

FCAT Sample Test Materials

These sample test materials are designed to help students prepare to answer FCAT questions. These materials introduce them to the kinds of questions they will answer when they take FCAT and include hints for responding to the different kinds of questions. The FCAT sample test materials for Grade 5 are composed of the books described below:

- Sample Test Book**
Includes a mathematics sample test, a reading sample test, and instructions for completing the sample tests. (Copies are available for all students in the tested grade.)
- Sample Answer Key**
Includes answers and explanations for the questions in the sample tests. (Copies are available for classroom teachers only.)

= This book

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Sample Answer Key



Answer Key for the Mathematics Sample TestPage 3

The answer key contains answers to the mathematics sample test questions. It also gives the *Sunshine State Standards* benchmark assessed by each item on the sample test.

In addition, one or more possible approaches to solving the problems are provided. Students may use approaches other than these and still receive credit if they also obtain the correct answer.

Multiple-choice items and gridded-response items are scored by awarding one point for each correct answer. Answers to short-response and extended-response “Think, Solve, and Explain” questions are scored with two-point and four-point rubrics respectively. Partial credit is given for accurate answers, even if they are not 100% correct. The rubrics are printed on pages 3 and 4 of this book.

Answer Key for the Reading Sample TestPage 17

The answer key contains answers to the reading sample test questions, as well as explanations for the answers. The answer key also gives the *Sunshine State Standards* benchmark assessed by each item.

Multiple-choice items on FCAT reading tests are scored by awarding one point for each correct answer.

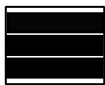
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Answer Key for the Mathematics Sample Test

The following pages contain the answers and explanations for the Grade 5 Mathematics Sample Test questions.

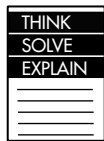
For the “Think, Solve, and Explain” questions, answers are scored and points are given based on the completeness and correctness of the answers. If a portion of an answer is correct, a portion of the points is awarded.

The scoring rubrics for the short-response questions and the extended-response questions are shown below:



Rubric for Short-Response Questions

- | | |
|----------|---|
| 2 points | A score of two indicates that the student has demonstrated a thorough understanding of the mathematics concepts and/or procedures embodied in the task. The student has completed the task correctly, in a mathematically sound manner. When required, student explanations and/or interpretations are clear and complete. The response may contain minor flaws that do not detract from the demonstration of a thorough understanding. |
| 1 point | A score of one indicates that the student has provided a response that is only partially correct. For example, the student may provide a correct solution, but may demonstrate some misunderstanding of the underlying mathematical concepts or procedures. Conversely, a student may provide a computationally incorrect solution but could have applied appropriate and mathematically sound procedures, or the student’s explanation could indicate an understanding of the task, despite the error. |
| 0 points | A score of zero indicates that the student has provided a completely incorrect solution or uninterpretable response, or no response at all. |



Rubric for Extended-Response Questions

- 4 points A score of four is a response in which the student demonstrates a thorough understanding of the mathematics concepts and/or procedures embodied in the task. The student has responded correctly to the task, used mathematically sound procedures, and provided clear and complete explanations and interpretations.
- The response may contain minor flaws that do not detract from the demonstration of a thorough understanding.
- 3 points A score of three is a response in which the student demonstrates an understanding of the mathematics concepts and/or procedures embodied in the task. The student's response to the task is essentially correct with the mathematical procedures used and the explanations and interpretations provided demonstrating an essential but less than thorough understanding.
- The response may contain minor flaws that reflect inattentive execution of mathematical procedures or indications of some misunderstanding of the underlying mathematics concepts and/or procedures.
- 2 points A score of two indicates that the student has demonstrated only a partial understanding of the mathematics concepts and/or procedures embodied in the task. Although the student may have used the correct approach to obtaining a solution or may have provided a correct solution, the student's work lacks an essential understanding of the underlying mathematical concepts.
- The response contains errors related to misunderstanding important aspects of the task, misuse of mathematical procedures, or faulty interpretations of results.
- 1 point A score of one indicates that the student has demonstrated a very limited understanding of the mathematics concepts and/or procedures embodied in the task. The student's response is incomplete and exhibits many flaws. Although the student's response has addressed some of the conditions of the task, the student reached an inadequate conclusion and/or provided reasoning that was faulty or incomplete.
- The response exhibits many flaws or may be incomplete.
- 0 points A score of zero indicates that the student has provided a completely incorrect or uninterpretable response, or no response at all.

1 The correct answer is C (teddy bear).

Strand: A—Number Sense, Concepts, and Operations

Benchmark: MA.A.1.2.2 The student understands the relative size of whole numbers, commonly used fractions, decimals, and percents.

To solve this problem, find the date in the table that is the smallest number and represents the earliest year. One of the ways this can be done is to put the numbers in order from the least to the greatest.

1902, 1909, 1929, 1945

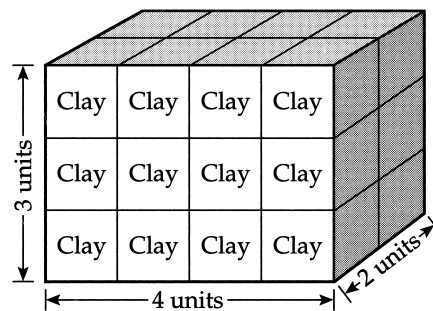
Now choose the smallest number, which is 1902. The teddy bear was invented in 1902.

2 The correct answer is I (24 cubic units).

Strand: B—Measurement

Benchmark: MA.B.1.2.2 The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

To find the volume of the stack of clay, find the length, the width, and the height of the stack. Each cube measures 1 unit on each side. There are 4 cubes across the front, so the length is 4 units. There are 2 cubes from front to back, so the width is 2 units. The stack is 3 cubes tall, so the height is 3 units.



| |
|--|
| Volume of a cube = length \times width \times height |
|--|

Multiply the length, width, and height to find the volume of the stack.

$$\begin{aligned} \text{Volume} &= 4 \times 2 \times 3 \\ &= 8 \times 3 \\ &= 24 \text{ (cubic units)} \end{aligned}$$

3 The correct answer is B (9,518 feet).

Strand: A—Number Sense, Concepts, and Operations

Benchmark: MA.A.3.2.3 The student adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

To solve this problem, first find the largest number, which would be the average depth of the deepest ocean, and the smallest number, which would be the average depth of the shallowest ocean. The largest number is 12,925, and the smallest number is 3,407.

The difference is the smallest number subtracted from the largest number.

$$\begin{array}{r} 12,925 \\ -3,407 \\ \hline 9,518 \text{ (feet)} \end{array}$$

4 The correct answer is G (4 centimeters).

Strand: B—Measurement

Benchmark: MA.B.2.2.2 The student selects and uses appropriate standard and nonstandard units of measurement, according to type and size.

In order to decide which measurement would be best, think about how big or small the different units are.

A meter and a kilometer are both much bigger than a caterpillar. A millimeter is very small, and 4 of them would still be quite a bit smaller than a caterpillar.

The only measurement that is close to the size of a caterpillar is 4 centimeters.

5 The correct answer is 12.

Strand: D—Algebraic Thinking

Benchmark: MA.D.1.2.1 The student describes a wide variety of patterns and relationships through models, such as manipulatives, tables, graphs, and rules using algebraic symbols.

To solve this problem, find the pattern. The problem states that:

Row 1 has 2 people.

Row 2 has 4 people.

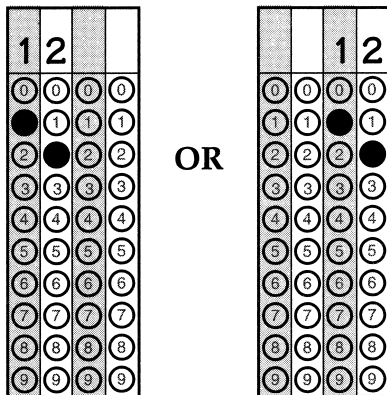
Row 3 has 6 people.

If the same pattern is continued, 2 more people will be added to each row.

Row 4 has 8 people.

Row 5 has 10 people.

Row 6 has 12 people



6 The correct answer is 60%.

Strand: E—Data Analysis and Probability

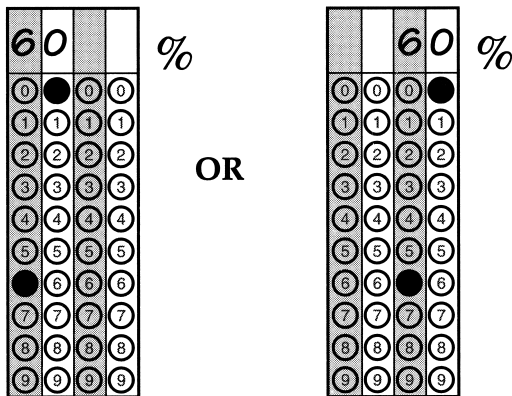
Benchmark: MA.E.1.2.1 The student solves problems by generating, collecting, organizing, displaying, and analyzing data using histograms, bar graphs, circle graphs, line graphs, pictographs, and charts. (Also assesses MA.E.1.2.3 analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.)

To solve this problem, look at the circle graph and find the percent of popcorn used at movies, ball games, etc. (30%) and add it to the percent of popcorn used for seed (10%). The whole circle represents 100% and the popcorn used at home is what is left after all the other categories are subtracted from 100%.

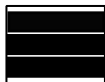
$$\begin{array}{r} 30\% \\ +10\% \\ \hline 40\% \end{array}$$

Then subtract 40% from 100%.

$$\begin{array}{r} 100\% \\ -40\% \\ \hline 60\% \text{ (used at home)} \end{array}$$



7 The correct answer is shown below.

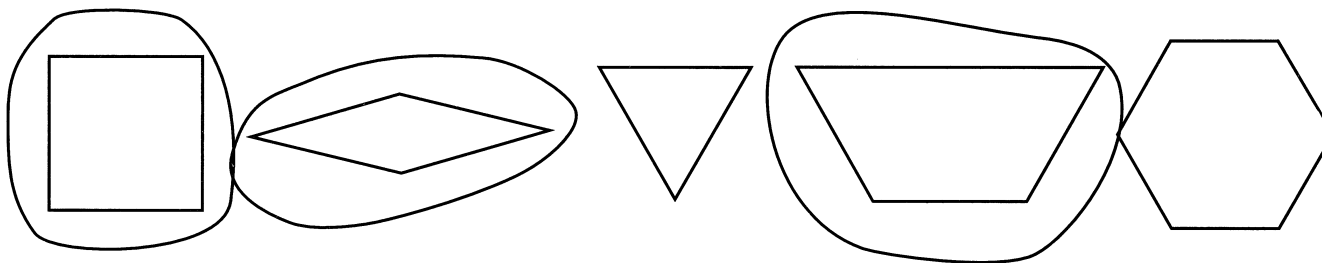


Strand: C—Geometry and Spatial Sense

Benchmark: MA.C.1.2.1 The student, given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.

To solve this problem, two parts of the question must be answered.

For the first part, draw a circle around each quadrilateral. A quadrilateral has 4 sides and 4 angles, so draw a circle around each shape with 4 sides and 4 angles. The correct answers are the square, the rhombus, and the trapezoid.



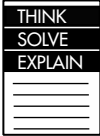
For the second part, explain what makes a shape a quadrilateral.

Example:

All quadrilaterals have 4 sides and 4 angles.

To receive full credit (2 points) for this problem, answers should include three circled quadrilaterals and an explanation similar to the one shown. Partially correct answers will receive a score of 1 point.

8 The correct answer is shown below.

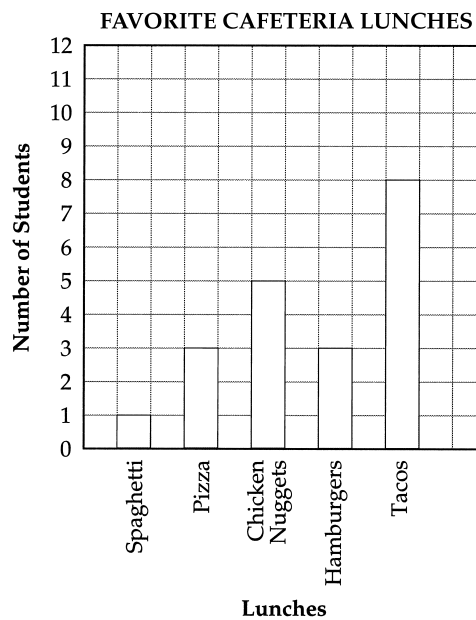
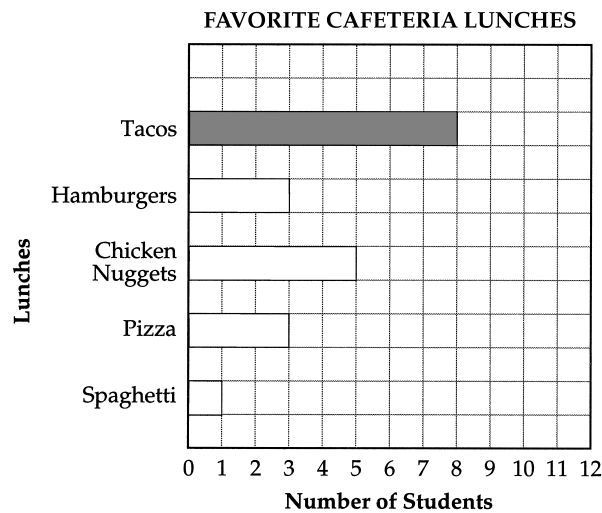


Strand: E—Data Analysis and Probability

Benchmark: MA.E.1.2.1 The student solves problems by generating, collecting, organizing, displaying, and analyzing data using histograms, bar graphs, circle graphs, line graphs, pictographs, and charts. (Also assesses MA.E.1.2.3 analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.)

To solve this problem, two parts of the question must be answered.

First count the number of students who chose each kind of lunch. Then draw the bar graph. The bar graph should look like one of the two examples shown below.



NOTE: Other bar graphs will be accepted as long as they display the data correctly.

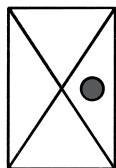
For the next part of the problem, any two statements similar to those below would be correct answers.

- More students like tacos than any other lunch.
- Equal numbers of students like pizza and hamburgers.
- Spaghetti is the least favorite lunch and tacos are the favorite.
- Chicken nuggets is the second favorite lunch.
- Eight students chose tacos, five students chose chicken nuggets, three students chose pizza, three students chose hamburgers, and one student chose spaghetti.

NOTE: Other statements may also be correct.

To receive full credit (4 points) for this problem, the answer should include a bar graph similar to one of the two graphs shown and two complete statements similar to the ones shown. Partially correct answers will receive a score of 1, 2, or 3 points.

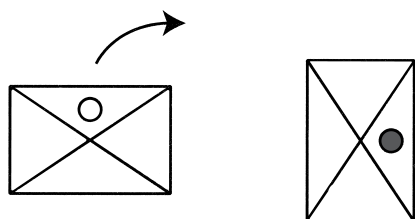
- 9 The correct answer is A.



Strand: C—Geometry and Spatial Sense

Benchmark: MA.C.2.2.2 The student predicts, illustrates, and verifies which figures could result from a flip, slide, or turn of a given figure.

To solve this problem, find the figure that has been rotated 90° clockwise. The figure should look as if it has been turned to the right $\frac{1}{4}$ turn.



- 10 The correct answer is I ($2n$).

Strand: D—Algebraic Thinking

Benchmark: MA.D.2.2.1 The student represents a given simple problem situation using diagrams, models, and symbolic expressions translated from verbal phrases, or verbal phrases translated from symbolic expressions, etc. (Also assesses MA.D.2.2.2 uses informal methods, such as physical models and graphs to solve problems involving equations and inequalities.)

To solve this problem, use n to represent a one-way trip. A round trip from Brazil to the island and back to Brazil would be the distance n traveled 2 times, or $2 \times n$ or $2n$.

11 The correct answer is B (flip).

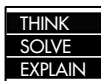
Strand: C—Geometry and Spatial Sense

Benchmark: MA.C.2.2.1 The student understands the concepts of spatial relationships, symmetry, reflections, congruency, and similarity. (Also assesses MA.B.1.2.2 solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles; MA.C.1.2.1 given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures; and MA.C.3.2.1 represents and applies a variety of strategies and geometric properties and formulas for two- and three-dimensional shapes to solve real-world and mathematical problems.)

To solve this problem, find how to move the half of the medallion shown in order to make a symmetrical medallion.

In a symmetrical design, both sides match exactly along a line of symmetry (the dotted line in the design). If half the medallion is flipped over the dotted line, the entire medallion is divided (split) by a line of symmetry.

12 The correct answer is shown below.



Strand: E—Data Analysis and Probability

Benchmark: MA.E.2.2.1 The student uses models, such as tree diagrams, to display possible outcomes and to predict events.

To solve this problem, find all the ways the three students can win 1st, 2nd, and 3rd place ribbons. There are a total of six ways the students could win the three ribbons.

First Strategy:

A correct answer could list all the following in this way:

| 1st | 2nd | 3rd |
|-----|-----|-----|
| K | J | R |
| K | R | J |
| J | K | R |
| J | R | K |
| R | J | K |
| R | K | J |

Second Strategy:

A correct answer could list all the following in this way:

| Krista | Juan | Rosie |
|--------|------|-------|
| 1 | 2 | 3 |
| 1 | 3 | 2 |
| 2 | 1 | 3 |
| 2 | 3 | 1 |
| 3 | 1 | 2 |
| 3 | 2 | 1 |

To receive full credit (2 points) for this problem, the answer should show six different ways the students can win 1st, 2nd, and 3rd place ribbons. Partially correct answers will receive a score of 1 point.

13 The correct answer is I (18 goals).

Strand: D—Algebraic Thinking

Benchmark: MA.D.2.2.2 The student uses informal methods, such as physical models and graphs to solve real-world problems involving equations and inequalities. (Also assesses MA.D.2.2.1 represents a given simple problem situation using diagrams, models, and symbolic expressions translated from verbal phrases, or verbal phrases translated from symbolic expressions, etc.)

To solve this problem, first find how many goals Denise and Nona scored together.

$$\begin{array}{r} 4 \\ +5 \\ \hline 9 \end{array}$$

The total, 9, is half of all the goals scored by the team last season. So multiply 2 times 9, to get the total number of goals the team scored last season.

$$2 \times 9 = 18 \text{ or } \begin{array}{r} 9 \\ +9 \\ \hline 18 \text{ (goals)} \end{array}$$

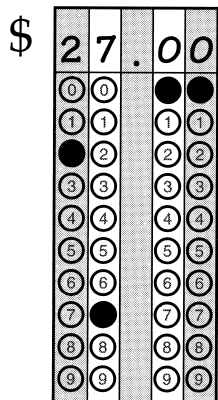
14 The correct answer is \$27.00.

Strand: A—Number Sense, Concepts, and Operations

Benchmark: MA.A.3.2.3 The student adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

To find the cost, multiply the cost per gallon of the gasoline (\$1.50) by the number of gallons of gasoline (18).

$$\begin{array}{r}
 1.50 \\
 \times 18 \\
 \hline
 1200 \\
 + 150 \\
 \hline
 27.00
 \end{array}$$



15 The correct answer is 86.30.

Strand: A—Number Sense, Concepts, and Operations

Benchmark: MA.A.2.2.1 The student uses place-value concepts of grouping based upon powers of ten (thousandths, hundredths, tenths, ones, tens, hundreds, thousands) within the decimal number system.

To solve this problem, put the numbers in order from the greatest to the least.

8 6 3 0

In order to get the greatest number, put the digit with the greatest value (8) in the place that has the greatest value, which is the tens place.

 8 _____ . _____ _____

Then put the next digit (6) in the place with the next greatest value, which is the ones place. Continue until the digit with the least value is in the hundredths place.

| | | | | |
|---|---|---|---|---|
| 8 | 6 | . | 3 | 0 |
| 0 | 0 | | 0 | ● |
| 1 | 1 | | 1 | 1 |
| 2 | 2 | | 2 | 2 |
| 3 | 3 | | ● | 3 |
| 4 | 4 | | 4 | 4 |
| 5 | 5 | | 5 | 5 |
| 6 | ● | | 6 | 6 |
| 7 | 7 | | 7 | 7 |
| ● | 8 | | 8 | 8 |
| 9 | 9 | | 9 | 9 |

Answer Key for the Reading Sample Test

Passage: “The Anything Art of Jimmie Lee Sudduth”

“The Anything Art of Jimmie Lee Sudduth” by Carolyn W. Ezell, copyright © 1991 by *Highlights for Children, Inc.*, Columbus, Ohio. Reprinted by permission of the publisher.

1 The correct answer is C (life in the country).

Type of Passage: Informational Text

Benchmark: LA.A.1.2.3 The student uses simple strategies to determine meaning and increase vocabulary for reading, including the use of prefixes, suffixes, root words, multiple meanings, antonyms, synonyms, and word relationships.

The correct answer is C. By providing “from the city” as a contrast, the sentences indicate that *rural life* has the same meaning as *life in the country*.

2 The correct answer is I (“A Little Earth and Imagination”).

Type of Passage: Informational Text

Benchmark: LA.A.2.2.1 The student reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.

The correct answer is I. The author focuses on the way the artist uses his imagination to paint pictures with materials from the earth.

3 The correct answer is A (to describe the work of a famous artist).

Type of passage: Informational Text

Benchmark: LA.A.2.2.2 The student identifies the author’s purpose in a simple text. (Includes LA.A.2.2.3 recognizes when a text is primarily intended to persuade.)

The correct answer is A. The article is about a folk artist whose fame is based on his use of unusual materials in his paintings.

- 4** The correct answer is G (He uses soils from all over the country, which means that he can identify various locations on each painting).

Type of passage: Informational Text

Benchmark: LA.A.1.2.3 The student uses simple strategies to determine meaning and increase vocabulary for reading, including the use of prefixes, suffixes, root words, multiple meanings, antonyms, synonyms, and word relationships.

The correct answer is G. The author's assertion is based on Sudduth's ability to name the parts of the country from which each of the colored sands came.

- 5** The correct answer is C (sands, soils, and leaves).

Type of passage: Informational Text

Benchmark: LA.A.1.2.3 The student uses simple strategies to determine meaning and increase vocabulary for reading, including the use of prefixes, suffixes, root words, multiple meanings, antonyms, synonyms, and word relationships.

The correct answer is C. The article says that Sudduth uses sands, soils, and leaves to give color to his paintings in the same way that another artist might use conventional paints.

- 6** The correct answer is G (He sometimes ran out of painting materials).

Type of passage: Informational Text

Benchmark: LA.A.2.2.1 The student reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.

The correct answer is G. The article indicates that Sudduth used materials from the earth when he did not have conventional art supplies.

- 7** The correct answer is A (he uses the sand in his paintings).

Type of passage: Informational Text

Benchmark: LA.E.2.2.1 The student recognizes cause-and-effect relationships in literary texts. [Applies to fiction, nonfiction, poetry, and drama.]

The correct answer is A. People send Sudduth sand because they know he uses different kinds of sand to produce different colors for his artwork.

Passage: “All Alone in Dinosaur Hall”

“All Alone in Dinosaur Hall” by Staton Rabin, copyright © by Staton Rabin. Used by permission of the author.

8 The correct answer is G (they make a dreadful noise).

Type of passage: Literary Text

Benchmark: LA.A.2.2.7 The student recognizes the use of comparison and contrast in a text.

The correct answer is G. The sound of baby dinosaurs tooting together at the same time is similar to the sound of a school band that is out of tune.

9 The correct answer is B (Ollie discovers a secret dinosaur exhibit in the museum).

Type of passage: Literary Text

Benchmark: LA.A.2.2.1 The student reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.

The correct answer is B. The story focuses on what happens to Ollie when he discovers the dinosaur exhibit.

10 The correct answer is H (Ollie’s dad is finishing some work).

Type of passage: Literary Text

Benchmark: LA.A.2.2.1 The student reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.

The correct answer is H. The story begins after the hall has closed, and Ollie’s dad says that he has paper work to do.

11 The correct answer is C (The other dinosaur eggs start to hatch).

Type of passage: Literary Text

Benchmark: LA.A.2.2.1 The student reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.

The correct answer is C. In the story, a toot from the first baby dinosaur seems to act like a signal for the other eggs to hatch.

12 The correct answer is F (frame).

Type of passage: Literary Text

Benchmark: LA.A.1.2.3 The student uses simple strategies to determine meaning and increase vocabulary for reading, including the use of prefixes, suffixes, root words, multiple meanings, antonyms, synonyms, and word relationships.

The correct answer is F. The sentences indicate that the structure is all around the dinosaur, so the reader can conclude that the structure is a kind of frame.

13 The correct answer is B (is curious and excitable).

Type of passage: Literary Text

Benchmark: LA.A.2.2.2 The student identifies the author's purpose in a simple text. (Includes LA.A.2.2.3 recognizes when a text is primarily intended to persuade.)

The correct answer is B. Ollie's reactions to the new dinosaur exhibit show that he is both curious and excitable.

14 The correct answer is H (He cannot find the baby dinosaurs he saw).

Type of passage: Literary Text

Benchmark: LA.E.1.2.2 The student understands the development of plot and how conflicts are resolved in a story.

The correct answer is H. Ollie is unable to show his dad the baby dinosaurs, so Ollie is not sure what really happened inside the exhibit.

15 The correct answer is B (He keeps the story to himself).

Type of passage: Literary Text

Benchmark: LA.E.1.2.3 The student knows the similarities and differences among the characters, settings, and events presented in various texts.

The correct answer is B. When Ollie does not tell his dad about the baby dinosaurs, it becomes clear that he realizes he has imagined the hatching of the eggs.

