GACE® Study Companion
Early Childhood Education Assessment

For the most up-to-date information, visit the ETS GACE website at gace.ets.org.
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### About the Assessment

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<th>Early Childhood Education</th>
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<td>Grade Level</td>
<td>P–5</td>
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The GACE Early Childhood Education assessment is designed to measure the professional knowledge of prospective teachers of Early Childhood Education in the state of Georgia.

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) was published in May 2013 with revisions to the criteria for the diagnosis and classifications of mental disorders. In the interest of fairness, and to allow time for educator preparation programs to integrate such changes into their curricula, test materials for this assessment will continue to reference the terminology, criteria, and classifications referred to in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR) until further notice.

This assessment includes two tests. You may take either test individually or the full assessment in a single session. The testing time is the amount of time you will have to answer the questions on the test. Test duration includes time for tutorials and directional screens that may be included in the test. The questions in this assessment assess both basic knowledge across content areas and the ability to apply principles.

**Note:** After clicking on a link, right click and select "Previous View" to go back to original text.
The total number of questions that are scored is typically smaller than the total number of questions on the test. Most tests that contain selected-response questions also include embedded pretest questions, which are not used in calculating your score. By including pretest questions in the assessment, ETS is able to analyze actual test-taker performance on proposed new questions and determine whether they should be included in future versions of the test.

**Content Specifications**

Each test in this assessment is organized into content subareas. Each subarea is further defined by a set of objectives and their knowledge statements.

- The objectives broadly define what an entry-level educator in this field in Georgia public schools should know and be able to do.
- The knowledge statements describe in greater detail the knowledge and skills eligible for testing.
- Some tests also include content material at the evidence level. This content serves as descriptors of what each knowledge statement encompasses.

See a breakdown of the subareas and objectives for the tests in this assessment on the following pages.
Test I Subareas

<table>
<thead>
<tr>
<th>Subarea</th>
<th>Approx. Percentage of Test</th>
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<tbody>
<tr>
<td>I. Reading and Language Arts</td>
<td>50%</td>
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<tr>
<td>II. Social Studies</td>
<td>25%</td>
</tr>
<tr>
<td>III. Analysis (constructed-response only)</td>
<td>25%</td>
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Test I Objectives

Subarea I: Reading and Language Arts

Objective 1: Understands and applies knowledge of reading for literature and reading for information

The beginning Early Childhood Education teacher:

A. Knows ways to promote students’ comprehension of informational text and literature and to integrate knowledge and ideas
B. Knows how to help students identify and evaluate common types of texts
C. Knows ways to help students interpret words and phrases as they are used in a text, and analyze and describe how a series of words, phrases, or stanzas provides the overall structure of a text

Objective 2: Understands and applies knowledge of foundational skills to literacy development, fluency, and comprehension

The beginning Early Childhood Education teacher:

A. Understands key ideas relevant to the foundations of literacy and reading development and the stages of early orthographic development
B. Understands the roles of phonological awareness, phonics, and word-recognition skills in literacy development
C. Understands the role of fluency in supporting comprehension

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
Objective 3: Understands and applies knowledge of the writing process and uses of tools and resource materials

The beginning Early Childhood Education teacher:

A. Knows how to help students produce clear and coherent writing using the stages of the writing process to compose opinion, informative, explanatory, persuasive, and narrative texts

B. Knows how to promote students’ use of resource materials and digital tools to produce and publish writing in collaboration with peers

Objective 4: Understands and applies knowledge of speaking, listening, and presenting

The beginning Early Childhood Education teacher:

A. Knows strategies to foster students’ participation in collaborative conversations with diverse partners about grade-appropriate topics and is able to confirm students’ understanding of written text

B. Knows ways to help students develop skills necessary for speaking, listening, and presenting and that are appropriate to task, purpose, and audience

Objective 5: Understands and applies knowledge of English-language grammar and vocabulary development

The beginning Early Childhood Education teacher:

A. Knows the conventions of standard English grammar, punctuation, and spelling when writing, reading, speaking, or listening

B. Understands the basic components of vocabulary and knows a variety of strategies to help students determine the meaning of unknown words

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
Subarea II: Social Studies

Objective 1: Understands and applies knowledge of information processing skills

The beginning Early Childhood Education teacher:

A. Knows how to help students locate, analyze, and synthesize information related to social studies topics and apply that information to solve problems and make decisions.

Objective 2: Shows historical understandings and applies history processes

The beginning Early Childhood Education teacher:

A. Knows the important people, events, and symbols of the United States and Georgia and can explain their meaning.
B. Understands the concept of chronology and can identify, explain, and analyze the significance/contribution of important figures and cultures in the history of Georgia.
C. Understands the political roots of democracy in the United States and the lives of Americans who expanded people’s rights and freedoms.
D. Knows how Native American cultures developed in North America.
E. Is familiar with European exploration in North America and the factors that shaped British colonial America.
F. Knows the causes, events, and results of the American Revolution and the challenges that faced the new nation.
G. Knows the importance of key people, events, and developments in the history of the United States between 1860 and 1945.
H. Understands the importance of key people, events, and developments in the United States between 1950 and the present.

Objective 3: Understands and applies knowledge of geography concepts and processes

The beginning Early Childhood Education teacher:

A. Is familiar with the influence of United States culture and geographic systems on physical and human systems.
B. Knows how to use maps and globes to foster students’ understanding of spatial patterns of economic activities and to locate significant topographical features, including physical and manufactured features, in the United States, Georgia, and the world.
Objective 4: Understands and applies knowledge of government, civics, economics, and their processes

The beginning Early Childhood Education teacher:

A. Understands the concept of government and good citizenship and can use stories, important documents, and knowledge of historical figures to illustrate important government and civic concepts
B. Knows how a citizen’s rights are protected under the United States Constitution
C. Knows the basic principles that provide the foundation of a republican form of government and the importance of the central democratic beliefs and principles shared by Americans, both personal and civic
D. Is familiar with basic economic concepts and their effect on historic events
E. Knows the four types of productive resources and can explain the role of money as a resource
F. Knows the functions and roles of the four major sectors of the United States economy and the interactions between businesses and consumers
G. Knows the costs and benefits of personal spending and savings choices

Subarea III: Analysis

Objective 1: Understands how to incorporate appropriate teaching approaches into classroom instruction for English language arts

The beginning Early Childhood Education teacher:

A. Knows how to apply and use developmentally appropriate pedagogical practices for planning curriculum, designing instruction, and evaluating student progress in reading and language arts

Objective 2: Understands how to incorporate appropriate teaching approaches into classroom instruction for social studies

The beginning Early Childhood Education teacher:

A. Knows how to apply and use developmentally appropriate pedagogical practices for planning curriculum, designing instruction, and evaluating student progress in social studies
Test II Subareas

<table>
<thead>
<tr>
<th>Subarea</th>
<th>Approx. Percentage of Test</th>
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<tbody>
<tr>
<td>I. Mathematics</td>
<td>53%</td>
</tr>
<tr>
<td>II. Science</td>
<td>30%</td>
</tr>
<tr>
<td>III. Health Education, Physical Education, and the Arts</td>
<td>17%</td>
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Test II Objectives

Subarea I: Mathematics

Objective 1: Understands and applies knowledge of counting and cardinality

The beginning Early Childhood Education teacher:

A. Knows ways to help students make sense of numbers by comparing, ordering, and connecting numbers to quantities

Objective 2: Understands and applies knowledge of operations and algebraic thinking

The beginning Early Childhood Education teacher:

A. Knows ways to help students develop an understanding of equations, number operations, and the relationship between the operations and their properties

B. Knows how to represent and solve problems involving addition and subtraction to help students gain foundations for multiplication and division

C. Knows how to write, interpret, analyze, and evaluate numerical expressions, patterns, and relationships

Objective 3: Understands and applies knowledge of numbers and operations in base 10

The beginning Early Childhood Education teacher:

A. Knows ways to help students gain foundations for place value, use place value, and understand the properties of operations

B. Knows how to generalize and use place-value understanding of multi-digit numbers to perform multi-digit operations, including operations with decimals

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
Objective 4: Understands and applies knowledge of numbers and fractions

The beginning Early Childhood Education teacher:

A. Knows ways to help students develop an understanding of fractions as numbers
B. Knows ways to help students apply previous understanding of multiplication to multiply or divide a fraction or whole number by a fraction and to solve real-world problems involving fractions

Objective 5: Understands and applies knowledge of measurement concepts and data

The beginning Early Childhood Education teacher:

A. Knows ways to help students identify, classify, describe, and compare the measurable attributes of objects
B. Knows how to represent and interpret data
C. Knows how to relate addition and subtraction to length and solve problems involving measurements
D. Knows how to promote students’ understanding of the concepts of perimeter and area
E. Knows how to promote students’ understanding of the concepts of angle, measurement of angles, and volume, and can relate volume to multiplication and division

Objective 6: Understands and applies knowledge of geometry

The beginning Early Childhood Education teacher:

A. Knows how to reason with shapes and their attributes
B. Knows how to graph points on the coordinate plane to solve real-world and mathematical problems
C. Knows how to draw and identify lines and angles and can classify shapes by properties of their lines and angles

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
Subarea II: Science

Objective 1: Understands characteristics of science

The beginning Early Childhood Education teacher:

A. Knows the skills necessary for scientific investigation, developing a scientific inquiry mind set, and communicating scientific ideas and activities clearly
B. Understands the ideas of system, model, change, and scale in exploring scientific and technological matters
C. Understands the important features of the process of scientific inquiry and the nature of science, technology, and the environment

Objective 2: Understands and applies knowledge of Earth science

The beginning Early Childhood Education teacher:

A. Understands time patterns such as day and night, patterns in climate and weather, and changes in the environment
B. Is familiar with the physical attributes of rocks and soil and understands how fossils are formed
C. Is familiar with the surface features of Earth caused by constructive and destructive processes

Objective 3: Understands and applies knowledge of physical science

The beginning Early Childhood Education teacher:

A. Knows how to describe objects in terms of their properties
B. Understands important physical science concepts

Objective 4: Understands and applies knowledge of life science

The beginning Early Childhood Education teacher:

A. Knows the characteristics of living and nonliving things
B. Understands the life cycle of different living things, the habitats of organisms, and their dependence on their habitats
C. Understands inherited traits, learned behaviors, and other factors that affect the survival of organisms
Subarea III: Health Education, Physical Education, and the Arts

Objective 1: Understands and applies knowledge of health and physical education concepts and influences

The beginning Early Childhood Education teacher:

A. Knows concepts related to health promotion and disease prevention and ways to enhance health
B. Understands the influence of family, peers, culture, media, technology, and other factors on health behaviors
C. Knows how to advocate for personal, family, and community health
D. Understands motor skills and movement patterns needed to perform a variety of activities
E. Knows how to promote a health-enhancing level of physical fitness, responsible personal and social behavior, and respect for self and others in physical activity settings

Objective 2: Understands and applies knowledge of the arts (dance, music, visual arts, and theater arts)

The beginning Early Childhood Education teacher:

A. Knows fundamental concepts, principles, skills, and terminology related to dance, music, theater arts, and visual arts
B. Knows the basic techniques, tools, processes, and materials for producing work in the arts
C. Knows how art can be used as a form of self-expression, communication, and social expression
D. Knows strategies to promote critical analysis and understanding of the arts
E. Knows the role and function of the arts in various cultures and throughout history
Practice Questions

The practice questions in this study companion are designed to familiarize you with the types of questions you may see on the assessment. While they illustrate some of the formats and types of questions you will see on the test, your performance on these sample questions should not be viewed as a predictor of your performance on the actual test. Fundamentally, the most important component in ensuring your success is familiarity with the content that is covered on the assessment.

To respond to a practice question, choose one of the answer options listed. Be sure to read the directions carefully to ensure that you know what is required for each question. You may find it helpful to time yourself to simulate actual testing conditions. A correct answer and a rationale for each sample test question are in the section following the practice questions.

Keep in mind that the test you take at an actual administration will have different questions, although the proportion of questions in each subarea will be approximately the same. You should not expect the percentage of questions you answer correctly in these practice questions to be exactly the same as when you take the test at an actual administration, since numerous factors affect a person’s performance in any given testing situation.
Directions: Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one that is best in each case.

1. In a first-grade class, the teacher reads a story aloud while the students echo the words the teacher has read. Which of the following approaches to reading is the teacher using?

   A. Reader’s workshop
   B. Shared reading
   C. Round robin
   D. Guided reading

   **Answer and Rationale**

2. Which of the following passage quotations best demonstrates an example of internal conflict?

   A. “All the way home, Emilio felt angry with himself. Why couldn’t he have spoken up at the meeting? Why was he always so shy?”
   B. “Juanita and Marco disagreed about where they should take what they had found.”
   C. “In the high winds, the crew was barely able to keep the sails from dipping sideways. Each time the wind accelerated, the crew almost lost the boat.”
   D. “Celine struggled to walk through the cold, blowing wind.”

   **Answer and Rationale**

3. Which of the following strategies is most beneficial for students during the revising stage of the writing process?

   A. Using a graphic organizer
   B. Brainstorming ideas as a class
   C. Holding peer conferences
   D. Typing their work on a computer

   **Answer and Rationale**
4. Which of the following is the primary purpose of having a student retell a story?

A. Measuring the student’s level of comprehension
B. Measuring the student’s vocabulary development
C. Determining the student’s fluency rate
D. Determining the student’s oral reading progress

**Answer and Rationale**

5. Which of the following concepts involves understanding that spoken words consist of a sequence of individual sounds?

A. Morphology
B. Phonemic awareness
C. Graphophonic analysis
D. Syntax

**Answer and Rationale**

6. A student is actively engaged in reading a book and is making judgments and decisions beyond what is stated in the text. Which of the following methods of comprehension is the student using?

A. Inferential
B. Literal
C. Vocabulary
D. Internal

**Answer and Rationale**
7. Some teachers require their students to give oral book reports. Which of the following is a primary benefit of oral book reports?

A. They provide students with an opportunity to practice making formal presentations in front of a group
B. They show that students have read the books and understand the plots
C. They require students to analyze every book they read
D. They encourage students to share their reading experiences with others

Answer and Rationale

8. Which of the following contributes most to students’ vocabulary development?

A. Independent reading
B. Explicit phonics instruction
C. Writing word definitions
D. Direct instruction of vocabulary words

Answer and Rationale

9. Each day during calendar time, Ms. Nelson sings songs with her kindergarten students. Using a chart containing the words to the songs, Ms. Nelson taps a pointer on each word as the students sing. Ms. Nelson is demonstrating which of the following?

A. Concepts of print
B. Decoding
C. Thinking aloud
D. The alphabetic principle

Answer and Rationale
10. Which of the following words is the best example to use when demonstrating structural analysis for vocabulary development?

A. Help  
B. Abnormal  
C. Maintain  
D. Detail

**Answer and Rationale**

11. Ms. Richards has the students do the following:

- Determine a writing audience
- Identify a purpose
- Provide a list of writing topics

Based on the list of activities, which stage of writing is Ms. Richards’ class most likely working on?

A. Publishing  
B. Editing  
C. Drafting  
D. Prewriting

**Answer and Rationale**

12. A teacher records students’ responses to a story on chart paper. The students watch as the teacher records their words. The teacher follows the activity with a mini lesson on concepts of print. The teacher is using which of the following to link oral and written language?

A. The writing process  
B. Phonics  
C. The language experience approach  
D. Readers’ theater

**Answer and Rationale**

**Note:** After clicking on a link, right click and select "Previous View" to go back to original text.
13. A social studies class has learned about the system of checks and balances within the three branches of the United States government. The teacher asks students to find examples in the Constitution of how the executive branch can limit the power of the legislative branch. Based on Bloom’s taxonomy of educational objectives, which of the following is the highest level of thinking required for the assignment?

A. Analysis
B. Synthesis
C. Application
D. Knowledge

Answer and Rationale

Use the information below to answer the question that follows.

14. A teacher asks students to brainstorm a topic of research on the physical features of Georgia. The graphic organizer above indicates that the students are most likely researching

A. mountain ranges.
B. coastal islands.
C. major rivers.
D. state parks.

Answer and Rationale

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
15. The National Curriculum Standards for Social Studies outlines 10 themes. The second theme addresses time, continuity, and change. Which of the following questions for an upper elementary class falls within this theme?

A. What are the locations of two major oil fields in the United States?
B. In what kinds of places has oil been located?
C. Why is drilling for oil so costly?
D. Why did the demand for oil increase with the mass production of the automobile?

Answer and Rationale

16. A social studies teacher is planning a unit on the United States Constitution. A discussion on which of the following is most appropriate for the introductory lesson?

A. The Articles of Confederation
B. The Bill of Rights
C. The legislative branch
D. The executive branch

Answer and Rationale

17. A fifth-grade teacher shares a graph with the class that shows how the price of home heating oil rises during winter months. The teacher is most likely using the activity to demonstrate which of the following economic principles?

A. Recession
B. Costs and benefits
C. Supply and demand
D. Price controls

Answer and Rationale

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
18. A third-grade teacher is planning a lesson on the impact of human actions on the physical environment. Which of the following is the best example to use for showing the most direct impact of human activities on the environment?

A. El Niño  
B. A drought  
C. An earthquake  
D. An oil spill

**Answer and Rationale**

19. Which of the following points on the number line is the greatest distance from the point \( \frac{1}{2} \)?

A. \( \frac{3}{2} \)  
B. 0  
C. 1  
D. \( \frac{3}{2} \)

**Answer and Rationale**

20. The volume of a cube is the amount of space the cube takes up. The formula for the volume of a cube is based on which of the following measurable attributes?

A. Intensity  
B. Length  
C. Capacity  
D. Mass

**Answer and Rationale**
21. One of the goals for a particular mathematics curriculum is that students in all grades will use computational strategies fluently and estimate appropriately. Which of the following learning objectives best reflects the goal?

A. Students will use calculators for all mathematical tasks
B. Students will be drilled daily on basic number facts
C. Students will know the connections between the basic arithmetic operations
D. Students will evaluate the reasonableness of their answers

Answer and Rationale

22. A teacher gives students a series of cutout shapes and asks them to determine which of the shapes have right angles, which have acute angles, and which have obtuse angles. Which of the following is the most likely purpose for the activity?

A. Demonstrating real-life applications in math
B. Explaining the concept of angle congruence
C. Using manipulatives to teach place value
D. Reinforcing geometric definitions

Answer and Rationale

23. During a combined math and art class, students create tessellations, which make use of basic geometric shapes (squares, hexagons, and equilateral triangles) to create repeating patterns. The students cover a piece of paper completely with the patterns they create. Which of the following is the mathematical concept that is most closely reflected in the activity?

A. Perimeter
B. Infinity
C. Conservation
D. Number sense

Answer and Rationale
24. Which of the following requires the most advanced understanding of relationships between arithmetic operations?

A. $27 + 36 = 30 + 33 = 63$
B. $\frac{7}{8} + \frac{9}{10}$ is about 2.
C. $\frac{1}{2}$ divided by $\frac{2}{3} = \frac{1}{2} \times \frac{3}{2} = \frac{3}{4}$
D. $105 - 69 = 36$

**Answer and Rationale**

25. A mathematics teacher determines that the median score for an end-of-chapter test is 87 percent. Which of the following is the most accurate interpretation of the result?

A. The most common score on the test is 87 percent.
B. The arithmetic average of the test is 87 percent.
C. Half the students scored below 87 percent and the other half scored above 87 percent.
D. The highest score obtained by any student was 87 percent.

**Answer and Rationale**

26. Which of the properties of integers is illustrated by the following equations?

$+ 25 - 25 = 0$
$-10 + 10 = 0$

A. The associative property of addition
B. The commutative property of addition
C. The additive identity property
D. The additive inverse property

**Answer and Rationale**
27. The examples below represent a student’s work.

\[
\begin{align*}
\frac{4}{16} + \frac{1}{8} &= \frac{3}{8} \\
\frac{5}{9} - \frac{1}{2} &= \frac{4}{7} \\
\frac{7}{16} - \frac{1}{5} &= \frac{6}{11}
\end{align*}
\]

If the error pattern indicated in the examples continues, the student’s answer to the problem \( \frac{9}{11} - \frac{1}{7} \) is most likely to be

A. \( \frac{10}{4} \)
B. \( \frac{8}{7} \)
C. \( \frac{8}{4} \)
D. \( \frac{9}{8} \)

Answer and Rationale

28. A teacher puts 20 pennies in a shoebox. A student shakes the box, takes the lid off, and sorts the coins into two groups: heads and tails. The students count the number of heads and the number of tails and record the numbers in a table. The activity is repeated 20 times. Which of the following does the activity help the students explore?

A. The intuitive meaning of chance
B. Addition and subtraction as inverse operations
C. Separating and joining as a way to represent addition
D. One-to-one correspondence

Answer and Rationale
29. Which of the following skills will students most likely use when grouping different types of minerals and rocks?

A. Predicting  
B. Inferring  
C. Classifying  
D. Analyzing

Answer and Rationale

30. The following is an excerpt from a whole scope and sequence for a second-grade science unit.

“The teacher will open various sealed containers one at a time. Each container will hold one of the following: chocolate, bananas, perfume, soup, oranges, soap, vinegar, and strawberries. The teacher will ask students to raise their hands as soon as they are able to smell the substance. The class will discuss why students closest to the open container usually notice the odor first.”

The description of the activity would best fit into which of the following modules in a science textbook?

A. Physical and chemical changes  
B. Properties of matter  
C. Transfer of energy  
D. Mixing and separating solutions

Answer and Rationale

31. Which of the following is the most effective way to reduce greenhouse gases?

A. Increasing the height of smokestacks  
B. Reducing the use of fossil fuels  
C. Adding lime to lakes that are highly acidic  
D. Developing drought-resistant crops

Answer and Rationale

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
32. Which of the following pieces of playground equipment is best for a second-grade teacher to use to demonstrate a lever?

A. A slide  
B. A swing  
C. A seesaw  
D. A sandbox

**Answer and Rationale**

33. Which of the following is the best example of the taking action step in the problem-solving process?

A. Students interview an expert on pollution and discuss the different sources of alternate forms of energy  
B. Students brainstorm different ways to protect the ozone layer and reduce carbon monoxide levels in the atmosphere  
C. Students make posters encouraging people in the community to recycle paper and plastic products  
D. Students develop a chart enumerating the advantages and disadvantages of different energy sources

**Answer and Rationale**

34. During physical education class students throw a ball against the wall and move to try and catch the ball. Which of the following components of skill-related fitness does this activity most closely address?

A. Agility  
B. Power  
C. Speed  
D. Coordination

**Answer and Rationale**
35. Before learning about meter in music, elementary students should be able to demonstrate their understanding of

A. weak and strong beats.
B. syncopation.
C. subdivision of beats.
D. tempo markings.

Answer and Rationale

36. The emergence of theater in Ancient Greece developed from which of the following cultural experiences?

A. Social tensions
B. Religious ceremonies
C. Political concerns
D. Economic necessity

Answer and Rationale

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
## Answer Key and Rationales

<table>
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<tr>
<th>Question Number</th>
<th>Correct Answer</th>
<th>Rationale</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of key ideas relevant to the foundations of literacy and reading development. In shared reading, an interactive reading experience, children join in the reading of a “big book” or other enlarged text as guided by a teacher or other adult.</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of how words or phrases provide overall structure for a text. Internal conflict is a struggle between opposing forces in the mind of a single character.</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of how to help students produce clear and coherent writing. During the revising stage, the writer consults with peers or the teacher to improve the writing piece.</td>
</tr>
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<tbody>
<tr>
<td>4</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of ways to promote students' comprehension of a text. Asking a student to retell a story is an informal way to assess reading comprehension.</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of the role of phonemic awareness in literacy development. Phonemic awareness is the understanding that spoken words consist of a sequence of individual sounds.</td>
</tr>
<tr>
<td>6</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of ways to promote students' comprehension of texts. Inferential questions require students to use their background knowledge and the clues within the story to answer questions beyond what is explicitly stated in the text.</td>
</tr>
<tr>
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<tr>
<td>7</td>
<td>D</td>
<td><strong>Option D is correct.</strong> The question requires an understanding of strategies to foster students’ participation in collaborative conversations. Oral book reports provide students with opportunities to share their reading experiences with others.</td>
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<td>Back to Question</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of effective ways for promoting vocabulary development. Research consistently shows that the best way to increase vocabulary is through reading. Learning vocabulary by reading is faster than learning through word study because it allows students to see words in context and provides students with a wider repertoire of words.</td>
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<td>Back to Question</td>
</tr>
<tr>
<td>9</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of key ideas relevant to the foundations of literacy and reading development. Concept of print is defined as an awareness of print in the everyday environment with an emerging understanding of how printed language works. In the scenario, the teacher points at the words that match each word she sings.</td>
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<tr>
<td>10</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of the basic components of vocabulary and strategies to determine the meaning of unknown words. Structural analysis involves using prefixes, suffixes, and root words to determine the meaning of an unfamiliar word. The word “abnormal” is the only word that has both a prefix and a root word, so it would be most useful in teaching structural analysis.</td>
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<td>Back to Question</td>
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<tr>
<td>11</td>
<td>D</td>
<td><strong>Option D is correct.</strong> The question requires an understanding of how to help students produce clear and coherent writing. The prewriting stage is the first stage of the writing process and includes elements such as planning, research, outlining, diagramming, and storyboarding.</td>
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<td>Back to Question</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of key ideas relevant to reading development. The language experience approach to reading instruction is based on activities and stories developed from the personal experiences of the learner. The stories about personal experiences are written down by a teacher and are read with the student until the student can associate the written form of the word with the spoken form.</td>
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<tr>
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<tr>
<td>13</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of helping students to locate, analyze, and synthesize information. The assignment involves analyzing evidence and, possibly, recognizing assumptions, which are tasks classified at the analysis level of Bloom’s taxonomy.</td>
</tr>
<tr>
<td>14</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of the geographic systems in Georgia. The names provided in the graphic organizer represent major rivers in Georgia.</td>
</tr>
<tr>
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<tr>
<td>15</td>
<td>D</td>
<td><strong>Option D is correct.</strong> The question requires an understanding of the concepts of chronology and change. Learning how to read and to reconstruct the past allows students to develop a historical perspective and to answer the following questions: Who am I? What happened in the past? How has the world changed, and how might it change in the future? Why did particular events take place? How have past events shaped the world?</td>
</tr>
<tr>
<td>16</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of the concept of government and important documents in the history of the United States. The Articles of Confederation were adopted by the 13 colonies as the first constitution and went into effect in 1781. The present Constitution was adopted in 1789 when the Articles of Confederation proved inadequate to resolve the issues that faced the United States in its earliest years.</td>
</tr>
<tr>
<td>17</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of basic economic concepts. During winter, the demand for home heating oil is higher than at other periods of the year. In winter, the supply or availability of oil may not necessarily increase, so the price of heating oil may increase as a result.</td>
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<tbody>
<tr>
<td>18</td>
<td>D</td>
<td><strong>Option D is correct.</strong> The question requires an understanding of the impact of conditions and events on the environment. An oil spill is the only event listed that can be directly attributed to human actions. The other events are not typically associated with or caused by human actions.</td>
</tr>
<tr>
<td>19</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of comparing and ordering numbers. The point (\frac{1}{2}) is one unit from (\frac{3}{2}), one-half unit from 1, one-half unit from 0, and two units from (-\frac{3}{2}). Therefore, (\frac{1}{2}) is farthest from (-\frac{3}{2}). This can be confirmed by plotting each of the points on a number line.</td>
</tr>
<tr>
<td>20</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of the concept of measurement. To find the volume of a cube, one must know the length (as well as the width and the height). Length is the most basic measurement because it is used to find perimeter, area, and volume.</td>
</tr>
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<tr>
<td>21</td>
<td>D</td>
<td><strong>Option D is correct.</strong> The question requires an understanding of how to help students develop an understanding of number operations. In the question, the goal is to use computational strategies accurately and to estimate appropriately. Options A, B, and C focus on only one aspect of the goal (using computational strategies). D is the only choice that covers both parts of the curricular goal. Students must understand the computational strategies involved in mathematics solutions before they are able to estimate or to evaluate the reasonableness of their answers.</td>
</tr>
<tr>
<td>22</td>
<td>D</td>
<td><strong>Option D is correct.</strong> The question requires an understanding of shapes and their attributes. The activity requires students to understand the difference between acute, obtuse, and right angles, and to use the knowledge to classify the cutout shapes.</td>
</tr>
<tr>
<td>23</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of reasoning with shapes and their attributes. When students create simple tessellations, they completely cover the paper (the plane) with simple figures. In doing so, they also understand that they could potentially keep going beyond the paper, thereby gaining an intuitive idea of the concept of infinity.</td>
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<tr>
<td>24</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of order of operations. Students acquire mathematical skills in a developmental hierarchy. For example, they are introduced to addition and subtraction before multiplication. From learning multiplication, they understand that division is the inverse of multiplication.</td>
</tr>
<tr>
<td>25</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of how to interpret data. The median represents the middle score.</td>
</tr>
<tr>
<td>26</td>
<td>D</td>
<td><strong>Option D is correct.</strong> Option D is correct. The question requires an understanding of the properties of operations. Every whole number or integer has an opposite or inverse. When a number and its opposite are added, the result is 0. This property of all integers is called the additive inverse property.</td>
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| 27              | C              | **Option C is correct.** The question requires an understanding of fractions as numbers. Patterns of error in students’ work often reveal common points of confusion or misconceptions. In the examples given, the student does not understand that the fractions must be converted to equivalents before subtraction can take place. Instead, this student is subtracting the numerators and the denominators to arrive at the answer. Applying the same approach to the problem $\frac{9}{11} - \frac{1}{7}$, the student would subtract 1 from 9 and 7 from 11, resulting in an answer of $\frac{8}{4}$.

Back to Question |
| 28              | C              | **Option C is correct.** The question requires an understanding of the properties of operations. By repeatedly performing this activity with 20 pennies, a student can directly observe and record the many ways to make 20. This activity can help students learn the addition facts related to 20.

Back to Question |

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<tr>
<td>29</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of the skills necessary for scientific investigation. The activity describes classification, which requires students to arrange or organize items according to class or category.</td>
</tr>
<tr>
<td>30</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of the properties of objects. The experiment described in the question exposes students to the odors of various familiar substances. The students observe the connection between the substance and the time it takes for them to detect the odor based on whether the substance is a solid, liquid, or gas. The description of the activity would best fit in a science textbook under the heading “Physical Science: Properties of Matter.”</td>
</tr>
<tr>
<td>31</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of changes in the environment. The greenhouse effect describes when gases in the atmosphere trap heat energy from the Sun and warm the atmosphere near Earth’s surface. One of the gases responsible for trapping heat energy is carbon dioxide. Carbon dioxide is released when fossil fuels are burned.</td>
</tr>
<tr>
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<tr>
<td>32</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of important physical science concepts. A lever is a stiff bar that rests on a support called a fulcrum and operates to lift or move loads. A seesaw consists of an arm (the stiff bar) and a pivot point (the fulcrum), and it operates to lift the child who sits on it. A seesaw is an example of a lever.</td>
</tr>
<tr>
<td>33</td>
<td>C</td>
<td><strong>Option C is correct.</strong> The question requires an understanding of the features of the process of scientific inquiry. Taking action involves having a solution to a problem and developing an action plan so that others accept the solution. Options A, B, and D are examples of gathering and analyzing information. Option C is an example of implementing an action plan to present a solution to a problem (pollution).</td>
</tr>
<tr>
<td>34</td>
<td>D</td>
<td><strong>Option D is correct.</strong> Agility, balance, power, speed, coordination, and reaction time are all components of skill-related fitness. The wall-ball activity most closely addressed students’ eye-hand coordination.</td>
</tr>
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<tr>
<td>35</td>
<td>A</td>
<td><strong>Option A is correct.</strong> The question requires an understanding of fundamental concepts, principles, skills, and terminology related to music. Meter, the grouping of beats into repeated sets of two, three, or more beats, depends on the differentiation between weak and strong beats; therefore, students must understand such differentiation before learning about meter.</td>
</tr>
<tr>
<td>36</td>
<td>B</td>
<td><strong>Option B is correct.</strong> The question requires an understanding of the role and function of the arts in various cultures and throughout history. Modern drama can be traced back to Greece in the 6th Century B.C.E. It evolved from a religious ceremony known as the dithyramb, where 50 men dressed as satyrs would chant a choral song to the god Dionysus.</td>
</tr>
</tbody>
</table>
Constructed-response Questions

The purpose of this section is to describe the constructed-response questions that appear on the GACE Early Childhood Education assessment and to explain the criteria used to score each constructed-response question. The test includes two constructed-response questions: a question on English language arts and a social studies question. Unlike the selected-response questions, the constructed-response questions require you to demonstrate your knowledge in a subject area by providing in-depth written responses.

Preparing for the Constructed-response Questions

When preparing for the constructed-response questions, read the sample questions and scoring guide carefully. You may wish to draft a response to each sample question by reading the question and planning, writing, and revising your essay. You should use a total of about 10-15 minutes for each constructed-response question. Also, because no reference materials will be available during the test, it is recommended that you refrain from using a dictionary, a thesaurus, or textbooks while writing your practice responses.

Once you have written your practice responses, reread the scoring guide, and then read the sample responses provided for each score level. Rationales that explain how the responses characterize the score point description are provided for each of the responses. After you have read through these materials, review your own responses in light of the score point descriptions. You may also wish to review your responses and the score scale with staff in your preparation program.
# General Scoring Guideline/Rubric

Readers will assign scores based on the following scoring guideline/rubric.

<table>
<thead>
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<th>Score</th>
<th>Description</th>
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| 3     | The response is successful in the following ways:  
|       | • Response demonstrates a strong, thorough understanding of the content, pedagogy, and student development relevant to the question  
|       | • Answers all parts of the question clearly and specifically  
|       | • Shows strong knowledge of content as well as content-specific pedagogy  
|       | • Provides strong explanations that are well supported by examples or details |
| 2     | The response demonstrates some understanding of the topic, but it is limited in one or more of the following ways:  
|       | • Response demonstrates a basic, adequate understanding of the content, pedagogy, and student development relevant to the question  
|       | • Answers all parts of the question adequately  
|       | • Shows adequate knowledge of content as well as content-specific pedagogy  
|       | • Provides adequate explanations that are somewhat supported by examples or details |
| 1     | The response is seriously flawed in one or more of the following ways:  
|       | • Response demonstrates a weak, limited understanding of the content, pedagogy, and student development relevant to the question  
|       | • Answers the question in a limited way  
|       | • Demonstrates one or more of the following weaknesses:  
|       | • Failure to answer most parts of the question  
|       | • Limited knowledge of content and pedagogy  
|       | • Weak explanations inadequately supported by examples or details |
| 0     | Response is inappropriate and does not answer the question in one or more of the following ways:  
|       | • Response demonstrates minimal or no understanding of the content, pedagogy, and student development relevant to the question  
|       | • Fails to respond appropriately to any part of the question  
|       | • Shows virtually no knowledge of content or content-specific pedagogy  
|       | • Provides incoherent explanations, no explanations, or no supporting examples |

**Note:** After clicking on a link, right click and select "Previous View" to go back to original text.
Constructedyresponse Questions: English Language Arts and Social Studies

The two constructed-response questions present specific teaching situations and is set in the context of a subject area (or integrated subject area). For example, you might be asked to evaluate an authentic student work sample and outline the steps necessary to achieve an instructional goal related to the sample.

One question will focus on English language arts and the other on social studies. One of the questions may require you to show an understanding of interdisciplinary instruction.

Each constructed-response question will be scored independently by two trained and calibrated raters who have demonstrated they can effectively apply the general scoring guideline/rubric and question-specific guidelines/rubrics for the test. The two questions together will contribute 25 percent of the total test score for the subarea.

General Directions

Plan to use approximately 10–15 minutes to complete each question.

Read each constructed-response question carefully before you begin to write your response to ensure that you address all components. Think about how you will organize what you plan to write.

The final version of your response should conform to the conventions of standard written English. Your written response should be your original work, written in your own words, and not copied or paraphrased from some other work. You may, however, use citations when appropriate.

Sample English Language Arts Question

A third-grade class is exploring the theme of friendship in language arts. One of the stories the class will be reading is Angelina and Alice by Katherine Holabird. The book is about two friends who help each other learn gymnastic tricks to perform at the town fair. The friends learn that by working together and helping each other, they not only improve their performance, but also become closer friends.

I. Describe ONE instructional technique or strategy that you would use during the reading of the story to enhance the students’ comprehension of the theme.

II. Explain what you would do to determine that the strategy was successful in helping the students understand the theme.
Sample Responses and Rationales for English Language Arts Question

Sample Response Earning a Score of 3

a) I would have the students read the story independently and list events in the story related to the theme of friendship. Then I would assign them to groups of four. Each group will combine their events into one list. A presenter will be chosen by the group to share their list with the class. During the presentations, I will organize the events on the board, and then we will discuss how the events relate to the theme of friendship. I will make sure each student in the class has a chance to say something related to the theme or to add to the organizer I have on the board. The independent reading activity is appropriate because it is not totally teacher directed; the small-group work provides an opportunity for students to share their ideas and work together, and the whole-group work provides an opportunity to think critically about the events in the story that tell us about friendship. Students will use their oral language, visual, and listening skills, as the list is compiled and analyzed.

b) I would know the strategy was successful by having each student write a short story that tells us more about the friendship between Angelina and Alice. This extends the story, connects reading and writing, and provides a chance to practice the steps of process writing.

Rationale for the Score of 3

The response was scored a 3 because it shows strong and convincing understanding of principles of reading instruction that is developmentally appropriate for third-graders. It contains a description of an instructional strategy and an explanation of how the strategy might enhance students' comprehension of the theme. A group of students in third grade can be reading at many different levels. By reading independently, the students can pace themselves and are more apt to speak within their small group about what they have read. The activity also describes the teacher assessing comprehension individually and in small- and whole-group settings. The follow-up writing activity is an ideal way to find out that the students understand how to depict the theme of friendship in their own writing.

Sample Response Earning a Score of 2

a) As I read the story aloud, modeling how to read with expression, I would stop periodically and ask the class questions about what is happening in the story. I would also have them predict what is going to happen at the end of the story.

b) We would discuss their predictions and whether they were right or wrong. We would also review the sequence of events so I could see if they understood what happened in the story from the beginning to the middle and to the end. This would help me check for understanding.

Rationale for the Score of 2

The response was scored a 2 because it describes the instructional strategy of modeling fluent reading — checking for understanding, asking questions, predicting, and discussing. The instructional strategy is appropriate; however, the explanation of how the teacher would check for understanding is not strong or detailed. In addition, there is very little explicit tie-in to the theme of friendship.
**Sample Response Earning a Score of 1**

a) I would begin by reading part of the story to the class myself, modeling fluent reading. Then I would choose someone else to read a page or two. The taking turns would continue until the reading of the story was complete and everyone had a chance to read.

b) I can tell if a student understands what she is reading if the reading is smooth and fluent.

**Rationale for the Score of 1**

The response was scored a 1 because the activity reflects a limited understanding of principles of reading instruction for third-grade students. Modeling fluent reading is a good overall strategy, but round-robin reading is not. Students do not have to pay attention once they have had a turn reading, and there is no way to check for understanding of the story or theme when someone else is reading. The assessment suggested in part (b) is insufficient and subjective. It gives no explanation why understanding of the theme can be assessed that way.

**Sample Response Earning a Score of 0**

a) The instructional strategy I would use is to put the students into pairs to read the story. After reading the story, each group would make up a friendship game.

b) The students could pretend to be Alice and Angelina and decide which group’s game they would like to play. If they have fun playing the game, I will know they are learning about getting along and being friends.

**Rationale for the Score of 0**

The response was scored a 0 because it shows minimal understanding of reading-instruction strategies. Pairing students is a grouping strategy to prepare for instruction, but no instruction is discussed in the response. There is also no mention of how to assess student comprehension of friendship as a theme in a story.
Sample Social Studies Question

The questions below are based on the following information.

Scenario:

A second-grade teacher gives students the following assignment.

1. Put the important events in the history of Alaska in order by year.
   - 1867 - United States buys Alaska from Russia.
   - 1959 - Alaska is granted statehood.
   - 1896 - Gold is discovered in Alaska.
   - 1912 - Alaska becomes a United States territory.
   - 1989 - Exxon Valdez oil spill takes place.

2. Draw a time line with a scale.

3. Put the events on your time line.

Tasks:

I. Evaluate the student’s work, listing strengths and errors.
II. Explain how you would help the student correct one of the errors.
Sample Responses and Rationales for Social Studies Question

Sample Response Earning a Score of 3

(a) Student strengths: Timelines are based on number lines and the number line is correctly scaled. Spaces between tick marks are about the same size. Events are placed on the timeline and are easy to read.

Student errors: Order of dates is not correct. Tick mark labels should be years. Arrows are in the wrong places and always in the middle.

(b) The assignment states that the student is to put the events in order by date. As we can see at the top of the student paper, the dates are not in order. The correct order should be:

1867–U.S. buys Alaska from Russia.
1896–Gold is discovered in Alaska.
1912–Alaska becomes a U.S. territory.
1959–Alaska is granted statehood.
1989–Exxon Valdez oil spill takes place.

The student obviously ordered the events by the last two digits of the years and did not notice that the events occurred in different centuries. To improve the student’s understanding about ordering numbers in the thousands, I would work with the student on some exercises with numbers in the thousands and put them in order together. After we practiced this skill, I would have the student write each date on a separate note card. We would play a game and put them in order from left to right. The student could visually see the numbers going from least to greatest. Then I would have the student write the dates in order on a worksheet with the corresponding event. The student then needs to correct the scale on the timeline and put the years correctly on the timeline. (A real challenge for the student and teacher!)

Rationale for the Score of 3

The response scored a 3 because it demonstrates a strong, thorough understanding of the content, pedagogy, and student development relevant to the question. The response lists what the student did well and several of the errors the graph contains. It correctly identifies the error in ordering the numbers and provides an example of how to reteach the concept and check for student understanding, first with note cards and then with a worksheet of events. The response is detailed and age appropriate. It indicates that putting the dates correctly on the timeline is the next step and is likely to be a challenge for the student.

Sample Response Earning a Score of 2

The student does not always look at the entire date. When sequencing the events the student appears to look at the last two numbers of the dates most often. Ex. 1912, 1959, 1867, 1896. The last two numbers of the year go up in order: 12, 59, 67, 96. I would have the student look at the dates of the events. I would then remind the student that it is important to look at the whole number to determine the sequence of the dates. Then I would have the student sequence the dates on a separate sheet of paper. Then I would show them how to place the numbers on a timeline. The timeline needs some work. It needs good labels and more spaces. The systematic procedure will help to identify and then eliminate any remaining confusion on the part of the student.
Rationale for the Score of 2

The response scored a 2 because it demonstrates a basic, adequate understanding of the content, pedagogy, and student development relevant to the question. It does not mention any student strengths, but it does mention the problems in the student work. The sequencing of the events is correctly identified as an error, as is the time line itself. The reteaching of the concept is appropriate, but details concerning the reteaching are lacking. Just reminding a student how the numbers should look is not likely to guarantee full or adequate comprehension on the part of the student.

Sample Response Earning a Score of 1

An error is that the dates are not in the correct order. The strategy I would use to improve the student’s understanding is to show him how to put the dates in the correct order and then how to put them correctly on a timeline.

Rationale for the Score of 1

The response scored a 1 because it demonstrates a weak, limited understanding of the content, pedagogy, and student development relevant to the question. No strengths are identified. Only one error is correctly identified, but showing the student what to do is not the best way to ensure that the student understands what to do when making a time line. No details about the strategy are provided.

Sample Response Earning a Score of 0

The student should have shown how he/she calculated 100 years. The student could label the graph by tens putting a key on the side of the graph to show the number that represents the total number to give them 100.

Rationale for the Score of 0

The response scored a 0 because it demonstrates minimal or no understanding of the content, pedagogy, and student development relevant to the question. The response lists no strengths and mentions none of the errors. In fact, the use of the number line as the basis for a time line is fine, and there is a key below the line. However, the labels on the time line need to relate to the dates given, not to multiples of 10. The response misses the greater problem: the student does not understand how to label the time line or put dates on it. The response offers no suggestions for improving student understanding.
Preparation Resources

The resources listed below may help you prepare for the GACE assessment in this field. These preparation resources have been identified by content experts in the field to provide up-to-date information that relates to the field in general. You may wish to use current issues or editions of these materials to obtain information on specific topics for study and review.

Guide to Taking a GACE Computer-delivered Assessment

This guide explains how to navigate through a GACE assessment and how to answer different types of test questions. This free download is available in the Test Preparation Resources section of the GACE website at www.gace.ets.org/prepare.

Reducing Test Anxiety

This guide provides practical help for people who suffer from test anxiety. Designed specifically for GACE test takers, but useful to anyone who has to take tests, this guide reviews the major causes of test anxiety and offers practical advice for how to counter each one.

Study Tips: Preparing for a GACE Assessment

This document contains useful information on preparing for selected-response and constructed-response tests. The instruction, tips, and suggestions can help you become a better-prepared test taker. See the Test Preparation Resources section of the GACE website at www.gace.ets.org/prepare for this free download.

Journals

Art Education, National Art Education Association
The Elementary School Journal, University of Chicago Press
Exceptional Children, Council for Exceptional Children
Instructor, Scholastic, Inc.
Journal for Research in Mathematics Education, National Council of Teachers of Mathematics
Journal of Health, Physical Education, Recreation and Dance, American Alliance for Health, Physical Education, Recreation, and Dance
Language Arts, National Council of Teachers of English
Music Educators Journal, Music Educators' National Conference, Center for Educational Associations
The Reading Teacher, International Reading Association
Science and Children, National Science Teachers Association
Social Education, National Council for the Social Studies
Teaching Children Mathematics, National Council of Teachers of Mathematics

Note: After clicking on a link, right click and select "Previous View" to go back to original text.
Teaching PreK–8, EarlyYears, Inc.
Learning and Leading with Technology, International Society for Technology in Education
The Social Studies, Heldref Publications
Young Children, National Association for the Education of Young Children

Other Resources


Note: After clicking on a link, right click and select "Previous View" to go back to original text.


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Online Resources

Center for Educator Development in Fine Arts — www.cedfa.org
Center on Instruction, RMC Research Corporation — www.centeroninstruction.org
Education Resources Information Center (ERIC) — www.eric.ed.gov
Georgia Department of Education — www.doe.k12.ga.us
GovSpot, StartSpot Mediaworks, Inc. — www.govspot.com