



Georgia Assessments for the Certification of Educators®



# **GACE® Study Companion**

## **Elementary Education Assessment**

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## About the Assessment

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|--|---|
| Assessment Name                          | Elementary Education  |
| Grade Level                              | P–5   |
| Test Code                                | Test I: 001<br>Test II: 002<br>Combined Test I and Test II: 501   |
| Testing Time                             | Test I: 2 hours<br>Test II: 2 hours<br>Combined Test I and Test II: 4 hours   |
| Test Duration                            | Test I: 2.5 hours<br>Test II: 2.5 hours<br>Combined Test I and Test II: 5 hours   |
| Test Format                              | Computer delivered  |
| Number of Selected-response Questions    | Test I: 75<br>Test II: 75<br>Combined Test I and Test II: 150   |
| Question Format                          | The test consists of a variety of short-answer questions such as selected-response questions, where you select one answer choice or multiple answer choices (depending on what the question asks for), questions where you enter your answer in a text box, and other types of questions. You can review the possible question types in the <b><i>Guide to Taking a GACE Computer-delivered Test.</i></b> |
| Number of Constructed-response Questions | Test I: 2<br>Test II: 0<br>Combined Test I and Test II: 2   |

The GACE Elementary Education assessment is designed to measure the professional knowledge of prospective teachers of Elementary Education in the state of Georgia.

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.

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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.

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## Test I Subareas

| Subarea                                   | Approx. Percentage of Test |
|---|----------------------------|
| I. Reading and Language Arts              | 50%                        |
| II. Social Studies                        | 25%                        |
| III. Analysis (constructed-response only) | 25%                        |

## 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 Elementary 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 Elementary 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

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*Objective 3: Understands and applies knowledge of the writing process and uses of tools and resource materials*

The beginning Elementary 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 Elementary 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 Elementary 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

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## Subarea II: Social Studies

### *Objective 1: Understands and applies knowledge of information processing skills*

The beginning Elementary 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 Elementary 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 Elementary 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



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*Objective 4: Understands and applies knowledge of government, civics, economics, and their processes*

The beginning Elementary 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 Elementary 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 Elementary 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

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## Test II Subareas

| Subarea   | Approx. Percentage of Test |
|---|----------------------------|
| I. Mathematics  | 53%                        |
| II. Science   | 30%                        |
| III. Health Education, Physical Education, and the Arts | 17%                        |

## Test II Objectives

### Subarea I: Mathematics

*Objective 1: Understands and applies knowledge of counting and cardinality*

The beginning Elementary 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 Elementary 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 Elementary 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

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*Objective 4: Understands and applies knowledge of numbers and fractions*

The beginning Elementary 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 Elementary 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 Elementary 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

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## Subarea II: Science

### *Objective 1: Understands characteristics of science*

The beginning Elementary 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 Elementary 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 Elementary 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 Elementary 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. Understand interactions between organisms and their environments
- D. Understands inherited traits, learned behaviors, and other factors that affect the survival of organisms

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### **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 Elementary 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 Elementary 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

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## 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.

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**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 statements best demonstrates an example of an allusion?
  - A. “Samantha eats chocolates every day. Chocolates are her Achilles’ heel.”
  - 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.”
  - 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. To assess the student's level of comprehension
  - B. To measure the student's vocabulary development
  - C. To determine the student's fluency rate
  - D. To evaluate 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. Alphabetic principle
  - 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. After a class reading of an informational text about endangered animals, a teacher instructs students to prepare an oral presentation on an animal of their choice. Which of the following guidelines will best help students produce an engaging presentation?
- A. Including words and phrases that will make the speech entertaining
  - B. Writing detailed notes to read from during the presentation
  - C. Maintaining eye contact with the audience while presenting
  - D. Using a loud voice to make sure everyone can understand the presentation

**Answer and Rationale**

8. A teacher reads the following section of text aloud to the class.

*The people elected a new president. Everyone thought he was the best ruler for the country.*

After reading, the teacher asks students, “What does the word ‘ruler’ mean as used by the author?” The teacher asks this question most likely to help students learn to

- A. identify sight words.
- B. decode unknown words.
- C. develop vocabulary.
- D. use context clues.

**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 best to use as an example when demonstrating structural analysis for vocabulary development?
- A. Count
  - B. Inactive
  - C. Retail
  - D. Maintain

***Answer and Rationale***

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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. During a small-group lesson, a kindergarten teacher asks students, “What sound is the same in ‘pad,’ ‘cat,’ and ‘man’?” The teacher is providing instruction in which of the following phonemic awareness skills?

- A. Categorization
- B. Identification
- C. Substitution
- D. Isolation

***Answer and Rationale***

- 
13. A teacher does a think-aloud to model effective active listening behaviors for classroom discussions. Which of the following actions best shows active listening?
- A. Restating key points a speaker makes to show understanding of the intended message
  - B. Asking the speaker to pause and give a differing opinion illustrated with an example
  - C. Sitting at a distance away from a presentation to prevent making the speaker feel nervous
  - D. Using nonverbal cues to acknowledge emotional reactions to what a speaker is saying

***Answer and Rationale***

14. A fifth-grade student reads a narrative account of a journalist’s trip to a tropical rain forest. Which of the following oral reading behaviors indicates that the student has an understanding of effective fluent reading?
- A. Slowing down reading to monitor understanding when encountering a section in a text with unfamiliar concepts
  - B. Correctly and rapidly reading a list of academic and domain-specific vocabulary found in the text
  - C. Quickly processing the words in sustained text with limited need to expend cognitive energy on word recognition
  - D. Engaging with a text by showing natural spoken expression and the ability to chunk information into phrases

***Answer and Rationale***

- 
15. A fourth-grade teacher displays an article on the life cycle of a butterfly on an interactive whiteboard. The teacher reads a passage aloud to the students and highlights transition words such as first, next, and finally. The teacher explains that the transition words help a reader understand how events in a text are related to one another with a time span of first event to last event. Which of the following best explains the rationale for the lesson?
- A. Motivating a reader to engage with complex texts with content presented in similar patterns
  - B. Assisting a reader to identify important and accurate information presented by an author to increase understanding
  - C. Allowing a reader to successfully engage in independent reading of difficult informational texts
  - D. Assisting a reader to identify text structure and use the organizational patterns within each structure to increase understanding

**Answer and Rationale**

16. Use the passage to answer the following question.

*Anacondas are huge snakes that are found in the Amazon jungles of South America. The average anaconda can grow to be 20 feet in length and may weigh 300 pounds. Anacondas are not only very large but also very powerful. They can kill their prey by squeezing. They eat animals such as fish, birds, and turtles. Anacondas can be quite elusive because they move so quietly on land and spend so much time in the dark waters of the Amazon River.*

The passage is an example of which of the following expository text structures?

- A. Cause-effect
- B. Description
- C. Problem-solution
- D. Process

**Answer and Rationale**

- 
17. Which of the following sentences is grammatically incorrect?
- A. Pat walked so quickly, he did not notice the man with the funny hat.
  - B. There is no way Kim would leave dirty plates on the table. Their right there in the sink.
  - C. The teacher placed two books, pencils, and pens on each student’s desk.
  - D. Steve’s mom loves to wear red dresses. It’s her favorite color.

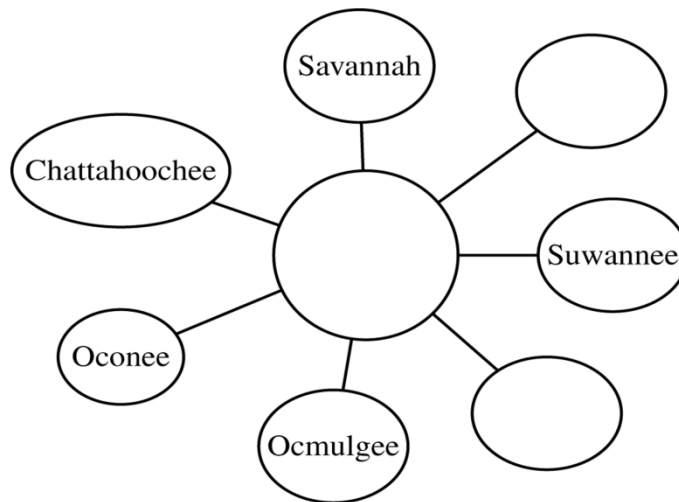
***Answer and Rationale***

18. A teacher assigns a research report that requires students to find information from primary sources. Which THREE of the following resources are most appropriate for the students to use?
- A. Commentaries
  - B. Photographs
  - C. Encyclopedias
  - D. Memoirs
  - E. Eyewitness accounts of events

***Answer and Rationale***

19. The National Curriculum Standards for Social Studies outlines ten themes. The second theme addresses time, continuity, and change. Which of the following questions for an 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***



20. 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***

21. 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***



- 
22. 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***

23. 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***

- 
24. 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***

25. A class is beginning a lesson on the European exploration of North America. Which TWO of the following individuals should the teacher include in the lesson?

- A. Marco Polo
- B. Henry Hudson
- C. William Penn
- D. Hernando de Soto
- E. James Oglethorpe

***Answer and Rationale***

- 
26. A group of fifth-grade students is creating a poster to describe the key components of republicanism. Which principle of government should be included on the poster?
- A. Judicial review
  - B. Checks and balances
  - C. Popular sovereignty
  - D. Rule of law

***Answer and Rationale***

27. A teacher is discussing the Cold War and the Cuban missile crisis. Which of the following individuals would be mentioned in this discussion?
- A. Harry S. Truman and Joseph Stalin
  - B. Fidel Castro and Ronald Reagan
  - C. Richard Nixon and Leonid Brezhnev
  - D. Nikita Khrushchev and John F. Kennedy

***Answer and Rationale***

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28. Which of the following pairs of fractions will be best for a teacher to use when teaching an introductory lesson on comparing fractions using the benchmark number 1 ?

A.  $\frac{4}{5}$ ,  $\frac{5}{6}$

B.  $\frac{1}{5}$ ,  $\frac{3}{8}$

C.  $\frac{3}{5}$ ,  $\frac{4}{5}$

D.  $\frac{3}{5}$ ,  $\frac{4}{7}$

***Answer and Rationale***

29. Which of the following is best for helping students understand the concept of volume of a three-dimensional shape?

A. Teaching students the formula for the volume of a prism

B. Having students fill a box with layers of congruent small cubes

C. Asking students to draw the net of simple three-dimensional shapes

D. Asking students to measure the weight of the amount of water needed to fill a plastic box

***Answer and Rationale***

- 
30. 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 strategies is best aligned to the goal?
- A. Drilling students on basic number facts daily
  - B. Having students use calculators for all mathematical tasks
  - C. Requiring that students evaluate the reasonableness of their answers
  - D. Helping students make connections between basic arithmetic operations

***Answer and Rationale***

31. For which of the following collections of angles could the sum of the measures of the angles in the collection be equal to  $360^\circ$ ?
- A. Two right angles and one obtuse angle
  - B. Two right angles, one obtuse angle, and one acute angle
  - C. Three right angles and one obtuse angle
  - D. Three right angles and one acute angle

***Answer and Rationale***

- 
32. A teacher asked a group of students to determine the number of sides of simple geometric shapes. Which of the following is mostly likely the learning goal of the activity?
- A. Understanding the concept of perimeter
  - B. Connecting numbers to quantities
  - C. Organizing and interpreting data
  - D. Generating shape patterns

***Answer and Rationale***

33.  $20 \times 12 = (10 \times 2) \times 12 = 10 \times (2 \times 12) = 10 \times 24$

A teacher wants students to simplify multiplicative expressions using the associative property of multiplication as shown. Which of the following expressions is best for having students use the associative property of multiplication to simplify multiplicative expressions?

- A.  $7 \times 19$
- B.  $11 \times 17$
- C.  $13 \times 39$
- D.  $16 \times 25$

***Answer and Rationale***

- 
34. An elementary art student is provided two pieces of yarn measuring 13 and 15 inches and is tasked with cutting out two whole number lengths of yarn from each of the given pieces and gluing them onto a sheet of paper to create a rectangular frame for a drawing. What is the maximum perimeter, in inches, of the frame that the student can create?
- A. 24
  - B. 26
  - C. 28
  - D. 30

***Answer and Rationale***

35.  $25 + 17 = (20 + 10) + (5 + 7)$   
 $49 + 17 = (40 + 10) + (9 + 7)$

A teacher wants students to understand why regrouping is an effective strategy for adding two whole numbers. The teacher shows the given equations to the students. Which of the following properties of operations is most important to justify the regrouping strategy?

- A. The reflexive property
- B. The additive identity property
- C. The associative property of addition
- D. The distributive property of addition over multiplication

***Answer and Rationale***

---

36.  $\frac{4}{16} - \frac{1}{8} = \frac{3}{8}$

$$\frac{5}{9} - \frac{1}{2} = \frac{4}{7}$$

$$\frac{7}{16} - \frac{1}{5} = \frac{6}{11}$$

The examples shown represent a student's incorrect work. If the error pattern continues, which of the following is most likely to be the student's answer when the student finds the value of  $\frac{9}{11} - \frac{1}{7}$  ?

A.  $\frac{10}{4}$

B.  $\frac{8}{7}$

C.  $\frac{8}{4}$

D.  $\frac{9}{8}$

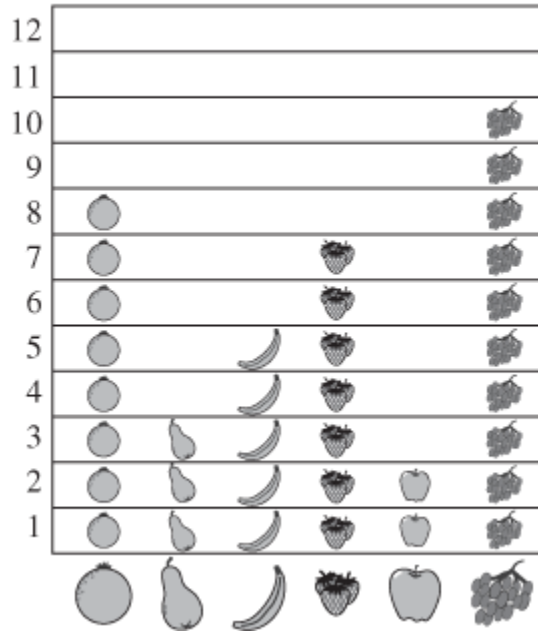
***Answer and Rationale***



- 
37. 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 counting principle
  - B. One-to-one correspondence
  - C. Addition and subtraction as inverse operations
  - D. Separating and joining as a way to represent addition

***Answer and Rationale***

What is your favorite fruit?



38.

A teacher asks students to look at the graph shown and indicate which fruits are preferred by more than 5 students, fewer than 5 students, and exactly 5 students. Which of the following is most likely the goal of the activity?

- A. Counting
- B. Ordering numbers
- C. Estimating quantities
- D. Using numerals to describe quantities

**Answer and Rationale**

- 
39. A teacher wants to help students use their understanding of addition to understand multiplication. Which of the following activities is best for the teacher to have the students do?
- A. Explaining patterns in the multiplication table using the properties of operations
  - B. Finding common multiples of two or more numbers in a multiplication table
  - C. Creating arrays as a way of finding certain sums
  - D. Using properties of operations to find sums

***Answer and Rationale***

40. Mr. Lorena is teaching an introductory lesson on understanding the value of each digit in three-digit numbers. He wants to give the students a few problems to help reinforce their understanding. Which TWO of the following kinds of problems are best for Mr. Lorena to assign to the students?
- A. Problems that require adding and subtracting three-digit numbers
  - B. Problems that require multiplying three-digit numbers
  - C. Problems that require comparing three-digit numbers
  - D. Problems that require representing three-digit numbers with base-10 manipulatives
  - E. Problems that require organizing data from a class survey

***Answer and Rationale***

- 
41. A teacher asks students to represent the result of multiplying two fractions by using an area model. Which of the following mathematical concepts is most closely related to this activity?
- A. Representing products of fractions in simplest form
  - B. Interpreting multiplication of fractions as taking a part of a part
  - C. Understanding that the properties of multiplication extend to fractions
  - D. Understanding that the product of two fractions can be less than, equal to, or greater than its factors

***Answer and Rationale***

42. Which of the following pairs of points are the endpoints of a segment parallel to the  $y$ -axis?
- A.  $(10,0)$  and  $(0,10)$
  - B.  $(10,-10)$  and  $(10,10)$
  - C.  $(-10,10)$  and  $(10,10)$
  - D.  $(-10,0)$  and  $(10,0)$

***Answer and Rationale***

- 
43. The sorting of rocks into different groups on the basis of hardness, texture, and other observable characteristics best illustrates which of the following skills?
- A. Predicting
  - B. Explaining
  - C. Classifying
  - D. Experimenting

***Answer and Rationale***

44. In an activity for a fifth-grade science class, a teacher opens three sealed containers one at a time. Each container holds one of the following substances.
- 1. Perfume
  - 2. Orange peels
  - 3. Vinegar

The teacher asks the students to raise their hands as soon as they are able to smell the contents of each container. The teacher then leads a class discussion about why the students closest to the open containers typically smell the substances first.

The activity is best used as part of a unit on which of the following topics?

- A. Waves and the transfer of energy
- B. Particle motion in solids, liquids, and gases
- C. Chemical changes and conservation of matter
- D. Separation of mixtures using differences in physical properties

***Answer and Rationale***

- 
45. 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***

46. Which TWO of the following are traditionally considered as types of energy in the science curriculum?
- A. Sound
  - B. Liquid
  - C. Gas
  - D. Light

***Answer and Rationale***

- 
47. Repeatability is an important feature in experimental design. Doing which of the following best ensures that others can repeat an experiment?
- A. Using procedures that do not require specialized equipment
  - B. Writing clear, detailed procedures
  - C. Using abbreviations in the procedures as often as possible to save space
  - D. Allowing the experimenter to modify procedures as needed

***Answer and Rationale***

48. Which of the following statements about butterflies and chickens is most accurate?
- A. The organisms both have wings at birth.
  - B. The organisms both undergo complete metamorphosis.
  - C. The organisms both hatch from fertilized eggs.
  - D. The organisms have equal life spans.

***Answer and Rationale***

- 
49. A science class is learning about the differences between living and nonliving things. Which of the following is a characteristic of an earthworm but not of a burning candle?
- A. It is made of cells.
  - B. It uses oxygen.
  - C. It changes over time.
  - D. It contains carbon.

***Answer and Rationale***

50. During physical education class, students throw a ball against the wall and try to catch it as it bounces back. 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***



- 
51. 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***

52. The emergence of theater in ancient Greece was most influenced by which of the following?
- A. Social tensions
  - B. Religious ceremonies
  - C. Political concerns
  - D. Economic necessity

***Answer and Rationale***

53. Which of the following is the single most important prevention step a teacher can incorporate into the classroom to reduce the spread of disease?
- A. Encouraging frequent hand washing
  - B. Opening classroom windows to let in fresh air
  - C. Sending home students who look ill or feel unwell
  - D. Recycling trash in appropriate receptacles

***Answer and Rationale***

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## Answer Key and Rationales

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 1               | B              | <p>Option (B) is correct. 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.</p> <p><b><i>Back to Question</i></b></p>   |
| 2               | A              | <p>Option (A) is correct. An allusion is a figure of speech that makes references to a person, an event, or a place. Achilles is a character in Greek mythology, and “Achilles’ heel” defines an area of vulnerability. The statement implies that Samantha has a weakness for chocolates.</p> <p><b><i>Back to Question</i></b></p> |
| 3               | C              | <p>Option (C) is correct. During the revising stage, the writer consults with peers or the teacher to improve the writing piece.</p> <p><b><i>Back to Question</i></b></p>   |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 4               | A              | <p>Option (A) is correct. Asking a student to retell a story is an informal way to assess reading comprehension.</p> <p><b><i>Back to Question</i></b></p>  |
| 5               | B              | <p>Option (B) is correct. Phonemic awareness is the understanding that spoken words consist of a sequence of individual sounds.</p> <p><b><i>Back to Question</i></b></p>   |
| 6               | A              | <p>Option (A) is correct. 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.</p> <p><b><i>Back to Question</i></b></p> |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 7               | C              | <p>Option (C) is correct. Making eye contact with the audience makes them feel connected with the presenter and engaged with the presentation.</p> <p><b><i>Back to Question</i></b></p>   |
| 8               | D              | <p>Option (D) is correct. Context clues include information from pictures or words surrounding an unknown word that helps readers figure out the meaning of an unknown word.</p> <p><b><i>Back to Question</i></b></p>   |
| 9               | A              | <p>Option (A) is correct. Concepts 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 written words that match each word she sings.</p> <p><b><i>Back to Question</i></b></p> |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 10              | B              | <p>Option (B) is correct. Structural analysis involves using prefixes, suffixes, and root words to determine the meaning of an unfamiliar word. The word “inactive” is the only word that has both a prefix (in) and a root word (active), so it would be most useful in teaching structural analysis.</p> <p><b><i>Back to Question</i></b></p> |
| 11              | D              | <p>Option (D) is correct. The prewriting stage is the first stage of the writing process and includes elements such as planning, researching, outlining, diagramming, and storyboarding.</p> <p><b><i>Back to Question</i></b></p>   |
| 12              | B              | <p>Option (B) is correct. Phoneme identification is the ability to recognize the same sounds in different words.</p> <p><b><i>Back to Question</i></b></p>   |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 13              | A              | <p>Option (A) is correct. Active listening is a structured form of listening in which listeners repeat in their own words what they believe the speaker is saying.</p> <p><b><i>Back to Question</i></b></p>  |
| 14              | D              | <p>Option (D) is correct. The option describes a reader using prosody while reading. Prosody is the use of timing, phrasing, pitch, and rhythm to convey meaning while reading.</p> <p><b><i>Back to Question</i></b></p>   |
| 15              | D              | <p>Option (D) is correct. The primary rationale for the lesson is to improve comprehension during reading by helping students understand text structure and organizational patterns such as sequence within each structure.</p> <p><b><i>Back to Question</i></b></p> |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 16              | B              | <p>Option (B) is correct. A descriptive text uses sufficient and varied details to explain the subject of the text.</p> <p><b><i>Back to Question</i></b></p>   |
| 17              | B              | <p>Option (B) is correct. The sentence illustrates an incorrect use of homophones; “their” should be “they’re.”</p> <p><b><i>Back to Question</i></b></p>   |
| 18              | B, D, E        | <p>Options (B), (D), and (E) are correct. Primary source documents are original documents that were created at the time an event was studied. Photographs provide first-hand graphic information about people, places, or events that occurred at a particular time. Memoirs are original written recordings a person writes about his or her life. An eyewitness account of an event is a report of an occurrence or event by a person who actually experienced the event at the time it happened.</p> <p><b><i>Back to Question</i></b></p> |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 19              | D              | <p>Option (D) is correct. Learning how to read and to reconstruct the past allows a student 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?</p> <p><b><i>Back to Question</i></b></p> |
| 20              | C              | <p>Option (C) is correct. The names provided in the graphic organizer represent major rivers in Georgia.</p> <p><b><i>Back to Question</i></b></p>   |
| 21              | A              | <p>Option (A) is correct. The Articles of Confederation were adopted by the thirteen 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.</p> <p><b><i>Back to Question</i></b></p>                          |



| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 22              | C              | <p>Option (C) is correct. 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.</p> <p><b><i>Back to Question</i></b></p> |
| 23              | D              | <p>Option (D) is correct. An oil spill is the only event listed that can be directly attributed to human actions. The other events are not associated with or caused by human actions.</p> <p><b><i>Back to Question</i></b></p>   |
| 24              | A              | <p>Option (A) is correct. Analyzing evidence and, possibly, recognizing assumptions are tasks classified at the analysis level of Bloom's taxonomy.</p> <p><b><i>Back to Question</i></b></p>  |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 25              | B, D           | <p>Options (B) and (D) are correct. Henry Hudson was an English explorer who led multiple voyages to North America in the early 1600s, discovering bodies of water that still bear his name today. Hernando de Soto was a Spanish explorer who conquered Florida and explored much of what is now the southeastern United States. He and his men were the first Europeans to encounter the Mississippi River and cross it.</p> <p><b><i>Back to Question</i></b></p> |
| 26              | C              | <p>Option (C) is correct. Republicanism involves citizens exercising their supreme power to elect representatives to government positions, therefore, popular sovereignty dictates the authority of the government through the consent of the people.</p> <p><b><i>Back to Question</i></b></p>  |
| 27              | D              | <p>Option (D) is correct. In 1962 the Soviet Union attempted to place nuclear missiles in Cuba. After a tense stand-off an agreement was eventually reached by President John F. Kennedy and Soviet leader Nikita Khrushchev to remove the missiles.</p> <p><b><i>Back to Question</i></b></p>   |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 28              | A              | <p>Option (A) is correct. When placing fractions on a number line using 1 as a benchmark, students have to decide either how far from 1 the fractions are or whether 1 lies between the two fractions. The fractions in option A are respectively <math>\frac{1}{5}</math> and <math>\frac{1}{6}</math> away from 1. Since <math>\frac{1}{6}</math> is less than <math>\frac{1}{5}</math>, <math>\frac{5}{6}</math> is closer to 1 than <math>\frac{4}{5}</math> is.</p> <p><b><i>Back to Question</i></b></p> |
| 29              | B              | <p>Option (B) is correct. Finding the volume of a prism by filling it with layers of congruent small cubes will help students understand the concept of volume as the space filled by unit cubes without gaps or overlaps and relate the concept of volume to its computation as the number of unit cubes.</p> <p><b><i>Back to Question</i></b></p>   |
| 30              | C              | <p>Option (C) is correct. In the question, the goal is to use computational strategies fluently and to estimate appropriately. Option C 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.</p> <p><b><i>Back to Question</i></b></p>   |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 31              | B              | <p>Option (B) is correct. One right angle's measure is <math>90^\circ</math>, one acute angle's measure is less than <math>90^\circ</math>, and one obtuse angle's measure is less than <math>180^\circ</math> but greater than <math>90^\circ</math>. So the total of the measures of the four angles in the collection in option B is greater than <math>270^\circ</math> and less than <math>450^\circ</math>.</p> <p><b><i>Back to Question</i></b></p>       |
| 32              | B              | <p>Option (B) is correct. When students analyze simple geometric shapes and determine the number of sides in each, they say the number names in the standard order and pair each side with one and only one number name and each number name with one and only one side. They also understand that the last number name said tells the number of sides counted regardless of the order in which the sides were counted.</p> <p><b><i>Back to Question</i></b></p> |
| 33              | D              | <p>Option (D) is correct. The expression in option D can be rewritten as <math>16 \times 25 = (4 \times 4) \times 25 = 4 \times (4 \times 25) = 4 \times 100</math>.</p> <p><b><i>Back to Question</i></b></p>  |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 34              | B              | <p>Option (B) is correct. Students can build a frame of sides 6 inches and 7 inches from the pieces of yarn measuring 13 and 15 inches respectively.</p> <p><b><i>Back to Question</i></b></p>   |
| 35              | C              | <p>Option (C) is correct. When regrouping in addition of whole numbers less than 100, the two addends are decomposed as the sum of some tens and some ones, then the tens and ones are added separately. Since the sum is independent of which addends are added together, the mathematical property that allows this operation is the associative property of addition.</p> <p><b><i>Back to Question</i></b></p>   |
| 36              | C              | <p>Option (C) is correct. 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 equivalent fractions before subtraction can take place. Instead, the student is subtracting the numerators and the denominators to arrive at the answer.</p> <p>Applying the same approach to the problem <math>\frac{9}{11} - \frac{1}{7}</math>, the student would subtract 1 from 9 and 7 from 11, resulting in an answer of 8 fourths.</p> <p><b><i>Back to Question</i></b></p> |

| Question Number | Correct Answer | Rationale  |
|-----------------|----------------|--|
| 37              | D              | <p>Option (D) is correct. By repeatedly performing this activity with 20 pennies, students can directly observe and record the many ways to make 20. This activity can help students learn the addition facts related to 20.</p> <p><b><i>Back to Question</i></b></p>   |
| 38              | B              | <p>Option (B) is correct. Students will need to read the chart to find the quantities 8, 3, 5, 7, 2, and 10. If the students then order the numbers from least to greatest, getting <math>2 &lt; 3 &lt; 5 &lt; 7 &lt; 8 &lt; 10</math>, it will be easy for them to see how many fruits are preferred by fewer than 5 students, exactly 5 students, or more than 5 students.</p> <p><b><i>Back to Question</i></b></p> |
| 39              | C              | <p>Option (C) is correct. Creating arrays for sums involving repeated addition of the same number will help students to understand that adding a number <math>k</math> to itself <math>n</math> times will result in the product <math>kn</math>, which is the product of the number of rows and the number of objects in each row in the array.</p> <p><b><i>Back to Question</i></b></p>                             |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 40              | C, D           | <p>Options (C) and (D) are correct. Comparing three-digit numbers and representing three-digit numbers with base-ten manipulatives allows students to reinforce their understanding of place value and the value of the digits in a three-digit number.</p> <p><b><i>Back to Question</i></b></p> |
| 41              | B              | <p>Option (B) is correct. The area model helps students to see that a fraction is a part of a whole number, and a product of fractions is taking a part of a part of a whole number.</p> <p><b><i>Back to Question</i></b></p>  |
| 42              | B              | <p>Option (B) is correct. The endpoints given in option B are for a segment that lies on a vertical line 10 units to the right of the <math>y</math>-axis, and this segment is parallel to the <math>y</math>-axis.</p> <p><b><i>Back to Question</i></b></p>                                     |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 43              | C              | <p>Option (C) is correct. The activity describes classification, which requires students to arrange or organize items according to class or category.</p> <p><b><i>Back to Question</i></b></p>   |
| 44              | B              | <p>Option (B) is correct. The activity described demonstrates the connection between the movement of particles through the air and the time it takes for the students to detect the particles as odors. The activity is best used as part of a unit on particle motion in solids, liquids, and gases.</p> <p><b><i>Back to Question</i></b></p> |
| 45              | B              | <p>Option (B) is correct. 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.</p> <p><b><i>Back to Question</i></b></p>  |



| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 46              | A, D           | <p>Options (A) and (D) are correct. Sound and light are two major types of energy.</p> <p><b><i>Back to Question</i></b></p>  |
| 47              | B              | <p>Option (B) is correct. If procedures are too vague, there is a greater chance that the experiment will not be carried out in the same way.</p> <p><b><i>Back to Question</i></b></p> |
| 48              | C              | <p>Option (C) is correct. A fertilized egg is the first stage in the development of chickens and butterflies.</p> <p><b><i>Back to Question</i></b></p>                                 |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 49              | A              | <p>Option (A) is correct. B An earthworm is made up of many individual units called cells, whereas a candle is made up of a wick embedded in solid paraffin wax.</p> <p><b><i>Back to Question</i></b></p>  |
| 50              | D              | <p>Option (D) is correct. Agility, balance, power, speed, coordination, and reaction time are all components of skill-related fitness. The wall-ball activity most closely addresses students' eye-hand coordination.</p> <p><b><i>Back to Question</i></b></p>                                       |
| 51              | A              | <p>Option (A) is correct. 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.</p> <p><b><i>Back to Question</i></b></p> |

| Question Number | Correct Answer | Rationale   |
|-----------------|----------------|---|
| 52              | B              | <p>Option (B) is correct. Drama in ancient Greece evolved from religious rituals such as the choral performances known as dithyrambs. In Athens during the sixth and fifth centuries B.C.E., annual theater festivals were held specifically in honor of the god Dionysus, and performances of classical tragedy, comedy, and satyr plays were held alongside the older dithyrambic choruses.</p> <p><b><i>Back to Question</i></b></p> |
| 53              | A              | <p>Option (A) is correct. Hand washing is the single most important way to prevent the spread of communicable disease. The teacher should wash hands frequently and encourage students to frequently wash their hands.</p> <p><b><i>Back to Question</i></b></p>  |

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## Constructed-response Questions

The purpose of this section is to describe the constructed-response questions that appear on the GACE Elementary 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.

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## General Scoring Guideline/Rubric

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

| Score | Description  |
|-------|--|
| 3     | <p>The response is successful in the following ways:</p> <ul style="list-style-type: none"><li>• Response demonstrates a strong, thorough understanding of the content, pedagogy, and student development relevant to the question</li><li>• Answers all parts of the question clearly and specifically</li><li>• Shows strong knowledge of content as well as content-specific pedagogy</li><li>• Provides strong explanations that are well supported by examples or details</li></ul>   |
| 2     | <p>The response demonstrates some understanding of the topic, but it is limited in one or more of the following ways:</p> <ul style="list-style-type: none"><li>• Response demonstrates a basic, adequate understanding of the content, pedagogy, and student development relevant to the question</li><li>• Answers all parts of the question adequately</li><li>• Shows adequate knowledge of content as well as content-specific pedagogy</li><li>• Provides adequate explanations that are somewhat supported by examples or details</li></ul>                   |
| 1     | <p>The response is seriously flawed in one or more of the following ways:</p> <ul style="list-style-type: none"><li>• Response demonstrates a weak, limited understanding of the content, pedagogy, and student development relevant to the question</li><li>• Answers the question in a limited way</li><li>• Demonstrates one or more of the following weaknesses:</li><li>• Failure to answer most parts of the question</li><li>• Limited knowledge of content and pedagogy</li><li>• Weak explanations inadequately supported by examples or details.</li></ul> |
| 0     | <p>Response is inappropriate and does not answer the question in one or more of the following ways:</p> <ul style="list-style-type: none"><li>• Response demonstrates minimal or no understanding of the content, pedagogy, and student development relevant to the question</li><li>• Fails to respond appropriately to any part of the question</li><li>• Shows virtually no knowledge of content or content-specific pedagogy</li><li>• Provides incoherent explanations, no explanations, or no supporting examples</li></ul>                                    |

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## Constructed-response 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.

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## 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.

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### **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.



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## Sample Social Studies Question

The questions below are based on the following information.

Scenario:

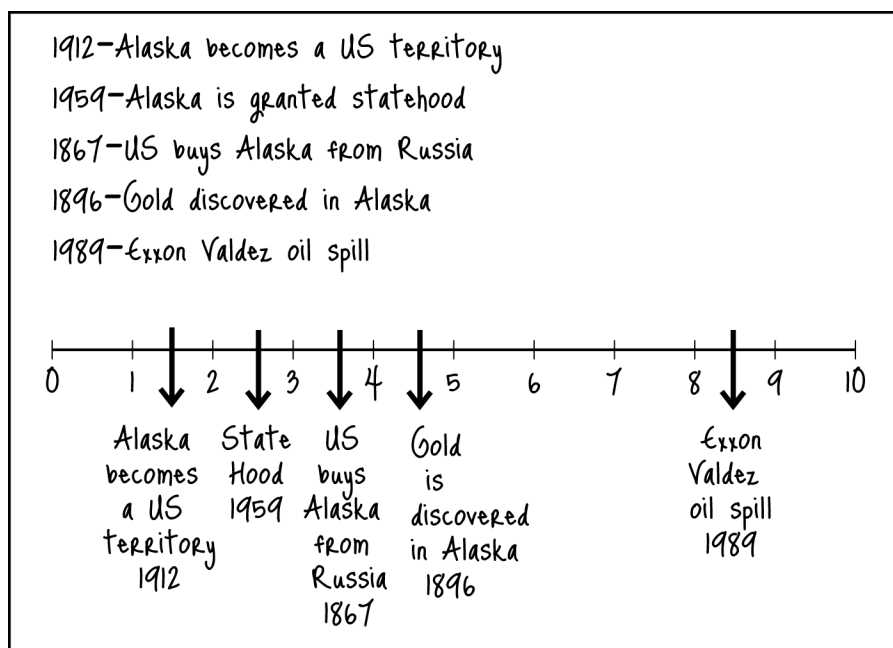
A second-grade teacher gives students the following assignment.

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.

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## 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 time line is the next step and is likely to be a challenge for the student.

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### **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.

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## 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](http://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. Download this guide for free from the Test Preparation Resources section of the GACE website at [www.gace.ets.org/prepare](http://www.gace.ets.org/prepare).

### 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](http://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

*Teaching PreK–8*, EarlyYears, Inc.

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*Learning and Leading with Technology*, International Society for Technology in Education  
*The Social Studies*, Hiedref Publications  
*Young Children*, National Association for the Education of Young Children

## Other Resources

- Anderson, V., and Roit, M. (1997). *Reading as a Gateway to Language Proficiency for Language-Minority Students in the Elementary Grades*. In R. M. Gersten and R. T. Jimenes (Eds.), *Promoting Learning for Culturally and Linguistically Diverse Students: Classroom Applications from Contemporary Research* (pp. 42–54). Belmont, Calif.: Wadsworth Publishing Company.
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## Online Resources

- Center for Educator Development in Fine Arts — [www.cedfa.org](http://www.cedfa.org)
- Center on Instruction, RMC Research Corporation — [www.centeroninstruction.org](http://www.centeroninstruction.org)
- Education Resources Information Center (ERIC) — [www.eric.ed.gov](http://www.eric.ed.gov)
- Georgia Department of Education — [www.doe.k12.ga.us](http://www.doe.k12.ga.us)
- GovSpot, StartSpot Mediaworks, Inc. — [www.govspot.com](http://www.govspot.com)
- International Reading Association — [www.literacyworldwide.org](http://www.literacyworldwide.org)
- Kids.gov, U.S. General Services Administration — [www.kids.gov](http://www.kids.gov)

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National Council for the Social Studies — [\*\*www.socialstudies.org\*\*](http://www.socialstudies.org)

National Council of Teachers of English — [\*\*www.ncte.org\*\*](http://www.ncte.org)

National Council of Teachers of Mathematics — [\*\*www.nctm.org\*\*](http://www.nctm.org)

National Science Teachers Association — [\*\*www.nsta.org\*\*](http://www.nsta.org)

USGS Education, U.S. Department of the Interior —  
[\*\*http://education.usgs.gov/common/primary.htm\*\*](http://education.usgs.gov/common/primary.htm)