadian rhythms, were set for life, research suggests that people can change their inner clocks after all. The main way to reset your clock is to limit light at night. The author emphasizes that this means no TV, phones, or other electronic devices before bed. In addition, people should go to bed and get up at the same time every day. This creates a routine that activates and maintains your inner clock. Camping trips, during which you rely only on natural light, can also ease the transition.</p>
1	<p>You can change your inner clock if you can spend a week camping. The natural light helps you make this change.</p>
0	<p>Night owls can reset their inner clocks.</p>

## Item 18

## Scoring Rubric

Points	Description
2	<p>The exemplar shows a full-credit response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to determine a key idea 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 a key idea or gives an explanation of its development with clearly relevant information based on the text</li> </ul>
1	<p>The exemplar shows a 1-point response. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to determine a key idea 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 a key idea or gives an explanation of its development with vague/limited information based on the text</li> </ul>
0	<p>The exemplar shows a response that would earn no credit. It achieves the following:</p> <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to determine a key idea or analyze its development over the course of a text</li> </ul>

## Exemplar Response

Points Awarded	Sample Response
2	<p>The author explains that light makes the brain wake up. The light from the screens of phones, TVs, and computers makes your brain think it's daytime. To change your internal clock, the author says, "People can benefit from turning off their electronics before bed." Instead, people should relax in a dim place to let the brain know that it's time to sleep.</p> <p>The author also uses an example of how camping can restore your body's internal clock. People who went camping for a week and had no electronics ". . . adjusted to the schedule of a morning person." This shows how strong the effects of light are.</p>
1	<p>The author illustrates the importance of limiting light to change your body's internal clock. Camping resets the body by letting only natural light in. If people could go camping more often, they could reset their clocks and have a happier life.</p>
0	<p>The author illustrates the importance of limiting light to change one's internal clock.</p>

## ENGLISH LANGUAGE ARTS (ELA) WRITING RUBRICS

Grade 6 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 evaluates one major trait, which is ideas. On the Georgia Milestones EOG assessment, a holistic rubric is scored 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 need only choose the criteria and associated point value that best represents the student's work. Increasing point values represent a greater understanding of the content and, thus, a higher score.

### Seven-Point, Two-Trait Rubric

**Genre:** Argumentative or Informational/Explanatory

A two-trait rubric, on the other hand, evaluates two major traits, which are conventions and ideas. On the Georgia Milestones EOG assessment, a two-trait rubric contains two scales, one for each trait, ranging from zero to four on one scale (ideas) and zero to three on the other (conventions). A score is given for each of the two traits, for a total of seven possible points for the item. To score an item on a two-trait rubric, a scorer must choose for each trait the criteria and associated point value 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 6 English Language Arts 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 text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Effectively establishes a situation and introduces a narrator and/or characters</li> <li>• Organizes an event sequence that unfolds naturally</li> <li>• Effectively uses narrative techniques, such as dialogue, description, and pacing, to develop rich, interesting experiences, events, and/or characters</li> <li>• Uses a variety of words and phrases consistently to convey the sequence of events and signal shifts from one time frame or setting to another</li> <li>• Uses precise words, phrases, and sensory language consistently to convey experiences and events</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, and pacing, to develop experiences, events, and/or characters</li> <li>• Uses words and/or phrases to indicate sequence of events and signal shifts from one time frame or setting to another</li> <li>• Uses words, phrases, and details to 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, and pacing, to develop experiences, events, and/or characters</li> <li>• Uses occasional signal words inconsistently to indicate sequence of events and signal shifts from one time frame or setting to another</li> <li>• Uses some words or phrases inconsistently to convey experiences and events</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 a character</li> <li>• May be too brief to demonstrate a complete sequence of events</li> <li>• Shows little or no attempt to use dialogue, description, and pacing 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 that convey experiences, or events, or signal shifts from one time frame or setting to another</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 will receive a condition code for various reasons:</i></p> <ul style="list-style-type: none"> <li>• Blank</li> <li>• Copied</li> <li>• Too Limited to Score/Illegible/Incomprehensible</li> <li>• Non-English/Foreign Language</li> <li>• 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 the Appendix 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 develops a topic with multiple, relevant facts, definitions, concrete details, quotations, or other information and examples related to the topic</li> <li>• Effectively organizes ideas, concepts, and information using various strategies such as definition, classification, comparison/contrast, and cause/effect</li> <li>• Effectively uses transitions to connect and clarify relationships among ideas</li> <li>• Uses precise language and domain-specific vocabulary to effectively inform and explain about the topic</li> <li>• Establishes and maintains a formal style</li> <li>• Provides a strong concluding statement or section that follows from 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 clearly based on text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Introduces a topic</li> <li>• Develops a topic with a few facts, definitions, concrete details, quotations, or other information and examples</li> <li>• Generally organizes ideas, concepts, and information</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 inform and explain about 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 few transitions to connect and clarify relationships among ideas</li> <li>• Uses limited language and vocabulary that does not inform or explain the topic</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 will receive a condition code for various reasons:</i></p> <ul style="list-style-type: none"> <li>• Blank</li> <li>• Copied</li> <li>• Too Limited to Score/Illegible/Incomprehensible</li> <li>• Non-English/Foreign Language</li> <li>• 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 language 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 language and conventions when writing</li> <li>• Has frequent errors in usage and conventions that interfere with meaning*</li> </ul>
	0	<i>The student will receive a condition code for various reasons:</i> <ul style="list-style-type: none"> <li>• Blank</li> <li>• Copied</li> <li>• Too Limited to Score/Illegible/Incomprehensible</li> <li>• Non-English/Foreign Language</li> <li>• 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 the Appendix 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, 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>• Organizes supporting reasons and evidence clearly</li> <li>• Supports claim(s) with clear reasons and relevant evidence using specific, well-chosen facts, details, or other information from credible sources and demonstrating a good understanding of the topic or texts</li> <li>• Uses words, phrases, or clauses effectively to connect ideas and clarify relationships among claim(s) and reasons</li> <li>• Establishes and maintains 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>• Introduces claim(s)</li> <li>• Organizes supporting reasons and evidence</li> <li>• Supports claim(s) with reasons and evidence using some facts, details, or other information from generally credible sources</li> <li>• Uses words, phrases, or clauses to connect ideas and link claim(s) and reasons</li> <li>• Uses formal style fairly consistently for the 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 organize supporting reasons and evidence</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, phrases, or clauses to connect ideas and link claim(s) and reasons; connections are not always clear</li> <li>• Uses formal style inconsistently or uses 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)</li> <li>• May be too brief to demonstrate an organizational structure, or no structure is evident</li> <li>• May not support claim(s)</li> <li>• Uses minimal or no words, phrases, or clauses to connect ideas</li> <li>• Uses 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 will receive a condition code for various reasons:</i></p> <ul style="list-style-type: none"> <li>• Blank</li> <li>• Copied</li> <li>• Too Limited to Score/Illegible/Incomprehensible</li> <li>• Non-English/Foreign Language</li> <li>• 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 language 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 language and conventions when writing</li> <li>• Has frequent errors in usage and conventions that interfere with meaning*</li> </ul>
	0	<i>The student will receive a condition code for various reasons:</i> <ul style="list-style-type: none"> <li>• Blank</li> <li>• Copied</li> <li>• Too Limited to Score/Illegible/Incomprehensible</li> <li>• Non-English/Foreign Language</li> <li>• 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 the Appendix for those standards that need continued attention beyond the grade in which they were introduced.

**ACTIVITY**

The following activity develops skills in **Unit 1: Reading Literary Text**.

**Standards:** ELAGSE6RL1, ELAGSE6RL3, ELAGSE6RL6

**Become a Character from a Literary Text**

Read any literary text of your own choosing. It can be a story, novel, play, or story poem.

- Participate in a first-person-only response group with your friends or family.
- Answer all questions about what you read from a first-person perspective, as if you were an actual character in the story.

Step into the mind of any character you choose. You should think like the character and explain how the character feels and why.

- Each person selects one character from a different literary text he or she has read.
- Be prepared to answer questions as your character.

Write down some questions to ask each other. Here are some sample questions you can use.

Sample Question Starters
<ul style="list-style-type: none"> <li>• Why did you . . . ?</li> <li>• What made you choose . . . ?</li> <li>• Why did you treat _____ that way?</li> <li>• How did you expect things to turn out?</li> <li>• How did you feel when . . . ?</li> <li>• What made you say . . . ?</li> <li>• Would you ever . . . ?</li> <li>• Will you change your ways after what happened?</li> <li>• What did you learn about yourself?</li> </ul>

## ACTIVITY

The following activity develops skills in Unit 5: Language.

**Standards:** ELAGSE6L1, ELAGSE6L2, ELAGSE6L3, ELAGSE6L4, ELAGSE6L5, ELAGSE6L6

### Grammar Go-Round

Work with your friends or family.

- Use a copy of the English Language Arts language standards. The standards can be found here: <https://www.georgiastandards.org/Georgia-Standards/Pages/ELA.aspx>.
- Write three practice questions for each standard.

Once you have completed your questions, take turns passing your questions to another person. If the other person answers a question incorrectly, the first person is responsible for explaining why the answer is wrong.

Each person gets two points for a correct answer, and he or she loses one point for an incorrect answer. The person with the most points wins the game.

Use the samples below as a model to help write your questions.

Standard	Sample Question
<b>ELAGSE6L1a</b> Ensure that pronouns are in the proper case (subjective, objective, possessive).	Is this sentence written correctly? If not, fix it. My younger sister, Grace, is better at math than me.
<b>ELAGSE6L2a</b> Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.	Add commas to this sentence. The tour bus stopped at the White House the National Gallery of Art and the National Air and Space Museum.

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# MATHEMATICS

## DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Grade 6 Mathematics EOG assessment consists of a total of 73 items.

You will answer a variety of item types on the test. Some of the items are selected-response (multiple-choice), which means you choose the correct answer from four choices. Some items will ask you to write your response.

The test will be given in two sections.

- You may have up to 85 minutes per section to complete Sections 1 and 2.
- The test will take about 120 to 170 minutes.

## CONTENT

The Grade 6 Mathematics EOG assessment will measure the Grade 6 standards that are described at [www.georgiastandards.org](http://www.georgiastandards.org).

The content of the assessment covers standards that are reported under these domains:

- Ratios and Proportional Relationships
- The Number System
- Expressions and Equations
- Geometry
- Statistics and Probability

## ITEM TYPES

The Mathematics portion of the Grade 6 EOG assessment consists of selected-response (multiple-choice), technology-enhanced (multiple-select or multi-part), constructed-response, and extended constructed-response items.

## MATHEMATICS DEPTH OF KNOWLEDGE EXAMPLE ITEMS

Example items that represent applicable DOK levels of the Mathematics assessment are provided for you on the following pages. The items and explanations of what is expected of you to answer them will help you prepare for the test.

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

### Example Item 1

#### Selected-Response

**DOK Level 1:** This is a DOK level 1 item because it requires students to recall information.

**Mathematics Grade 6 Content Domain:** The Number System

**Standard:** MGSE6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

**Which integer represents 10 degrees Fahrenheit below zero?**

- A. 10
- B. 0
- C. -10
- D. -20

**Correct Answer:** C

**Explanation of Correct Answer:** The correct answer is choice (C) -10. Temperatures often fall below 0 degrees Fahrenheit. When a temperature is colder than 0 degrees Fahrenheit, we use negative integers to represent that temperature. Choice (A) is incorrect because it represents positive 10 degrees Fahrenheit, which is 20 degrees warmer than 10 degrees Fahrenheit below zero. Choice (B) is incorrect because it is 10 degrees warmer than 10 degrees Fahrenheit below zero. Choice (D) is incorrect because it represents a temperature that is 10 degrees colder than 10 degrees Fahrenheit below zero.



**Example Item 2****Constructed-Response**

**DOK Level 2:** This is a DOK level 2 item that assesses basic reasoning. Student must solve a problem using knowledge of adding decimal numbers. Student must demonstrate how to solve the problem with valid evidence.

**Mathematics Grade 6 Content Domain:** The Number System

**Standard:** MGSE6.NS.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

**Find the sum for this addition problem.**

$$6.42 + 27.58 = \square$$

**Show each step you used to find your answer. Write your answer in the space provided.**

	_____
	_____
	_____
	_____
	_____
	_____
	_____
	_____

**Scoring Rubric**

Points	Rationale
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• The response demonstrates a complete understanding of how to use a strategy based on place value to add two decimal numbers.</li><li>• The response is correct and complete.</li><li>• The response shows the application of a reasonable and relevant strategy.</li><li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li></ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• The response demonstrates a partial understanding of how to use a strategy based on place value to add two decimal numbers.</li><li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li><li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li><li>• Mathematical ideas are expressed only partially in the response.</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 how to use a strategy based on place value to add two decimal numbers.</li><li>• The response is incorrect.</li><li>• The response shows no application of a 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>34</p> <p><b>AND</b></p> <p><math>6.42 + 27.58 = \square</math></p> <p><math>\square = (6 + 7 + 20) + (0.4 + 0.5) + (0.02 + 0.08)</math></p> <p><math>\square = (13 + 20) + (0.9) + (0.1)</math></p> <p><math>\square = 33 + 1</math></p> <p><math>\square = 34</math></p> <p><i>or other valid explanation</i></p>
1	<p><i>34 with no explanation or incomplete or incorrect work</i></p> <p><b>OR</b></p> <p><i>an explanation that contains a computation error with a correct process</i></p>
0	<p><i>Response is irrelevant, inappropriate, or not provided.</i></p>

### Example Item 3

#### Extended Constructed-Response

**DOK Level 3:** This is a DOK level 3 item that assesses complex reasoning. The student must evaluate another student's work and explain why expressions are equal or not equal. The student must change expressions to make them equivalent and provide evidence to support his or her reasoning.

**Mathematics Grade 6 Content Domain:** Expressions and Equations

**Standard:** MGSE6.EE.4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them).

**Sam wrote these four expressions.**

1.  $n + n + n + n + 2$
2.  $n + n + n + 2$
3.  $4n + 2$
4.  $2n + 2n + 2n$

**Part A** Which expressions are equivalent? Write your answer in the space provided.

**Part B** Choose two of Sam's expressions that are not equivalent. Explain how you know they are not equivalent. Write your answer in the space provided.

**Part C** How can you change one of the expressions from Part B to make the two expressions equivalent? Write your answer in the space provided.

**Go to the next page to finish Example Item 3.**

**Example Item 3. *Continued.***

<b>Part A</b> _____
<b>Part B</b> _____ _____ _____ _____ _____ _____ _____ _____
<b>Part C</b> _____ _____ _____ _____ _____ _____ _____ _____

### Scoring Rubric

Points	Rationale
4	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of evaluating expressions and identifying equivalent expressions.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
3	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a nearly complete understanding of evaluating expressions and identifying equivalent expressions.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</li> </ul>
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of evaluating expressions and identifying equivalent expressions.</li> <li>• The response is only partially correct.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a minimal understanding of evaluating expressions and identifying equivalent expressions.</li> <li>• The response is only minimally correct.</li> <li>• The response shows the incomplete or inaccurate application of a relevant strategy.</li> <li>• Mathematical ideas are expressed only partially in the response.</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 evaluating expressions and identifying equivalent expressions.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a 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	<p>Part A: Only expressions 1 and 3 are equivalent.</p> <p><b>AND</b></p> <p>Part B: (Answers will vary depending on which expressions the student chooses.) I chose expressions 2 and 3, which are not equivalent.</p> <p><b>AND</b></p> <p>I know they are not equivalent because when I substitute the same value for <math>n</math> in both expressions, they do not equal the same number. <i>Or other valid explanation.</i></p> <p><b>AND</b></p> <p>Part C: If I add one <math>n</math> to expression 2, they are equivalent. <i>Or other valid explanation.</i></p>
3	The student correctly answers three of the four parts.
2	The student correctly answers two of the four parts.
1	The student correctly answers one of the four parts.
0	<i>Response is irrelevant, inappropriate, or not provided.</i>

*Note: If a student makes an error in one part that is carried through to subsequent parts, then the student is not penalized again for the same error.*

## MATHEMATICS CONTENT DESCRIPTION AND ADDITIONAL SAMPLE ITEMS

In this section, you will find information about what to study in order to prepare for the Grade 6 Mathematics EOG assessment. This includes key terms and important vocabulary words. This section also contains practice questions, with an explanation of the correct answers, and activities that you can do on your own or with your classmates or family to prepare for the test.

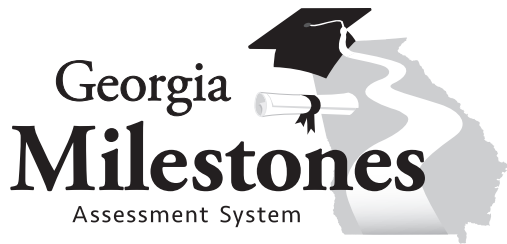
**The organization of Mathematics units in this guide is based on Frameworks developed by the Curriculum and Instructional Division of the Georgia Department of Education. These Frameworks can be accessed at <https://www.georgiastandards.org/Georgia-Standards/Pages/Math-6-8.aspx>.**

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

### CONTENT DESCRIPTION

- Apply and extend understanding of multiplication and division
- Divide fractions by fractions
- Compute fluently with multi-digit numbers and rational numbers
- Find common factors and multiples
- Apply and extend understandings of algebraic expressions
- Reason and solve one-variable equations and inequalities
- Analyze quantitative relationships between dependent and independent variables
- Understand ratio, area, surface area, and volume
- Develop understanding of statistical variability
- Summarize and describe distributions





# Grade 6 Mathematics Formula Sheet

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

## Perimeter

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

## Area

Triangle  $A = \frac{1}{2}bh$

Rectangle  $A = bh$  or  $A = lw$

## Surface Area

The total area of the 2-dimensional surfaces that make up a 3-dimensional object.

## Volume of Right Rectangular Prism

$$V = (\text{length})(\text{width})(\text{height})$$

*or*

$$V = (\text{area of base})(\text{height})$$

## Mean

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \dots + x_n}{n}$$

## Interquartile Range

$$IQR = Q_3 - Q_1$$

The difference between the first quartile and third quartile of a set of data.

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

## Unit 1: Number System Fluency

In this unit, you will divide numbers and fractions by fractions and identify reciprocal fractions. You will work with decimals and solve multi-digit division. You will learn about factors and multiples of numbers.

### KEY TERMS

**Quotients of fractions:** Dividing a number by a fraction is determining how many parts equal to the fraction are in the number. For example,  $4 \div \frac{1}{4}$  is asking how many  $\frac{1}{4}$  parts are in 4, which is 16. This same strategy can be used to divide a fraction by a fraction. For example,  $\frac{5}{2} \div \frac{1}{4}$  is asking how many  $\frac{1}{4}$  parts are in  $\frac{5}{2}$ , which is 10. Represent division of fractions using equations and fraction models to solve. (NS.1)

**Remainder:** A part of the dividend that is left over when dividing. The remainder is listed as the amount of the equal part that is left over. For example, in the expression  $\frac{3}{8} \div \frac{1}{4}$ , there is a remaining number of  $\frac{1}{8}$ , which is  $\frac{1}{2}$  of an equal part. The quotient of this division expression is  $1\frac{1}{2}$ . (NS.1)

**Reciprocal:** Two numbers that have a product of 1. In fractions, reversing the numerator and denominator creates a reciprocal fraction, such as  $\frac{2}{3} \times \frac{3}{2} = \frac{6}{6}$ . It is also possible to multiply by the reciprocal to determine the quotient when dividing two fractions. For example,  $\frac{5}{2} \div \frac{1}{4}$  can be solved using  $\frac{5}{2} \times \frac{4}{1} = \frac{20}{2}$ . (NS.1)

**Standard algorithm:** A method used to solve a problem that includes a set of specific steps. Solve multi-digit division equations using the standard algorithm. (NS.2)

### Operations with decimals:

- **Addition and subtraction:** Operations must be completed on the digit in the same location, such as adding the tenths place in one number to the tenths place in another number. This requires close attention to the place value of each digit. (NS.3)
- **Multiplication:** When multiplying by a decimal number, the product will have a smaller value than the whole number factor. The equation  $2 \times 0.01 = 0.02$  shows that 2 groups of 1 hundredth is equal to 2 hundredths. (NS.3)
- **Division:** When dividing by a decimal number, the quotient will have a greater value than the dividend. The equation  $2 \div 0.01 = 200$  shows that there are 200 hundredths in the number 2. (NS.3)

**Factors:** When two or more integers are multiplied, each number is a factor of the product. (NS.4)

**Greatest common factor:** The largest factor that two or more numbers share. (NS.4)

**Multiple:** The product of a given whole number and an integer. (NS.4)

**Least common multiple:** The smallest multiple (other than zero) that two or more numbers share. (NS.4)

**Distributive property:** The sum of two addends multiplied by a number equals the sum of the product of each addend and that number. For example,  $21 + 35$  can be rewritten because both addends have a common factor of 7. So  $(7 \times 3) + (7 \times 5)$  can also be written as  $7(3 + 5)$ . (NS.4)

### Important Tips

- ✍ Dividing by  $\frac{1}{2}$  determines how many  $\frac{1}{2}$  parts there are in a given number. Dividing in half means dividing by 2 to determine the quantity in 2 equal parts.
- ✍ The quotient of a division equation can be less than the dividend if the divisor is greater than 1. The quotient can be greater than the dividend if the divisor is smaller than 1. And the quotient can be equal to the dividend if the divisor is equal to 1.

## Sample Items 1–3

### Item 1

#### Selected-Response

Which expression is equivalent to  $36 + 24$ ?

- A.  $6 + 4$
- B.  $4(6 + 4)$
- C.  $4(6 + 6)$
- D.  $12(3 + 2)$

**Item 2**

**Constructed-Response**

Michael has 3 out of 6 pieces of a pie left. He wants to share it with friends so that each person gets  $\frac{1}{4}$  of a whole pie. Use the problem below to find how many people will get  $\frac{1}{4}$  of the pie.

$$\frac{3}{6} \div \frac{1}{4} = \square$$

Explain how you found your answer. Write your answer in the space provided.

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**Item 3**

**Constructed-Response**

Elena divided a decimal by a whole number.

$$84.36 \div 12 = \square$$

**Part A** Explain each step needed to divide 84.36 by 12. Write your answer in the space provided.

**Part B** What is the correct quotient? Write your answer in the space provided.

<p><b>Part A</b></p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>Part B</b> _____</p>

## Unit 2: Rate, Ratio, and Proportional Reasoning Using Equivalent Fractions

In this unit, you will work with ratios and percentages. You will use measurement conversions and describe the relationship between quantities, including rate and constant speed. You will use equivalent fractions, ratio tables, diagrams, double number lines, equations, and proportions.

### KEY TERMS

**Ratio:** The multiplicative relationship between two quantities.

- **Part-to-part ratio:** A ratio that relates two parts of the same whole. For example, a class has 12 boys and 9 girls; the ratio of boys to girls is 12 to 9, or 12:9.
- **Part-to-whole ratio:** A ratio that relates a part of the whole to the whole. For example, there are 12 boys in a class of 21 students. The ratio of boys to students in the class is 12 to 21, or 12:21. (RP.1)

**Unit ratio:** A ratio that has a number related to 1. For example, there is a ratio of red cars to blue cars of 2:1, which is read as 2 to 1. (RP.2)

Use ratios to solve problems and find missing values by using these strategies:

- **Equivalent ratio table:** A table listing ratios that have the same value, such as 2 to 3 and 4 to 6.
- **Tape diagrams:** Drawing strategies used to create a numerical operation from a written description. They are also called bar models or strip diagrams.
- **Double number line:** Two number lines used to represent the two quantities in a ratio to find equivalent ratios.
- **Equation:** A proportion that shows two ratios as being equivalent. (RP.3a)

**Rate:** The relationship between two quantities that have different units of measure. For example, price per yard of fabric (unit price) or miles per hour (constant speed). (RP.3b)

**Unit price** and **constant speed:** A rate where a value is 1. For example, a car travels 75 miles in 3 hours. The rate, or constant speed, of the car is 25 miles per 1 hour. (RP.3b)

**Percentage:** A part-to-whole ratio that has a number related to 100. It can be written as a fraction with a denominator of 100 or using the symbol %. For example, there are 40 comic books out of 200 total books. The ratio of comic books to the total is 40 to 200, or  $\frac{20}{100}$ , or 20%. (RP.3c)

**Measurement conversion:** Using the relationship between measurement units to change units, such as feet to inches or centimeters to inches. For example, 36 inches can be converted into feet using the ratio 1 foot to 12 inches. (RP.3d)

### Important Tip

- ✍ Percentages can be used in a variety of situations and include numbers that are greater than 100 as well as less than 1.

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## Sample Items 4–6

### Item 4

#### Selected-Response

Fran has 18 paperback books and 24 hardcover books. What is the ratio of paperback books to hardcover books?

- A. 3:4
- B. 4:3
- C. 3:7
- D. 7:3

### Item 5

#### Selected-Response

A tomato sauce recipe uses 96 ounces of crushed tomatoes.

How many pints of crushed tomatoes are needed to make the tomato sauce?  
(32 ounces = 2 pints)

- A. 2 pints
- B. 3 pints
- C. 4 pints
- D. 6 pints

**Item 6**

**Constructed-Response**

The tables show the costs of different numbers of watermelons at two places, a farmers' market and a grocery store.

Number of Watermelons	Total Cost
2	\$6
4	\$12

Number of Watermelons	Total Cost
3	\$15
5	\$25

What is the cost of one watermelon at the place that charges less per watermelon? Explain your reasoning. Write your answer in the space provided.

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## Unit 3: Expressions

In this unit, you will work with exponents, variables, and written and numerical expressions. You will use the order of operations to find the value of equations and equivalent expressions.

### KEY TERMS

**Exponent:** Repeated multiplication. For example, in  $10 \cdot 10 \cdot 10 = 10^3$ , 10 is multiplied by itself 3 times, so the number 10 is written with an exponent of 3. The same strategy for writing exponents can be used with any number or variable. (EE.1)

**Variable:** A letter used in an expression or equation to represent an unknown number or a number that may have different values. (EE.2a)

**Written expressions and numerical expressions:** Use variables, numbers, and operations to change a written expression into a numerical expression. For example, “multiply the sum of 2 and  $n$  by 3” can be written as  $3(2 + n)$ . (EE.2a)

Parts of an expression include the following:

- **Constant:** A quantity that does not change its value.
- **Term:** A number, variable, or product of a number and a variable.
- **Factor:** A number that is multiplied by another number to find the product.
- **Sum:** The total of terms that are added together.
- **Difference:** The total of terms that are subtracted.
- **Product:** The total of terms that are multiplied.
- **Quotient:** The total of terms that are divided.
- **Coefficient:** A number multiplied by a variable. (EE.2b)

**Order of operations:** The specific order used to complete operations when finding the value of an equation or expression.

- Parenthesis
- Exponent
- Multiplication or division
- Addition or subtraction (EE.2c)

**Equivalent expressions:** Two expressions that represent the same number regardless of the value of the variable. (EE.4)

**Properties of operations:** Can be used to create equivalent expressions. For example, the distributive property changes  $24 + 6x$  to the equivalent expression  $6(4 + x)$ . (EE.2)

**Greatest common factor:** The greatest factor that divides two numbers. (NS.4)

**Least common multiple:** The smallest positive integer that is divisible by two numbers. (NS.4)

**Important Tips**

- ✍ Variables are often used to represent unknown numbers in an equation. A specific letter can be used to represent several different numbers in different equations. Use the equation to determine the value of the variable in each problem.
- ✍ The coefficient relates to the variable it is paired with. The value of  $5n + 3$  is  $n + n + n + n + n + 3$  and is determined based on the value of  $n$ . If  $n = 2$ , then there are 5 groups of 2 and  $5n + 3$  has a value of  $10 + 3$ .
- ✍ A variable listed alone has a coefficient of 1. For example,  $3x - x$  is the same as  $3x - 1x$ , for a total of  $2x$ .

**Sample Items 7–10****Item 7****Selected-Response**

Adam is  $n$  years old. Mary Beth is  $3n + 4$  years old. If Adam is 9 years old, how old is Mary Beth?

- A. 23
- B. 27
- C. 31
- D. 43

**Item 8****Multi-Select Technology-Enhanced**

Select **THREE** expressions that are equivalent to  $12x + 8y$ .

- A.  $12(x + 8y)$
- B.  $4(3x + 2y)$
- C.  $2(12x + 4y)$
- D.  $4(2x + 3y)$
- E.  $6x + 6x + 4y + 4y$
- F.  $5x + 3x + 3x + x + 6y + y + y$

**Item 9****Selected-Response**

Look at this expression.

$$\frac{1}{5} \times \frac{1}{5} \times \frac{1}{5}$$

Which expression is equivalent?

- A.  $2 \times \frac{1}{5}$
- B.  $3 \times \frac{1}{5}$
- C.  $\left(\frac{1}{5}\right)^2$
- D.  $\left(\frac{1}{5}\right)^3$

**Item 10****Selected-Response**

Look at this expression.

$$5(4x - 3)$$

Which expression is equivalent?

- A.  $20x - 3$
- B.  $20x - 15$
- C.  $4x - 15$
- D.  $9x - 8$

## Unit 4: One-Step Equations and Inequalities

In this unit, you will work with one-step equations and inequalities. You will use variables to represent unknown numbers. You will use rational numbers as well as dependent and independent variables.

### KEY TERMS

**Equation:** A grouping of numbers, variables, and operations with an equal sign. The solution to an equation is a specific number that makes the equation true. (EE.5)

**Inequality:** A grouping of numbers, variables, and operations with an inequality symbol, such as  $<$ ,  $>$ ,  $\leq$ , or  $\geq$ . The solution for an inequality is a set of numbers that makes the inequality true. (EE.5)

**Variable:** A letter in an equation or inequality that represents an unknown number or a number in a given set of numbers. (EE.6)

**Dependent variable:** A variable whose value changes based on other factors. (EE.9)

**Independent variable:** A variable whose value does not change based on other factors. (EE.9)

Use ratios to solve problems and find missing values by using these strategies:

- **Equivalent ratio table:** A table listing ratios that have the same value, such as 2 to 3 and 4 to 6.
- **Tape diagrams:** Drawing strategies used to create a numerical expression from a written description. They are also called bar models or strip diagrams.
- **Double number line:** Two number lines used to represent the two quantities in a ratio to find equivalent ratios.
- **Equation:** A proportion that shows two ratios as being equivalent. (RP.3)

**Constant of proportionality:** The value of the ratio of two proportional quantities,  $x$  and  $y$ . This value is represented by the variable  $k$ :  $y = kx$ . (RP.3)

**Percentage:** A part-to-whole ratio that has a number related to 100. It can be written as a fraction with a denominator of 100 or using the symbol  $\%$ . For example, there are 40 comic books out of 200 total books.

The ratio of comic books to the total is 40 to 200, or  $\frac{20}{100}$ , or 20%. (RP.3c)

**Measurement conversion:** Using the relationship between measurement units to change units. For example, 36 inches can be converted into feet using the ratio 1 foot to 12 inches. (RP.3d)

**Important Tips**

- ✍ An equal sign ( $=$ ) means that the two sides of an equation have the same value. Operations may need to be completed before finding the solution to the equation.
- ✍ When writing a verbal or written expression as a numerical expression, focus on the chosen wording. The way an expression is written will identify the operation to use as well as the order of the terms. For example, “six less than  $x$ ” is written as  $x - 6$ , and “4 is greater than  $x$ ” is written as  $4 > x$ .
- ✍ A word problem can be represented by an equation. Using rational numbers from a problem, write equations such as  $x + 42 = 56$  or  $8x = 72$ .
- ✍ A word problem can also be represented by an inequality that uses rational numbers, such as  $x < 24$ . Solutions to inequalities can be represented on a number line by placing an open or closed point on the given number and an arrow toward greater or less than. For example, for  $x < 24$ , place an open circle on 24 and draw an arrow to the left over numbers that are less than 24. For  $x \geq 2$ , place a closed circle on 2 and draw an arrow to the right over numbers that are greater than 2.
- ✍ An equation can include an independent and a dependent variable. The relationship between the two variables can be seen by graphing the values of each variable or creating a table.

**Sample Items 11–13****Item 11****Selected-Response**

Look at this inequality.

$$5y > 14$$

Which value for  $y$  makes the inequality true?

- A. 1.5
- B. 2
- C. 2.8
- D. 3

## Item 12

### Selected-Response

It costs \$60 to reserve a movie theater for a party. There is also a charge of \$3 for each person.

Which expression represents the total cost to reserve a movie theater for  $n$  persons?

- A.  $60 + 3n$
- B.  $60 - 3n$
- C.  $3 + 60n$
- D.  $3 - 60n$

## Item 13

### Extended Constructed-Response

A bike shop needs to order new wheels for 10 tricycles. Hannah orders 10 new wheels. Each tricycle has 3 wheels.

- Part A Explain how you know that Hannah ordered the wrong amount of wheels. Write your answer in the space provided.
- Part B The equation  $3x = y$  can be used to calculate the number of wheels to order for any number of tricycles. What does each term in the equation represent? Write your answer in the space provided.
- Part C How many wheels should be ordered for 15 tricycles? Write your answer in the space provided.

Go to the next page to finish Item 13.

Item 13. *Continued.*

<p><b>Part A</b></p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>Part B</b></p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>Part C</b></p>	<hr/>

## Unit 5: Area and Volume

In this unit, you will find the areas of plane figures and the volumes of solid figures. You will continue to work with fractions. You will work with three-dimensional figures to unfold nets and find surface areas.

### KEY TERMS

**Two-dimensional figure:** A plane figure that has two dimensions, such as length and width. (G.1)

**Area:** The number of square units used to fill a two-dimensional figure without gaps or overlaps.

- **Rectangle:** Multiply the length and width of the rectangle:  $A = bh$ .
- **Triangle:** Multiply the height and base of the triangle and then divide by 2:  $A = \frac{1}{2}bh$ . (G.1)

**Volume:** The amount of space the shape takes up in three dimensions: length, width, and height. A solid figure, or three-dimensional figure, such as a rectangular prism, has a volume. (G.2)

The volume of a right rectangular prism can be determined using two formulas:

- $l \cdot w \cdot h$  multiplies the length, width, and height of the figure to find the cubic units of volume.
- $B \cdot h$  finds the area of the base using the width and length and then multiplies it by the height of the figure to find the cubic units of volume. (G.2)

**Surface area:** The total area of each face of a three-dimensional figure. (G.3)

**Net:** A strategy used to unfold a three-dimensional figure to see each face as a two-dimensional figure. (G.3)

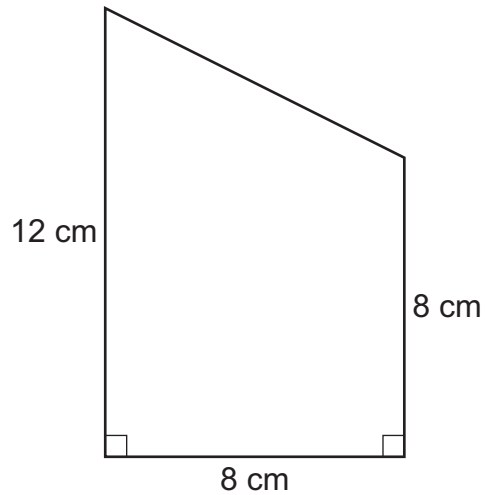
### Important Tips

- ✍ Identify shapes by using the attributes. Shapes can be turned and may appear different, but that does not change the shape.
- ✍ In a right triangle, the height can be a side of the triangle. In triangles with acute or obtuse angles, the height must be measured from the highest point and be perpendicular to the base. This measurement may be taken inside or outside the figure, depending on the type of angle.
- ✍ The area of a polygon can be found by composing or decomposing the shape into rectangles and triangles. Determine the area of each triangle or rectangle that forms the polygon. The total area of the polygon is equal to the sum of the area of each part.
- ✍ A solid figure can be packed with equally sized cubes, leaving no gaps and without overlapping cubes. The number of cubes packed into the solid figure is used to find the volume of the figure.
- ✍ A three-dimensional figure with fractional edge lengths can be packed with cubes that have edge lengths equal to a unit fraction. For example, a figure with a length of 2, a width of 2, and a height of  $1\frac{1}{2}$  can be filled with 48 cubes with edge lengths of  $\frac{1}{2}$  unit. The volume of each cube is  $\frac{1}{8}$  unit. Multiply  $\frac{1}{8}$  unit by 48 cubes to find the total volume of the figure is 6 units.



**Sample Items 14–17****Item 14****Selected-Response**

Mitch drew this quadrilateral.



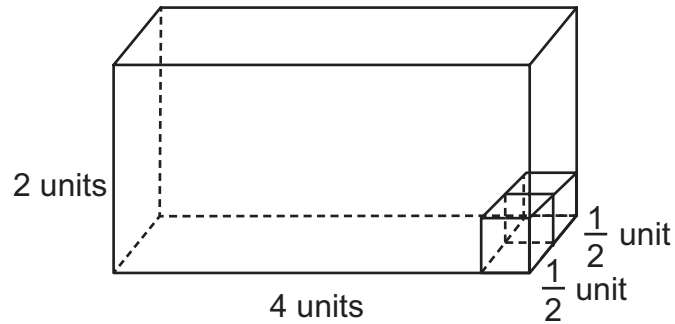
What is the area of the quadrilateral?

- A.  $28 \text{ cm}^2$
- B.  $80 \text{ cm}^2$
- C.  $96 \text{ cm}^2$
- D.  $112 \text{ cm}^2$

**Item 15**

**Selected-Response**

**Consider this right rectangular prism.**



**How many  $\frac{1}{2}$ -unit cubes are needed to fill the rectangular prism?**

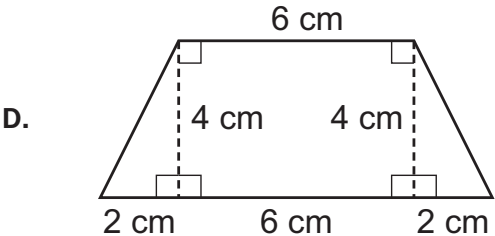
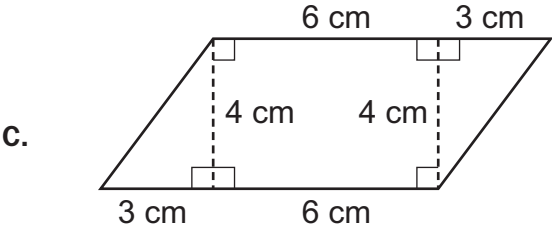
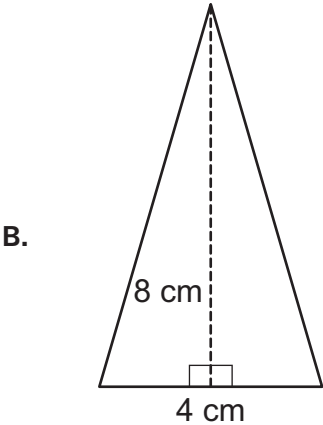
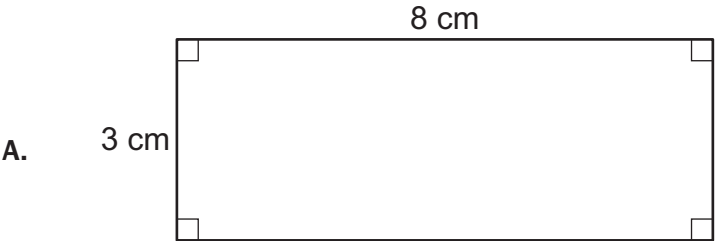
- A. 8
- B. 16
- C. 32
- D. 64

Item 16

Selected-Response

Mia found the area of a polygon. The area is  $32 \text{ cm}^2$ .

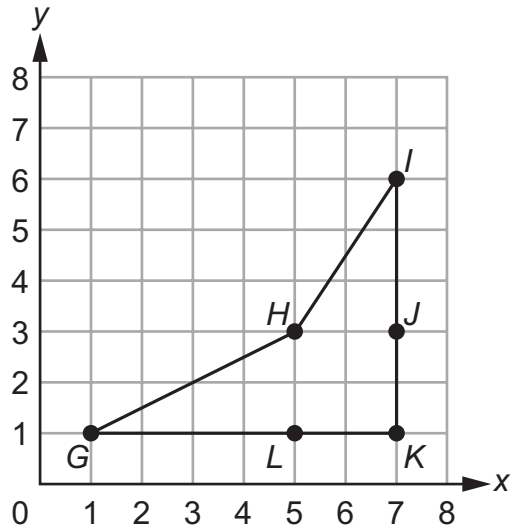
Which of these polygons has an area of  $32 \text{ cm}^2$ ?



**Item 17**

**Multi-Part Technology-Enhanced**

A polygon is graphed on the coordinate grid.



The polygon can be decomposed into two triangles to determine the area of the polygon.

**Part A**

Which decomposition of two triangles represents the area of the polygon?

- A. the area of triangle  $GHL$  plus the area of triangle  $HIJ$
- B. the area of triangle  $GHK$  plus the area of triangle  $HIK$
- C. the area of triangle  $GJK$  plus the area of triangle  $ILK$
- D. the area of triangle  $GHK$  plus the area of triangle  $ILK$

**Part B**

What is the area, in square units, of the polygon?

- A. 10
- B. 11
- C. 12
- D. 13

## Unit 6: Statistics

In this unit, you will work with statistics, numerical data, distribution of data, quartiles, plots, and histograms. You will calculate the mode of numbers and identify outliers.

### KEY TERMS

**Statistical questions:** Questions used to collect data that will allow for a variety of different answers. (SP.1)

**Numerical data set (data set):** Information collected as rational numbers that can be represented using graphs and plots. (SP.2, SP.3, SP.4, SP.5)

Distribution of data can be described by the following:

- **Center:** The one number that summarizes data by giving the middle or center value. (SP.3) This can be measured using the mean if the data are symmetrical or the median if the data are skewed. (SP.2)
- **Mean:** The “average” or “fair share” value for the data. The mean is also the balance point of the corresponding data distribution. (SP.3)
- **Median:** The value for which half the numbers are larger and half are smaller. If there are two middle numbers, the median is the arithmetic mean of the two middle numbers. (SP.3)
- **Range:** A measure of spread for a set of data. To find the range, subtract the smallest value from the largest value in a set of data. (SP.3)
- **Skewed data:** When a set of data is not symmetrical, it can be skewed, meaning it would have a long tail on the left or right side. (SP.2)
- **Spread:** The one number that summarizes the variation in the data. (SP.3) This can be measured by the range. (SP.2)
- **Overall shape:** The frequency of data and any data that is skewed to the left or right. (SP.2)

**Quartile:** Values that divide an ordered set of data into four equal parts.

- **First quartile (lower quartile):** The center number between the minimum value and the median.
- **Second quartile (median):** The center number of the entire data set.
- **Third quartile (upper quartile):** The center number between the median and the maximum value. (SP.5)

Data can be displayed on a number line by using these strategies:

- **Box plot:** A representation of the minimum value, lower quartile, median, upper quartile, and maximum value of the data. A box is placed around the interquartile range, with a line at the median. Lines or whiskers extend out of the box to the minimum and maximum values.
- **Dot plot (line plot):** A number line that displays a dot, a circle, or an “X” corresponding to the value of each piece of data.
- **Histogram:** A bar that displays data. The length of the bar on the number line shows the frequency of that value of data. (SP.4)

**Interquartile range:** The range, or difference, of the values of the first and third quartiles. (SP.5)

**Important Tips**

- ✍ When finding the median of a data set, the numbers must be placed in order before finding the middlemost value.
- ✍ If data are skewed to the left, there is a large quantity of data on the right side of the number line and a small quantity of data, or a tail, on the left side of the number line.

**Sample Items 18–20**

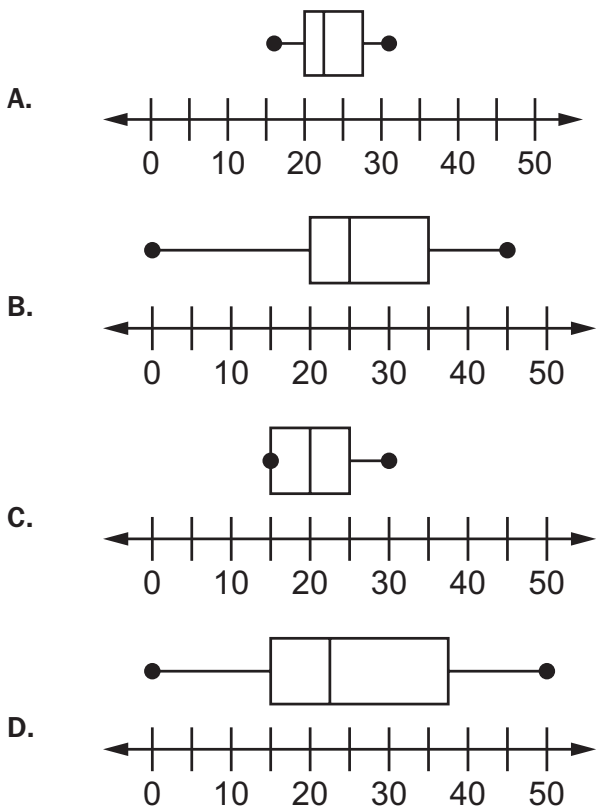
**Item 18**

**Selected-Response**

This list shows the number of math problems solved each week by a sixth-grade student.

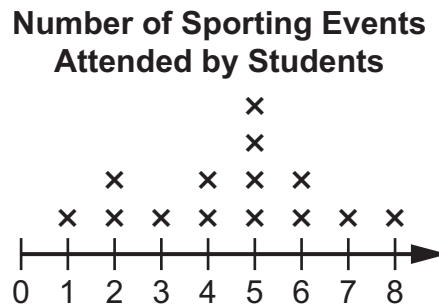
23, 19, 26, 20, 31, 16, 20, 29, 27

Which box plot BEST represents this list?



**Item 19****Selected-Response**

The dot plot shows the number of times 14 students have attended a sporting event.



What number is the median of the data set?

- A. 1
- B. 4
- C. 5
- D. 7

**Item 20****Selected-Response**

Which question is a statistical question because it could have more than one answer?

- A. "Where does the current U.S. president live?"
- B. "What size coat am I wearing now?"
- C. "Did Jack wear sneakers or boots to school today?"
- D. "What size shirt do the kids in the school wear?"

## Unit 7: Rational Explorations: Numbers and Their Opposites

In this unit, you will work with negative and rational numbers. You will compare inequalities. You will learn about coordinate pairs, quadrants, polygons, and absolute value.

### KEY TERMS

**Negative number:** A number with a value less than zero. For example, the temperature is  $-4^{\circ}\text{F}$ . (NS.5)

**Rational number:** A number that can be made by dividing two integers or whole numbers. A rational number can be displayed as a point on a number line or coordinate plane. (NS.6)

**Opposite:** A negative number represents the opposite location on the number line as a positive number. For example,  $-2$  is the opposite of  $2$ . (NS.6)

**Absolute value:** The distance between the given number and zero on a number line. For example,  $|-5| = 5$ . (NS.7)

**Inequality:** A statement comparing the value and location of two or more numbers. For example,  $x < -5$  shows that the value of  $x$  is less than  $-5$ , so the value of  $x$  could be  $-6$ ,  $-7$ , etc.

**Ordered pair (coordinates):** A set of numbers that is used to label the location of a point on the coordinate plane written as  $(1, 2)$ .

**Coordinate plane:** A graph that is created by intersecting two perpendicular number lines at  $0$ .

**Origin:** The point where the two number lines meet in a coordinate plane. Represented by the coordinates  $(0, 0)$ .

**x-axis:** The horizontal line in a coordinate plane.

**y-axis:** The vertical line in a coordinate plane. (NS.8)

**Quadrants:** The four regions of a coordinate plane.

- **First Quadrant:** The values of the  $x$ -coordinates and  $y$ -coordinates are both positive.
- **Second Quadrant:** The values of the  $x$ -coordinates are negative, and the  $y$ -coordinates are positive.
- **Third Quadrant:** The values of the  $x$ -coordinates and  $y$ -coordinates are both negative.
- **Fourth Quadrant:** The values of the  $x$ -coordinates are positive, and the  $y$ -coordinates are negative.

### Important Tips

- ✍ An ordered pair lists the  $x$ -coordinate first and then the  $y$ -coordinate. When graphing a point using the ordered pair, move horizontally on the  $x$ -axis using the  $x$ -coordinate and then move vertically on the  $y$ -axis using the  $y$ -coordinate.
- ✍ On the coordinate plane, ordered pairs that differ only by their signs represent a reflection over one or both of the axes.
- ✍ Polygons can be drawn on a coordinate plane by placing a point at a given coordinate for the vertices. The length of the sides of the polygon can be determined by counting the distance between points on the grid.



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## Sample Items 21–24

### Item 21

#### Selected-Response

Which list shows the numbers in descending order?

- A.  $|-2.5|$ ,  $-2.25$ ,  $2.75$
- B.  $-2.25$ ,  $-2.5$ ,  $|2.75|$
- C.  $-2.5$ ,  $2.5$ ,  $|-2.75|$
- D.  $2.75$ ,  $|-2.5|$ ,  $-2.25$

### Item 22

#### Multi-Part Multi-Select Technology-Enhanced

##### Part A

A metal rod is placed into the ground. The height of the rod above the ground is 100 feet. The depth of the rod is 20 feet in the ground.

What does 0 feet represent in this situation?

- A. the middle of the metal rod
- B. the top end of the metal rod
- C. the bottom end of the metal rod
- D. the point at which the metal rod enters the ground

##### Part B

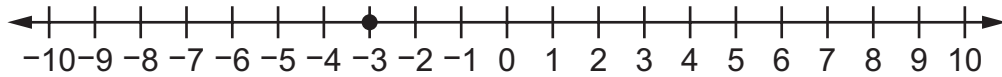
Select TWO statements that can be represented by  $-40$  feet.

- A. the length of a sailboat
- B. the length of a piece of ribbon
- C. the change in altitude of a balloon
- D. the distance of a tree branch above the ground
- E. the distance of a fish below the surface of the water

**Item 23**

**Constructed-Response**

Erin incorrectly plotted the opposite of  $-3$  on the number line.



**Part A** Explain the error Erin made. Write your answer in the space provided.

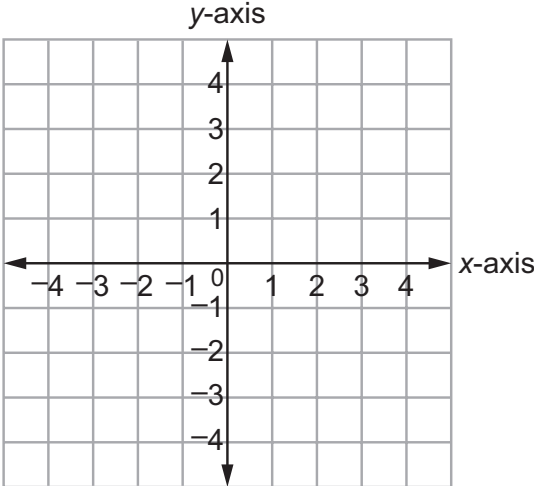
**Part B** Explain the relationship of a number and its opposite when plotted on a number line. Write your answer in the space provided.

<p><b>Part A</b></p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p><b>Part B</b></p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

**Item 24**

**Constructed-Response**

You may use the coordinate grid to help you answer the question.



**Part A** In which quadrant is  $(-3, 4)$  located? Write your answer in the space provided.

**Part B** Explain how you identified the quadrant. Write your answer in the space provided.

<b>Part A</b> _____
<b>Part B</b> _____ _____ _____ _____ _____ _____ _____

## MATHEMATICS ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	MGSE6.NS.4	1	D	The correct answer is choice (D) $12(3 + 2)$ . The student finds the greatest common factor of the two addends, which is 12. The student multiplies by the sum of 3 and 2, which are the factors that equal the initial addends when multiplied by the greatest common factor, 12. Choice (A) is incorrect because the response equals 10 rather than 60. Choice (B) is incorrect because the response equals 40 rather than 60. Choice (C) is incorrect because the response equals 48 rather than 60.
2	MGSE6.NS.1	2	N/A	See scoring rubric and exemplar responses beginning on page 129.
3	MGSE6.NS.3	2	N/A	See scoring rubric and exemplar responses beginning on page 131.
4	MGSE6.RP.1	1	A	The correct answer is choice (A) 3:4. The ratio of paperback to hardcover books can be written as the fraction $\frac{18}{24}$ . Reduce the fraction by dividing both the numerator and the denominator by 6 to get $\frac{3}{4}$ . Then write the ratio as 3 to 4. Choice (B) is incorrect because it results from finding the ratio of hardcover books to paperback books. Choice (C) is incorrect because it results from finding the ratio of paperback books to the total number of books. Choice (D) is incorrect because it results from finding the ratio of the total number of books to paperback books.
5	MGSE6.RP.3d	1	D	The correct answer is choice (D) 6 pints. The student uses the proportion of $\frac{32}{2} = \frac{96}{6}$ or another viable method to find the number of pints in 96 ounces. Choice (A) is incorrect because it shows the number of pints in 32 ounces. Choice (B) is incorrect because it is the factor used to change 32 ounces to 96 ounces. Choice (C) is incorrect because it shows the number of pints in 64 ounces.
6	MGSE6.RP.3a	2	N/A	See scoring rubric and exemplar responses beginning on page 133.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
7	MGSE6.EE.2c	1	C	The correct answer is choice (C) 31. Replace $n$ in the expression with 9, which is the value given for Adam's age, and evaluate $3n + 4 = 3(9) + 4 = 27 + 4 = 31$ . Choice (A) is incorrect because 23 is the result of substituting 9 for $n$ in the expression $3n - 4$ . Choice (B) is incorrect because 27 is the result of only computing $3(9)$ . Choice (D) is incorrect because it is the result of writing the expression as $39 + 4$ rather than $3(9) + 4$ .
8	MGSE6.EE.3	2	B/E/F	The correct answer is choices (B), (E), and (F). Choice (A) is incorrect because the 12 is only factored out of the first term. Choice (C) is incorrect because the 2 is only factored out of the second term. Choice (D) is incorrect because the coefficients for $x$ and $y$ were switched when factoring out the 4.
9	MGSE6.EE.1	1	D	The correct answer is choice (D) $\left(\frac{1}{5}\right)^3$ . An exponent of 3 can be used to write $\frac{1}{5}$ when it is multiplied by itself 3 times. Choice (A) is incorrect because it is equal to $\frac{2}{5}$ . Choice (B) is incorrect because it is equal to $\frac{3}{5}$ . Choice (C) is incorrect because it is equal to $\frac{1}{25}$ .
10	MGSE6.EE.3	1	B	The correct answer is choice (B) $20x - 15$ . Apply the distributive property to the equation by multiplying 5 by each term inside the parentheses. Choice (A) is incorrect because it is the result of only multiplying 5 by $4x$ . Choice (C) is incorrect because it is the result of only multiplying 5 by 3 only. Choice (D) is incorrect because it shows the result of adding 5 to $4x$ and 3 rather than multiplying.
11	MGSE6.EE.5	1	D	The correct answer is choice (D) 3. The inequality is true when you substitute $y = 3$ into $5y > 14$ ; $15 > 14$ . Choices (A) and (B) are both incorrect because those values for $y$ result in numbers less than 14 ( $5 \times 1.5 = 7.5$ and $5 \times 2 = 10$ ). Choice (C) is incorrect because that value of $y$ results in a number equal to 14 ( $5 \times 2.8 = 14$ ).

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
12	MGSE6.EE.6	1	A	The correct answer is choice (A) $60 + 3n$ . The reservation cost for the theater is a constant, at \$60. The additional \$3 per person charge will vary depending on the number of people, $n$ , for a variable charge of $3n$ that would need to be added to the initial cost of \$60. Choice (B) is incorrect because it subtracts $3n$ from 60 instead of adding. Choices (C) and (D) are incorrect because they multiply the variable number of people, $n$ , by the constant 60.
13	MGSE6.EE.7	3	N/A	See scoring rubric and exemplar responses beginning on page 135.
14	MGSE6.G.1	2	B	The correct answer is choice (B) $80 \text{ cm}^2$ . The quadrilateral can be decomposed into a rectangle that is 8 cm long and 8 cm wide and a right triangle with a base of 4 cm and height of 8 cm. So, its area is $64 + 16 = 80 \text{ cm}^2$ . Choice (A) is incorrect because it is the sum of the three labeled side lengths. Choice (C) is incorrect because it is the area of a 12 cm by 8 cm rectangle and does not account for the triangle shape that is missing from this quadrilateral. Choice (D) is incorrect because it is the area of a 12 cm by 8 cm rectangle plus the area of the right triangle.
15	MGSE6.G.2	2	D	<p>The correct answer is choice (D) 64. Since the volume is <math>V = l \times w \times h</math>, the volume of this prism is</p> $V = 4 \times \left(\frac{1}{2} + \frac{1}{2}\right) \times 2 = 8 \text{ units}^3$ <p>and the volume of each unit cube is <math>V = \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8} \text{ units}^3</math>. The number of cubes needed is the volume of the prism divided by the volume of each cube: <math>8 \div \frac{1}{8} = 8 \times 8 = 64</math>.</p> <p>OR</p> <p>Since the volume is <math>V = l \times w \times h</math> and we are looking for the number of cubes, we find the dimensions in terms of cubes: <math>w = 2</math> cubes, <math>l = 4 \div \frac{1}{2} = 8</math> cubes, and <math>h = 2 \div \frac{1}{2} = 4</math> cubes. So the volume, in cubes, of this prism is</p> $V = 2 \times 8 \times 4 = 64$ <p>Choice (A) is incorrect because it is the volume of the prism. Choice (B) is incorrect because it is the volume of the prism divided by <math>\frac{1}{2}</math>. Choice (C) is incorrect because it is the volume of the prism divided by <math>\frac{1}{4}</math>.</p>

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
16	MGSE6.G.1	1	D	The correct answer is choice (D) trapezoid with side lengths of 6 cm and 10 cm and a height of 4 cm. The student finds the area by breaking apart the trapezoid into 2 right triangles and a rectangle and adding the areas of the 3 shapes. The total area is $32 \text{ cm}^2$ , which is the given area. Choice (A) is incorrect because it shows a rectangle with an area of $24 \text{ cm}^2$ . Choice (B) is incorrect because it shows a triangle with an area of $16 \text{ cm}^2$ . Choice (C) is incorrect because it shows a parallelogram with an area of $36 \text{ cm}^2$ .
17	MGSE6.G.1	3	Part A: B Part B: B	Part A: The correct answer is choice (B) the area of triangle <i>GHK</i> plus the area of triangle <i>HIK</i> . The two triangles make up the polygon with no overlapping or missing areas. Choice (A) is incorrect because it is missing part of the area of the polygon. Choices (C) and (D) have triangles that both overlap and still miss part of the area of the polygon. Part B: The correct answer is choice (B) 11. The area of the two triangles from Part A is 11. Choices (A), (C), and (D) all compute the area incorrectly.
18	MGSE6.SP.4	1	A	The correct answer is choice (A) box plot with the minimum and maximum at 16 and 31. Choice (B) is incorrect because it shows a box plot with the minimum and maximum extending from 0 to 45 and the data only ranges from 16 to 31. Choice (C) is incorrect because, although it shows the correct minimum and maximum, it shows an incorrect median. Choice (D) is incorrect because it shows a box plot with second and third quartiles that are either too small or too large.
19	MGSE6.SP.2	1	C	The correct answer is choice (C) 5. The median of the 14 data points is the average of the 7th and 8th points, which are both 5, so the median is 5. Choice (A) is incorrect because it is the minimum value. Choice (B) is incorrect because it is the middle number on the number line (not data). Choice (D) is incorrect because it is the range of the data set.
20	MGSE6.SP.1	1	D	The correct answer is choice (D) "What size shirt do the kids in the school wear?" The student identifies a statistical question that will include variability. Answer choices (A), (B), and (C) are incorrect because they are not statistical questions as they only elicit a single response with no variability.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
21	MGSE6.NS.7	1	D	The correct answer is choice (D) 2.75, $ -2.5 $ , $-2.25$ . <i>Descending</i> means numbers are in order on a number line from greatest to least. 2.75 is the highest positive number, then the absolute value of $-2.5$ is 2.5, and then $-2.25$ . Choice (A) is incorrect because it shows the numbers out of order. Choice (B) is incorrect because it shows the numbers in a mixed-up order. Choice (C) is incorrect because it shows the numbers in ascending order.
22	MGSE6.NS.5	2	Part A: D Part B: C/E	Part A: The correct answer is choice (D) the point at which the metal rod enters the ground. Choices (A), (B), and (C) are incorrect because they misrepresent the meaning of positive and negative numbers. Part B: The correct answer is choices (C) and (E). Both altitude and distance below the water's surface can be represented by a negative number. Choices (A) and (B) are lengths of objects and must be represented as a positive number. Choice (D) is the distance above ground and must also be a positive number.
23	MGSE6.NS.6a	3	N/A	See scoring rubric and exemplar responses beginning on page 138.
24	MGSE6.NS.6b	2	N/A	See scoring rubric and exemplar responses beginning on page 140.



## MATHEMATICS SAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

### Item 2

#### Scoring Rubric

Points	Rationale
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of how to divide a fraction by a fraction.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of how to divide a fraction by a fraction.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</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 how to divide a fraction by a fraction.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a strategy.</li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>

## Item 2

## Exemplar Response

Points Awarded	Sample Response
2	2 <b>AND</b> I used equivalent factors to find the quotient. I know $\frac{3}{6}$ is $\frac{1}{2}$ , which is also $\frac{2}{4}$ . So I found the number I need to multiply $\frac{1}{4}$ by to get $\frac{2}{4}$ . And that number is 2. <i>Or other valid explanation.</i>
1	<i>2 with no explanation or an incorrect explanation</i> <b>OR</b> <i>an explanation that contains a computation error with a correct process</i>
0	<i>Response is irrelevant, inappropriate, or not provided.</i>

## Item 3

## Scoring Rubric

Points	Rationale
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of how to use a strategy based on place value to divide a number by a whole number.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of how to use a strategy based on place value to divide a number by a whole number.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</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 how to use a strategy based on place value to divide a number by a whole number.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a strategy.</li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>

## Item 3

## Exemplar Response

Points Awarded	Sample Response
2	<p>Part A: First, find the number of sets of 12 in 84. That is 7. Next, use a placeholder of 0 for the tenths place. Find the number of sets of 12 in 36 for the hundredths place, which is 3. Thus 84.36 divided by 12 equals 7.03. <i>Or other valid explanation.</i></p> <p><b>AND</b></p> <p>Part B: 7.03</p>
1	<p>Part A: First, find the number of sets of 12 in 84. That is 7. Next, use a placeholder of 0 for the tenths place. Find the number of sets of 12 in 36 for the hundredths place, which is 3. Thus 84.36 divided by 12 equals 7.03. <i>Or other valid explanation.</i></p> <p><b>OR</b></p> <p>Part B: 7.03</p>
0	<p><i>Response is irrelevant, inappropriate, or not provided.</i></p>

## Item 6

## Scoring Rubric

Points	Rationale
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</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 using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a strategy.</li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>

## Item 6

## Exemplar Response

Points Awarded	Sample Response
2	\$3 <b>AND</b> The cost of one watermelon at the farmers' market is \$6 divided by 2, which is \$3. The cost of one watermelon at the grocery store is \$15 divided by 3, which is \$5. So the cheapest option is \$3 per watermelon at the farmers' market. <i>Or other valid explanation.</i>
1	\$3 <i>with no explanation or an incorrect explanation</i> <b>OR</b> <i>an explanation that contains a computation error with a correct process</i>
0	<i>Response is irrelevant, inappropriate, or not provided.</i>

*Note: If a student makes an error in one part that is carried through to subsequent parts, then the student is not penalized again for the same error.*

## Item 13

## Scoring Rubric

Points	Rationale
4	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of solving real-world and mathematical problems by writing and solving equations of the form <math>px = q</math>, in which <math>p</math>, <math>q</math>, and <math>x</math> are all nonnegative rational numbers.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
3	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a nearly complete understanding of solving real-world and mathematical problems by writing and solving equations of the form <math>px = q</math>, in which <math>p</math>, <math>q</math>, and <math>x</math> are all nonnegative rational numbers.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</li> </ul>
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of solving real-world and mathematical problems by writing and solving equations of the form <math>px = q</math>, in which <math>p</math>, <math>q</math>, and <math>x</math> are all nonnegative rational numbers.</li> <li>• The response is only partially correct.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a minimal understanding of solving real-world and mathematical problems by writing and solving equations of the form <math>px = q</math>, in which <math>p</math>, <math>q</math>, and <math>x</math> are all nonnegative rational numbers.</li> <li>• The response is only minimally correct.</li> <li>• The response shows the incomplete or inaccurate application of a relevant strategy.</li> <li>• Mathematical ideas are expressed only partially in the response.</li> </ul>

Points	Rationale
0	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of using a measure of center for summarizing a data set.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a strategy.</li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>



## Item 13

## Exemplar Response

Points Awarded	Sample Response
4	<p>Part A: A tricycle has 3 wheels on it, so if you were to order new wheels for 10 tricycles, you would need to order 3 wheels for each tricycle, not 1 wheel per tricycle. <i>Or other valid explanation.</i></p> <p><b>AND</b></p> <p>Part B: In the equation, 3 represents the number of wheels per tricycle and x represents the number of tricycles.</p> <p><b>AND</b></p> <p>The variable y represents the total number of wheels</p> <p><b>AND</b></p> <p>Part C: 45 wheels</p>
3	The student correctly answers three of the four parts.
2	The student correctly answers two of the four parts.
1	The student correctly answers one of the four parts.
0	<i>Response is irrelevant, inappropriate, or not provided.</i>

*Note: If a student makes an error in one part that is carried through to subsequent parts, then the student is not penalized again for the same error.*

## Item 23

## Scoring Rubric

Points	Rationale
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of recognizing opposite signs of numbers as indicating locations on opposite sides of 0 on the number line, and of recognizing that the opposite of the opposite of a number is the number itself.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of recognizing opposite signs of numbers as indicating locations on opposite sides of 0 on the number line, and of recognizing that the opposite of the opposite of a number is the number itself.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</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 recognizing opposite signs of numbers as indicating locations on opposite sides of 0 on the number line, and of recognizing that the opposite of the opposite of a number is the number itself.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a strategy.</li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>

## Item 23

## Exemplar Response

Points Awarded	Sample Response
2	<p>Part A: Erin plotted the opposite of the opposite of <math>-3</math> rather than the opposite of <math>-3</math>, which is 3.</p> <p><b>OR</b></p> <p>Erin plotted <math>-3</math> instead of the opposite of <math>-3</math>.</p> <p><b>AND</b></p> <p>Part B: A number and its opposite are always the same distance from zero on the number line and on opposite sides of zero. <i>Or other valid explanation.</i></p>
1	<p>Part A: Erin plotted the opposite of the opposite of <math>-3</math> rather than the opposite of <math>-3</math>, which is 3.</p> <p><b>OR</b></p> <p>Erin plotted <math>-3</math> instead of the opposite of <math>-3</math>.</p> <p><b>OR</b></p> <p>Part B: A number and its opposite are always the same distance from zero on the number line and on opposite sides of zero. <i>Or other valid explanation.</i></p>
0	<i>Response is irrelevant, inappropriate, or not provided.</i>

## Item 24

## Scoring Rubric

Points	Rationale
2	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; the response recognizes that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one of both axes.</li> <li>• The response is correct and complete.</li> <li>• The response shows the application of a reasonable and relevant strategy.</li> <li>• Mathematical ideas are expressed coherently in the response, which is clear, complete, logical, and fully developed.</li> </ul>
1	<p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; the response recognizes that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one of both axes.</li> <li>• The response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>• The response shows the application of a relevant strategy, though the strategy may be only partially applied or may remain unexplained.</li> <li>• Mathematical ideas are expressed only partially in the response.</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 signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; the response does not recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one of both axes.</li> <li>• The response is incorrect.</li> <li>• The response shows no application of a strategy.</li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>

## Item 24

## Exemplar Response

Points Awarded	Sample Response
2	Part A: Quadrant 2 <b>AND</b> Part B: Since the $x$ -value is negative, first move three units to the left from the origin. Since the $y$ -value is positive, then you move 4 units up from there to get to point $(-3, 4)$ . That means the point is in Quadrant 2. <i>Or other valid explanation.</i>
1	Part A: Quadrant 2 <b>OR</b> Part B: Since the $x$ -value is negative, first move three units to the left from the origin. Since the $y$ -value is positive, then you move 4 units up from there to get to point $(-3, 4)$ . That means the point is in Quadrant 2. <i>Or other valid explanation.</i>
0	<i>Response is irrelevant, inappropriate, or not provided.</i>

## APPENDIX: LANGUAGE PROGRESSIVE SKILLS, BY GRADE

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

Standard	Grade(s)							
	3	4	5	6	7	8	9–10	11–12
<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

END OF GRADE 6  
*EOG STUDY/RESOURCE GUIDE  
FOR STUDENTS AND PARENTS*

Study/Resource Guide  
for Students and Parents  
Grade 6  
End-of-Grade

