

# Georgia Milestones

Assessment System



## Study/Resource Guide for Students and Parents

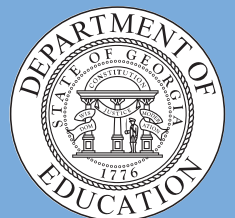
### Grade 4



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 4 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 4 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



#### \* **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 items
  - 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 multiple-select or two-part questions
  - English Language Arts (ELA), Mathematics, Science, and Social Studies
  - There is a question, problem, or statement.
  - You may be asked to select more than one right answer.
  - You may 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 part one.
  - Read the directions for each question carefully.
  - Start by eliminating the answers you know are wrong.
  - If the question has two parts, answer the first part before you move to the second part.
  
- \* **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 prompt**

- 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 items 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>• Recognize unstated assumptions; make inferences</li> <li>• Interpret facts</li> <li>• Compare or contrast simple concepts/ideas</li> </ul> | <ul style="list-style-type: none"> <li>• Apply</li> <li>• Calculate; solve</li> <li>• Complete</li> <li>• Describe</li> <li>• Explain how; demonstrate</li> <li>• Construct data displays</li> <li>• Construct; draw</li> <li>• Analyze</li> <li>• Extend</li> <li>• Connect</li> <li>• Classify</li> <li>• Arrange</li> <li>• Compare; contrast</li> </ul> |

**Level 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>• Make predictions</li> <li>• Translate knowledge into new contexts</li> <li>• Compare and discriminate between ideas</li> <li>• Assess value of methods, concepts, theories, processes, 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>• Predict</li> <li>• Create; design</li> <li>• Ask “what if?” questions</li> <li>• Generalize</li> <li>• Justify; explain why; support; convince</li> <li>• Assess</li> <li>• Rank; grade</li> <li>• Test; judge</li> <li>• Recommend</li> <li>• Select</li> <li>• Conclude</li> </ul> |

**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> |

## ENGLISH LANGUAGE ARTS (ELA)

### DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Grade 4 English Language Arts (ELA) EOG assessment has a total of 60 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 75 minutes to complete each section.

### CONTENT

The Grade 4 English Language Arts (ELA) EOG assessment will measure the Grade 4 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—fiction (including stories and poems) and informational text.

There are two kinds of essays—an opinion essay and an informational or explanatory essay.

Students will also write extended constructed responses that use narrative techniques such as completing a story, writing a new beginning, or adding dialogue. (Item 5 on page 29 gives an example of a prompt that requires a narrative response.)

### ITEM TYPES

The English Language Arts (ELA) portion of the Grade 4 EOG assessment consists of selected-response (multiple-choice), technology-enhanced (multiple-select or two-part questions), constructed-response, extended constructed-response, and extended writing-response items.

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\* Beginning with the Spring 2017 administration, the extended writing-response will appear in Section 1. Prior to Spring 2017, the extended writing-response appears in Section 3.

## 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 the student to distinguish between common and proper nouns.

**English Language Arts (ELA) Grade 4 Content Domain II:** Writing and Language

**Standard:** ELAGSE4L2a. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Use correct capitalization.

**Read the sentence.**

My mother picked out our next family car from a dealer in texas.

**Which underlined word in the sentence should start with a capital letter?**

- A. mother
- B. family
- C. dealer
- D. texas

**Correct Answer:** D

**Explanation of Correct Answer:** The correct answer is choice (D) texas. Cities, towns, states, and nations are always capitalized. Choice (A) is incorrect because it is not used as a name. Choices (B) and (C) are incorrect because they are common nouns.

Read the article “Central Park” and answer example items 2 and 3.

### Central Park

Before 1850, many of the world’s great cities had nice parks. However, there were no city parks in the United States. New York City was a busy city, but there were no places to escape from the noise or from the smell of horses. Some important people in New York City decided that a park was needed. The city had a contest to see who could design the best park.

There were many different designs for the park. People argued about the purpose of the park. Some people said that it should be like parks in England and France. Those parks were mostly for people who had lots of money. The parks had long, straight roads. People who could afford horses and carriages could ride in the parks. The gardens in those parks were very square. They had lots of large stone buildings. The parks were built like the gardens around palaces.

Other people said that a park should be designed for all the people, not just the rich. That meant the park should be good for walking, and there shouldn’t be long, straight roads. Straight roads and big buildings allowed for less natural scenery.

The plan that the city chose was more like a park for all the people. It included large green areas and curvy walking paths. These paths were built around natural features, like large rocks. The park had very few buildings. It had special paths for horses to keep the animals separate from people. Today, Central Park is considered one of the greatest parks in the world.

## 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.

**English Language Arts (ELA) Grade 4 Content Domain I:** Reading and Vocabulary

**Genre:** Informational

**Standard:** ELAGSE4RI3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

**Which of these BEST describes why Central Park was designed to have few straight roads?**

- A. Curved roads were better for horses.
- B. More natural features were left in place.
- C. The builders used roads that already existed.
- D. The roads were built to go around the gardens.

**Correct Answer:** B

**Explanation of Correct Answer:** The correct answer is choice (B) More natural features were left in place. The park was built to show as much natural scenery as possible, so roads curved around existing rocks and other features. Choice (A) is incorrect because the author does not tell you curved roads are better for horses. Choice (C) is incorrect because the author never says this. Choice (D) is incorrect because the author never mentions gardens in Central Park.

### Example Item 3

#### Constructed-Response

**DOK Level 3:** This is a DOK level 3 item because students are asked to draw a conclusion based on the article and support their responses with evidence from the text.

**English Language Arts (ELA) Grade 4 Content Domain I:** Reading and Vocabulary

**Genre:** Informational

**Standard:** ELAGSE4RI1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

**Think of a park in your town or a park you have visited. Do you think it is designed more like Central Park or like a European park?**

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

|   |
|---|
| <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> |
|---|

### 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 draw a conclusion based on the text and to explain the support for a conclusion drawn about the text</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the conclusion drawn 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 draw a conclusion based on the text or to explain the support for a conclusion drawn about the text</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the conclusion drawn with clearly relevant 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 draw a conclusion based on the text or to explain the support for a conclusion drawn about the text</li> </ul>  |

### Exemplar Response

| Points Awarded | Sample Response  |
|----------------|--|
| 2              | Roswell Park is a park in my town that is more like Central Park. It has a curved pathway and a lot of trees and views of nature. There is only one building, and it is not large. |
| 1              | The park in my town is more like Central Park. It has a curved road.   |
| 0              | The park in my town is more like Central Park.   |



## Example Item 4

### Extended Writing-Response

**DOK Level 4:** This is a DOK Level 4 item because it requires students to read two passages, synthesize information, and respond to an extended writing prompt.

**English Language Arts (ELA) Grade 4 Content Domain II:** Writing and Language

**Genre:** Informational

**Standard:** ELAGSE4W2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

**In this section, you will read two passages about two famous pilots. How were Charles Lindbergh and Amelia Earhart alike? You will write an informational essay explaining the ways in which Charles Lindbergh and Amelia Earhart were similar and the ways in which they were different.**

**Before you begin planning and writing, read these two passages:**

1. Charles Lindbergh
2. Amelia Earhart

**As you read the passages, think about what details from the passages you might use in your informational essay.**

### Charles Lindbergh

In 1927, Charles Lindbergh became the first person to fly nonstop across the Atlantic Ocean. This was a famous event in an event-filled life.

Lindbergh was born in 1902. At that time, flying was in its early days. Young Lindbergh found flight fascinating. He left college to go to flight school. After two years, he went into the U.S. Army. He became a pilot for the U.S. Army Air Corps.

After the army, Lindbergh flew for the U.S. Postal Service. He flew a mail plane from St. Louis to Chicago. During this time, he earned his nickname, "Lucky Lindy." He had to jump out of his plane four times. He got lucky and lived every time!

In 1919, a man named Raymond Orteig started a contest. He offered \$25,000 to the first person who could fly across the Atlantic Ocean. Lindbergh spent the next eight years getting the right plane. He named the plane the *Spirit of St. Louis*. Then, in May 1927, he made his famous flight across the Atlantic.

Lindbergh received many awards in his life. One was a Pulitzer Prize for a book he wrote about his life. Lindbergh died at the age of 72.

### **Amelia Earhart**

Amelia Earhart was born in 1898 in Kansas. She was a good student. However, she left college at the age of 19. Soon afterward, Earhart went to an air show in Long Beach, California. It was there that she took her first airplane ride. It changed her life forever. She started taking flying lessons. Earhart spent the next couple of years learning all about flying. She even bought her own plane.

Unfortunately, Earhart ran out of money and had to sell her plane. She went back to school for a while. Then she worked as a teacher and a social worker. In 1927, Charles Lindbergh made his famous flight across the Atlantic Ocean. People began asking, "Who will be the first woman?" In 1928, Earhart was a passenger on a flight across the Atlantic. She was the first woman to fly across the Atlantic. She later wrote a book about the experience. But being a passenger wasn't enough for Amelia.

In 1935, Earhart became the first person to fly from Hawaii to the U.S. mainland. The U.S. government gave her a medal for this. In 1937, she decided to try to fly around the world. She made it to an island in the Pacific Ocean. But then her plane disappeared. She was never found. Earhart will always be remembered, though. She showed the world what women pilots can do.

Now that you have read “Charles Lindbergh” and “Amelia Earhart,” create a plan for and write your informational essay.

## WRITING TASK

Think about the ideas in the two passages. Then write an **informational essay** explaining the ways in which Charles Lindbergh and Amelia Earhart were similar and how they were different.

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

### 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 linking words to connect ideas.
- Use clear language and vocabulary.
- Provide a conclusion that supports the information presented.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

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

The following is an example of a seven-point response. See the seven-point, two-trait rubric for a text-based informational response on pages 63 and 64 to see why this example would earn the maximum number of points.

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

*Charles Lindbergh and Amelia Earhart had many similarities. They were both pilots at around the same time. Both left college and studied flying. They were both first at many flying goals, like flying across the Atlantic Ocean. They both wrote books about what they did.*

*The two pilots were different in some ways, however. One clear difference is that Lindbergh was a man, and Earhart was a woman. Also, Lindbergh didn't have the problems with money that Earhart had. I think the biggest difference between them, though, was that Lucky Lindy had good luck. He survived four plane crashes and lived to be 72 years old. But Earhart didn't have such good luck. She died young from a mysterious flying accident.*

*In the end, we will remember both Lindbergh and Earhart for being great pilots.*

## **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 4 English Language Arts 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 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**

- Ideas and details tell you what the story or poem is about.
- Use these ideas and details when writing or speaking about the story or poem.
- Look for central ideas or themes as you read. Ask yourself—what is this about?
- Think about the characters, setting, and events in the story.
- Summarize the important details and ideas after you read.

##### **Structure of the Text**

- Make sure you understand the words and phrases as you read.
- Think about how specific words can help you understand the meaning or tone.
- Look at the structure of stories. Pay attention to how the parts of the text (e.g., a section, chapter, scene, or stanza) work with each other and the story or poem as a whole.
- Think about the point of view or purpose of a text.

##### **Understanding What You Read**

- Think about the story and visualize, or make a mental picture, as you read.
- Think about the message or what the writer is trying to say.

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## KEY TERMS

**Summarize:** To give the main events of a story in the order in which they happen. (RL2)

**Character:** A person or thing in a work of literature. Goldilocks is a character in “Goldilocks and the Three Bears.” (RL3)

**Setting:** Where and when a story takes place, including the time of day, the season, or a location. (RL3)

**Plot:** The events that happen in the beginning, middle, and end of the story. (RL3)

**Vocabulary:** The meanings of words and phrases and how they are used in the story. (RL4)

**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 stated directly by the writer. The author tells the readers exactly what they need 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)

**Mythology:** Stories about popular beliefs in different cultures. In Greek mythology, the stories of the Greek gods are very well known and sometimes they appear with different names in other cultures, such as Roman mythology. (RL4)

**Verse:** Writing organized in a rhythmic pattern, as often is the case in poetry. (RL5)

**Rhythm:** The regular, repeated sounds of words in a poem. (RL5)

**Meter:** A rhythm that repeats a basic pattern in a poem. (RL5)

**Figurative language:** You need to distinguish between literal and figurative meanings of words and phrases. *Literal* refers to the actual meaning of words and phrases. Figurative language requires you to analyze the words and sometimes make comparisons.




Examples of figurative language are similes and metaphors. **Similes** make a comparison using a linking word such as *like*, *as*, or *than*. (Her shirt was as green as the grass.) A **metaphor** makes a comparison without a linking word. If someone describes clouds by saying “They were whipped cream,” they are using a metaphor. The clouds looked like whipped cream, but they were not literally whipped cream. (RL4)

**Compare vs. 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. (RL6/RL9)

**Point of view:** The perspective from which a story is told. The point of view depends upon who the narrator 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). The point of view used by the author can have a big influence on his or her story. (RL6)

**Genre:** A **genre** is a category of passages, such as fiction and 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.
-  Look for familiar prefixes, suffixes, and word roots to help you decide the meaning of an unknown word.



**Sample Items 1–5**

Read the story “The Piano” and answer questions 1 through 5.

**The Piano**

Greta did not like change. She didn’t like it when they changed the design on the wrapper of her favorite kind of ice cream (strawberry mango). She didn’t like it when her father shaved his beard, because it made him look too young. And she didn’t like it when she came home to find this . . . *thing* in the living room. It was old and brown and heavy, and it practically took up a whole wall. It had yellow teeth, and it made noise. It was a piano.

When her older brother Richard started banging on the instrument with his elbows, Greta ran to her room and closed the door. That’s when she noticed something even worse: the toy chest was now in the middle of her room. This was the toy chest that had stood against the wall in the living room forever.

“Don’t you like our new family member?” Greta’s mother asked from outside the door.

Greta opened the door and blurted, “Where did you *get* that thing?”

“The Kleins are moving out, and they didn’t want to move it.”

“The Kleins are moving?” That meant more change. The Kleins had always lived in the apartment down the hall. It was all too much.

“Yes, and it will all be fine,” said Greta’s mother, and she walked back toward the living room.

Greta closed the door, flopped onto her bed facedown, and did what she always did when she didn’t like what was going on: she fell asleep.

*In her dream, Greta was floating on a raft in the middle of a river. The breeze stirred the water and made the most beautiful sound. The sound rose and fell and became louder when the wind became stronger.*

Greta woke up and opened her eyes, but the sound continued. She got up and stumbled into the living room, where her mother sat at the piano. The sound was pouring out of her mother’s fingers, but she was looking straight ahead with her head cocked slightly to the right. Then she stopped playing and remained still, in a different world.

“Come and sit here,” Greta’s mother said as she scooted over and patted the bench next to her.

“I didn’t know . . .,” Greta began.

“Of course you didn’t know, because I never told you I could play. I started when I was about five years old.”

“Why did you stop?”

“I didn’t really stop. I guess I kind of drifted away from it. When I moved out of my parents’ house, I left the piano behind, and I never got another one.”

Greta stared at her mother’s face, which held a half smile. “You never should have stopped,” said Greta.

“You might be right,” Greta’s mother said, and she stole a quick look at her daughter.

Greta felt like her mother had just told her a secret, and a bubble of warmth rose inside her.

“Will you play some more?” she asked.

### Item 1

#### Selected-Response

What is the **MOST LIKELY** reason Greta’s mother does not go into Greta’s room to comfort her?

- A. She is afraid of Greta’s reaction.
- B. She believes Greta will cheer up soon.
- C. She is not really interested in Greta’s feelings.
- D. She does not want to disturb Greta while she is sleeping.

### Item 2

#### Selected-Response

Which of these **BEST** describes the meaning of the phrase *drifted away from it* as it is used in these sentences from the story?

“I didn’t really stop. I guess I kind of drifted away from it. When I moved out of my parents’ house, I left the piano behind, and I never got another one.”

- A. Greta’s mother stopped enjoying music.
- B. Greta’s mother felt sad about playing music.
- C. Greta’s mother stopped playing the piano bit by bit.
- D. Greta’s mother suddenly finished listening to a song.

**Item 3****Technology-Enhanced**

This question has two parts. First, answer part A. Then, answer part B.

**Part A**

Which word **BEST** describes Greta’s mother?

- A. warm
- B. funny
- C. talented
- D. forgiving

**Part B**

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

- A. “Yes, and it will all be fine,” said Greta’s mother, and she walked back toward the living room.
- B. The sound was pouring out of her mother’s fingers, but she was looking straight ahead with her head cocked slightly to the right.
- C. “You might be right,” Greta’s mother said, and she stole a quick look at her daughter.
- D. Greta felt like her mother had just told her a secret, and a bubble of warmth rose inside her.



**Item 5**

**Extended Constructed-Response**

**Write an ending to the story that starts with Greta’s mother saying to Greta, “Now tell me why you were so upset when you saw the piano.”**

**Be sure that your ending flows naturally from the rest of the story. Use dialogue and descriptions in your answer. Write your answer on the lines provided.**

A large rectangular box containing 20 horizontal lines for writing the response.

## Unit 2: Reading Informational Text

### READING PASSAGES: INFORMATIONAL TEXT

#### CONTENT DESCRIPTION

The informational and explanatory passages in the English Language Arts test can be used to determine central ideas, write an objective summary, analyze ideas, and provide supporting text evidence.

#### Key Ideas and Details

- Read closely to know exactly what the text says.
- Look for details that tell what the text is about.
- Use those details when writing or speaking about the text.
- Look for the central ideas in the text.
- Summarize the important details and ideas.
- Think about how ideas develop and work together in the text.

#### Structure

- Make sure you understand the words in the text.
- Use a dictionary, thesaurus, or glossary to help you with words that are new.
- Look at how the parts of the text work with each other.
- Think about the author's point of view or purpose in the text.

#### Understanding the Text

- Think about the story and visualize, or make a mental picture, as you read.
- Think about the text and its message.
- Look for details or evidence in the text.

## KEY TERMS

**Main idea:** The most important idea that the author is trying to say. (RI2)

**Details:** The facts and ideas that support the main idea of a passage. (RI2)

**Summary:** A summary contains the most important points but does not give all of the details. (RI2)

**Author’s purpose:** The author has a specific reason or purpose for writing the passage. Often the author’s purpose is not directly stated. (RI3)

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

**Chronological order:** The order in which a series of events happens. 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 where one thing causes another thing to happen. A passage may also be organized by stating the **problem and solution**. (RI3)

**Point of view:** The opinion of the author. Your opinion may differ from the opinion of the author writing a passage. (RI6)

**Evidence:** 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. (RI7)

**Firsthand account:** A description of events written or told by someone who was actually there. If your friend tells you she fell and hurt her knee, it is a firsthand account. (RI6)

**Secondhand account:** A description of events written or told by someone who was not actually there, but who got the story from another source. If your friend tells you that your other friend fell and hurt her knee, but the friend telling you didn’t see the fall happen, it is a secondhand account. (RI6)

### Important Tips

- ✍ Try to read the questions about an informational text before you read the passage 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 answer *what* you know and *how* you know it.

## Sample Items 6–9

Read the article “The Statue of Liberty” and answer questions 6 through 9.

### The Statue of Liberty

The Statue of Liberty is one of the world’s most famous statues. Lady Liberty stands with a torch in her hand. She has been welcoming ships into New York City’s harbor since 1886. Many people know that the statue was a gift from France to the United States. But the story is not that simple.

The idea to make a statue as a gift began in France. An artist named Frédéric-Auguste Bartholdi wanted to build the statue, but he needed the money to do it. He formed a group in France. They decided to raise money in France to pay for the copper statue. However, Lady Liberty needed a base to stand on. That money was to be raised in the United States.

Many people in France gave money for the statue. Even schoolchildren contributed. A copper company gave Bartholdi all the copper he needed.

Bartholdi made the right arm and hand of the statue. It was put on display in Philadelphia and New York City. People became excited about the statue. Americans began to give money to complete it. But there still wasn’t enough money for the base.

Then Bartholdi came up with a good idea. In New York he spread the word that the statue might go to Boston or another city. The idea worked. New Yorkers didn’t want to be left out. The people of New York donated more money. Then Bartholdi could complete the base. Now Lady Liberty stands in New York Harbor. The people of France and the United States worked together. Like most great works, it took a long time. It also took a lot more work than most people think.



**Item 6****Selected-Response**

Which sentence from the article explains why enough money was finally raised for the base?

- A. That money was to be raised in the United States.
- B. People became excited about the statue.
- C. Americans began to give money to complete it.
- D. New Yorkers didn't want to be left out.

**Item 7****Selected-Response**

What does the phrase *spread the word* mean in this sentence from the article?

In New York he spread the word that the statue might go to Boston or another city.

- A. told a lie
- B. kept a secret
- C. wrote a large sign
- D. told a lot of people

**Item 8****Selected-Response**

With which statement would the author **MOST LIKELY** agree?

- A. People often do not know the real story behind events.
- B. No one knows how the Statue of Liberty was really built.
- C. The money for the Statue of Liberty came only from France.
- D. Americans do not care enough about their nation's own history.

**Item 9**

**Constructed-Response**

**What is the main idea of the article?**

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

A large rectangular box containing 20 horizontal lines for writing a response.

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## Unit 3: Writing Opinion Texts

### CONTENT DESCRIPTION

The opinion passages in the English Language Arts test help you develop opinions and support a point of view on a topic. In your writing, use evidence, examples, quotes, and reasons to develop and support your opinion.

#### Purpose

- An opinion piece takes a stand or agrees or disagrees with a point of view.
- Some common opinion words are “agree” or “disagree” or “for” or “against.”
- When you state your opinion, you need to support it with reasons, examples, and evidence.

#### Editing Your Writing

- Check your writing for good organization.
- Make sure your writing fits the task, purpose, and audience.
- Strengthen your writing by planning, revising, editing, rewriting, or trying a new approach.
- Use technology, including the Internet, to do research.

#### Scoring Rubrics

- Scoring rubrics can be found beginning on page 60. You may find it helpful to read and discuss these with a parent or another adult.
- The rubrics show you what is needed to produce a strong piece of writing.
- Rubrics are important to understand. They tell you what to add to your writing.
- Writing on the EOG assessment will be scored using these rubrics.

## KEY TERMS

**Topic:** What a piece of writing is about. When writing your opinion, choose topics about which you have strong feelings and a lot to say. (W1a)

**Reasons:** Details that support your opinion in a piece of writing. (W1a)

**Purpose:** The writer’s reason for writing an essay or article. All writing has a purpose, whether it is to persuade, inform, explain, or entertain. (W1b)

**Fact and opinion:** A **fact** is a statement that can be proven. An **opinion** is a statement that cannot be proven because it states a writer’s belief or judgment about something. Deciding whether a statement is a fact or an opinion often comes down to a single question: “Can you prove it?” If you can prove a statement somehow, then it is a fact. If not, it’s an opinion. (W1b)

**Textual evidence:** You need to support your opinions with evidence. Textual evidence includes facts, opinions of experts, quotes, statistics, and definitions. (W1b)





**Point of view:** The opinion or perspective of the author on a specific topic. (W1c)

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

**Revision:** The process of editing and rewriting a piece of writing. All good writing requires a lot of revision in order to catch mistakes and make ideas clearer. (W5)

**Organization:** In writing, the organization helps explain 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. (W1a)

## Important Tips

-  Use strong reasons to support your opinions in your writing.
-  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 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 prompt. Additionally, the instructions for the extended writing prompt are in a format that is similar to the one on the End-of-Grade assessment. There is no constructed-response item in Unit 3. There is no extended writing prompt for Unit 4.]

**In this section, you will read two passages and answer questions 10 through 13.**

### WRITING TASK

You will read about the idea of giving students homework on weekends. What are the good and bad things about homework on weekends? You will write an **opinion essay** in your own words about this idea.

Think about the ideas in the two passages. Then write an essay explaining which opinion about homework on weekends you agree with: homework should be given on the weekend or homework should not be given on the weekend.

Be sure to use information from BOTH passages in your **opinion essay**. **Write your answer on the lines provided.**

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

1. Homework on the Weekend
2. Weekends Are for Fun

#### Homework on the Weekend

Homework on the weekend is an important part of our education. First of all, we go to school to prepare for the real world. In the real world, most people work long hours. They may work nights and on the weekends. Sometimes, they don't have a choice about weekend work. Learning is the same way. It doesn't happen just during the school week. Doing homework on the weekend is another way to help you learn.

It's true that there is no school on the weekends. Many students look at the weekend as a time to play or to do other fun activities. No one is saying you need to stay in and do a lot of homework. You need *some* time for fun. But an hour or so of homework should be fine. There is plenty of time over the weekend to get it done and go have fun as well.

Finally, many students want to go to a college or university. Students do whatever is necessary to help them get into college, even if that means doing homework on the weekend.

### **Weekends Are for Fun**

Homework on the weekends is more harmful than helpful. One university study explored the effects of homework. The study leaders asked “Does homework help students do better in school?” Homework had very little effect on younger kids especially. If homework isn’t helping us, why have it on weekends?

Homework can actually harm students. Young people need their weekends. They should forget about school. They should just be kids. Weekend homework is stressful for kids. It ruins their time off.

On weekends kids should spend time with their families. Sports and hobbies are also important. What happens if kids can’t do these things? They are tired and unhappy on Mondays. Tired, unhappy students don’t perform well. Therefore, teachers should not give homework on the weekends.

#### **Item 10**

##### **Selected-Response**

**Why does the author of “Homework on the Weekend” MOST LIKELY mention college?**

- A. College students often work jobs on weekends.
- B. Students in college have to study on weekends.
- C. Weekend homework might help students get into college.
- D. College is more like the real world than elementary school is.

#### **Item 11**

##### **Selected-Response**

**Which sentence from “Weekends Are for Fun” explains why students would do better in school if they had no homework on weekends?**

- A. “Homework had very little effect on younger kids especially.”
- B. “If homework isn’t helping us, why have it on weekends?”
- C. “On weekends kids should spend time with their families.”
- D. “Tired, unhappy students don’t perform well.”

#### **Item 12**

##### **Selected-Response**

**Which of these describes something the reader learns from reading both texts?**

- A. that homework is important for young kids
- B. that students should think about their futures
- C. that there should be no homework on weekends
- D. that it is important to have time to play on the weekends

**Item 13****Extended Writing-Response**

Now that you have read “Homework on the Weekend” and “Weekends Are for Fun” and answered some questions about what you have read, create a plan for and write your opinion essay.

**WRITING TASK**

You will read about the idea of giving students homework on weekends. What are the good and bad things about homework on weekends? You will write an **opinion essay** in your own words about this idea.

Think about the ideas in the two passages. Then write an essay explaining which opinion about homework on weekends you agree with: homework should be given on the weekend or homework should not be given on the weekend.

Be sure to use information from BOTH passages in your **opinion essay**. **Write your answer on the lines provided.**

**Be sure to:**

- Introduce your opinion.
- Support your opinion with reasons and details from the passages.
- Give your reasons and details in a clear order.
- 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 linking words, phrases, and clauses to connect reasons.
- Use clear language and vocabulary.
- Have a strong conclusion that supports your opinion.
- Check your work for correct usage, grammar, spelling, capitalization, and punctuation.

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



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## Unit 4: Writing Informational/Explanatory Texts

### CONTENT DESCRIPTION

The informational/explanatory passages in the English Language Arts test help develop your writing. Informational writing states ideas, summarizes research, and uses information from more than one source.

### Text Types and Purposes

- Write informational/explanatory texts to state ideas and information clearly and accurately.
- Use the best details, organize them, and explain them when necessary.

### Production and Distribution of Writing

- Produce writing with organization and style that fits the task, purpose, and audience.
- Develop and strengthen writing by planning, revising, editing, rewriting, or trying a new approach.
- Use technology, including the Internet, to produce and share writing.

### Audience, Purpose, and Voice

- As you write, remember who your audience will be.
- Make sure your writing is appropriate. Watch your tone, style, and voice.
- Remember, you are writing for a purpose—think about *what* you are writing and *why*.

### 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 Rubrics

- Scoring rubrics can be found beginning on page 60. You may find it helpful to read and discuss these with a parent or another adult.
- The rubrics show you what is needed to produce a strong piece of writing.
- Rubrics are important to understand. They tell you what to add to your writing.
- Writing on the EOG assessment will be scored using these rubrics.

## KEY TERMS

**Informational/explanatory texts:** A form of writing that informs the reader or explains something. (W2D)

**Introduction:** 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:** 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. (W2a/W4)






**Transition:** 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)

**Conclusion:** The end of a piece of writing is the conclusion. The conclusion should sum up the main idea of the writing and provide an overall message for the reader. (W2d)

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

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

### 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 14–17

[NOTE: The structure of the practice items for Unit 4 is as it appears on the Georgia Milestones End-of-Grade assessment with the exception of the extended writing prompt: 1) multiple-choice questions (three on the actual test); 2) a constructed-response item; and 3) an extended writing prompt. In this study guide, there is no extended writing prompt for this unit.]

Read the article “Altamira Cave Paintings” and answer questions 14 through 17.

### Altamira Cave Paintings

1. Many people think archaeology means digging in the ground for treasures. Digging is only a part of what archaeologists do. They also spend a lot of time studying **artifacts**. Artifacts are things that were made by people in the past. Artifacts need to be protected from the air, the sun, moisture, and other things that can harm them. Artifacts aren’t always found by digging. Sometimes they are in the open. This is one example.
2. In the 1870s in Altamira, Spain, a man and his daughter were exploring a cave. The little girl looked up and saw an amazing sight. Animals were painted on the ceiling! The man’s name was Marcelino Sanz de Sautuola. He was an archaeologist. He looked at the paintings and saw how well they were painted. He thought they were very old. The paintings were in good shape. This is because the cave had been closed by rocks for many years. So it had been protected from sun, wind, and rain. Sautuola and another archaeologist declared that the cave was an archaeological site. They carefully wrote about everything they saw and then made a report about the cave. Sautuola said the paintings were probably 18,000 years old.
3. Many people didn’t believe Sautuola. They said people from so long ago couldn’t have painted that well. Scientists argued about the cave for years. Then other caves were discovered in France. They, too, had amazing paintings on the walls. More people decided that Sautuola was right. One famous archaeologist even wrote an apology to Sautuola.
4. Visitors went to Altamira for many years. But too many people were breathing inside the cave, and the moisture in their breath was damaging the paintings. So, the cave was closed to the public in 1977. People built a museum next to the cave though. It has a life-size model of the cave. Now visitors can see what the paintings are like without hurting them.

### Item 14

#### Selected-Response

Which paragraph BEST explains why the paintings were found in good condition?

- A. paragraph 1
- B. paragraph 2
- C. paragraph 3
- D. paragraph 4

### Item 15

#### Selected-Response

According to the article, how did the discovery of cave paintings in France change archaeologists' views about Altamira?

- A. They started to believe in Sautuola's ideas.
- B. They argued about the French caves for years.
- C. They believed that someone was playing a trick.
- D. They said the Altamira paintings could not be that old.

### Item 16

#### Selected-Response

Which word BEST explains the meaning of the word *site* in this sentence?

Sautuola and another archaeologist declared that the cave was an archaeological site.

- A. area
- B. building
- C. example
- D. town

**Item 17**

**Constructed-Response**

**What would MOST LIKELY have happened if the caves at Altamira had stayed open to the public?**

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

A large rectangular box containing 20 horizontal lines for writing an answer.

## Unit 5: Language

### CONTENT DESCRIPTION

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

#### Language

- You need to express yourself clearly and in an interesting way.
- Choose your words carefully so your readers understand what you are writing.
- Apply the rules of grammar as you write.

#### Conventions of Standard English

- Use correct grammar and usage when writing.
- Use correct capitalization, punctuation, and spelling.

#### Style

- Vary the words you use. Use a dictionary and thesaurus to help you.
- Your writing should be clear and interesting at the same time.
- Use colorful language and different sentence structures.

### KEY TERMS

**Grammar:** The system of rules for language. (L1e)

**Usage:** Using the correct word when there is a choice (*to, too, two*). (L1e)

**Word parts:** The prefixes, suffixes, and root words that give clues as to the meaning of words. (L4b)

**Pronoun:** 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)

**Relative pronouns:** Words used to refer to a noun that was already mentioned but is being referred to again. Examples of relative pronouns are *who, which, whose, whom, and that*. (L1a)

**Verb:** A part of speech that represents action or doing. *Jump, walk, ski, and scare* are all verbs. (L1a)

**Progressive tense:** A tense used to describe an action that is ongoing and has not stopped. For example, *I am walking, I was walking, and I will be walking* are all variations of the progressive tense. (L1b)

**Adjective:** A part of speech that is a describing word. *Beautiful, tall, blue, and interesting* are all adjectives. (L1a)

**Order of adjectives:** This refers to the order in which adjectives are correctly listed according to their type. For example, *the big red ball*. (L1d)

**Adverb:** A part of speech that describes a verb, an adjective, or another adverb. Adverbs usually end in *-ly*. *Quietly, thoroughly, frantically, and lovingly* are all adverbs. (L1a)

**Relative adverb:** A relative adverb is used to give more details in a sentence. For example, *where, when, and why*. (L1a)

**Sentence fragment:** A sentence that is incomplete. *A short walk* would be a sentence fragment. The complete sentence would be *I went on a short walk*. (L1f)

**Simile:** A comparison using *like* or *as*. For example, *She is as pretty as a picture*. (L5a)

**Metaphor:** A direct comparison that states one thing *is* another. It isn't meant to be literal, but descriptive. For example, *He is an animal on the soccer field* does not mean that the boy is really an animal, but it is a metaphor for how he plays soccer (very aggressively). (L5a)

**Coordinating conjunction:** A word that is used to combine two simple sentences. For example, *and, or, but*. (L1c)

**Prepositional phrases:** Phrases that are used to show direction, location, or time. Examples of prepositional phrases are *on the box, in the box, around the box, by the box, and through the box*. (L1e)

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

**Context clues:** Words and phrases that surround another phrase and help to explain its meaning. Sometimes a word cannot be understood without the context of the words and phrases around it. For example, *he threw it* could mean several things, but when the full sentence is included, *He threw the basketball up high from midcourt and sunk it through the hoop for two points*, the meaning is clear. (L4a)

**Synonyms:** Words that have the same meaning. *Small* and *little* are synonyms. (L5c)

**Antonyms:** Words that have opposite meanings. *Small* and *large* are antonyms. (L5c)

**Idioms:** Sayings and expressions that have figurative or non-literal meanings. Their meanings are mostly suggested. For example, saying something is *a piece of cake* is an idiom. It means that something is easy to do. Another common idiom is *back to square one*. This means to start over again. (L5b)

### 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 it 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.

## Sample Items 18–21

### Item 18

#### Selected-Response

Which form of the verb correctly completes the sentence?

Roger \_\_\_\_\_ when suddenly he heard a knock on the door.

- A. is reading
- B. was reading
- C. will be reading
- D. has been reading

### Item 19

#### Selected-Response

In which sentence are the adjectives ordered correctly?

- A. Ted's mother drove a tiny old car.
- B. Melissa lived in a blue large house.
- C. Henry listened to a French tall man singing.
- D. There was a copper strange handle on Cliff's door.



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

**Which sentence shows correct use of a prepositional phrase?**

- A. I dropped the ball, and it rolled in the creek.
- B. The rain came down of the sky like a waterfall.
- C. Paula pulled the rock out of the water and dried it.
- D. The young parrot left its cage and flew out from the house.

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

**In which sentence is the underlined word used correctly?**

- A. All the students brought their books to school.
- B. The extra work helped improve my grades to.
- C. Everyone went to Daniela's party accept for Roland.
- D. There is nothing better then cold ice cream on a hot day.

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

| Item | Standard/<br>Element/<br>Genre | DOK<br>Level | Correct<br>Answer | Explanation  |
|------|--------------------------------|--------------|-------------------|--|
| 1    | ELAGSE4RL3<br>Literary         | 2            | B                 | The correct answer is choice (B) She believes Greta will cheer up soon. This answer is supported by Greta’s mother’s comment, “Yes, and it will all be fine.” Choice (A) is incorrect because there is no evidence that Greta’s mother is afraid of Greta’s reaction. Choice (C) is incorrect because Greta’s mother shows an interest in Greta’s feelings at other points in the story. Choice (D) is incorrect because Greta is not sleeping when her mother first speaks to her.  |
| 2    | ELAGSE4RL4<br>Literary         | 2            | C                 | The correct answer is choice (C) Greta’s mother stopped playing the piano bit by bit. Perhaps unintentionally, Greta’s mother slowly moved away from playing piano. Choice (A) is incorrect because there is no evidence that Greta’s mother stopped enjoying music; she just got out of the habit of playing it. Choice (B) is incorrect because the passage contains no evidence that music made Greta’s mother sad. Choice (D) is incorrect because “drifting away” refers to abandoning piano playing altogether, not discontinuing to listen in the middle of a song.   |
| 3    | ELACC4RL3                      | 3            | C/B               | <p>The correct answers are (C) talented, <b>and</b> (B) The sound was pouring out of her mother’s fingers, but she was looking straight ahead with her head cocked slightly to the right.</p> <p>Greta hears beautiful music and cannot identify the source right away; she is pleasantly surprised to find that it is her mother playing the piano. The answer choice for Part B of the item shows text that supports this.</p> <p>In Part A, Choice (A) is incorrect because, while it is appealing, Greta’s mother’s talent with the piano is emphasized more in the passage. Choice (B) is incorrect as there is no indication that she is funny. Choice (D) is incorrect because there is no scenario which requires her to be forgiving within the passage. The incorrect options in Part B support incorrect answers in Part A.</p> |

| Item | Standard/<br>Element/<br>Genre              | DOK<br>Level | Correct<br>Answer | Explanation   |
|------|---|--------------|-------------------|---|
| 4    | ELAGSE4RL2<br>Literary                      | 3            | N/A               | See scoring rubric and sample response on page 55.  |
| 5    | ELAGSE4W3                                   | 4            | N/A               | See scoring rubric beginning on page 61 and sample response on page 56.   |
| 6    | ELAGSE4RI1<br>Informational/<br>Explanatory | 2            | D                 | The correct answer is choice (D) “New Yorkers didn’t want to be left out.” The key word in the question is <i>finally</i> . It was Bartholdi’s “good idea” that inspired donations to complete the pedestal. Choice (A) is incorrect because it refers to the time before fundraising began in the United States. Choice (B) is incorrect because Americans’ initial excitement inspired donations for the statue, not the pedestal. Choice (C) is incorrect because this also refers to the statue rather than the pedestal.   |
| 7    | ELAGSE4RI4<br>Informational/<br>Explanatory | 2            | D                 | The correct answer is choice (D) told a lot of people. Bartholdi wanted to make sure New Yorkers heard what he was saying. Choice (A) is incorrect because the author never states that Bartholdi was lying. Choice (B) is incorrect because “spread the word” means the opposite of keeping a secret; it means telling a lot of people. Choice (C) is incorrect because although a sign could help spread the word, there is no evidence that Bartholdi limited his efforts to a sign.   |
| 8    | ELAGSE4RI8<br>Informational/<br>Explanatory | 2            | A                 | The correct answer is choice (A) People often do not know the real story behind events. The author writes, “Many people know . . . [b]ut the story is not that simple.” Choice (B) is incorrect because the author provides information about how the statue came to be built. Choice (C) is incorrect because although some of the money came from France, a significant portion came from the United States. Choice (D) is incorrect because the author does not imply that Americans don’t care about their history; on the contrary, they donated money to make the statue. |
| 9    | ELAGSE4RI2<br>Informational/<br>Explanatory | 3            | N/A               | See scoring rubric and sample response on page 57.  |

| Item | Standard/<br>Element/<br>Genre              | DOK<br>Level | Correct<br>Answer | Explanation  |
|------|---|--------------|-------------------|--|
| 10   | ELAGSE4RI8<br>Informational/<br>Explanatory | 2            | C                 | The correct answer is choice (C) Weekend homework might help students get into college. The author mentions that college-aspiring students would “do whatever is necessary” to get into college, and the author’s overall purpose is to encourage weekend homework. Choice (A) is incorrect because the author mentions nothing about college students’ jobs. Choices (B) and (D) are incorrect because although they <i>could</i> be used to support the author’s argument, they are less directly related to the author’s final argument than choice (C) is.   |
| 11   | ELAGSE4RI1<br>Informational/<br>Explanatory | 2            | D                 | The correct answer is choice (D) “Tired, unhappy students don’t perform well.” This suggests that if students did no weekend homework, they would be neither tired nor unhappy, and they would perform better than if they had weekend homework. Choices (A) and (B) are incorrect because even if homework has <i>no</i> effect, we cannot logically conclude that students would do <i>better</i> in school if they did no weekend homework; they might perform in exactly the same way. Choice (C) is incorrect because it bears no relevance to the question. The author makes no connection between family time and school performance. |
| 12   | ELAGSE4RI1<br>Informational/<br>Explanatory | 3            | D                 | The correct answer is choice (D) It is important to have time to play on the weekends. This point is mentioned in both articles. Choice (A) is incorrect because the articles don’t say homework is important for young kids. Choice (B) is incorrect because only one of the articles talks about students’ futures. Choice (C) is incorrect because no homework on the weekend is only supported by one of the articles.   |
| 13   | ELAGSE4W1                                   | 4            | N/A               | See scoring rubric beginning on page 65 and exemplar response on page 58.  |

| Item | Standard/<br>Element/<br>Genre              | DOK<br>Level | Correct<br>Answer | Explanation   |
|------|---|--------------|-------------------|---|
| 14   | ELAGSE4RI1<br>Informational/<br>Explanatory | 2            | B                 | The correct answer is choice (B) paragraph 2. The author mentions that the rocks that sealed the cave protected the paintings for a long time. Choice (A) is incorrect because this paragraph doesn't mention the paintings. Choice (C) is incorrect because the condition of the paintings isn't mentioned in this paragraph. Choice (D) is incorrect because it discusses the condition of the paintings only after they were displayed.  |
| 15   | ELAGSE4RI8<br>Informational/<br>Explanatory | 2            | A                 | The correct answer is choice (A) They started to believe in Sautuola's ideas. The discovery of similar caves in France changed people's minds; they decided Sautuola had been right about the age of the Altamira paintings. Choice (B) is incorrect because the long argument occurred before the French cave paintings were discovered. Choice (C) is incorrect because the author never mentions a suspected trick. Choice (D) is incorrect because this happened before the French paintings were discovered. |
| 16   | ELAGSE4RI4<br>Informational/<br>Explanatory | 3            | A                 | The correct answer is choice (A) area. An archaeological site is a place or an area where artifacts are discovered and studied. Choice (B) is incorrect because a site is not a building in this sentence. Choice (C) is incorrect because a site in this sentence is a place and not an example of something. Choice (D) is incorrect because a site is not a town in this sentence.   |
| 17   | ELAGSE4RI1<br>Informational/<br>Explanatory | 4            | N/A               | See scoring rubric and sample response on page 59.  |
| 18   | ELAGSE4L1b                                  | 2            | B                 | The correct answer is choice (B) was reading. The reading was an activity that was taking place when Roger heard the knock. Choice (A) is incorrect because it is the wrong tense of the verb. Choice (C) is incorrect because the action of the entire sentence occurred in the past, not the future. Choice (D) is incorrect because it is the wrong tense of the verb.   |

| Item | Standard/<br>Element/<br>Genre | DOK<br>Level | Correct<br>Answer | Explanation   |
|------|--------------------------------|--------------|-------------------|---|
| 19   | ELAGSE4L1d                     | 2            | A                 | The correct answer is choice (A) Ted’s mother drove a tiny old car. Size-related adjectives come before age-related adjectives. Choice (B) is incorrect because size comes before color. Choice (C) is incorrect because national origin comes after size. Choice (D) is incorrect because opinion comes before material.   |
| 20   | ELAGSE4L1e                     | 2            | C                 | The correct answer is choice (C) Paula pulled the rock out of the water and dried it. The phrase “of the water” is a correctly used prepositional phrase. Choice (A) is incorrect because the correct preposition of motion in this use is <i>into</i> , not <i>in</i> . Choice (B) is incorrect because the prepositional phrase should read “ <b>from</b> the sky.” Choice (D) is incorrect because the prepositional phrase should be “ <b>of</b> the house.”          |
| 21   | ELAGSE4L1g                     | 2            | A                 | The correct answer is choice (A) All the students brought <u>their</u> books to school. The writer does not make the common mistake of using <i>there</i> . Choice (B) is incorrect because the correct word is <i>too</i> , not <i>to</i> . Choice (C) is incorrect because the correct word is <i>except</i> ; <i>accept</i> does not make sense. Choice (D) is incorrect because the correct word is <i>than</i> —a word of comparison rather than a word of sequence. |

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

### Item 4

#### Scoring Rubric

| Points | Description   |
|--------|---|
| 2      | The exemplar shows a full-credit response. It achieves the following: <ul style="list-style-type: none"> <li>• Gives sufficient evidence of the ability to determine the theme of a story</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately analyzes the characters and relates their experiences to the theme</li> </ul>         |
| 1      | The exemplar shows a 1-point response. It achieves the following: <ul style="list-style-type: none"> <li>• Gives limited evidence of the ability to determine the theme of a story</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Analyzes the characters somewhat accurately but poorly relates their experiences to the theme</li> </ul> |
| 0      | The exemplar shows a response that would earn no credit. It achieves the following: <ul style="list-style-type: none"> <li>• Gives no evidence of the ability to determine the theme of a story</li> </ul>  |

#### Exemplar Response

| Points Awarded | Sample Response   |
|----------------|---|
| 2              | The theme of the story is not to judge change as always being bad. Greta immediately reacts with suspicion and dread to the new piano. By the end of the story, though, she has learned to welcome it. She has also learned something about her mother that has brought them closer together. |
| 1              | The theme of the story is to think before you judge a change.   |
| 0              | This story is about a girl and her mother.  |

## Item 5

To view the four-point holistic rubric for a text-based narrative response, see pages 61 and 62.

## Exemplar Response

| Points Awarded | Sample Response  |
|----------------|--|
| 4              | <p>Greta’s mother said, “Now tell me why you were so upset when you saw the piano.”</p> <p>“Well, for one thing, you know me. I don’t like surprises.”</p> <p>“That’s for sure! I did know that,” her mother said.</p> <p>“Well, then Richard was pounding on the piano really loudly. And it replaced my toy chest. My toy chest has always been in that spot in the living room.” Greta felt a little foolish for a moment. She giggled softly.</p> <p>“Well,” said her mother, raising her eyebrows, “we could always bring the toy chest back in here and get rid of the piano. Then you can play with your stuffed animals all day. . . .”</p> <p>They both laughed.</p> <p>“Now let me show you a simple little melody,” Greta’s mother said, turning to the piano keys.</p> |
| 3              | <p>Greta’s mother said, “Now tell me why you were so upset when you saw the piano.”</p> <p>“Because I don’t like change. And this thing was a big change.”</p> <p>“Okay,” said her mother. “I understand.”</p> <p>Her mother then gave Greta her first piano lesson.</p>   |
| 2              | <p>Greta’s mother said, “Now tell me why you were so upset when you saw the piano.”</p> <p>“Because I don’t like change. And this thing was a big change.”</p> <p>“Okay. Let me play for you.”</p>   |
| 1              | <p>Greta’s mother said, “Now tell me why you were so upset when you saw the piano.”</p> <p>“Because I didn’t want Richard to play it.”</p>   |
| 0              | <p>The response is completely irrelevant or incorrect, or there is no response.</p>  |



## Item 9

## Scoring Rubric

| Points | Description   |
|--------|---|
| 2      | <p>The 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 main idea or to explain the support for a main idea</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the main idea or gives an explanation 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 main idea or to explain the support for a main idea</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the main idea or gives an explanation 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 main idea or to explain the support for a main idea</li> </ul>  |

## Exemplar Response

| Points Awarded | Sample Response  |
|----------------|--|
| 2              | The passage is mainly about the process of raising money for the Statue of Liberty. Bartholdi's group raised money for the statue in France and then went to the United States to raise money for the pedestal. Many different people donated money for the statue and the pedestal. Many Americans do not know the story behind their statue. |
| 1              | The main idea of the passage is that raising money for the Statue of Liberty was difficult.  |
| 0              | The passage is about the Statue of Liberty.  |

### Item 13

The following is an example of a seven-point response. See the seven-point, two-trait rubric for a text-based opinion response on pages 65 and 66 to see why this example would earn the maximum number of points.

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

*The author of “Weekends Are for Fun” makes the stronger argument. First of all, the author cites a study that showed that homework really has no effect, especially on younger students. We can conclude from this that there is no good reason to give homework to younger students on the weekend.*

*The author goes on to say that homework actually harms students. The reasons are convincing because things like family time and school sports are something we all have experience with. The author of “Homework on the Weekend,” on the other hand, gives opinions about the real world. As young people, we don’t know that much about the real world. However, we do know what we need now. And what we need is time to be young.*

## 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 draw a conclusion based on the text and to explain the support for a conclusion drawn about the text</li> <li>• Includes specific examples/details that make clear reference to the text</li> <li>• Adequately explains the conclusion drawn 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 draw a conclusion based on the text or to explain the support for a conclusion drawn about the text</li> <li>• Includes vague/limited examples/details that make reference to the text</li> <li>• Explains the conclusion drawn with clearly relevant 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 draw a conclusion based on the text or to explain the support for a conclusion drawn about the text</li> </ul>  |

## Exemplar Response

| Points Awarded | Sample Response  |
|----------------|--|
| 2              | Artifacts that are exposed to air, sun, or water can lose their shape or color or disappear entirely. The paintings in the caves are artifacts. The problem with leaving the caves open is human breath, which contains moisture. The paintings would probably have lost their color and eventually would have disappeared if they had been left open. |
| 1              | They would be harmed due to all the breathing from the visitors.   |
| 0              | The paintings would get hurt.  |

## **ENGLISH LANGUAGE ARTS (ELA) WRITING RUBRICS**

Grade 4 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 feature, which is ideas. On the Georgia Milestones EOG assessment, a holistic rubric is scored from zero to four. Each point value represents the difference in the levels or quality of the student’s work. To score an item on a holistic rubric, the scorer need only choose the description and associated point value that best represents the student’s work. Increasing point values represent a greater understanding of the content and, thus, a higher score.

### **Seven-Point, Two-Trait Rubric**

#### **Genre: Opinion 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 three on one scale (conventions) and zero to four on the other (ideas). 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 the description and associated point value for each trait that best represents the student’s work. The two scores are added together. Increasing point values represent a greater understanding of the content and, thus, a higher score.

On the following pages are the rubrics that will be used to evaluate writing on the Georgia Milestones Grade 4 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 and description, to develop rich, interesting experiences and events or show the responses of characters to situations</li> <li>• Uses a variety of words and phrases consistently to signal the sequence of events</li> <li>• Uses concrete words, phrases, and sensory language consistently and effectively to convey experiences and events precisely</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 and description, to develop experiences and events or show the responses of characters to situations</li> <li>• Uses words and/or phrases to indicate sequence</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 and description, to develop experiences and events or show the responses of characters to situations</li> <li>• Uses occasional signal words to indicate sequence</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   |
|--|--------|--|
| <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> | 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 or description to develop experiences and events or show the responses of characters to situations</li> <li>• Uses words that are inappropriate, overly simple, or unclear</li> <li>• Provides few, if any, words that convey events</li> <li>• Provides a minimal or no conclusion</li> <li>• May use few, if any, ideas or details from source material</li> <li>• Has frequent major errors in usage and conventions that interfere with meaning*</li> </ul> |
|  | 0      | <p><i>The student's response is flawed for various reasons and will receive a condition code:</i></p> <p>The condition codes can be found on page 126 of this guide.</p>   |

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

## Seven-Point, Two-Trait Rubric

### Trait 1 for Informational/Explanatory Genre

| Writing Trait  | Points | Criteria  |
|--|--------|---|
| <p><b>Idea Development, Organization, and Coherence</b></p> <p><i>This trait examines the writer's ability to effectively establish a controlling idea and to support the idea with evidence from the text(s) read and to elaborate on the idea with examples, illustrations, facts, and other details in order. The writer must integrate the information from the text(s) into his/her own words and arrange the ideas and supporting evidence (from text that they have read) in order to create cohesion for an informative/explanatory essay.</i></p> | 4      | <p><i>The student's response is a well-developed informative/explanatory text that examines a topic in depth and conveys ideas and information clearly based on text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Effectively introduces a topic</li> <li>• Groups related ideas together to give some organization to the writing</li> <li>• Effectively develops the topic with multiple facts, definitions, concrete details, quotations, or other information and examples related to the topic</li> <li>• Effectively uses linking words and phrases to connect ideas within categories of information</li> <li>• Uses precise language and domain-specific vocabulary to explain the topic</li> <li>• Provides a strong concluding statement or section related to the information or explanation presented</li> </ul> |
|  | 3      | <p><i>The student's response is a complete informative/explanatory text that examines a topic and presents information based on a text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Introduces a topic</li> <li>• Develops the topic with some facts, definitions, and details</li> <li>• Groups some related ideas together to give partial organization to the writing</li> <li>• Uses some linking words to connect ideas within categories of information, but relationships may not always be clear</li> <li>• Uses some precise language and domain-specific vocabulary to explain the topic</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, but not all of these are supported or relevant to the topic</li> <li>• Ineffectively groups some related ideas together</li> <li>• Uses few linking words to connect ideas, but not all ideas are well connected to the topic</li> <li>• Uses limited language and vocabulary that does not clearly explain the topic</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>• Provides a minimal or no concluding statement or section</li> </ul>  |
|  | 0      | <p><i>The student's response is flawed for various reasons and will receive a condition code: The condition codes can be found on page 126 of this guide.</i></p>   |

## Seven-Point, Two-Trait Rubric

### Trait 2 for Informational/Explanatory Genre

| Writing Trait  | Points | Criteria   |
|--|--------|--|
| <b>Language Usage and Conventions</b><br><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>• Has clear and complete sentence structure, with appropriate range and variety</li> <li>• Shows knowledge of language and its 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>• Has complete sentences, with some variety</li> <li>• Shows some knowledge of language and its 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 its conventions when writing</li> <li>• Has frequent errors in usage and conventions that interfere with meaning*</li> </ul>  |
|  | 0      | <i>The student's response is flawed for various reasons and will receive a condition code:</i><br>The condition codes can be found on page 126 of this guide.  |

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



## Seven-Point, Two-Trait Rubric

### Trait 1 for Opinion 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 point of view and to support the opinion with reasons from the text(s) read. The writer must form an opinion from the text(s) in his/her own words and organize reasons for the opinion (from text that they have read) in order to create cohesion for an opinion essay.</i></p> | 4      | <p><i>The student's response is a well-developed opinion piece that effectively examines a topic and supports a point of view, with reasons, clearly based on text as a stimulus.</i></p> <ul style="list-style-type: none"> <li>• Effectively introduces a topic and clearly states an opinion</li> <li>• Creates an effective organizational structure that logically groups ideas and reasons to support the writer's purpose</li> <li>• Provides clear reasons that are supported by facts and details</li> <li>• Uses linking words and phrases effectively to connect opinions and reasons</li> <li>• Provides a strong concluding statement or section related to the opinion presented</li> </ul> |
|   | 3      | <p><i>The student's response is a complete opinion piece that examines a topic and supports a point of view based on text.</i></p> <ul style="list-style-type: none"> <li>• Introduces a topic and states an opinion</li> <li>• Provides some organizational structure that groups ideas and reasons to support the writer's purpose</li> <li>• Provides reasons that are supported by facts</li> <li>• Uses some linking words to connect opinions and reasons</li> <li>• Provides a concluding statement or section related to the opinion presented</li> </ul>   |
|   | 2      | <p><i>The student's response is an incomplete or oversimplified opinion piece that examines a topic and partially supports a point of view based on text.</i></p> <ul style="list-style-type: none"> <li>• Attempts to introduce a topic and state an opinion</li> <li>• Attempts to provide some organization, but structure sometimes impedes the reader</li> <li>• Attempts to provide reasons that are sometimes supported by facts</li> <li>• Uses few linking words to connect opinions and reasons; connections are not always clear</li> <li>• Provides a weak concluding statement or section that may not be related to the opinion</li> </ul>  |
|   | 1      | <p><i>The student's response is a weak attempt to write an opinion piece that examines a topic and does not support a text-based point of view.</i></p> <ul style="list-style-type: none"> <li>• May not introduce a topic or state an opinion</li> <li>• May not have any organizational structure evident</li> <li>• May not provide reasons that are supported by facts</li> <li>• May not use any linking words to connect opinions and reasons</li> <li>• Provides a minimal or no concluding statement or section</li> </ul>  |
|   | 0      | <p><i>The student's response is flawed for various reasons and will receive a condition code:</i></p> <p>The condition codes can be found on page 126 of this guide.</p>  |

## Seven-Point, Two-Trait Rubric

### Trait 2 for Opinion Genre

| Writing Trait  | Points | Criteria   |
|--|--------|--|
| <b>Language Usage and Conventions</b><br><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>• Has clear and complete sentence structure, with appropriate range and variety</li> <li>• Shows knowledge of language and its 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>• Has complete sentences, with some variety</li> <li>• Shows some knowledge of language and its 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 its conventions when writing</li> <li>• Has frequent errors in usage and conventions that interfere with meaning*</li> </ul>  |
|  | 0      | <i>The student's response is flawed for various reasons and will receive a condition code:</i><br>The condition codes can be found on page 126 of this guide.  |

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

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## ACTIVITY

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

**Standards:** ELAGSE4.RL.1, ELAGSE4.RL.2, ELAGSE3.RL.3

Preparation: Have a parent or guardian help locate and print out 15 fables. Copies of fables can be located through an online search for Aesop’s fables. Next, cut out each story. Finally, cut out the theme at the end of each story. (Keep “The Dog, Cock and Fox” separate for the example.) Ask your parent or guardian to shuffle the remaining themes and provide you with a stack of stories and a stack of themes.

**Example:**

- Read the fable “The Dog, Cock and Fox.”
- At the end, try to figure out the theme of the story.
- Read the theme on the strip of paper cut from the original fable: “Those who try to entrap others are often caught by their own schemes.”

Read the first story in the stack provided to you.

1. Work to come up with a theme and write it down.
2. Next, look through the stack of themes and find the one you believe is the best match.
3. Continue steps one and two for the remaining stories.
4. Ask your parent or guardian to confirm the intended theme for each of the stories by going back online.

## ACTIVITY

The following activity develops skills in Unit 5: Language.

**Standard:** ELAGSE4L5c

Preparation: Number 40 simple note cards on one side from 1 to 40.

This activity is based on the game Concentration. Work with a friend or family member to think of 20 words and each word's synonym, for a total of 40 words. Shuffle the cards, and lay them out on a table, number-side down. Choose two cards at random. On one card, write the word. On the other card, write its synonym. Do not look at the numbered sides, and set aside those two cards. Continue until all cards are completed. Shuffle the cards when you are done.

**Examples:** Words and Synonyms

- |            |                 |
|------------|-----------------|
| 1. destroy | 13. ruin        |
| 2. eat     | 18. consume     |
| 3. explore | 24. investigate |
| 4. protect | 32. safeguard   |

Arrange the cards on a table in five rows of eight, with the numbers up, from 1 to 40.

Pick two cards to be turned over. If the words on the cards do not match as synonyms, the cards must be turned back over. Now, the other person gets a turn. Whenever a match is found, the person who finds it gets a point and the matched pair is removed from the table.

**Variation:**

After the cards have been created, work independently to find the matches.

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# MATHEMATICS

## DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Grade 4 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 4 Mathematics EOG assessment will measure the Grade 4 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:

- Operations and Algebraic Thinking
- Number and Operations in Base 10
- Number and Operations—Fractions
- Measurement and Data
- Geometry

## ITEM TYPES

The Mathematics portion of the Grade 4 EOG assessment consists of selected-response (multiple-choice), technology-enhanced (multiple-select or two-part), constructed-response, and extended constructed-response items.

## MATHEMATICS 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




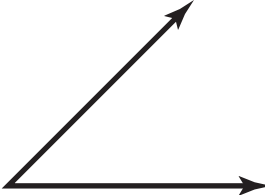
#### Selected-Response

**DOK Level 1:** This is a DOK level 1 item because it assesses recall of a vocabulary term and its definition.

**Mathematics Grade 4 Content Domain:** Geometry

**Standard:** MGSE4.G.1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Which of these figures **BEST** models a ray?

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

**Correct Answer:** A

**Explanation of Correct Answer:** The correct answer is choice (A). A ray is a part of a line with a starting point, but no ending point. Choice (B) is incorrect because it is a line segment, a part of a line with starting and ending points. Choice (C) is incorrect because it is a line; it has neither a starting nor an ending point. Choice (D) is incorrect because it is an acute angle, formed by two rays.



### Scoring Rubric

| Points | Description  |
|--------|--|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates a complete understanding of adding fractions with like denominators with a sum greater than 1.</li> <li>Give 2 points for the correct sum and correct explanation.                             <ul style="list-style-type: none"> <li>Response is correct and complete.</li> <li>Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</li> </ul>   |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates a partial understanding of adding fractions with like denominators with a sum greater than 1.</li> <li>Give 1 point for Part A OR Part B correct.                             <ul style="list-style-type: none"> <li>Response is mostly correct but contains either a computation error or an unclear or incomplete explanation.</li> <li>Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates no understanding of adding fractions with like denominators with a sum greater than 1.                             <ul style="list-style-type: none"> <li>Response is incorrect.</li> <li>Response shows no application of a strategy.</li> </ul> </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>Part A: 2 yards.<br/>Part B: I added all the fractions.</p>        |
| 1              | <p>Part A: 2 yards.</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 because it assesses finding all factor pairs of a whole number, identifying the factors as prime or composite, and explaining the difference between prime and composite numbers.

**Mathematics Grade 4 Content Domain:** Number and Operations in Base 10

**Standard:** MGSE4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

**Part A: Find all of the factor pairs of 32.**

|       |
|-------|
| _____ |
|-------|

**Part B: Identify each factor as *prime*, *composite*, or *neither*.**

|       |
|-------|
| _____ |
| _____ |
| _____ |

**Part C: Explain the difference between prime and composite numbers.**

|       |
|-------|
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |

### Scoring Rubric

| Points | Description   |
|--------|---|
| 4      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of identifying factor pairs of whole numbers and of identifying prime and composite numbers.</li> <li>• Give 4 points for 3 parts answered correctly.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</li> </ul>  |
| 3      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a good understanding of identifying factor pairs of whole numbers and of identifying prime and composite numbers.</li> <li>• Give 3 points for 2 parts correct OR 3 parts only partially correct.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of identifying factor pairs of whole numbers and of identifying prime and composite numbers.</li> <li>• Give 2 points for 1 part correct OR 2 parts partially correct.               <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>   |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a limited understanding of identifying factor pairs of whole numbers and of identifying prime and composite numbers.</li> <li>• Give 1 point for 1 part partially correct.               <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows incomplete or inaccurate application of a relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>   |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates no understanding of identifying factor pairs of whole numbers and of identifying prime and composite numbers.               <ul style="list-style-type: none"> <li>• Response is incorrect.</li> <li>• Response shows no application of a strategy.</li> </ul> </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: The factor pairs of 32 are:<br/>1 and 32; 2 and 16; 4 and 8</p> <p>Part B:<br/>prime: 2<br/>composite: 4, 8, 16, 32<br/>neither: 1</p> <p>Part C: A prime number is a number with exactly two factors—itsself and one. Two is a prime number because its only factors are 2 and 1. A composite number has more than two factors. For example, 8 is a composite number because its factors are 1, 2, 4, and 8. One is neither a prime nor a composite number.</p> |
| 3              | The student correctly answers two of the three parts.   |
| 2              | The student correctly answers one of the three parts.   |
| 1              | The student has one part partially correct.   |
| 0              | <i>Response is irrelevant, inappropriate, or not provided.</i>  |

## **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 4 Mathematics EOG test. 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.

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

### **CONTENT DESCRIPTION**

- Perform multi-digit multiplication and develop an understanding of dividing to find quotients involving multi-digit dividends
- Develop an understanding of fractions
- Multiplication of fractions by whole numbers
- Generate and analyze patterns
- Analyze and classify geometric figures based on their properties
- Represent and interpret data
- Understand concepts of angles and measure angles

## Unit 1: Whole Numbers, Place Value, and Rounding in Computation

In this unit, you will work with the place value system. You will round, compare, and estimate numbers. You will use word problems with more than one step and write equations with unknown numbers.

### KEY TERMS

Model **word problems** involving **more than one step** by writing an **equation** with a **letter** such as  $x$  to represent an **unknown number**. Use the four operations to solve the problem. (OA.3)

Solutions to multi-step word problems can be checked to make sure they are reasonable. **Rounding** the numbers in the equation before solving will provide an **estimate** of the correct answer. (OA.3)

**Place value** is the numerical value of a digit in a number based on its location. A digit in the tens place of a number is 10 times the value of the same digit in the ones place. A digit in the hundreds place is 10 times the value of the same digit in the tens place. (NBT.1)

Numbers can be written in different forms using the place value of each digit.

- **Base ten numerals:** The number is written as a group of digits, 183.
- **Number names:** The number is written in words, one hundred eighty-three.
- **Expanded form:** The number is written as an addition equation of the place value for each digit,  $100 + 80 + 3$ . (NBT.2)

**Compare:** Determine the value of two numbers written in different forms to see which has a greater value.

- **Greater than:** If a number is larger in value, use the symbol  $>$ .
- **Less than:** If a number is smaller in value, use the symbol  $<$ .
- **Equal to:** If the numbers have the same value, use the symbol  $=$ . (NBT.2)

**Rounding:** A number can be rounded to the nearest number of a certain place value. For example, 295 can be rounded to the nearest hundred to get 300. (NBT.3)

**Add** and **subtract** whole numbers using place value to regroup as needed. When adding, a place value that has a sum of 10 or greater will need to regroup into the higher place value. When subtracting, find the difference between the first and second number. If a digit in the first number is smaller than the digit in the same place in the second number, regroup from a higher place value into a lower place value. (NBT.4)

### Important Tips

- ✍ Use the place value of each digit when writing numbers from number names. Remember to keep in mind place value when writing numbers. For example, one thousand twenty-four is written as 1,024 with a 1 in the thousands place, 2 in the tens place, and 4 in the ones place.
- ✍ When using rounded numbers in an equation, the answer will be an estimate.

## Sample Items 1–3

### Item 1

**Selected-Response**

The population of Pleasantville is 2,378.

What is the population of the city, rounded to the nearest hundred?

- A. 2,000
- B. 2,300
- C. 2,380
- D. 2,400

### Item 2

**Selected-Response**

**Subtract.**

**2,406 – 157**

- A. 2,249
- B. 2,259
- C. 2,349
- D. 2,351

**Item 3****Extended Constructed-Response**

On Monday, workers at a toy factory made 529 teddy bears. On Tuesday, they made 207 teddy bears. On Wednesday, they made 174 teddy bears.

**Part A: ABOUT** how many teddy bears did the factory workers make in those three days?

The factory workers made ABOUT \_\_\_\_\_ teddy bears in three days.

**Part B: Explain** how you found the answer.

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**Part C: What is the exact number of teddy bears made in three days? The factory workers made EXACTLY \_\_\_\_\_ teddy bears in three days.**

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**Part D: Explain** how you know your estimate is a reasonable answer.

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## Unit 2: Multiplication and Division of Whole Numbers

In this unit, you will use multiplication, division, and word problems with more than one step. You will use the properties of operations. You will work with prime and composite numbers and patterns.

### KEY TERMS

**Multiplicative comparison:** Comparing the value of one object to the value of another, using phrases such as “3 times as long.” (OA.1)

Solve word problems involving **multiplicative comparison** by creating a drawing or equation to represent the problem. A letter can be used in an equation for an unknown number. Use multiplication or division to solve for the unknown number. (OA.2)

Model **word problems** involving **more than one step** by writing an **equation** with a **letter** such as  $x$  to represent an **unknown number**. Use the four operations to solve the problem. (OA.3)

Division equations may include a **remainder**. Determine how the remainder should be used based on the information in the word problem. The remainder may be listed as part of the quotient or used to round the quotient up or down depending on the situation. (OA.3)

Use **place value** and **properties of operations** to multiply and divide whole numbers. Use models such as arrays, area models, and equations to illustrate the problem. (NBT.5, NBT.6)

### Properties of Operations:

- **Commutative Property:** Numbers can be multiplied in any order and the **product** will stay the same.
- **Associative Property:** Three or more **factors** can be grouped together in any way and the **product** will stay the same.
- **Distributive Property:** The product of the sum of two numbers can be found by finding the product of each number, then taking the sum of those products. (NBT.5)

A number can be broken down into factors. The **factors** of a number are two whole numbers that when multiplied together equal the given number. Example: 4 and 2 are factors of 8;  $4 \times 2 = 8$ . (OA.4)

A **multiple** of a number is the product of that number and another factor. For example, 12 is a multiple of 3 because  $3 \times 4 = 12$ .

**Prime:** A number that can be broken down into factors of only 1 and itself. (OA.4)

**Composite:** A number that has more factors than 1 and itself. (OA.4)

**Patterns:** Repeated sequences of numbers or shapes that follow a set of **rules** such as “add 5.” (OA.5)



**Important Tips**

- ✍ When listing multiples of a number, include the given number. The smallest multiple of a number is the number itself. For example, 5 is a multiple of 5 using the equation  $5 \times 1$ .
- ✍ The number of factors a number has is not related to the size of the number. A number with a greater value may not have a larger amount of factors.
- ✍ Prime numbers only have factors of one and itself. Two is the smallest prime number. Composite numbers are numbers that have factors other than one or itself.

**Sample Items 4–7****Item 4****Selected-Response**

$$35 \times 43$$

- A. 245
- B. 1,295
- C. 1,305
- D. 1,505

**Item 5****Selected-Response**

There are three times as many red crayons in the bucket as blue crayons. There are 8 blue crayons.

Which equation represents the number of red crayons?

- A.  $16 \div 8 = 3$
- B.  $8 - 3 = 5$
- C.  $3 + 8 = 11$
- D.  $3 \times 8 = 24$

**Item 6**

**Technology-Enhanced**

**Part A**

**A factor pair of 93 is 1 and 93.**

**What is another factor pair of 93?**

- A. 3 and 9
- B. 3 and 31
- C. 9 and 10
- D. 3 and 90

**Part B**

**Select TWO numbers that are multiples of 8.**

- A. 8
- B. 22
- C. 56
- D. 68
- E. 84

**Item 7**

**Constructed-Response**

There are 60 books that need to be shipped to the bookstore. Each shipping box holds 8 books.

How many boxes are needed?

\_\_\_\_\_ boxes

Explain how you found the answer.

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## Unit 3: Fraction Equivalents

In this unit, you will work with fractions, including improper and equivalent fractions and mixed numbers. You will compare fractions and create common denominators and numerators.

### KEY TERMS

**Fraction:** A number used to represent equal parts of a whole. (NF.1)

Fractions less than 1, with the numerator less than the denominator, are proper fractions.

Fractions greater than 1 are written as **improper fractions**, where the numerator is greater than the denominator, or as **mixed numbers**, which include a whole number and a fraction. (NF.1)

**Equivalent fractions:** Fractions that are the same size or the same point on the number line. (NF.1)

Equivalent fractions are created by **multiplying** the numerator and denominator by the same number, which is the same as multiplying the fraction by 1. For example,  $\frac{(1 \times 4)}{(2 \times 4)} = \frac{4}{8}$  so  $\frac{4}{8}$  is equivalent to  $\frac{1}{2}$ . The fraction now includes a different number of parts and the parts are different sizes, but the value remains the same. (NF.1)



**Compare:** Determine the value or size of two fractions to see which fraction is larger. Fractions can be compared by looking at the number of equal parts and the size of the equal parts of the same size whole.

- **Greater than:** If a fraction is larger in size and value, use the symbol  $>$ .
- **Less than:** If a fraction is smaller in size and value, use the symbol  $<$ .
- **Equal to:** If the fractions are the same size (equivalent fractions), use the symbol  $=$ . (NF.2)

Fractions with different numerators and denominators can be compared in two ways.

Using the same strategies for creating equivalent fractions, create a **common denominator** or **common numerator** between the two fractions. Or, both fractions can be compared to a **benchmark fraction** such as  $\frac{1}{2}$ . (NF.2)

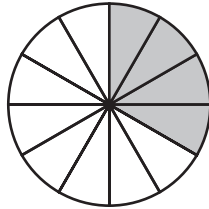
### Important Tips

-  When comparing fractions, use both the numerator and the denominator to find the value of the fraction. The numerator tells the number of parts out of the whole, and the denominator tells the size of each part.
-  Fractions in a comparison must represent parts of the same whole. When using models to compare fractions, use models that are the same size and shape.

**Sample Items 8–10****Item 8**

Selected-Response

Look at the model.



Which fraction is equivalent to the shaded part of this model?

- A.  $\frac{1}{4}$
- B.  $\frac{1}{3}$
- C.  $\frac{1}{2}$
- D.  $\frac{1}{6}$

**Item 9**

Selected-Response

Look at the expression.

$$\square > \frac{1}{2}$$

Which fraction goes in the  $\square$  to make this expression TRUE?

- A.  $\frac{1}{4}$
- B.  $\frac{2}{3}$
- C.  $\frac{2}{4}$
- D.  $\frac{1}{3}$

**Item 10**

**Constructed-Response**

These models show two equivalent fractions.



**Part A: Write the two equivalent fractions.**

\_\_\_\_\_ = \_\_\_\_\_

**Part B: Explain why the fractions are equivalent.**

A large rectangular box containing 12 horizontal lines for writing.

**Part C: Describe how you could model a third fraction that is equivalent to these two.**

A large rectangular box containing 12 horizontal lines for writing.

## Unit 4: Operations with Fractions

In this unit, you will add, subtract, and multiply fractions. You will continue to work with improper fractions and mixed numbers.

### KEY TERMS

Proper fractions that have a numerator of 1 are called **unit fractions**.

**Adding** and **subtracting** fractions is joining or separating parts referring to the same whole.

**Decompose** a fraction by separating the given fraction into a sum of smaller fractions.

For example,  $\frac{3}{5} = \frac{1}{5} + \frac{2}{5}$ . (NF.3)

Before adding or subtracting fractions, find a **common denominator**. If the fractions in the equation have **unlike denominators**, replace each fraction with an **equivalent** fraction that has the same denominator. (NF.3)

After creating a like denominator, **add** the numerators to find the **sum** or **subtract** the numerators to find the **difference**. (NF.3)


Fractions greater than 1 can be written as **improper fractions**, where the numerator is larger than the denominator, or as **mixed numbers**, which include a whole number and a fraction. (NF.3)

A fraction is a **multiple** of a **unit fraction**. For example,  $\frac{2}{3}$  is  $2 \times \frac{1}{3}$ . This strategy can be used to multiply a fraction by a whole number. (NF.4)

**Multiplying** a fraction by a whole number is the same as repeatedly adding the fraction.

If the equation asks for  $\frac{1}{4} \times 3$ , find the total sum of  $\frac{1}{4}$  three times. **Word problems** can be represented using an equation or a fraction model. (NF.4)

### Important Tip

 Fractions in an equation must represent parts of the same whole. When using models to solve the equations, use models that are the same size and shape.



**Sample Items 11–14****Item 11****Selected-Response**

Which equation is TRUE?

- A.  $\frac{2}{5} = \frac{1}{2} + \frac{1}{3}$
- B.  $\frac{3}{5} = \frac{1}{3} + \frac{1}{3} + \frac{1}{3}$
- C.  $\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$
- D.  $\frac{4}{5} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

**Item 12****Selected-Response**

Sarita has 3 rolls of ribbon. Each roll is 3 yards long. Sarita cuts off  $\frac{1}{2}$  yard from each roll.

How much ribbon does she cut off in all?

- A. 1 yard
- B.  $1\frac{1}{2}$  yards
- C. 3 yards
- D.  $3\frac{1}{2}$  yards

**Item 13****Technology-Enhanced**

Yolanda has  $\frac{4}{5}$  of a bag of dog food remaining. She will place the remaining amount of dog food into smaller bags.

Select **THREE** equations that can represent amounts of dog food Yolanda can place into smaller bags.

A.  $\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

B.  $\frac{4}{5} = \frac{2}{3} + \frac{2}{2}$

C.  $\frac{4}{5} = \frac{4}{1} + \frac{1}{5}$

D.  $\frac{4}{5} = \frac{3}{5} + \frac{1}{5}$

E.  $\frac{4}{5} = \frac{2}{5} + \frac{1}{5} + \frac{1}{5}$

F.  $\frac{4}{5} = \frac{1}{5} + \frac{4}{5}$

**Item 14**

**Constructed-Response**

Ashad, Kate, and Maria wrote addition equations that have the sum  $\frac{4}{5}$  as shown.

**Ashad**

$$\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$$

**Kate**

$$\frac{4}{5} = \frac{2}{5} + \frac{1}{5} + \frac{1}{5}$$

**Maria**

$$\frac{4}{5} = \frac{1}{5} + \frac{3}{5} + \frac{1}{5}$$

Whose equation is correct? Explain how you know.

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## Unit 5: Fractions and Decimals

In this unit, you will add and subtract fractions. You will compare decimals and work with place value.

### KEY TERMS

Add and subtract fractions with the denominators of 10 and 100 by creating a **common denominator**. (NF.5)

A **decimal** is another way to write a **fraction**. Both a decimal and fraction show a value that is between whole numbers. For example:  $\frac{6}{10}$  or 0.6 is a value between the whole numbers of 0 and 1. (NF.6)

**Place Value** is the value of a digit in a number based on its location related to the decimal point. A digit in the tenths place of a number is 10 times the value of the same digit in the hundredths place. A digit in the tenths place is  $\frac{1}{10}$  the value of the same digit in the ones place. (NF.6)



- **Tenths place:** This is the first place to the right of the decimal point. A decimal of 0.1 would have a value equivalent to  $\frac{1}{10}$ .
- **Hundredths place:** This is the second place to the right of the decimal point. A decimal of 0.01 would have a value equivalent to  $\frac{1}{100}$ . (NF.6)

A decimal such as 0.35 can be written as  $\frac{35}{100}$  or  $\frac{3}{10} + \frac{5}{100}$ . (NF.6)

To **compare decimal numbers**, determine the value or size of two decimal numbers and identify the number that has a greater or equal value, if possible.

- **Greater than:** If the decimal number has a greater value than the other number in the comparison, use the symbol  $>$ .
- **Less than:** If the decimal number has a smaller value than the other number in the comparison, use the symbol  $<$ .
- **Equal to:** If both numbers in the comparison have the same value, use the symbol  $=$ . (NF.7)

### Important Tips

-  When comparing decimal numbers, look at the place value of each digit. The location of the digit determines its value.
-  Fraction models and drawings can be used to compare decimals. Decimals can be changed into fractions with a denominator of 10 or 100 and then used to create the model.

**Sample Items 15–17****Item 15****Selected-Response**

Which fraction is equivalent to  $\frac{3}{10}$ ?

- A.  $\frac{3}{100}$
- B.  $\frac{6}{100}$
- C.  $\frac{10}{100}$
- D.  $\frac{30}{100}$

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

Which decimal is equivalent to  $\frac{43}{100}$ ?

- A. 0.043
- B. 0.43
- C. 4.3
- D. 43.00



## Unit 6: Geometry

In this unit, you will study two-dimensional figures and their properties. You will work with angles, parallel and perpendicular lines, points, lines, line segments, rays, and lines of symmetry.

### KEY TERMS

**Two-dimensional figures:** A **plane figure** that is measured in two dimensions, such as a rectangle that is measured using length and width. (G.2)

The **properties** of two-dimensional figures include:

- **Angles:**
  - \* **Acute:** An angle measure less than  $90^\circ$ .
  - \* **Obtuse:** An angle measure greater than  $90^\circ$ .
  - \* **Right:** An angle measure equal to  $90^\circ$ .
- **Parallel lines:** Two lines that are always an equal distance apart.
- **Perpendicular lines:** Two lines that intersect at a  $90^\circ$  angle.
- **Point:** A location represented by a dot.
- **Line:** A straight line that continues in each direction with no endpoints.
- **Line segment:** Part of a straight line that begins and ends at two specific points.
- **Ray:** A part of a straight line that continues in one direction and has one endpoint. (G.1)

These parts of geometric figures can be **drawn** on their own or included in a two-dimensional shape. **Identify** the properties within a given shape to place it in a category. (G.2)

**Category:** A group of two-dimensional figures that share at least one property. For example: All shapes with four sides belong to the category of quadrilateral. (G.2)

**Line of symmetry:** A line across a figure such that the figure can be folded along the line into matching parts. (G.3)

### Important Tips

- ✍ The measure of an angle is not impacted by the length of the lines that make up the angle. When comparing angles, use a protractor to measure the angles or visually compare the degrees of measure.
- ✍ A right angle can be estimated using the corner of a piece of paper or book. These everyday objects are rectangles and therefore have four right angles.

## Sample Items 18–20

### Item 18

#### Selected-Response

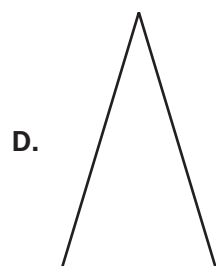
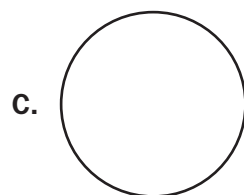
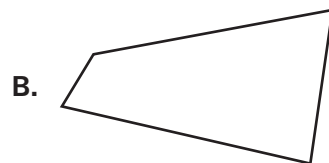
What type of lines meet at a  $90^\circ$  angle?

- A. curved
- B. diagonal
- C. parallel
- D. perpendicular

### Item 19

#### Selected-Response

Which figure has exactly one line of symmetry?





**Item 20**

**Constructed-Response**

**Study the rectangle.**



**List four characteristics that help you classify this figure as a rectangle.**

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

## Unit 7: Measurement

In this unit, you will work with different units of measurement, including time. You will record measurements on line plots and use protractors to measure angles. You will determine the area and perimeter of rectangles.

### KEY TERMS

**Conversion:** Changing between units within the same measurement system. (MD.1)

#### Customary Measurement

- **Liquid volume** is measured in cups, pints, quarts, and gallons.
- **Length** is measured in inches, feet, yards, and miles.
- **Weight** is measured in ounces, pounds, and tons. (MD.1)

#### Metric Measurement

- **Liquid volume** is measured in milliliters and liters.
- **Length** is measured in centimeters, meters, and kilometers.
- **Mass** is measured in grams and kilograms. (MD.1)

**Time** is measured in seconds, minutes, and hours. (MD.1)

Use the **four operations** to solve **word problems** involving liquid volume, mass, intervals of time, and money within the same units of measure. If the units of measure are not the same, convert larger units into smaller units, such as feet into inches. These word problems may include decimals or fractions. (MD.2)

Use the length and width of a rectangle given in a problem to find the area and perimeter. **Area** can be found using the formula  $A = l \times w$ . **Perimeter** can be found using the formula  $P = 2l + 2w$ . (MD.3)

A **line plot** is used to record measurements for a group of objects. These measurements can include liquid volume, length, mass, and time. For example, a line is marked with measurements using fractions, including  $\frac{1}{8}$ ,  $\frac{1}{4}$ , and  $\frac{1}{2}$ . Place a mark above the measurement on the line. Use the line plot to answer questions by adding or subtracting the measurements shown. (MD.4)

**Angles** are made by two rays that have the same endpoint. They are measured as part of a circle with the endpoint as the center. The measure of an angle is the part between the two rays. (MD.5)

**Angles** are measured in degrees using a protractor. (MD.6)

An angle can be divided into smaller angles that do not **overlap**. The measure of non-overlapping parts can be **added** together to find the measure of the whole angle. You can also find the measure of **unknown angles** by writing an equation with a letter for the unknown angle measure. (MD.7)

**Important Tips**

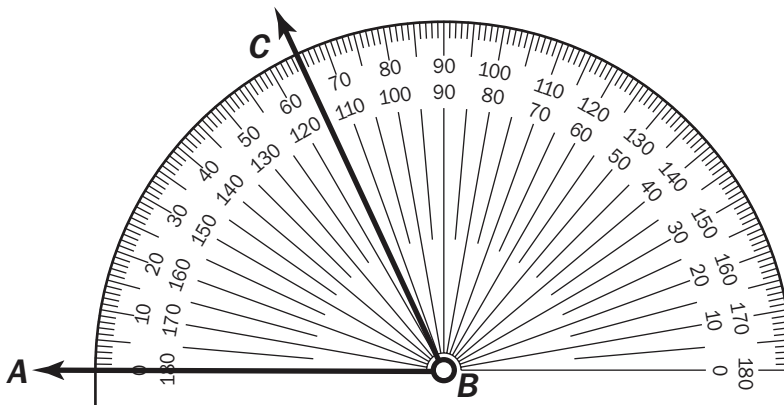
- ✍ To convert a measurement such as yards, choose another unit used to measure length within the customary measurement system, such as feet or inches.
- ✍ Estimate the size of an angle as greater than or less than  $90^\circ$  before measuring with a protractor. If the estimate of the angle is less than  $90^\circ$ , then use the smaller number listed on the protractor. If the estimate is greater than  $90^\circ$ , then use the larger number listed on the protractor.

**Sample Items 21–24**

**Item 21**

**Constructed-Response**

Consider the angle and protractor.



What is the measure of angle  $ABC$  to the nearest whole degree?

Angle  $ABC$  measures \_\_\_\_\_ $^\circ$ .

Classify the angle as *acute*, *right*, or *obtuse*. Explain how you know.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Item 22**

**Selected-Response**

Ms. Johnson planted a rectangular garden. The length of the garden is 8 feet. The width is 7 feet.

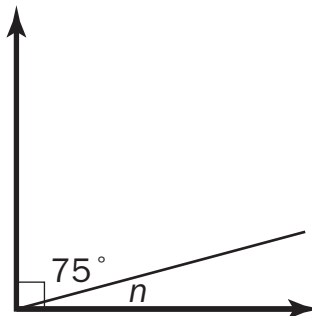
What is the perimeter of the garden?

- A. 15 feet
- B. 30 feet
- C. 56 feet
- D. 64 feet

**Item 23**

**Selected-Response**

Look at the angle measures in the right angle.



What is the measure of the unknown angle,  $n$ ?

- A.  $15^\circ$
- B.  $25^\circ$
- C.  $90^\circ$
- D.  $180^\circ$

**Item 24****Technology-Enhanced**

Katie buys a container that has 24 ounces of iced tea mix. This container has enough iced tea mix to make 10 quarts of iced tea.

**Part A**

Which quantity is equivalent to 10 quarts?

(1 cup = 8 ounces)

(4 cups = 1 quart)

(1 gallon = 4 quarts)

(2 cups = 1 pint)

- A. 2 gallons
- B. 3 pints
- C. 32 ounces
- D. 40 cups

**Part B**

Katie used  $1\frac{1}{2}$  tablespoons of iced tea mix for every cup of water. She used 6 cups of water to make some iced tea.

Which statement describes the number of tablespoons of iced tea mix and the number of ounces of water Katie used?

- A. Katie used 9 tablespoons of iced tea mix and 14 ounces of water.
- B. Katie used 9 tablespoons of iced tea mix and 48 ounces of water.
- C. Katie used 12 tablespoons of iced tea mix and 14 ounces of water.
- D. Katie used 12 tablespoons of iced tea mix and 48 ounces of water.

## MATHEMATICS ADDITIONAL SAMPLE ITEM KEYS

| Item | Standard/<br>Element | DOK<br>Level | Correct<br>Answer            | Explanation  |
|------|----------------------|--------------|------------------------------|--|
| 1    | MGSE4.NBT.3          | 2            | D                            | The correct answer is choice (D) 2,400. To round to the nearest hundred, the value of the digit in the tens place is evaluated. If the digit in the tens place is greater than 5, the digit in the hundreds place rounds to the greater hundred. Choice (A) is incorrect because it is the result of rounding to the nearest thousand. Choice (B) is incorrect because it incorrectly shows rounding to the nearest hundred. Choice (C) is incorrect because it shows rounding to the nearest ten. |
| 2    | MGSE4.NBT.4          | 2            | A                            | The correct answer is choice (A) 2,249. This subtraction problem requires regrouping with a zero. Choices (B) and (C) are incorrect because both were regrouped incorrectly. Choice (D) is incorrect because digits were subtracted without regrouping.  |
| 3    | MGSE4.OA.3           | 2            | N/A                          | See scoring rubric and sample response beginning on page 106.  |
| 4    | MGSE4.NBT.5          | 2            | D                            | The correct answer is choice (D) 1,505. This multi-digit multiplication problem requires regrouping. Choice (A) is incorrect because the place value of the digits was not calculated correctly. Choices (B) and (C) are incorrect because there were calculation errors.  |
| 5    | MGSE4.OA.1           | 2            | D                            | The correct answer is choice (D) $3 \times 8 = 24$ . This word problem asks which equation represents the number of red crayons. This was best shown with the operation of multiplication. Choice (A) is incorrect because the product is incorrect. Choices (B) and (C) are incorrect because they use the wrong operations.  |
| 6    | GSE-1: 4.OA.4        | 2            | Part A: B<br>Part B:<br>A, C | See scoring rubric on page 108.  |
| 7    | MGSE4.NBT.6          | 2            | N/A                          | See scoring rubric and sample response beginning on page 109.  |

| Item | Standard/<br>Element | DOK<br>Level | Correct<br>Answer | Explanation  |
|------|----------------------|--------------|-------------------|--|
| 8    | MGSE4.NF.1           | 1            | B                 | The correct answer is choice (B) $\frac{1}{3}$ . The circle is divided into 12 equal parts, and 4 of them are shaded. Four out of 12 is equivalent to $\frac{1}{3}$ . Choice (A) is incorrect because it is equivalent to 3 out of 12 parts shaded. Choice (C) is incorrect because it is equivalent to 6 out of 12 parts shaded. Choice (D) is incorrect because it is equivalent to 2 out of 12 parts shaded.  |
| 9    | MGSE4.NF.2           | 1            | B                 | The correct answer is choice (B) $\frac{2}{3}$ . Rewriting both fractions with a common denominator gives $\frac{2}{3} = \frac{4}{6}$ and $\frac{1}{2} = \frac{3}{6}$ . Since $\frac{4}{6} > \frac{3}{6}$ , then $\frac{2}{3} > \frac{1}{2}$ . Choice (A) is incorrect because $\frac{1}{4} < \frac{1}{2}$ . Choice (C) is incorrect because $\frac{2}{4} = \frac{1}{2}$ . Choice (D) is incorrect because $\frac{1}{3} < \frac{1}{2}$ .   |
| 10   | MGSE4.NF.1           | 3            | N/A               | See scoring rubric and sample response beginning on page 111.  |
| 11   | MGSE4.NF.3a          | 2            | C                 | The correct answer is choice (C) $\frac{4}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$ . $\frac{4}{5}$ can be made by joining 4 unit fractions of the same denominator. Choice (A) is incorrect because the sum of the unit fractions equals $\frac{5}{6}$ , not $\frac{2}{5}$ . Choice (B) is incorrect because the sum of the unit fractions equals $\frac{3}{3}$ , not $\frac{3}{5}$ . Choice (D) is incorrect because the sum of the unit fractions equals $\frac{5}{4}$ , not $\frac{4}{5}$ . |

| Item | Standard/<br>Element | DOK<br>Level | Correct<br>Answer | Explanation  |
|------|----------------------|--------------|-------------------|--|
| 12   | MGSE4.NF.4c          | 2            | B                 | The correct answer is choice (B) $1\frac{1}{2}$ yards. This is the same as $\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$ , which equals $\frac{3}{2}$ . Two pieces of ribbon that are $\frac{1}{2}$ yard equal 1 yard in total plus an additional $\frac{1}{2}$ yard. Choice (A) is incorrect because it is the total amount cut off only 2 rolls. Choice (C) is incorrect because it is the number of pieces of ribbon. Choice (D) is incorrect because it is the sum of two of the two numbers given in the problem. |
| 13   | GSE-1: 4.NF.3b       | 2            | A/D/E             | See scoring rubric on page 113.  |
| 14   | MGSE4.NF.3b          | 2            | N/A               | See scoring rubric and sample response beginning on page 114.  |
| 15   | MGSE4.NF.5           | 2            | D                 | The correct answer is choice (D) $\frac{30}{100}$ . $\frac{3}{10}$ has the same value as $\frac{30}{100}$ since 3 times 10 equals 30 and 10 times 10 equals 100. Choices (A), (B), and (C) are not equivalent fractions to $\frac{3}{10}$ .  |
| 16   | MGSE4.NF.6           | 2            | B                 | The correct answer is choice (B) 0.43. 0.43 means there are 43 hundredths; this is equivalent to $\frac{43}{100}$ . Choice (A) is incorrect because 0.043 means 43 thousandths, or $\frac{43}{1000}$ . Choice (C) is incorrect because 4.3 means 4 wholes and 3 tenths, or $4\frac{3}{10}$ . Choice (D) is incorrect because 43.00 means 43 wholes.  |
| 17   | MGSE4.NF.7           | 2            | N/A               | See scoring rubric and sample response beginning on page 116.  |
| 18   | MGSE4.G.1            | 1            | D                 | The correct answer is choice (D) perpendicular. Perpendicular lines intersect at a right angle, or 90 degrees. Choice (A) is incorrect because curved lines don't meet at an angle; an angle is formed by the intersection of two lines, segments, or rays. Choice (B) is incorrect because not all diagonal lines intersect. Choice (C) is incorrect because parallel lines are lines that will never intersect; they will always be the same distance apart from one another.                                    |



| Item | Standard/<br>Element | DOK<br>Level | Correct<br>Answer      | Explanation   |
|------|----------------------|--------------|------------------------|---|
| 19   | MGSE4.G.3            | 2            | D                      | The correct answer is choice (D). An isosceles triangle has exactly one line of symmetry. Choice (A) is incorrect because a square has four lines of symmetry. Choice (B) is incorrect because the figure has no lines of symmetry. Choice (C) is incorrect because a circle has an infinite number of lines of symmetry.   |
| 20   | MGSE4.G.2            | 3            | N/A                    | See scoring rubric and sample response beginning on page 118.   |
| 21   | MGSE4.MD.6           | 2            | N/A                    | See scoring rubric and sample response beginning on page 120.   |
| 22   | MGSE4.MD.3           | 2            | B                      | The correct answer is choice (B) 30 feet. The perimeter is found by adding all side lengths of a figure. Choice (A) is incorrect because just two sides of the figure were added. Choice (C) is incorrect because it is the area, the space inside the figure. Choice (D) is incorrect because it is based on a calculation error when finding area.                                |
| 23   | MGSE4.MD.7           | 2            | A                      | The correct answer is choice (A) $15^\circ$ . The two smaller angles together form a right angle, so their sum must be $90^\circ$ . Choice (B) is incorrect because a right angle does not measure $100^\circ$ . Choice (C) is incorrect because $90^\circ$ is the entire measurement of the right angle. Choice (D) is incorrect because it is the measurement of a straight line. |
| 24   | GSE-1: 4.MD.1        | 3            | Part A: D<br>Part B: D | See scoring rubric on page 122.   |

## MATHEMATICS SAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

### Item 3

#### Scoring Rubric

| Points | Description   |
|--------|---|
| 4      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of using estimation to solve a multi-digit addition problem with more than two addends.</li> <li>• Give 4 points for the correct answer/estimate and a complete, correct explanation of how the answer was calculated/estimated.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate</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 using estimation to solve a multi-digit addition problem with more than two addends.</li> <li>• Give 3 points if the student response indicates 1 error in any of the 4 parts or 1 part is incomplete.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of using estimation to solve a multi-digit addition problem with more than two addends.</li> <li>• Give 2 points if student response indicates 2 errors in any of the 4 parts OR two parts are incomplete.               <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>   |

| Points | Description  |
|--------|--|
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates a minimal understanding of using estimation to solve a multi-digit addition problem with more than two addends.</li> <li>Give 1 point if student response indicates 3 errors in any of the 4 parts OR all 3 parts are incomplete. <ul style="list-style-type: none"> <li>Response is only partially correct.</li> <li>Response shows incomplete or inaccurate application of a relevant strategy.</li> </ul> </li> <li>Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>The response demonstrates limited to no understanding of using estimation to solve a multi-digit addition problem with more than two addends. <ul style="list-style-type: none"> <li>Response is incorrect.</li> <li>Response shows no application of a strategy.</li> </ul> </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>The factory workers made ABOUT 900 teddy bears in three days.<br/>AND<br/>To calculate the answer, I used rounding. I rounded each number to the nearest hundred and then added the estimates together.<br/>500 and 200 and 200 equal 900<br/><i>OR other valid process</i><br/>AND<br/>The factory workers made EXACTLY 910 teddy bears in three days.<br/>AND<br/>My estimate was a reasonable answer because my estimate, 900, and the exact answer, 910, are close. <i>Or other valid process.</i></p> |
| 3              | The student correctly answers three out of the four parts.  |
| 2              | The student correctly answers two out of the four parts.  |
| 1              | The student correctly answers one of the four parts.  |
| 0              | <i>Response is irrelevant, inappropriate, or not provided.</i>  |

## Item 6

## Scoring Rubric

| Points | Description  |
|--------|--|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• A score of 2 indicates complete understanding of how to find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.</li> <li>• The student determines that the correct answer for Part A is Choice (B).<br/>AND</li> <li>• The student determines that the correct answers for Part B are Choice (A) and Choice (C).</li> </ul> |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• A score of 1 indicates a partial understanding of how to find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.</li> <li>• The student determines that the correct answer for Part A is Choice (B).<br/>OR</li> <li>• The student determines that the correct answers for Part B are Choice (A) and Choice (C).</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• A score of 0 indicates limited to no understanding of how to find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.</li> </ul>   |

## Item 7

## Scoring Rubric

| Points | Description  |
|--------|--|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of division and remainders.</li> <li>• Give 2 points for the correct answer/estimate and a complete, correct explanation of how the answer was calculated/estimated.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</li> </ul>  |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of division and remainders.</li> <li>• Give 1 point for the correct answer but no process shown OR a correct process with a calculation error.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of division and remainders.               <ul style="list-style-type: none"> <li>• Response is incorrect.</li> <li>• Response shows no application of a strategy.</li> </ul> </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>8 boxes are needed.</p> <p>AND</p> <p>To calculate, I used division: 60 divided by 8. The answer is 7 with a remainder of 4. That means that 7 boxes will be completely filled with 8 books in each box, and there will be 4 books left over. Since all 60 books need to be shipped, the remaining books will need to go in an eighth box that will not be completely full.</p> <p><i>OR other valid process</i></p>                    |
| 1              | <p>8 boxes are needed.</p> <p>OR</p> <p>7 boxes are needed. To calculate, I used division: 60 divided by 8. The answer is 6 with a remainder of 4. That means that 6 boxes will be completely filled with 8 books in each box, and there will be 4 books left over. Since all 60 books need to be shipped, the remaining books will need to go in a seventh box that will not be completely full.</p> <p><i>OR other valid process</i></p> |
| 0              | <p><i>Response is irrelevant, inappropriate, or not provided.</i></p>  |

## Item 10

## Scoring Rubric

| Points | Description   |
|--------|---|
| 4      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of equivalent fractions.</li> <li>• Give 4 points if student response identifies 2 equivalent fractions AND correctly describes a model of a third equivalent fraction AND provides a clear understanding of why the fractions are equivalent.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</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 equivalent fractions.</li> <li>• Give 3 points if student response indicates 1 error in any of the 3 parts OR 1 part is incomplete.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>                                    |
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of equivalent fractions.</li> <li>• Give 2 points if student response indicates 2 errors in any of the 3 parts OR 2 parts are incomplete.               <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>  |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a minimal understanding of equivalent fractions.</li> <li>• Give 1 point if student response indicates 3 errors in any of the 3 parts OR all 3 parts are incomplete.               <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows incomplete or inaccurate application of a relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>   |

| Points | Description   |
|--------|---|
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of equivalent fractions.</li> <li>• Response is incorrect.</li> <li>• 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              | $\frac{2}{5} = \frac{4}{10}$ <p><i>OR other equivalent fractions</i></p> <p>AND</p> <p>Equivalent fractions mean equal fractions. Even if the numbers in the numerator and denominator are different, two fractions can be equivalent because they represent the same value. The whole has to be the same size; otherwise you can't compare the fractions. When you divide a whole into smaller parts, the parts are smaller.</p> <p><i>OR other valid process or explanation</i></p> <p>AND</p> <p>Start with a rectangle that is the same size as the models. Divide the rectangle into 100 equal parts and shade 40 parts.</p> <p><i>OR other valid equivalent fraction or description</i></p> |
| 3              | The student correctly answers two of the three parts.   |
| 2              | The student correctly answers one of the three parts.   |
| 1              | The student has one part partially correct.   |
| 0              | <i>Response is irrelevant, inappropriate, or not provided.</i>  |



## Item 13

## Scoring Rubric

| Points | Description  |
|--------|--|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• A score of 2 indicates complete understanding of how to decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation.</li> <li>• The student selects Choice (A), Choice (D), and Choice (E).</li> </ul>   |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• A score of 1 indicates a partial understanding of how to decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation.</li> <li>• The student selects Choice (A) and Choice (D), with or without an additional incorrect answer.<br/>OR</li> <li>• The student selects Choice (A) and Choice (E), with or without an additional incorrect answer.<br/>OR</li> <li>• The student selects Choice (D) and Choice (E), with or without an additional incorrect answer.</li> </ul>                                 |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• A score of 0 indicates limited to no understanding of how to decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation.</li> <li>• The student selects Choice (A), with or without any additional incorrect answers.<br/>OR</li> <li>• The student selects Choice (D), with or without any additional incorrect answers.<br/>OR</li> <li>• The student selects Choice (E), with or without any additional incorrect answers.<br/>OR</li> <li>• The student does not select any correct answers.</li> </ul> |

## Item 14

## Scoring Rubric

| Points | Description  |
|--------|--|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of decomposing a sum of fractions.</li> <li>• Give 2 points for a response that identifies the correct equation and accurately explains why the decomposition is correct.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</li> </ul>   |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of decomposing a sum of fractions.</li> <li>• Give 1 point for a response that identifies the correct equation but has an incorrect explanation or no explanation.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of decomposing a sum of fractions.               <ul style="list-style-type: none"> <li>• Response is incorrect.</li> <li>• Response shows no application of a strategy.</li> </ul> </li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>  |

**Exemplar Response**

| <b>Points Awarded</b> | <b>Sample Response</b>   |
|-----------------------|--|
| 2                     | Kate's equation is correct. All the fractions have the same denominator, so you just have to add the numerators to get the sum. Kate added numerators 2, 1, and 1, so the numerator in her fraction is 4.<br><i>OR other valid explanation</i> |
| 1                     | Kate's equation is correct.<br><i>OR provides an invalid explanation.</i>  |
| 0                     | <i>Response is irrelevant, inappropriate, or not provided.</i>   |

## Item 17

## Scoring Rubric

| Points | Description   |
|--------|---|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of comparing decimals to the hundredths.</li> <li>• Give 2 points for a correct answer and a complete, correct explanation of how the decimals were compared.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</li> </ul>  |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of comparing decimals to the hundredths.</li> <li>• Give 1 point for choosing the correct answer for comparing the two decimals or a correct model to show how to compare the two decimals.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of comparing decimals to the hundredths.               <ul style="list-style-type: none"> <li>• Response is incorrect.</li> <li>• Response shows no application of a strategy.</li> </ul> </li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>   |

**Exemplar Response**

| <b>Points Awarded</b> | <b>Sample Response</b>  |
|-----------------------|---|
| 2                     | greater than<br>AND<br>I compared the two decimals by using hundredths grids. I shaded in 54 of the 100 squares to show the first decimal. It is made up of 5 tenths and 4 hundredths. I shaded in 45 of the 100 squares to show the second decimal. It is made up of 4 tenths and 5 hundredths. The first decimal is the greater decimal.<br><i>OR other valid explanation</i> |
| 1                     | greater than  |
| 0                     | <i>Response is irrelevant, inappropriate, or not provided.</i>  |

## Item 20

## Scoring Rubric

| Points | Description   |
|--------|---|
| 4      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a complete understanding of classifying a two-dimensional figure by its characteristics.</li> <li>• Give 4 points if student response indicates four correct characteristics AND provides clear explanation/description/diagram of each characteristic.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</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 classifying a two-dimensional figure by its characteristics.</li> <li>• Give 3 points if student response indicates three correct characteristics AND provides a clear explanation/description/diagram of each characteristic.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a partial understanding of classifying a two-dimensional figure by its characteristics.</li> <li>• Give 2 points if student response indicates two correct characteristics with explanation/description/diagram of each characteristic OR three correct examples with minimal explanation/description/diagram of each characteristic.               <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul>      |

| Points | Description   |
|--------|---|
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates a minimal understanding of classifying a two-dimensional figure by its characteristics.</li> <li>• Give 1 point if student response indicates at least one correct characteristic with explanation/description/diagram of each characteristic. <ul style="list-style-type: none"> <li>• Response is only partially correct.</li> <li>• Response shows incomplete or inaccurate application of a relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of classifying a two-dimensional figure by its characteristics. <ul style="list-style-type: none"> <li>• Response is incorrect.</li> <li>• Response shows no application of a strategy.</li> </ul> </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>Characteristic 1: It has four sides.<br/> Characteristic 2: It has four right angles.<br/> Characteristic 3: Its opposite sides are parallel.<br/> Characteristic 4: Its opposite sides have the same length.<br/> <i>OR other valid characteristics</i></p> |
| 3              | The student correctly answers three out of the four parts.  |
| 2              | The student correctly answers two out of the four parts.  |
| 1              | The student correctly answers one of the four parts.  |
| 0              | <i>Response is irrelevant, inappropriate, or not provided.</i>  |

## Item 21

## Scoring Rubric

| Points | Description   |
|--------|---|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Response demonstrates a complete understanding of measuring an angle using a protractor and identifying types of angles.</li> <li>• Give 2 points for correctly identifying the angle measurement AND correctly identifying the type of angle.               <ul style="list-style-type: none"> <li>• Response is correct and complete.</li> <li>• Response shows application of a reasonable and relevant strategy.</li> </ul> </li> <li>• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.</li> </ul>  |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• Response demonstrates a partial understanding of measuring an angle using a protractor and identifying types of angles.</li> <li>• Give 1 point for correctly identifying the angle measurement OR correctly identifying the type of angle.               <ul style="list-style-type: none"> <li>• Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.</li> <li>• Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.</li> </ul> </li> <li>• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.</li> </ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"> <li>• The response demonstrates limited to no understanding of measuring an angle using a protractor and identifying types of angles.               <ul style="list-style-type: none"> <li>• Response is incorrect.</li> <li>• Response shows no application of a strategy.</li> </ul> </li> <li>• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.</li> </ul>  |



**Exemplar Response**

| <b>Points Awarded</b> | <b>Sample Response</b>  |
|-----------------------|---|
| 2                     | 65<br>AND<br>The angle is an acute angle because it measures less than 90 degrees.<br><i>OR other valid explanation</i> |
| 1                     | 65<br>OR<br>The angle is an acute angle because it measures less than 90 degrees.<br><i>OR other valid explanation</i>  |
| 0                     | <i>Response is irrelevant, inappropriate, or not provided.</i>  |

## Item 24

## Scoring Rubric

| Points | Description  |
|--------|--|
| 2      | <p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• A score of 2 indicates complete understanding of the relative sizes of measurement units within one system of units.</li><li>• The student determines that the correct answer for Part A is Choice (D).<br/>AND</li><li>• The student determines that the correct answer for Part B is Choice (B).</li></ul> |
| 1      | <p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• A score of 1 indicates a partial understanding of the relative sizes of measurement units within one system of units.</li><li>• The student determines that the correct answer for Part A is Choice (D).<br/>OR</li><li>• The student determines that the correct answer for Part B is Choice (B).</li></ul> |
| 0      | <p>The response achieves the following:</p> <ul style="list-style-type: none"><li>• A score of 0 indicates limited to no understanding of the relative sizes of measurement units within one system of units.</li></ul>  |

## ACTIVITY

The following activities develop skills in Unit 2: Multiplication and Division of Whole Numbers.

**Standards:** MGSE4.OA.1, MGSE4.OA.2, MGSE4.OA.3, MGSE4.OA.4, MGSE4.OA.5, MGSE4.NBT.5, MGSE4.NBT.6

Complete the following activities with a partner.

**Activity 1:** Use place-value blocks to model three-digit whole numbers. Your partner should decompose the number in at least three different ways.

Example:

$$\begin{aligned} 317 &= 3 \text{ hundreds} + 1 \text{ ten} + 7 \text{ ones} = 300 + 10 + 7 \\ &= 3 \text{ hundreds} + 17 \text{ ones} = 300 + 17 \\ &= 2 \text{ hundreds} + 11 \text{ tens} + 7 \text{ ones} = 200 + 110 + 7 \end{aligned}$$

Switch roles and repeat so that each partner models at least five numbers.

**Activity 2:** Make a place-value chart that extends to millions. Write a whole number with 5 to 7 digits in the chart. Your partner should read the number aloud and write it in word form. Switch roles and repeat so that each partner writes at least five numbers.

**Activity 3:** Make a multiplication chart for whole numbers 0 to 10. Say a multiplication or division fact problem. Your partner should show how to use the chart to find the product or quotient. Switch roles and repeat so that each partner solves at least five multiplication or division problems. Then work together to find and describe at least five patterns in the chart.

**ACTIVITY**

**The following activities develop skills in Unit 7: Measurement.**

**Standards:** MGSE4.MD.1, MGSE4.MD.2, MGSE4.MD.3, MGSE4.MD.4, MGSE4.MD.5, MGSE4.MD.6, MGSE4.MD.7

Complete the following activities with a partner.

**Activity 1:** Use tools such as balances, scales, meter sticks, yardsticks, rulers, analog and digital clocks, and containers marked with cups, ounces, and liters to practice measuring objects or liquids in different units.

**Activity 2:** Make two conversion charts—one with customary units and one with metric units. Each chart should give rules for converting between at least 10 pairs of units in each system. Then choose one rule from each chart. Use each rule to record measurement equivalents in a two-column table. Then list each pair of equivalent measures as a number pair. For example, if you choose the rule for converting feet to inches, your number pairs might be (1, 12), (2, 24), (3, 36), etc.

**Activity 3:** Write at least five word problems that involve distances, intervals of time, liquid volumes, masses of objects, and money that can be solved using the four operations. At least two of the problems should involve simple fractions or decimals. Trade problems with another person and solve the problems you receive. Use diagrams in your solutions, when possible.

**Activity 4:** Search newspapers, magazines, or the Internet for articles or websites that mention measurements. For each example, identify what is measured and what unit is used. Explain why you think that unit was chosen. Then create a chart called “Measurements in Real Life” that shows real-world benchmarks for different types of measurements and units.

## APPENDIX A: LANGUAGE PROGRESSIVE SKILLS, BY GRADE

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

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

\* Subsumed by L.7.3a

† Subsumed by L.9-10.1a

‡ Subsumed by L.11-12.3a

## APPENDIX B: CONDITION CODES

### Condition Codes (Non-Score)

The student response is flawed for various reasons and will receive a condition code (non-score).

Students who receive a condition code (non-score) have a score of zero (0).

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

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

END OF GRADE 4  
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