Extending Learning Beyond the Classroom

School is out, but learning continues!



GRADE 6

Clayton County Public Schools

Clayton County Public Schools

Department of Curriculum, Instruction, & Assessment

1058 Fifth Avenue • Jonesboro, Georgia 30236 • (770) 473-2700

DR. MORCEASE J. BEASLEY
Superintendent of Schools

DR. EBONY T. LEE
Director of Curriculum, Instruction, & Assessment

Dear Parents,

We want your child to be well prepared for the demands of the Georgia Milestones Assessment System (GMAS) which measures college and career readiness. The Department of Curriculum, Instruction, and Assessment is *Extending Learning Beyond the Classroom* by providing academic assignments for students to complete to support and reinforce their learning. The assignments focus on standards-based practice that reflects what students are expected to demonstrate on the Georgia Milestones in each core content area.

Assignments are provided for students in grades 3-12. Students are encouraged to complete the assignments while away from school. Students can bring their finished work to school for teachers to review and support their areas of need. As always, students are encouraged to read at least 30 minutes every day. Parents are asked to engage students in conversations about what they are reading and learning from the assignments. Parents may consider having a scheduled time for students to complete their work, and they may assist students – as needed - with the completion of assignments. Finally, an electronic version of the assignments and additional online resources can be found on the Clayton County Public Schools website (www.clayton.k12.ga.us).

Thank you for your partnership and your commitment to high performance!

Regards,

Dr. Ebony T. Lee
Director of Curriculum, Instruction, & Assessment

Georgia Milestones Assessment System



Study/Resource Guide for Students and Parents

Grade 6

Study/Resource Guide

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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Table of Contents

THE GEORGIA MILESTONES ASSESSMENT SYSTEM 3
HOW TO USE THIS GUIDE 4
PREPARING FOR TAKING TESTS 5
OVERVIEW OF THE END-OF-GRADE ASSESSMENT 6
TYPES OF ITEMS 6
DEPTH OF KNOWLEDGE 8
ENGLISH LANGUAGE ARTS (ELA) 11
DESCRIPTION OF TEST FORMAT AND ORGANIZATION 11
CONTENT 11
ITEM TYPES 11
ENGLISH LANGUAGE ARTS (ELA) DEPTH OF KNOWLEDGE EXAMPLE ITEMS 12
ENGLISH LANGUAGE ARTS (ELA) CONTENT DESCRIPTION AND ADDITIONAL SAMPLE ITEMS . . . 23
ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEM KEYS 57
ENGLISH LANGUAGE ARTS (ELA) SAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES . . . 62
ENGLISH LANGUAGE ARTS (ELA) WRITING RUBRICS 71
MATHEMATICS 80
DESCRIPTION OF TEST FORMAT AND ORGANIZATION 80
CONTENT 80
ITEM TYPES 80
MATHEMATICS DEPTH OF KNOWLEDGE EXAMPLE ITEMS 81
MATHEMATICS CONTENT DESCRIPTION AND ADDITIONAL SAMPLE ITEMS 88
MATHEMATICS ADDITIONAL SAMPLE ITEM KEYS 117
MATHEMATICS SAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES 123
APPENDIX A: LANGUAGE PROGRESSIVE SKILLS, BY GRADE 137
APPENDIX B: CONDITION CODES 138

Copyright © 2017 by Georgia Department of Education. All rights reserved.

THE GEORGIA MILESTONES ASSESSMENT SYSTEM



Dear Student,

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

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

Get ready—open this guide—and get started!

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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!

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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!

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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
  - 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

- **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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

DEPTH OF KNOWLEDGE

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

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

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

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

Level 1 (Recall of Information)

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

Level 2 (Basic Reasoning)

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

Level 3 (Complex Reasoning)

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

Level 4 (Extended Reasoning)

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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**
• Make observations • Recall information • Recognize formulas, properties, patterns, processes • Know vocabulary, definitions • Know basic concepts • Perform one-step processes • Translate from one representation to another • Identify relationships	• Tell who, what, when, or where • Find • List • Define • Identify; label; name • Choose; select • Compute; estimate • Express as • Read from data displays • Order

Level 2—Basic Reasoning 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**
• Apply learned information to abstract and real-life situations • Use methods, concepts, and theories in abstract and real-life situations • Perform multi-step processes • Solve problems using required skills or knowledge (requires more than habitual response) • Make a decision about how to proceed • Identify and organize components of a whole • Extend patterns • Identify/describe cause and effect • Recognize unstated assumptions; make inferences • Interpret facts • Compare or contrast simple concepts/ideas	• Apply • Calculate; solve • Complete • Describe • Explain how; demonstrate • Construct data displays • Construct; draw • Analyze • Extend • Connect • Classify • Arrange • Compare; contrast

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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
• Solve an open-ended problem with more than one correct answer • Create a pattern • Generalize from given facts • Relate knowledge from several sources • Draw conclusions • Make predictions • Translate knowledge into new contexts • Compare and discriminate between ideas • Assess value of methods, concepts, theories, processes, and formulas • Make choices based on a reasoned argument • Verify the value of evidence, information, numbers, and data	• Plan; prepare • Predict • Create; design • Ask "what if?" questions • Generalize • Justify; explain why; support; convince • Assess • Rank; grade • Test; judge • Recommend • Select • Conclude

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
• Analyze and synthesize information from multiple sources • Examine and explain alternative perspectives across a variety of sources • Describe and illustrate how common themes are found across texts from different cultures • Apply mathematical models to illuminate a problem or situation • Design a mathematical model to inform and solve a practical or abstract situation • Combine and synthesize ideas into new concepts	• Design • Connect • Synthesize • Apply concepts • Critique • Analyze • Create • Prove

Copyright © 2017 by Georgia Department of Education. All rights reserved.

ENGLISH LANGUAGE ARTS (ELA)

DESCRIPTION OF TEST FORMAT AND ORGANIZATION

The Grade 6 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 6 English Language Arts (ELA) EOG assessment will measure the Grade 6 standards that are described at 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 argumentative essay and an informational/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 30 gives an example of a prompt that requires a narrative response.)

ITEM TYPES

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

* 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

ENGLISH LANGUAGE ARTS (ELA) DEPTH OF KNOWLEDGE EXAMPLE ITEMS

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

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

Example Item 1

Selected-Response

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

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

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

The sentence below contains a spelling error.

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

Which underlined word is NOT spelled correctly?

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

Correct Answer: C

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Read the poem "The Moon" and answer example items 2 and 3.

The Moon

by Emily Dickinson

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

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

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

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Example Item 2

Selected-Response

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

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

Genre: Literary

Standard: ELAGSERL1. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.

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

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

Correct Answer: C

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Example Item 3

Constructed-Response

DOK Level 3: This is a DOK level 3 item because students are asked to analyze the author's word choice and support their responses with evidence from the text.

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

Genre: Literary

Standard: ELAGSE6RL4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.

Analyze the tone of the poem and how the author's word choice creates that tone.

Use specific examples from the poem to support your answer. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Scoring Rubric

Points	Description
2	The exemplar shows a full-credit response. It achieves the following: • Gives sufficient evidence of the ability to analyze word choice and how it creates tone • Includes specific examples/details that make clear reference to the text • Adequately explains the tone or gives an explanation of its development with clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of the ability to analyze word choice and how it creates tone • Includes vague/limited examples/details that make reference to the text • Explains the tone or gives an explanation of its development with vague/limited information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of the ability to analyze word choice and how it creates tone

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Example Item 4

Extended Writing-Response

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

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

Genre: Informational

Standard: ELAGSE6W1. Write arguments to support claims with clear reasons and relevant evidence.

In this section, you will read two passages about the ongoing debate over the use of pesticides. What are the benefits and dangers of using pesticides? You will write an argumentative essay supporting either side of the debate in which you argue for or against the use of pesticides.

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

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

The World Needs Honeybees

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

What is the purpose of honeybees?

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

What is threatening honeybees?

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

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

How can the world save its honeybees?

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

A Farmer's Letter to the Editor

To Whom It May Concern:

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

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

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

Sincerely,
Edward Malloy

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Now that you have read "The World Needs Honeybees" and "A Farmer's Letter to the Editor," create a plan for and write your argumentative essay.

WRITING TASK

Think about both sides of the issue. Choose a side, and then write an **argumentative essay** supporting either side. In your essay, argue for or against the use of pesticides and their effect on the bee population.

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

Be sure to:

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

The following are examples of a seven-point response. See the seven-point, two-trait rubric for a text-based argumentative response on pages 76 and 77 to see why these examples would earn the maximum number of points.

Examples of a Seven-Point Response:

Farmers should stop using pesticides until more studies can be done. If they don't, the impact on our food supply will be scary. Edward Malloy claims in his letter that he will use pesticides responsibly and that "nobody is more committed to saving bees than farmers." However, it still seems that pesticides are unsafe in any amount.

One effect of pesticides is the disappearance of bees. When farmers spray chemicals on their fields, they are putting poison on their crops that honeybees can eat. According to "The World Needs Honeybees," different chemicals have different effects on bees, from instant death to confusion about how to do their jobs. If we cut pesticide use, we could save our bees.

If the chemicals can harm the bees, then they probably aren't safe for humans to eat either. In addition, nobody wants pesticides in the food supply.

Our health and safety should come first. We can't just trust farmers to do what's right. It's time to make laws that keep farmers from using pesticides.

OR

Pesticides are a necessary part of agriculture. It is unfortunate that some honeybees are affected by these chemicals, but pesticides are necessary to protect crops. Farmers should not be forced to make choices that will destroy their crops and put them out of business.

In his letter to the editor, farmer Edward Malloy states, "If farmers do stop using certain chemicals, their crops could be destroyed by insects and disease, and then it won't matter if there are bees or not." This logical point shows that farmers aren't using pesticides for fun. They use pesticides because they are necessary to protect crops and to make a living. The fact is that pesticides prevent pests from feeding on crops.

The first article argues, "Governments should make strict rules about the use of harmful chemicals, or pesticides, on commercial crops." This is unnecessary. Nobody needs honeybees to survive more than farmers do. Without bees, their crops won't produce high yields, so the farmers won't make money. We should trust that farmers will use pesticides responsibly.

Farmers will do what is best for the food supply. If we trust farmers enough to eat the foods they produce, we should be willing to trust their methods for growing the crops. Bees are important to farmers as well. They will voluntarily do what they should to protect bees.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

In this section, you will find information about what to study in order to prepare for the Grade 6 English Language Arts EOG assessment. This includes 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.

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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

KEY TERMS

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

Plot: The series of events that form a story in a specific order. (RL3)

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

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

Examples of figurative language are similes and metaphors. **Similes** make comparisons using a linking word such as *like*, *as*, or *than* (her eyes shone like the stars). A **metaphor** makes a comparison without a linking word; instead of one thing being *like* another, one thing *is* another (her eyes *were* shining stars). If someone says the "sea was glass," they are using a metaphor. The sea was calm, smooth, and clear; it was not literally glass. (RL4)

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). (RL6)

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. (RL7/RL9)

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.
- Try to read the questions about a literary text before you read.
- Re-read a literary text as you answer the questions to gain a better understanding.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 1–5

Read the story "The Finish Line" and answer questions 1 through 5.

The Finish Line

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

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

I nodded and said, "I know."

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

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

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

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

"Just until I find it," he said, "and you're part of my search team."

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

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

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

"We have work to do," he said, nodding.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

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

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

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

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

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

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

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

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

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

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

“Courtesy of your backyard,” I confirmed.

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 1

Selected-Response

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

> "Just until I find it," he said, "and you're part of my search team."

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

Item 2

Selected-Response

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

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 3

Technology-Enhanced

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

Part A

Which statement BEST expresses a theme of the story?

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

Part B

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 4

Constructed-Response

How does Maura change throughout the story?

Include details from the story to support your answer. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 5

Extended Constructed-Response

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

KEY TERMS

Summary: A summary is an overview of a text that captures the main points but does not give all of the details and does not include opinions. (RI2)

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

Organization: The way in which a piece of writing is structured. Each sentence, paragraph, or chapter fits into the overall structure of a text and contributes to the development of ideas. (RI5)

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

Author's point of view: The opinion of the author. Your opinion may differ from the opinion of the author writing a passage. (RI6)

Evidence: Something that proves or demonstrates the truth of something else. Informational texts may contain evidence to prove that the information they are providing is correct. (RI8)

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 or not 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 happened. A text that is arranged in order of time from the beginning to the end is in chronological order. (RI5)

Cause and effect: This is a relationship where one thing causes another thing to happen. A passage may also be organized by stating the **problem and solution** as well. (RI3)

Important Tips

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 6–9

Read the passage "Daylight Saving Time" and answer questions 6 through 9.

Daylight Saving Time

History

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

How It Works

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

Public Opinion

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

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

Health Concerns

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

Making the Adjustment Easier

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 6

Selected-Response

How does the section "Public Opinion" contribute to the passage?

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

Item 7

Selected-Response

Which conclusion about daylight saving time can the reader draw based on this detail from the passage?

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 8

Constructed-Response

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

Be sure to include details from the passage to support your answer. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 9

Constructed-Response

Based on the sections "Public Opinion" and "Health Concerns," what is the author's point of view about daylight saving time?

Be sure to include details that clearly show how the author reveals his or her viewpoint. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 3: Writing Argumentative Texts

CONTENT DESCRIPTION

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

Purpose

- An argumentative piece takes a stand or agrees or disagrees with a point of view.
- Some common words are “agree” or “disagree” or “for” or “against.”
- When you state your argument, you need to support it with claims, 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 71. 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

KEY TERMS

Claims: Ideas and opinions set forth by the author. For example, a writer could make the claim that the school cafeteria is too expensive. (W1a)

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

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

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

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

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. For example, if you were writing an argumentative text in which you wanted to show the negative effects of something, you might choose cause and effect as an organizational structure. (W1a/W4)

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 clarify ideas. (W5)

Important Tips

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 10–13

[**NOTE:** The structure of the practice items for this unit and Unit 4 that follows is as it appears on the Georgia Milestones End-of-Grade assessment: 1) multiple-choice questions (three on the actual test); 2) a constructed-response item; and 3) an extended writing 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 extended writing prompt for Unit 4.]

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

WRITING TASK

There is a controversy surrounding genetically modified organisms, or GMOs. What are the benefits and risks of consuming foods that have been genetically modified?

Think about both sides of the discussion, and then write an **argumentative essay** supporting either side. In your essay, you will argue for or against the use of GMOs.

Be sure to use information from BOTH passages. **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 argumentative essay. These are the titles of the texts you will read:

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

GMOs Can Feed the World

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

One benefit of GMOs is that crops can be strengthened. That way no disease or weed can mess with those crops! For example, wild sunflowers are found all over the United States. Each one contains a trait that could help human-grown sunflowers. For instance, a wild sunflower that grows in the desert has traits that allow it to survive on little water. Scientists can isolate this gene and transfer it to the DNA, or genetic material, of a commercial sunflower. This allows farmers to grow sunflowers even in regions that get little water. It also helps farmers in climates with four distinct seasons protect crops from dry spells.

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

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

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Are GMOs Really Safe?

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

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

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

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

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

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

The field is divided on GMOs for now. Producers proclaim the benefits. Meanwhile, some scientists ask for more testing to confirm the safety of these crops.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 10

Selected-Response

Read this sentence from the second paragraph of "GMOs Can Feed the World."

> That way no disease or weed can mess with those crops!

Which revision of the sentence BEST maintains the formal style of the paragraph without changing the meaning of the sentence?

A. Crops will pick fights with weeds and disease.
B. Weeds and disease don't stand a chance against GMO crops.
C. It is quite clear that weeds and disease need not bother attacking crops.
D. In this way, scientists can protect crops from harmful weeds and diseases.

Item 11

Selected-Response

Based on the information in "Are GMOs Really Safe?" choose the sentence that would BEST conclude the last paragraph and the argument.

> The field is divided on GMOs for now. Producers proclaim the benefits. Meanwhile, some scientists ask for more testing to confirm the safety of these crops.

A. Until then, consumers will have to educate themselves about the foods they buy.
B. Until then, mandatory labeling will help consumers make informed dietary choices.
C. Until then, most consumers will have to rely on the government for tighter restrictions.
D. Until then, consumers have no choice but to accept the foods that are currently available.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 12

Constructed-Response

Explain how the author of "GMOs Can Feed the World" illustrates the importance of using GMOs to strengthen crops.

Be sure to include details from the text to support your answer. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 13

Extended Writing-Response

Now that you have read "GMOs Can Feed the World" and "Are GMOs Really Safe?" and answered some questions about what you have read, create a plan for and write your argumentative essay.

WRITING TASK

There is a controversy surrounding genetically modified organisms, or GMOs. What are the benefits and risks of consuming foods that have been genetically modified?

Think about both sides of the discussion, and then write an **argumentative essay** supporting either side. In your essay, you will argue for or against the use of GMOs.

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

Be sure to:

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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 71. 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

KEY TERMS

Informational/explanatory texts are forms of writing that inform the reader or explain 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. (W2f)

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)

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

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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 14–17

[**NOTE:** The structure of the practice items for Unit 4 is similar to how the section 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) two constructed-response items in the place of an extended writing prompt.]

In this section, you will read a passage and answer questions 14 through 17.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Read the passage "Circadian Rhythm" and answer questions 14 through 17.

Circadian Rhythm

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

Perils of Artificial Light

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

Changing One's Internal Clock

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

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

Eliminating Light

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 14

Selected-Response

Which section heading would BEST introduce the final paragraph of the passage?

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

A. Getting Peaceful Sleep
B. Striving for Consistency
C. The Dangers of Alarm Clocks
D. Disturbing Your Natural Sleep Cycle

Item 15

Selected-Response

Which concluding statement is BEST to add to the end of the second paragraph of the passage to support the information presented?

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

A. As a result, people can also suffer eyestrain and headaches.
B. Few individuals are willing to give up their computers and cell phones.
C. Turning off screens close to bedtime will prevent these negative effects.
D. People have to decide which is more important: checking email or watching TV.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 16

Constructed-Response

Write a brief summary of the author's main points about circadian rhythms.

Be sure to include central ideas and details from the passage. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 17

Constructed-Response

How does the author illustrate the importance of eliminating light when changing one's internal clock?

Be sure to include details from the text to support your answer. Write your answer on the lines provided.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

Subjective/Nominative pronoun: Pronouns that act as the subject of a sentence. Examples are *I, we, he, she,* and *they*. In the sentence *They went to the beach, they* is the subject in the subject-verb-object structure. (L1a)

Objective pronoun: Pronouns that act as the object of a sentence. Examples are *me, us, him, her,* and *them.* In the sentence, *He gave it to them, them* is the object in the subject-verb-object structure. (L1a)

Possessive pronoun: Pronouns that show possession. Examples are *mine, his, hers, ours*, and *theirs*. For example, *Those cookies are mine.* (L1a)

Indefinite pronoun: Pronouns that represent an object that may have already been identified or does not need explicit identification. Examples are *another*, *any*, *both*, *each*, *neither*, *none*, and *some*. (L1)

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

Style: The particular form or way an author chooses to write. There are many different writing styles. It is important to maintain your style throughout a piece of writing. (L3b)

Context: 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)

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Figurative language:

- **Personification:** When a writer describes an object as if it were a person. For example, *The trees sighed in the afternoon breeze.* The trees did not really sigh but seemed to as they blew gently in the breeze. (L5a)
- **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)

Important Tips

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 18–21

Item 18

Selected-Response

Which sentence does NOT have an error in pronoun use?

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

Item 19

Selected-Response

Which sentence is the MOST concise way to combine the sentences while maintaining their meaning?

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 20

Selected-Response

Which sentence, if added to the end of the paragraph, BEST maintains a consistent style?

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

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

Item 21

Selected-Response

Which sentence does NOT use commas correctly?

A. My older brother, Jonathan, attends college in Oregon.
B. Briana speaks several languages including French, and Spanish.
C. John, along with several of his friends, attended the symphony.
D. According to this week's newspaper, the movie does not start until seven.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

ENGLISH LANGUAGE ARTS (ELA) ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
1	ELAGSE6RL1 Literary	2	D	The correct answer is choice (D) He is determined. The context reveals that Grandpa has been looking for the ring for a long time, yet he is still determined to find it. Choices (A) and (B) are incorrect because although other details in the story support these traits, this example does not. Choice (C) is incorrect; this conclusion about Grandpa is not supported by the context of the quoted sentence.
2	ELAGSE6RL5 Literary	2	C	The correct answer is choice (C) It contrasts the organizational styles of Grandpa and Maura's parents. Grandpa's garage is neat and tidy, while Maura's garage is messy and disorganized. Choice (A) is incorrect because the mere observation of Grandpa's garage does not teach Maura a lesson. Choice (B) is incorrect because the characters are not in the garage for the majority of the action, so the garage is not the main setting. Choice (D) is incorrect because Maura's mother has a messy garage, not an organized one like Grandpa's.
3	ELACC6RL2	3	D/D	The correct answers are (D) Working hard when faced with difficulties can lead to success, **and** (D) They all looked better than that hair clip had, so maybe there was potential for them after all. This is a theme that recurs throughout the passage, as Maura finds renewed enthusiasm for her art projects, and finds that the time spent with her grandfather and the metal detector produces treasures, even though she thinks it is more trouble than it is worth initially. The answer choice for Part B of the item shows text that supports this theme. In Part A, Choice (A) is incorrect because Maura never behaves in an unkind manner. Choice (B) is incorrect because it is made clear that Maura's mother has ". . . been born good at everything." Choice (C) is incorrect because there is no indication that Maura is lonely. The incorrect options in Part B support incorrect answers in Part A.
4	ELAGSE6RL3 Literary	4	N/A	See scoring rubric and sample response beginning on page 62.
5	ELAGSE6W3e	4	N/A	See scoring rubric beginning on page 72 and sample response on page 64.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
6	ELAGSE6RI5 Informational/ Explanatory	2	B	The correct answer is choice (B) It suggests that DST does not meet its goals. The end of the section explicitly states, “If saving money is the goal of DST, it likely fails.” Choice (A) is incorrect because the existence of multiple perspectives implies that DST is, in fact, controversial. Choice (C) is incorrect because the section is not balanced; it is biased toward critics of DST. Choice (D) is incorrect because this section does nothing to help readers adjust to DST; this role is filled by the passage’s final paragraph.
7	ELAGSE6RI1 Informational/ Explanatory	3	A	The correct answer is choice (A) Each state has the option of participating in DST. Since Hawaii and parts of Arizona do not participate, DST must be optional. Choice (B) is incorrect because although one of the non-participating states is in the south, there is no indication that DST is not as effective there. Choice (C) is incorrect because the sentence does not express the government’s plans. Choice (D) is incorrect because the controversy is not limited to one area.
8	ELAGSE6RI5 Informational/ Explanatory	3	N/A	See scoring rubric and sample response on page 65.
9	ELAGSE6RI6 Informational/ Explanatory	4	N/A	See scoring rubric and sample response on page 66.
10	ELAGSE6W1d	2	D	The correct answer is choice (D) In this way, scientists can protect crops from harmful weeds and diseases. This revision removes the informal phrase “mess with” and the exclamation point and uses appropriately formal language while preserving the meaning of the sentence. Choices (A) and (B) are incorrect because they are informal due to the phrases “pick fights” and “don’t stand a chance.” Choice (C) is incorrect because it is too formal with phrases like “quite clear” and “need not.”

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
11	ELAGSE6W1e	2	A	The correct answer is choice (A) Until then, consumers will have to educate themselves about the foods they buy. This conclusion follows the logic of the paragraph and reflects the balanced perspective of the article: in the absence of a firm judgment on GMOs, consumers are left to their own devices. Choice (B) is incorrect because, as the article states, there is no such mandatory labeling of GMOs. Choice (C) is incorrect because the article neither focuses on nor supports government restrictions. Choice (D) is incorrect because consumers *do* have choices between GMOs and non-modified foods.
12	ELAGSERI3 Informational/ Explanatory	3	N/A	See scoring rubric and sample response on page 67.
13	ELAGSE6W1	4	N/A	See scoring rubric beginning on page 76 and sample response on page 68.
14	ELAGSE6W2a	2	B	The correct answer is choice (B) Striving for Consistency. The paragraph is about establishing and maintaining a consistent sleep schedule that is compatible with circadian rhythm. Choice (A) is incorrect because peaceful sleep is not the focus of the paragraph. Choice (C) is incorrect because the paragraph does not address dangers of alarm clocks. Choice (D) is incorrect because the paragraph is about catering to your natural sleep cycle, not disturbing it.
15	ELAGSE6W2f	2	C	The correct answer is choice (C) Turning off screens close to bedtime will prevent these negative effects. The paragraph is about how artificial light from electronics undermines circadian rhythm; a natural conclusion is that turning off the screens will restore their natural rhythms. Choice (A) is incorrect because eyestrain and headaches are outside the topic of the paragraph. Choice (B) is incorrect because it is an unsupported generalization, and the paragraph does not imply that people should *entirely* give up their electronic devices. Choice (D) is incorrect because checking email and watching TV *both* harm circadian rhythm; the best choice is to avoid both.
16	ELAGSE6RI2 Informational/ Explanatory	3	N/A	See scoring rubric and sample response on page 69.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
17	ELAGSE6RI3 Informational/ Explanatory	4	N/A	See scoring rubric and sample response on page 70.
18	ELAGSE6L1b	2	A	The correct answer is choice (A) Caleb is six years older than I. This sentence has no errors in pronoun use. It requires the subjective pronoun *I*. Choice (B) is incorrect because it has an error in pronoun use. It needs the objective pronoun *me* instead of *I,* because the pronoun is the direct object of the verb *visited*. Choice (C) is incorrect because it has an error in pronoun use. It needs the objective pronoun *Whom* instead of *Who*, because the pronoun is the object of the preposition *with*. Choice (D) is incorrect because it has an error in pronoun use. It needs the subjective pronoun *I* because it is part of the sentence's subject.
19	ELAGSE6L3a	3	B	The correct answer is choice (B) The speed and the skill of the players impressed Eve when she attended her first hockey game tonight along with her parents. This sentence preserves the meaning of the original sentences and combines their ideas correctly and without undue repetition. Choice (A) is incorrect because "the speed of the players and their skill" is awkward; "the speed and skill of the players" would be a better combination. Choice (C) is incorrect because it indicates a false cause/effect relationship; we do not know if Eve was impressed *because* this was her first hockey game. Choice (D) is incorrect because "the speed of the players and the skill of the players" is unnecessarily and awkwardly repetitive.
20	ELAGSE6L3b	3	C	The correct answer is choice (C) With regular visits to the veterinarian, pets can enjoy long and healthy lives. This moderately formal but not stiff style is most consistent with the rest of the paragraph. Choices (A) and (B) are incorrect because they break the style with pronouns that are in the wrong voice and sound too informal (*I* and *you*). Choice (D) is incorrect because it is overly formal and stiff due to the use of the indefinite pronoun *one* instead of a personal pronoun, and it has a dramatic change in tone.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element/ Genre	DOK Level	Correct Answer	Explanation
21	ELAGSE6L2a	2	B	The correct answer is choice (B) Briana speaks several languages including French, and Spanish. There is no series of items, so the comma is unnecessary. Choice (A) is incorrect because it correctly uses commas to set off an appositive. Choice (C) is incorrect because it correctly uses commas to set off a non-crucial phrase. Choice (D) is incorrect because it correctly uses a comma to set off an introductory phrase.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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: • Gives sufficient evidence of the ability to understand characterization and analyze its development over the course of a text • Includes specific examples/details that make clear reference to the text • Adequately explains the characterization or gives an explanation of its development with clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of the ability to understand characterization and analyze its development over the course of a text • Includes vague/limited examples/details that make reference to the text • Explains the characterization or gives an explanation of its development with vague/limited information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of the ability to understand characterization or analyze its development over the course of a text

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 5

To view the four-point holistic rubric for a text-based narrative response, see pages 72 and 73.

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 8

Scoring Rubric

Points	Description
2	The exemplar shows a full-credit response. It achieves the following: • Gives sufficient evidence of how a section of a text contributes to the development of ideas in the text • Includes specific examples/details that make clear reference to the text • Adequately explains how the section fits in with the text and includes clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of how a section of a text contributes to the development of ideas in the text • Includes vague/limited examples/details that make reference to the text • Explains how the section fits in with the text and includes clearly relevant information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of how a section of a text contributes to the development of ideas in the text

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 9

Scoring Rubric

Points	Description
2	The exemplar shows a full-credit response. It achieves the following: • Gives sufficient evidence of the ability to determine the author's point of view and analyze its development over the course of a text • Includes specific examples/details that make clear reference to the text • Adequately explains the author's point of view or gives an explanation of its development with clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of the ability to determine the author's point of view and analyze its development over the course of a text • Includes vague/limited examples/details that make reference to the text • Explains the author's point of view or gives an explanation of its development with vague/limited information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of the ability to determine the author's point of view or analyze its development over the course of a text

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 12

Scoring Rubric

Points	Description
2	The exemplar shows a full-credit response. It achieves the following: • Gives sufficient evidence of the ability to illustrate the importance of an idea and analyze its development over the course of a text • Includes specific examples/details that make clear reference to the text • Adequately explains the key details or gives an explanation of their development with clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of the ability to illustrate the importance of an idea and analyze its development over the course of a text • Includes vague/limited examples/details that make reference to the text • Explains the key ideas or gives an explanation of their development with vague/limited information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of the ability to illustrate the importance of an idea or analyze its development over the course of a text

Exemplar Response

Points Awarded	Sample Response
2	The author illustrates the importance of using GMOs to strengthen crops by providing the example of the wild sunflower. At its best, genetic modification allows plants to survive harsh conditions. Wild sunflowers can survive in many harsh conditions, including drought, and “Scientists can isolate this gene and transfer it to the DNA, or genetic material, of a commercial sunflower.” This illustrates the value of GMOs by proving that farmers can now grow plants in rugged conditions that were unusable before. This benefits both the farmer and the consumer.
1	Wild sunflowers illustrate the importance of GMOs. Their traits can help other crops. GMOs can be harmful to people.
0	The details in the article illustrate the importance of GMOs.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 13

The following is an example of a seven-point response. See the seven-point, two-trait rubric for a text-based argumentative response on pages 76 and 77 to see why this example would earn the maximum number of points.

Example of a Seven-Point Response:

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

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

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 16

Scoring Rubric

Points	Description
2	The exemplar shows a full-credit response. It achieves the following: • Gives sufficient evidence of the ability to determine and summarize the main idea and analyze its development over the course of a text • Includes specific examples/details that make clear reference to the text • Adequately explains the main idea or gives a summary of its development with clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of the ability to determine and summarize the main idea and analyze its development over the course of a text • Includes vague/limited examples/details that make reference to the text • Explains the main idea or gives a summary of its development with vague/limited information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of the ability to determine and summarize the main idea or analyze its development over the course of a text

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 17

Scoring Rubric

Points	Description
2	The exemplar shows a full-credit response. It achieves the following: • Gives sufficient evidence of the ability to determine a key idea and analyze its development over the course of a text • Includes specific examples/details that make clear reference to the text • Adequately explains a key idea or gives an explanation of its development with clearly relevant information based on the text
1	The exemplar shows a 1-point response. It achieves the following: • Gives limited evidence of the ability to determine a key idea and analyze its development over the course of a text • Includes vague/limited examples/details that make reference to the text • Explains a key idea or gives an explanation of its development with vague/limited information based on the text
0	The exemplar shows a response that would earn no credit. It achieves the following: • Gives no evidence of the ability to determine a key idea or analyze its development over the course of a text

Exemplar Response

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

ENGLISH LANGUAGE ARTS (ELA) WRITING RUBRICS

Grade 6 items that are not machine-scored—i.e., constructed-response, extended constructed-response, and extended writing response items—are manually scored using either a holistic rubric or a two-trait rubric.

Four-Point Holistic Rubric

Genre: Narrative

A holistic rubric evaluates one major 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: Argumentative or Informational/Explanatory

A two-trait rubric, on the other hand, evaluates two major traits, which are conventions and ideas. On the Georgia Milestones EOG assessment, a two-trait rubric contains two scales, one for each trait, ranging from zero to 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 6 English Language Arts EOG assessment.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Four-Point Holistic Rubric

Genre: Narrative

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Four-Point Holistic Rubric

Genre: Narrative
(continued)

Writing Trait	Points	Criteria
This trait examines the writer's ability to effectively develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences based on a text that has been read.	1	*The student's response provides evidence of an attempt to write a narrative based on text as a stimulus.* • Response is a summary of the story • Provides a weak or minimal introduction of a situation or a character • May be too brief to demonstrate a complete sequence of events • Shows little or no attempt to use dialogue, description, and pacing to develop experiences, events, and/or characters • Uses words that are inappropriate, overly simple, or unclear • Provides few, if any, words that convey experiences, or events, or signal shifts from one time frame or setting to another • Provides a minimal or no conclusion • May use few, if any, ideas or details from source material • Has frequent major errors in usage and conventions that interfere with meaning*
	0	*The student's response is flawed for various reasons and will receive a condition code:* The condition codes can be found on page 138 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Seven-Point, Two-Trait Rubric

Trait 1 for Informational/Explanatory Genre

Writing Trait	Points	Criteria
Idea Development, Organization, and Coherence *This trait examines the writer's ability to effectively establish a controlling idea 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.*	4	*The student's response is a well-developed informative/explanatory text that examines a topic in depth and conveys ideas and information clearly based on text as a stimulus.* • Effectively introduces a topic • Effectively organizes ideas, concepts, and information using various strategies such as definition, classification, comparison/contrast, and cause/effect • Effectively develops a topic with multiple, relevant facts, definitions, concrete details, quotations, or other information and examples related to the topic • Effectively uses transitions to connect and clarify relationships among ideas • Uses precise language and domain-specific vocabulary to effectively inform and explain about the topic • Establishes and maintains a formal style • Provides a strong concluding statement or section that follows from the information or explanation presented
	3	*The student's response is a complete informative/explanatory text that examines a topic and presents information clearly based on text as a stimulus.* • Introduces a topic • Generally organizes ideas, concepts, and information • Develops a topic with a few facts, definitions, concrete details, quotations, or other information and examples • Uses some transitions to connect and clarify relationships among ideas, but relationships may not always be clear • Uses some precise language and domain-specific vocabulary to inform and explain about the topic • Maintains a formal style, for the most part • Provides a concluding statement or section
	2	*The student's response is an incomplete or oversimplified informative/explanatory text that cursorily examines a topic.* • Attempts to introduce a topic • Attempts to develop a topic with too few details • Ineffectively organizes ideas, concepts, and information • Uses limited language and vocabulary that does not inform or explain the topic • Uses few transitions to connect and clarify relationships among ideas • Uses a formal style inconsistently or uses an informal style • Provides a weak concluding statement or section
	1	*The student's response is a weak attempt to write an informative/explanatory text that examines a topic.* • May not introduce a topic or topic is unclear • May not develop a topic • May be too brief to group any related ideas together • May not use any linking words to connect ideas • Uses vague, ambiguous, or repetitive language • Uses a very informal style • Provides a minimal or no concluding statement or section
	0	*The student's response is flawed for various reasons and will receive a condition code:* The condition codes can be found on page 138 of this guide.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Seven-Point, Two-Trait Rubric

Trait 2 for Informational/Explanatory Genre

Writing Trait	Points	Criteria
Language Usage and Conventions *This trait examines the writer's ability to demonstrate control of sentence formation, usage, and mechanics as embodied in the grade-level expectations of the language standards.*	3	*The student's response demonstrates full command of language usage and conventions.* • Effectively varies sentence patterns for meaning, reader/listener interest, and style • Shows command of language and conventions when writing • Any errors in usage and conventions do not interfere with meaning*
	2	*The student's response demonstrates partial command of language usage and conventions.* • Varies some sentence patterns for meaning, reader/listener interest and style • Shows some knowledge of languages and conventions when writing • Has minor errors in usage and conventions with no significant effect on meaning*
	1	*The student's response demonstrates weak command of language usage and conventions.* • Has fragments, run-ons, and/or other sentence structure errors • Shows little knowledge of languages and conventions when writing • Has frequent errors in usage and conventions that interfere with meaning*
	0	The student's response is flawed for various reasons and will receive a condition code: The condition codes can be found on page 138 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Seven-Point, Two-Trait Rubric

Trait 1 for Argumentative Genre

Writing Trait	Points	Criteria
Idea Development, Organization, and Coherence *This trait examines the writer's ability to effectively establish a claim, to support the claim with evidence from the text(s) read, and to elaborate on the claim with examples, illustrations, facts, and other details. The writer must integrate the information from the text(s) into his/her own words and arrange the ideas and supporting evidence in order to create cohesion for an argument essay.*	4	*The student's response is a well-developed argument that effectively relates and supports claims with clear reasons and relevant text-based evidence.* • Effectively introduces claim(s) • Organizes supporting reasons and evidence clearly • Supports claim(s) with clear reasons and relevant evidence using specific, well-chosen facts, details, or other information from credible sources and demonstrating an good understanding of the topic or texts • Uses words, phrases, or clauses effectively to connect ideas and clarify relationships among claim(s) and reasons • Establishes and maintains formal style that is appropriate for the task, purpose, and audience • Provides a strong concluding statement or section that logically follows from the argument presented
	3	*The student's response is a complete argument that relates and supports claims with some text-based evidence.* • Introduces claim(s) • Organizes supporting reasons and evidence • Supports claim(s) with reasons and evidence using some facts, details, or other information from generally credible sources • Uses words, phrases, or clauses to connect ideas and link claim(s) and reasons • Uses formal style fairly consistently for the task, purpose, and audience • Provides a concluding statement or section that follows from the argument presented
	2	*The student's response is an incomplete or oversimplified argument that partially supports claims with loosely related text-based evidence.* • Attempts to introduce claim(s) • Attempts to organize supporting reasons and evidence • Attempts to support claim(s) with facts, reasons and other evidence sometimes, but logic and relevancy are often unclear • Uses few words, phrases, or clauses to connect ideas and link claim(s) and reasons; connections are not always clear • Uses formal style inconsistently or uses informal style that does not fit task, purpose, or audience • Provides a weak concluding statement or section that may not follow the argument presented
	1	*The student's response is a weak attempt to write an argument and does not support claims with adequate text-based evidence.* • May not introduce claim(s) • May be too brief to demonstrate an organizational structure, or no structure is evident • May not support claim(s) • Uses minimal or no words, phrases, or clauses to connect ideas • Uses very informal style that is not appropriate for task, purpose, or audience • Provides a minimal or no concluding statement or section
	0	*The student's response is flawed for various reasons and will receive a condition code:* The condition codes can be found on page 138 of this guide.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Seven-Point, Two-Trait Rubric

Trait 2 for Argumentative Genre

Writing Trait	Points	Criteria
Language Usage and Conventions *This trait examines the writer's ability to demonstrate control of sentence formation, usage, and mechanics as embodied in the grade-level expectations of the language standards.*	3	*The student's response demonstrates full command of language usage and conventions.* • Effectively varies sentence patterns for meaning, reader/listener interest, and style • Shows command of language and conventions when writing • Any errors in usage and conventions do not interfere with meaning*
	2	*The student's response demonstrates partial command of language usage and conventions.* • Varies some sentence patterns for meaning, reader/listener interest, and style • Shows some knowledge of languages and conventions when writing • Has minor errors in usage and conventions with no significant effect on meaning*
	1	*The student's response demonstrates weak command of language usage and conventions.* • Has fragments, run-ons, and/or other sentence structure errors • Shows little knowledge of languages and conventions when writing • Has frequent errors in usage and conventions that interfere with meaning*
	0	*The student's response is flawed for various reasons and will receive a condition code:* The condition codes can be found on page 138 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.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

ACTIVITY

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

Standard: ELAGSE6RL1

Become a Character from a Literary Text

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

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

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

- Each person selects one character from a different literary text they have read.
- Be prepared to answer questions as your character.

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

Sample Question Starters
• Why did you...? • What made you choose...? • Why did you treat _____ that way? • How did you expect things to turn out? • How did you feel when...? • What made you say...? • Would you ever...? • Will you change your ways after what happened? • What did you learn about yourself?

Copyright © 2017 by Georgia Department of Education. All rights reserved.

ACTIVITY

The following activity develops skills in Unit 5: Language.

Standard: ELAGSE6L1

Grammar Go-Round

Work with your friends or family.

- Use a copy of the English Language Arts language standards.
- Write three practice questions for each standard.

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

Each person gets two points for a correct answer and they lose one point for an incorrect answer. The person with the most points wins the game.

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

MATHEMATICS

DESCRIPTION OF TEST FORMAT AND ORGANIZATION

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

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

The test will be given in two sections.

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

CONTENT

The Grade 6 Mathematics EOG assessment will measure the Grade 6 standards that are described at www.georgiastandards.org.

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

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

ITEM TYPES

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

MATHEMATICS DEPTH OF KNOWLEDGE EXAMPLE ITEMS

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

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

Example Item 1

Selected-Response

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

Mathematics Grade 6 Content Domain: The Number System

Standard: MGSE 6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

Which integer represents 10 degrees Fahrenheit below zero?

A. 10
B. 0
C. –10
D. –20

Correct Answer: C

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Example Item 2

Constructed-Response

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

Mathematics Grade 6 Content Domain: The Number System

Standard: MGSE 6.NS.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

Find the sum for this addition problem.

6.42 + 27.58 = ☐

Show each step you used to find your answer.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Scoring Rubric

Points	Description
2	The response achieves the following: • Response demonstrates a complete understanding of how to use a strategy based on place value to add two decimal numbers. • Give 2 points for a correct response and a valid process. • Response is correct and complete. • Response shows application of a reasonable and relevant strategy. • Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

1	The response achieves the following:
	• Response demonstrates a partial understanding of how to use a strategy based on place value to add two decimal numbers.
	• Give 1 point for a correct response that does not include a valid process or contains a calculation mistake made in an otherwise correct process.
	  • Response includes the correct sum but no or incomplete explanation.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	• The response demonstrates limited to no understanding of how to use a strategy based on place value to add two decimal numbers.
	  • Response shows no application of a strategy.
	  • Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Exemplar Response

Points Awarded	Sample Response
2	34 AND 6.42 + 27.58 = ☐ ☐ = (6 + 7 + 20) + (0.4 + 0.5) + (0.02 + 0.08) ☐ = (13 + 20) + (0.9) + (0.1) ☐ = 33 + 1 ☐ = 34 *OR other valid process*
1	34 with no explanation or incomplete work
0	*Response is irrelevant, inappropriate, or not provided.*

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Example Item 3

Extended Constructed-Response

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

Mathematics Grade 4 Content Domain: Expressions and Equations

Standard: MGSE 6.EE.4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.

Sam wrote these four expressions.

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

Part A: Which expressions are equivalent?

Part B: Explain your reasoning for Part A.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Part C: Choose two of Sam's expressions that are not equivalent. Explain how you know they are not equivalent.

Part D: How can you change one of the expressions from Part C to make the two expressions equivalent?

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Scoring Rubric

Points	Description

4	The response achieves the following:
	• The response demonstrates a complete understanding of evaluating expressions and identifying equivalent expressions.
	• Give 4 points for 4 parts answered correctly.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

3	The response achieves the following:
	• The response demonstrates a nearly complete understanding of evaluating expressions and identifying equivalent expressions.
	• Give 3 points for correct responses for only three of the four parts OR two of the parts have errors or are incomplete.
	  • Response is mostly correct but contains either a computation error or an unclear or incomplete explanation.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

2	The response achieves the following:
	• The response demonstrates a partial understanding of evaluating expressions and identifying equivalent expressions.
	• Give 2 points for correct responses for only two of the four parts OR three of the parts have errors or are incomplete.
	  • Response is only partially correct.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

1	The response achieves the following:
	• The response demonstrates a minimal understanding of evaluating expressions and identifying equivalent expressions.
	• Give 1 point for correct responses for only one of the four parts OR three of the parts have errors or are incomplete.
	  • Response is only partially correct.
	  • Response shows incomplete or inaccurate application of a relevant strategy.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following: • The response demonstrates limited to no understanding of evaluating expressions and identifying equivalent expressions. • Response shows no application of a strategy. • Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Exemplar Response

Points Awarded	Sample Response
4	Part A: Only expressions 1 and 3 are equivalent. AND Part B: To show that only two of the four expressions are equivalent, I set *n* equal to 3 in each expression and evaluated. 1. When *n* is 3, the expression equals 14. 2. When *n* is 3, the expression equals 11. 3. When *n* is 3, the expression equals 14. 4. When *n* is 3, the expression equals 18. Expressions 1 and 3 are equivalent because when you substitute *n* for a value, they both have the same result. If you substitute the same number for *n* in the other two expressions, the result is different. This is true for any value of *n*. *OR other valid explanation* AND Part C: (answers will vary depending on which expression the student chooses) I chose expressions 2 and 3, which are not equivalent. I know they are not equivalent because when I substitute the same value for *n* in both expressions, they do not equal the same number. *OR other valid explanation* AND Part D: If I add one *n* to expression 2, they are equivalent.
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	*Response is irrelevant, inappropriate, or not provided.*

Copyright © 2017 by Georgia Department of Education. All rights reserved.

MATHEMATICS CONTENT DESCRIPTION AND ADDITIONAL SAMPLE ITEMS

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

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

CONTENT DESCRIPTION

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Georgia Milestones Assessment System

Mathematics Formula Sheet

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

Look under "EOG Resources."

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 1: Number System Fluency

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

KEY TERMS

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

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

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

Standard algorithm: A method used to solve a problem that includes a set of specific steps. (NS.2)

Solve multi-digit **division** equations using the standard algorithm. (NS.2)

Operations with decimals:

Addition and **subtraction** of decimal numbers requires close attention to the place value of each digit. Operations must be completed on the digit in the same location such as adding the tenths place in one number with the tenths place in another number. (NS.3)

When **multiplying** a number by a decimal number, the product will have a smaller value than the whole number factor. The equation $2 \times 0.01 = 0.02$ shows that 2 groups of 1 hundredth is equal to 2 hundredths. (NS.3)

When **dividing** a number by a decimal number, the **quotient** will have a greater value than the **dividend**. The equation $2 \div 0.01 = 200$ shows that there are 200 hundredths in the number 2. (NS.3)

A number can be broken down into factors. The **factors** of a number are two numbers that, when multiplied together, equal the given number. A **greatest common factor** is the largest factor that two numbers share. (NS.4)

A **multiple** of a number is the product of that number and another factor. A **least common multiple** is the smallest multiple that two numbers share. (NS.4)

Copyright © 2017 by Georgia Department of Education. All rights reserved.

An addition equation can be rewritten using the **Distributive Property** with **common factors**. For example, 21 + 35 can be rewritten because both addends have a common factor of 7. So (7 × 3) + (7 × 5) can also be written as 7 (3 + 5). (NS.4)

Important Tips

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

Sample Items 1–3

Item 1

Selected-Response

Which expression is equivalent to 36 + 24?

A. 6 + 4
B. 4(6 + 4)
C. 4(6 + 6)
D. 6(6 + 4)

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 2

Constructed-Response

Solve the problem.

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

$\square =$ _____

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 3

Constructed-Response

Elena divided a decimal by a whole number.

$$84.36 \div 12 = \square$$

Part A: Explain each step needed to divide 84.36 by 12.

Part B: What is the correct quotient?

quotient = _____

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

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

KEY TERMS

Ratio: Describes the multiplicative relationship between two quantities.

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

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

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

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

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

Unit pricing and constant speed require creating an equivalent rate where a value is 1. For example, the car travels 75 miles in 3 hours. The rate or constant speed of the car is 25 miles per 1 hour. (RP.3b)

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

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

Important Tip

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 4–6

Item 4

Selected-Response

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

A. 3 to 4
B. 4 to 3
C. 3 to 7
D. 7 to 3

Item 5

Selected-Response

A tomato sauce recipe uses 96 ounces of crushed tomatoes.

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 6

Extended Constructed-Response

At the farmers' market, 2 watermelons cost $6. At the grocery store, 4 watermelons cost $20.

Part A

Number of Watermelons (Farmers' Market) (*n*)	Cost ($)
1	
2	6
3	
	12

Part B

Number of Watermelons (Grocery Store) (*n*)	Cost ($)
1	
	10
3	
4	20

Part A: Complete the table that shows the ratio of number of watermelons to price at the farmers' market. Explain what each row means.

Part B: Complete the table that shows the ratio of the number of watermelons to price at the grocery store. Explain what each row means.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Part C: At which place do watermelons cost less? Explain how you got your answer.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 3: Expressions

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

KEY TERMS

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

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

Use variables, numbers, and operations to represent **written expressions** as **numerical expressions**. For example, "multiply the sum of 2 and *n* by 3" can be written as $3(2 + n)$. (EE.2a)

Parts of an expression:

- **Term:** A number, variable, or a product of a number and a variable.
- **Factor:** A number that is multiplied by another number to find the product.
- **Sum:** The total of terms that are added together.
- **Difference:** The total of terms that are subtracted.
- **Product:** The total of terms that are multiplied.
- **Quotient:** The total of terms that are divided.
- **Coefficient:** A number multiplied by a variable. (EE.2b)

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

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

Equivalent expressions: Two expressions that represent the same number regardless of the value of the variable. (EE.4) Equivalent expressions can be created using the **Properties of Operations** such as using the Distributive Property to change $24 + 6x$ to the equivalent expression of $6(4 + x)$. (EE.2)

Greatest Common Factor: The greatest factor that divides two numbers. (NS.4)

Least Common Multiple: The smallest positive integer that is divisible by two numbers. (NS.4)

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Important Tips

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

Item 7

Selected-Response

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

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

Item 8

Technology-Enhanced

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 9–10

Item 9

Selected-Response

Look at this expression.

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

Which expression is equivalent?

A. $2 \times \frac{1}{5}$

B. $3 \times \frac{1}{5}$

C. $\left(\frac{1}{5}\right)^2$

D. $\left(\frac{1}{5}\right)^3$

Item 10

Selected-Response

Look at this expression.

$$5(4x - 3)$$

Which expression is equivalent?

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 4: One-Step Equations and Inequalities

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

KEY TERMS

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

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

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

A word problem can be represented using an **equation** before solving. Using **rational numbers** from a problem, write equations such as $x + 42 = 56$ and $8x = 72$. (EE.7)

A word problem can also be represented using an inequality using **rational numbers** such as $x < 24$. Solutions to inequalities can be represented on the **number line** by placing an **open** or **closed** point on the given number and an **arrow** towards greater or less than. For example, for $x < 24$, place an open circle on 24 and draw an arrow to the left over numbers that are less than 24. For $x \geq 2$, place a closed circle on 2 and draw an arrow to the right, over numbers that are greater than 2. (EE.8)

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

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

An **equation** can include an **independent** and a **dependent** variable. The relationship between the two variables can be seen by **graphing** the values of each variable or creating a **table**. (EE.9)

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

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

A proportional relationship will change by the same value over time. This **constant of proportionality** is represented by the value of the ratio (k) between y and x as $y = kx$. (RP.3)

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

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

Important Tips

- An equal sign (=) represents that the two sides of the equation have the same value. Operations may need to be completed before finding the solution to the equation.
- When writing a verbal or written expression as a numerical expression, focus on the chosen wording. The way an expression is written will identify the operation to use as well as the order of the terms. For example, "six less than x" is written as $x - 6$, and "4 is greater than x" is written as $4 > x$.

Sample Items 11–13

Item 11

Selected-Response

Look at this inequality.

$$5y > 14$$

Which value for *y* makes the inequality true?

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

Item 12

Selected-Response

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

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

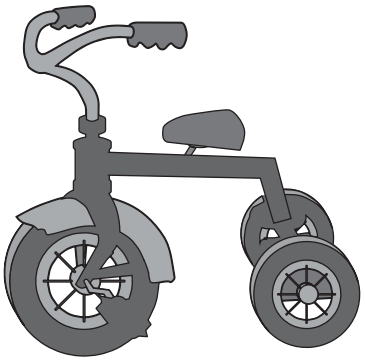
A. $60 + 3n$
B. $60 - 3n$
C. $3 + 60n$
D. $3 - 60n$

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 13

Extended Constructed-Response

A bike shop needs to order new wheels for 10 tricycles. Hannah orders 10 new wheels. As this illustration shows, each tricycle has 3 wheels.



Part A: Did Hannah order the correct number of wheels? Explain your answer.

Part B: The equation $3x = y$ can be used to calculate the number of wheels to order for any number of tricycles. What does each part of the equation represent?

Part C: How many wheels should be ordered for 15 tricycles? Explain how you used the equation from Part B to get your answer.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 5: Area and Volume

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

KEY TERMS

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

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

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

The area of a **polygon** can be found by **composing** or **decomposing** the shape into rectangles and triangles. Determine the area of each triangle or rectangle that forms the polygon. The total area of the polygon is equal to the sum of the area of each part. (G.1)

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

A solid figure can be packed with equally sized cubes leaving no **gaps** and without **overlapping** cubes. The number of cubes packed into the solid figure is used to find the volume of the figure. (G.2)

A three-dimensional figure with **fractional edge lengths** can be packed with cubes that have **edge** lengths equal to a **unit fraction**. For example, a figure with a length of 2, width of 2, and height of $1\frac{1}{2}$ can be filled with 48 cubes with **edge** lengths of $\frac{1}{2}$ unit. The volume of each cube is $\frac{1}{8}$ unit, multiplied by 48 cubes gives the figure a total volume of 6 units. (G.2)

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

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

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Important Tips

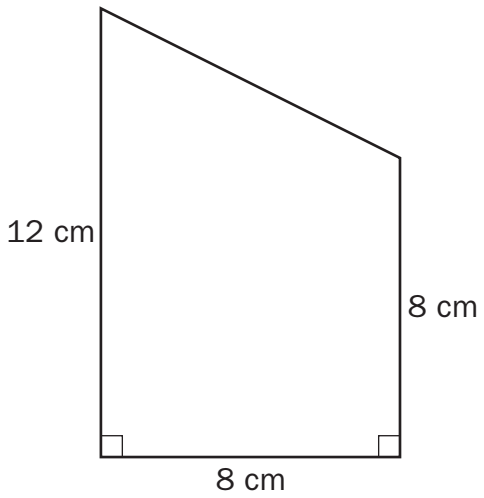
- Identify shapes using the attributes. Shapes can be turned and may appear different, but that does not change the shape.
- In a right triangle, the height can be a side of the triangle. In triangles with acute or obtuse angles, the height must be measured from the highest point and be perpendicular to the base. This measurement may be taken inside or outside of the figure, depending on the type of angle.

Sample Items 14–17

Item 14

Selected-Response

Mitch drew this quadrilateral.



What is the area of the quadrilateral?

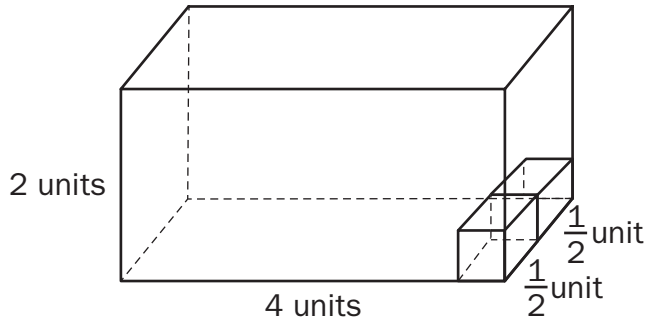
A. 28 cm^2
B. 80 cm^2
C. 96 cm^2
D. 128 cm^2

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 15

Selected-Response

Consider this rectangular prism.



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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

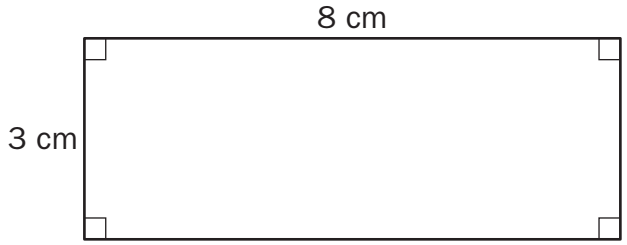
Item 16

Selected-Response

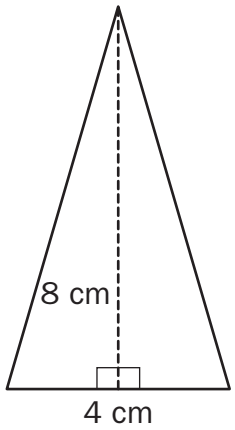
Mia found the area of a polygon. The area is 32 cm^2.

Which of these polygons has an area of 32 cm^2?

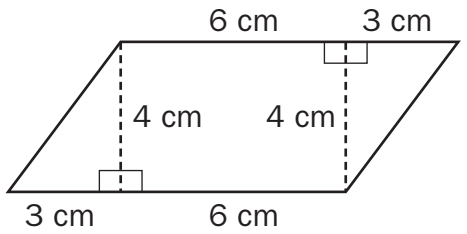
A.



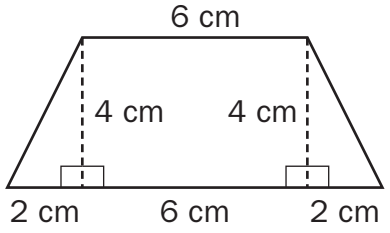
B.



C.



D.

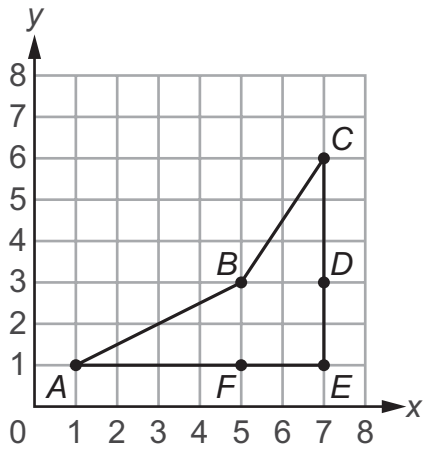


Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 17

Technology-Enhanced

A polygon is graphed on the coordinate grid.



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

Part A

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

A. the area of triangle *ABF* plus the area of triangle *BCD*
B. the area of triangle *ABE* plus the area of triangle *BCE*
C. the area of triangle *ADE* plus the area of triangle *CFE*
D. the area of triangle *ABE* plus the area of triangle *CFE*

Part B

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 6: Statistics

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

KEY TERMS

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

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

Distribution of data can be described by:

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

A **set of data** can be written in order and separated into four equal parts. Each part is a **quartile**. The **lower quartile** is the **first quartile** and is the center number between the minimum value and the median. The **upper quartile** is the **third quartile** and is the center number between the median and the maximum value. (SP.5)

Data can be displayed on a **number line** using:

- **Box plots:** Uses the minimum value, lower quartile, median, upper quartile, and maximum value to create a representation of the data. A box is placed around the Interquartile range with a line at the median. Lines or whiskers extend out of the box to the minimum and maximum values.
- **Dot plots (Line plots):** Displays a dot, a circle, or an "X" on a number line corresponding to the value of each piece of data.
- **Histograms:** Displays data using a bar. The length of the bar on the number line shows the frequency of that value of data. (SP.4)

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Important Tips

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 18–20

Item 18

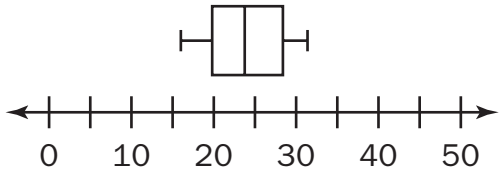
Selected-Response

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

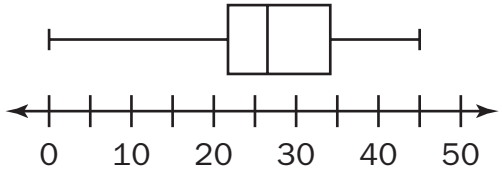
23, 19, 26, 20, 31, 16, 20, 29, 27

Which box plot BEST represents this list?

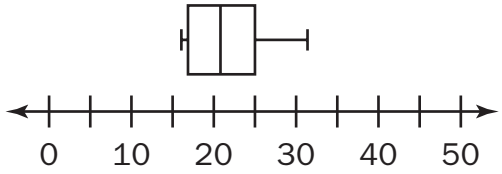
A.



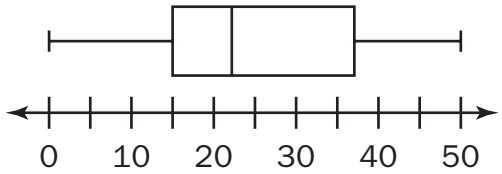
B.



C.



D.

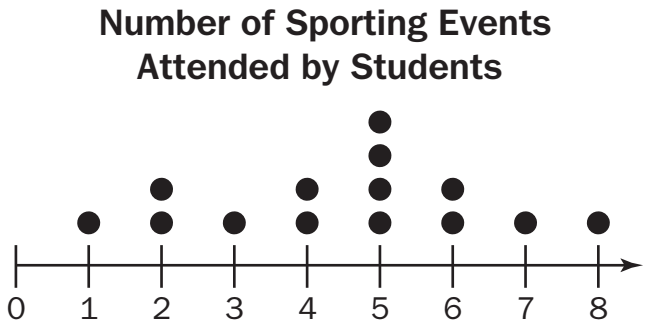


Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 19

Selected-Response

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



What number is the median of the data set?

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

Item 20

Selected-Response

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Unit 7: Rational Explorations: Numbers and Their Opposites

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

KEY TERMS

Negative number: A number with a value less than zero. For example, the temperature is –4°. (NS.5)

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

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

The opposite of the opposite of a number is the number itself. For example, – (–2) is equal to 2. (NS.6)

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

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

Ordered pairs: A set of numbers that are used to label the location of a point on the coordinate plane written as (1, 2). (NS.8)

A **coordinate plane** is created by **intersecting** two perpendicular number lines at 0. The point where the two lines meet is called the **origin**. The **horizontal** line is called the ***x*-axis** and the **vertical** line is called the ***y*-axis**. (NS.8)

The coordinate plane is made up of four regions, or **quadrants**.

- First Quadrant: The values of the *x*-coordinate and *y*-coordinate are both positive.
- Second Quadrant: The values of the *x*-coordinates are negative and the *y*-coordinates are positive.
- Third Quadrant: The values of the *x*-coordinates and *y*-coordinates are both negative.
- Fourth Quadrant: The values of the *x*-coordinates are positive and the *y*-coordinates are negative. (NS.8)

On the coordinate plane, ordered pairs that differ only by their **signs** represent a **reflection** over one or both of the **axes**. (NS.6)

Draw **polygons** on the coordinate plane by placing a point at given coordinates for the **vertices**. The length of the sides of the polygon can be determined by counting the distance between points on the grid. (G.3)

Important Tip

✍ An ordered pair lists the *x*-coordinate first, then the *y*-coordinate. When graphing a point using the ordered pair, move horizontally on the *x*-axis using the *x*-coordinate, then move vertically on the *y*-axis using the *y*-coordinate.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Sample Items 19–21

Item 21

Selected-Response

Which list shows the numbers in descending order?

A. |–2.5|, –2.25, 2.75
B. –2.25, –2.5, |2.75|
C. –2.5, 2.5, |–2.75|
D. 2.75, |–2.5|, –2.25

Item 22

Technology-Enhanced

Part A

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

What does 0 feet represent in this situation?

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

Part B

Select TWO statements that can be represented by –40 feet.

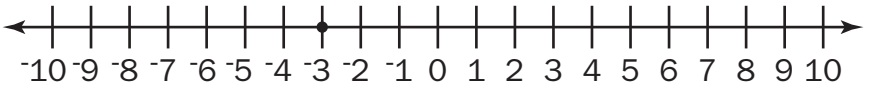
A. The length of a sailboat
B. The length of a piece of ribbon
C. The change in altitude of a balloon
D. The distance of a tree branch above the ground
E. The distance of a fish below the surface of the water

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 23

Constructed-Response

Erin plotted the opposite of −3 on the number line.



Part A: Explain the error Erin made.

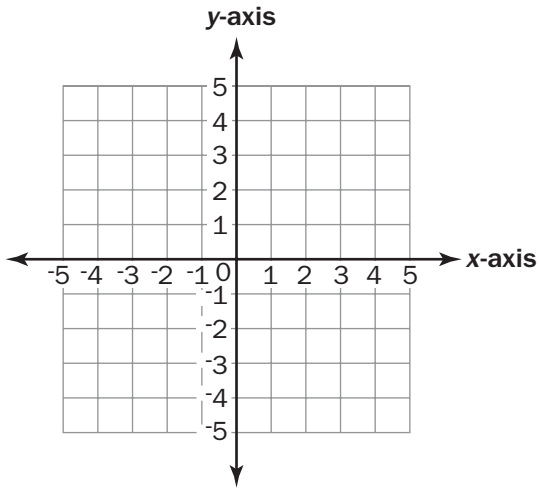
Part B: Explain how Erin should correctly plot the opposite of −3 on the number line.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 24

Constructed-Response

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



Part A: In which quadrant is each point located?

(–3, 4): _____

(2, 3): _____

(3, –2): _____

Part B: Explain how you identified the quadrant for each point.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

MATHEMATICS ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	MGSE6.NS.4	1	D	The correct answer is choice (D) 6(6 + 4). The student finds the greatest common factor of the two addends, which is 6. Then student multiplies by the sum of 6 and 4, which are the factors that equal the initial addends when multiplied by the greatest common factor, 6. Choice (A) is incorrect because the response equals 10, rather than 60. Choice (B) is incorrect because the response equals 40, rather than 60. Choice (C) is incorrect because the response equals 48, not 60.
2	MGSE6.NS.1	2	N/A	See scoring rubric and sample response on page 123.
3	MGSE6.NS.3	2	N/A	See scoring rubric and sample response on page 124.
4	MGSE6.RP.1	1	A	The correct answer is choice (A) 3 to 4. The ratio of paperback to hardcover books can be written as the fraction $\frac{18}{24}$. Reduce the fraction by dividing both the numerator and the denominator by 6 to get $\frac{3}{4}$. Then write the ratio as 3 to 4. Choice (B) is incorrect because it results from finding the ratio of hardcover books to paperback books. Choice (C) is incorrect because it results from finding the ratio of paperback books to the total number of books. Choice (D) is incorrect because it results from finding the ratio of the total number of books to paperback books.
5	MGSE6.RP.3d	1	D	The correct answer is choice (D) 6 pints. The student uses the proportion of $\frac{32}{2}=\frac{96}{6}$ or another viable method to find the number of pints in 96 ounces. Choice (A) is incorrect because it shows the number of pints in 32 ounces. Choice (B) is incorrect because it is the factor used to change 32 ounces to 96 ounces. Choice (C) is incorrect because it shows the number of pints in 64 ounces.
6	MGSE6.RP.3a, b	3	N/A	See scoring rubric and sample response beginning on page 125.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
7	MGSE6.EE.2c	1	C	The correct answer is choice (C) 31. Replace *n* in the expression with 9, which is the value given for Adam's age, and evaluate $3n + 4 = 3(9) + 4 = 27 + 4 = 31$. Choice (A) is incorrect because 23 is the result of substituting 9 for *n* in the expression $3n - 4$. Choice (B) is incorrect because 27 is the result of only computing 3(9). Choice (D) is incorrect because it is the result of writing the expression as 39 + 4 rather than 3(9) + 4.
8	GSE-1: 6.EE.3	2	B/D/E	See scoring rubric on page 127.
9	MGSE6.EE.1	1	D	The correct answer is choice (D) $\left(\frac{1}{5}\right)^3$. An exponent of 3 can be used to write $\frac{1}{5}$ when it is multiplied by itself 3 times. Choice (A) is incorrect because it is equal to $\frac{2}{5}$. Choice (B) is incorrect because it is equal to $\frac{3}{5}$. Choice (C) is incorrect because it is equal to $\frac{1}{25}$.
10	MGSE6.EE.3	1	B	The correct answer is choice (B) $20x - 15$. Apply the distributive property to the equation by multiplying 5 by each term inside the parentheses. Choice (A) is incorrect because it is the result of only multiplying 5 by $4x$. Choice (C) is incorrect because it is the result of only multiplying 5 by 3 only. Choice (D) is incorrect because it shows the result of adding 5 to $4x$ and 3, rather than multiplying.
11	MGSE6.EE.5	1	D	The correct answer is choice (D) 3. The inequality is true when you substitute $y = 3$ into $5y > 14$; $15 > 14$. Choices (A) and (B) are both incorrect because those values for *y* result in numbers less than 14 ($5 \times 1.5 = 7.5$ and $5 \times 2 = 10$). Choice (C) is incorrect because that value of *y* results in a number equal to 14 ($5 \times 2.8 = 14$).

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
12	MGSE6.EE.6	1	A	The correct answer is choice (A) $60 + 3n$. The reservation cost for the theater is a constant, at \$60. The additional \$3 per person charge will vary depending on the number of people, n, for a variable charge of $3n$ that would need to be added to the initial cost of \$60. Choice (B) is incorrect because it subtracts $3n$ from 60 instead of adding. Choices (C) and (D) are incorrect because they multiply the variable number of people, n, by the constant 60.
13	MGSE6.EE.7	3	N/A	See scoring rubric and sample response beginning on page 128.
14	MGSE6.G.1	2	B	The correct answer is choice (B) 80 cm^2. The quadrilateral can be decomposed into a rectangle that is 8 cm long and 8 cm wide and a right triangle with a base of 4 cm and height of 8 cm. So, its area is $64 + 16 = 80$ cm^2. Choice (A) is incorrect because it is the sum of the three labeled side lengths. Choice (C) is incorrect because it uses 12 cm for one side of the rectangle part instead of 8 cm. Choice (D) is incorrect because it does not multiply the base and height of the triangle part by $\frac{1}{2}$.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
15	MGSE6.G.2	2	D	The correct answer is choice (D) 64. Since the volume is $V = l \times w \times h$, the volume of this prism is $V = 4 \times \left(\frac{1}{2} + \frac{1}{2}\right) \times 2 = 8$ units^3, and the volume of each unit cube is $V = \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$ units^3. The number of cubes needed is the volume of the prism divided by the volume of each cube: $8 \div \frac{1}{8} = 8 \times 8 = 64$. OR Since the volume is $V = l \times w \times h$ and we are looking for the number of cubes, we find the dimensions in terms of cubes: $w = 2$ cubes, $l = 4 \div \frac{1}{2} = 8$ cubes, and $h = 2 \div \frac{1}{2} = 4$ cubes. So the volume, in cubes, of this prism is $V = 2 \times 8 \times 4 = 64$. Choice (A) is incorrect because it is the volume of the prism. Choice (B) is incorrect because it is the volume of the prism divided by $\frac{1}{2}$. Choice (C) is incorrect because it is the volume of the prism divided by $\frac{1}{4}$.
16	MGSE6.G.1	1	D	The correct answer is choice (D) trapezoid with side lengths of 6 cm and 10 cm and a height of 4 cm. Student finds the area by breaking apart the trapezoid into 2 right triangles and a rectangle and adding the areas of the 3 shapes. The total area is 32 cm^2, which is the given area. Choice (A) is incorrect because it shows a rectangle with an area of 24 cm^2. Choice (B) is incorrect because it shows a triangle with an area of 16 cm^2. Choice (C) is incorrect because it shows a parallelogram with an area of 36 cm^2.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
17	GSE-1: 6.G.1	3	Part A: B Part B: B	See scoring rubric on page 131.
18	MGSE6.SP.4	1	A	The correct answer is choice (A) box plot with the minimum and maximum at 16 and 31. Choice (B) is incorrect because it shows a box plot with the minimum and maximum extending from 0 to 45 and the data only ranges from 16 to 31. Choice (C) is incorrect because, although it shows the correct minimum and maximum, it shows an incorrect median. Choice (D) is incorrect because it shows a box plot with second and third quartiles that are either too small or too large.
19	MGSE6.SP.2	1	C	The correct answer is choice (C) 5. The median of the 14 data points is the average of the 7th and 8th points, which are both 5, so the median is 5. Choice (A) is incorrect because it is the minimum value. Choice (B) is incorrect because it is the middle number on the number line (not data). Choice (D) is incorrect because it is the range of the data set.
20	MGSE6.SP.1	1	D	The correct answer is choice (D) “What size shirt do the kids in the school wear?” The student identifies a statistical question that will include variability. Answer choices (A), (B), and (C) are not statistical questions as they only elicit a single response with no variability.
21	MGSE6.NS.7	1	D	The correct answer is choice (D) 2.75, |–2.5|, –2.25. Descending means numbers are in order on a number line from greatest to least. 2.75 is the highest positive number, then the absolute value of –2.5 is 2.5, then –2.25. Choice (A) is incorrect because it shows the numbers out of order. Choice (B) is incorrect because it shows the numbers in a mixed-up order. Choice (C) is incorrect because it shows the numbers in ascending order.
22	GSE-1: 6.NS.5	2	Part A: D Part B: C, E	See scoring rubric on page 132.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
23	MGSE6.NS.6a	3	N/A	See scoring rubric and sample response beginning on page 133.
24	MGSE6.NS.6b	2	N/A	See scoring rubric and sample response beginning on page 135.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

MATHEMATICS SAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

Item 2

Scoring Rubric

Points	Description

2	The response achieves the following:
	• Response demonstrates a complete understanding of how to divide a fraction by a fraction.
	• Give 2 points for a correct response and a valid process.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

1	The response achieves the following:
	• Response demonstrates a partial understanding of how to divide a fraction by a fraction.
	• Give 1 point for a correct response but no valid process.
	  • Response includes the correct quotient but no or incomplete work shown on using the fraction models.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	• The response demonstrates limited to no understanding of how to divide a fraction by a fraction.
	  • Response shows no application of a strategy.
	  • Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Exemplar Response

Points Awarded	Sample Response
2	2 I used equivalent factors to find the quotient. I know $\frac{3}{6}$ is $\frac{1}{2}$, which is also $\frac{2}{4}$. So I found the number I need to multiply $\frac{1}{4}$ by to get $\frac{2}{4}$. And that number is 2. *OR other valid explanation*
1	2
0	*Response is irrelevant, inappropriate, or not provided.*

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 3

Scoring Rubric

Points	Description

2	The response achieves the following:
	• Response demonstrates a complete understanding of how to use a strategy based on place value to divide a decimal number by a whole number.
	• Give 2 points for a correct response and a valid process.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

1	The response achieves the following:
	• Response demonstrates a partial understanding of how to use a strategy based on place value to divide a decimal number by a whole number.
	• Give 1 point for a correct response but no valid process.
	  • Response includes the correct quotient but no or incomplete work shown.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	• The response demonstrates limited to no understanding of how to use a strategy based on place value to divide a decimal number by a whole number.
	  • Response shows no application of a strategy.
	  • Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Exemplar Response

Points Awarded	Sample Response
2	Part A: First, find the number of sets of 12 in 84. That is 7. Next use a place holder 0 for the tenths place. Find the number of sets of 12 in 36. That is 84.36 divided by 12 equals 7.03. *OR other valid explanation* AND Part B: 7.03
1	Part A: First, find the number of sets of 12 in 84. That is 7. Next use a place holder 0 for the tenths place. Find the number of sets of 12 in 36. That is 84.36 divided by 12 equals 7.03. OR Part B: 7.03

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Points Awarded	Sample Response
0	*Response is irrelevant, inappropriate, or not provided.*

Item 6

Scoring Rubric

Points	Description

4	The response achieves the following:
	• The response demonstrates a complete understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.
	• Give 4 points for all 3 parts answered correctly.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

3	The response achieves the following:
	• The response demonstrates a nearly complete understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.
	• Give 3 points if student response indicates one error in one or within both of the tables for Parts A and B and completes Part C correctly OR student completes Parts A and B correctly, but has one minor error in Part C.
	  • Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

2	The response achieves the following:
	• The response demonstrates a partial understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.
	• Give 2 points if student response indicates two errors in one or within both of the tables for Parts A and B OR student completes Parts A and B correctly, and makes a correct comparison for Part C but fails to provide evidence to support comparison.
	  • Response is only partially correct.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Points	Description

1	The response achieves the following:
	• The response demonstrates a minimal understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.
	• Give 1 point if student response indicates more than two errors in one or within both of the tables for Parts A and B. Student makes a correct comparison in Part C, but fails to provide evidence to support comparison. OR student has more than two errors in Parts A and B and Part C's comparison is incorrect.
	  • Response is only partially correct.
	  • Response shows incomplete or inaccurate application of a relevant strategy.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	  • The response demonstrates limited to no understanding of using ratio and rate to solve real-world mathematical problems by using tables with equivalent ratios and by using unit rates.
	  • Response shows no application of a strategy.
	• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Exemplar Response

Points Awarded	Sample Response
4	Part A: At the farmers' market, 1 watermelon costs 3 dollars. 2 watermelons cost 6 dollars. 3 watermelons cost 9 dollars. 4 watermelons cost 12 dollars. AND Part B: At the grocery store, 1 watermelon costs 5 dollars. 2 watermelons cost 10 dollars. 3 watermelons cost 15 dollars. 4 watermelons cost 20 dollars. AND Part C: A watermelon purchased at the farmers' market is 2 dollars less than a watermelon purchased at the grocery store. The ratio of watermelon to dollars is 1 to 3 at the farmers' market. The ratio of watermelon to dollars is 1 to 5 at the grocery store. So the unit price at the farmers' market is 2 dollars less than at the grocery store.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Points Awarded	Sample Response
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	*Response is irrelevant, inappropriate, or not provided.*

Item 8

Scoring Rubric

Points	Description
2	The response achieves the following: • A score of 2 indicates complete understanding of how apply the properties of operations to generate equivalent expressions. • The student selects Choice (B), Choice (E), and Choice (F).
1	The response achieves the following: • A score of 1 indicates a partial understanding of how to apply the properties of operations to generate equivalent expressions. • The student selects Choice (B) and Choice (E), with or without an additional incorrect answer. OR • The student selects Choice (B) and Choice (F), with or without an additional incorrect answer. OR • The student selects Choice (E) and Choice (F), with or without an additional incorrect answer.
0	The response achieves the following: • A score of 0 indicates limited to no understanding of how to apply the properties of operations to generate equivalent expressions. • The student selects Choice (B), with or without any additional incorrect answers. OR • The student selects Choice (E), with or without any additional incorrect answers. OR • The student selects Choice (F), with or without any additional incorrect answers. OR • The student does not select any correct answers.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 13

Scoring Rubric

Points	Description

4	The response achieves the following:
	• The response demonstrates a complete understanding of solving real-world and mathematical problems by writing and solving equations of the form $px = q$, in which p, q, and x are all nonnegative rational numbers.
	• Give 4 points for all 3 parts answered correctly.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

3	The response achieves the following:
	• The response demonstrates a nearly complete understanding of solving real-world and mathematical problems by writing and solving equations of the form $px = q$, in which p, q, and x are all nonnegative rational numbers.
	• Give 3 points if student performs the correct evaluation in Part A, but does not include a complete explanation. Student presents correct responses for Parts B and C.
	  • Response is mostly correct, but contains either a computation error or an unclear or incomplete explanation.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

2	The response achieves the following:
	• The response demonstrates a partial understanding of solving real-world and mathematical problems by writing and solving equations of the form $px = q$, in which p, q, and x are all nonnegative rational numbers.
	• Give 2 points if student response indicates correct evaluation for Parts A and C, but lacks explanations. Student provides correct response for Part B.
	  • Response is only partially correct.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Points	Description

1	The response achieves the following:
	• The response demonstrates a minimal understanding of solving real-world and mathematical problems by writing and solving equations of the form $px = q$, in which p, q, and x are all nonnegative rational numbers.
	• Give 1 point if student indicates only 1 correct response for either Parts A, B, or C. Incomplete explanations are provided.
	  • Response is only partially correct.
	  • Response shows incomplete or inaccurate application of a relevant strategy.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	• The response demonstrates limited to no understanding of solving real-world and mathematical problems by writing and solving equations of the form $px = q$, in which p, q, and x are all nonnegative rational numbers.
	  • Response is incorrect.
	  • Response shows no application of a strategy.
	• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Exemplar Response

Points Awarded	Sample Response
4	Part A: No, Hannah did not order the correct number of wheels. A tricycle has 3 wheels on it, so if you were to order new wheels for 10 tricycles, you would need to order 3 wheels for each tricycle, not 1 wheel per tricycle. AND Part B: In the equation, 3 represents the number of wheels per tricycle, *x* represents the number of tricycles, and *y* represents the total number of wheels. AND Part C: 45 wheels; I substituted 15 for *x* in the equation and solved for *y*. Since 3 times 15 is 45, 45 wheels should be ordered for 15 new tricycles.
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	*Response is irrelevant, inappropriate, or not provided.*

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 17

Scoring Rubric

Points	Description
2	The response achieves the following: • A score of 2 indicates complete understanding of how to find area of right triangles, other triangles, quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. • The student determines that the correct answer for Part A is Choice (B). AND • The student determines that the correct answer for Part B is Choice (B).
1	The response achieves the following: • A score of 1 indicates a partial understanding of how to find area of right triangles, other triangles, quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. • The student determines that the correct answer for Part A is Choice (B). OR • The student determines that the correct answer for Part B is Choice (B).
0	The response achieves the following: • A score of 0 indicates limited to no understanding of how to find area of right triangles, other triangles, quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 22

Scoring Rubric

Points	Description
2	The response achieves the following: • A score of 2 indicates complete understanding that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. • The student determines that the correct answer for Part A is Choice (D). AND • The student determines that the correct answers for Part B are Choice (C) and Choice (E).
1	The response achieves the following: • A score of 1 indicates a partial understanding that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. • The student determines that the correct answer for Part A is Choice (D). OR • The student determines that the correct answers for Part B are Choice (C) and Choice (E).
0	The response achieves the following: • A score of 0 indicates limited to no understanding that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 23

Scoring Rubric

Points	Description

2	The response achieves the following:
	• Response demonstrates a complete understanding of recognizing opposite signs of numbers as indicating locations on opposite sides of 0 on the number line, as well as recognizing that the opposite of the opposite of a number is the number itself.
	• Give 2 points for both parts correct.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

1	The response achieves the following:
	• Response demonstrates a partial understanding of recognizing opposite signs of numbers as indicating locations on opposite sides of 0 on the number line, as well as recognizing that the opposite of the opposite of a number is the number itself.
	• Give 1 point for only one part correct.
	  • Response shows all three points plotted correctly but lacks a complete or valid explanation for why student plotted the coordinates in those locations.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	• The response demonstrates limited to no understanding of recognizing opposite signs of numbers as indicating locations on opposite sides of 0 on the number line, as well as recognizing that the opposite of the opposite of a number is the number itself.
	  • Response is incorrect.
	  • Response shows no application of a strategy.
	• Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Exemplar Response

Points Awarded	Sample Response
2	Part A: Erin plotted the opposite of the opposite of –3, rather than the opposite of –3, which is 3. OR Erin plotted –3 instead of the opposite of –3. AND Part B: The opposite of a number is the number that is the same distance from 0 on a number line but on the opposite side of 0. –3 is 3 units to the left of 0 on the number line. So, the opposite of –3 is 3 units to the right of 0 on the number line, which is 3.
1	Part A: Erin plotted the opposite of the opposite of –3, rather than the opposite of –3, which is 3. Erin plotted –3 instead of the opposite of –3. OR Erin plotted –3 instead of the opposite of –3. OR Part B: The opposite of a number is the number that is the same distance from 0 on a number line but on the opposite side of 0. –3 is 3 units to the left of 0 on the number line. So, the opposite of –3 is 3 units to the right of 0 on the number line, which is 3.
0	*Response is irrelevant, inappropriate, or not provided.*

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Item 24

Scoring Rubric

Points	Description

2	The response achieves the following:
	• Response demonstrates a complete understanding of signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
	• Give 2 points for a correct response and a valid process.
	  • Response is correct and complete.
	  • Response shows application of a reasonable and relevant strategy.
	• Mathematical ideas are expressed coherently through a clear, complete, logical, and fully developed response using words, calculations, and/or symbols as appropriate.

1	The response achieves the following:
	• Response demonstrates a partial understanding of signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
	• Give 1 point for a correct response but no valid process.
	  • Response shows all three points plotted correctly but lacks a complete or valid explanation for why student plotted the coordinates in those locations.
	  • Response shows application of a relevant strategy, though it may be only partially applied or remain unexplained.
	• Mathematical ideas are expressed only partially using words, calculations, and/or symbols as appropriate.

0	The response achieves the following:
	• The response demonstrates limited to no understanding of signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
	  • Response shows no application of a strategy.
	  • Mathematical ideas cannot be interpreted or lack sufficient evidence to support even a limited understanding.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

Exemplar Response

Points Awarded	Sample Response
2	Part A: Quadrant 2 Quadrant 1 Quadrant 4 AND Part B: The first point is in Quadrant 2 because its *x*-coordinate is negative and its *y*-coordinate is positive. The second point is in Quadrant 1 because both of its coordinates are positive. The last point is in Quadrant 4 because its *x*-coordinate is positive and its *y*-coordinate is negative.
1	Part A: Quadrant 2 Quadrant 1 Quadrant 4 OR Part B: The first point is in Quadrant 2 because its *x*-coordinate is negative and its *y*-coordinate is positive. The second point is in Quadrant 1 because both of its coordinates are positive. The last point is in Quadrant 4 because its *x*-coordinate is positive and its *y*-coordinate is negative.
0	*Response is irrelevant, inappropriate, or not provided.*

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

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

Copyright © 2017 by Georgia Department of Education. All rights reserved.

APPENDIX B: CONDITION CODES

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

- For the extended writing tasks, both traits receive a score of 0. For Trait 1: Ideas, 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	**Blank**	• Blank • Student's response did not contain words. • In some instances, student may have drawn pictures.
C	**Copied**	• Student's response is not his/her own work. • Student does not clearly attribute words to the text(s). • Student copies from the text(s) that serve(s) as writing stimulus.
I	**Too Limited to Score**	• Student's response is not long enough to evaluate his/her ability to write to genre or his/her command of language conventions.
F	**Non-English/ Foreign Language**	• Written in some language other than English • The writing items/tasks on the test require the student to write in English.
T	**Off Topic/Off Task**	• Student may have written something that is totally off topic (e.g., major portion of response is unrelated to the assigned task). • Student response did not follow the directions of the assigned task (i.e., off task).
U	**Unreadable/ Illegible/ Incomprehensible**	• Response is unreadable. • An illegible response does not contain enough recognizable words to provide a score. • 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.
S	**Offensive**	• Student uses inappropriate or offensive language or pictures.

Copyright © 2017 by Georgia Department of Education. All rights reserved.

END OF GRADE 6

EOG STUDY/RESOURCE GUIDE
FOR STUDENTS AND PARENTS

Copyright © 2017 by Georgia Department of Education. All rights reserved.

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

