

ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program



Released Item Booklet

Arkansas Augmented
Benchmark Examination

**APRIL 2009
ADMINISTRATION**

GRADE

7

Arkansas Department of Education

Copyright © 2009 by the Arkansas Department of Education. All rights reserved. Arkansas public schools may reproduce this document in full or in part for use with teachers, students, and parents. All other uses of this document are forbidden without written permission from the Arkansas Department of Education. All inquiries should be sent to Dr. Gayle Potter at the Arkansas Department of Education, 501-682-4558. The ACTAAP logo is a trademark of the Arkansas Department of Education. Portions of this work were previously published. Printed in the United States of America.

Table of Contents—2009 Augmented Benchmark Grade 7

PART I Overview	1
PART II Released Test Items with Correct Responses & Rubrics	2
Released Mathematics Items	2–13
Released Reading Items	14–25
Released Writing Items	26
Released Writing Prompt	27–28
Released Science Items	29–37
PART III Item Correlation with Curriculum Frameworks	38
The Arkansas Mathematics Framework	38
Released Items for Mathematics	39
The Arkansas Language Arts Framework—Reading Strand	40
Released Items for Reading	40
The Arkansas Language Arts Framework—Writing Strand	41
Released Items for Writing	41
The Arkansas Science Framework	42–43
Released Items for Science	43

PART I Overview—2009 Augmented Benchmark Grade 7

The criterion-referenced tests implemented as part of the **Arkansas Comprehensive Testing, Assessment, and Accountability Program** (ACTAAP) are being developed in response to Arkansas Legislative Act 35, which requires the State Board of Education to develop a comprehensive testing program that includes assessment of the challenging academic content standards defined by the Arkansas Curriculum Frameworks.

As part of this program, all Grade 7 students in Arkansas public schools participated in the *Grade 7 Augmented Benchmark Examination* in April 2009.

This *Released Item Booklet for the Grade 7 Augmented Benchmark Examination* contains test questions or items that were asked of students during the April 2009 operational administration. The test items included in Part II of this booklet are those items that contributed to the student performance results for that administration. **Please make note that only 50% of the 2009 criterion-referenced test items are released in this booklet.**

Students were given approximately two and a half hours each day to complete assigned test sessions during the five days of testing in April 2009. Students were permitted to use a calculator for the Mathematics items (both multiple choice and open response), with the exception of questions 1–3 in this *Released Item Booklet*. Students were also supplied with a reference sheet to be used during the Mathematics sessions so that all students would have equal access to this information during testing. (See the reference sheet on page 13 of this booklet.) All of the Mathematics, Reading, Writing, and Science multiple-choice items within this booklet have the correct response marked with an answer hand. The open-response questions for Mathematics, Reading, Science, and the prompt for Writing are listed with scoring guides (rubrics) immediately following. These rubrics provide information on the scoring model used for each subject, with the scoring model for Writing defining the overall curricular and instructional link for that subject with the *Arkansas English Language Arts Curriculum Framework*. The domain scoring model, implemented within Arkansas for a number of years, illustrates the appropriate instructional approaches for Writing within the state.

The development of the *Grade 7 Augmented Benchmark Examination* was based on the Arkansas Curriculum Frameworks. These frameworks have common, distinct levels: *Strands*, which are broad concepts, *Content Standards* within each Strand, and *Student Learning Expectations* within each Content Standard. Abridged versions of the *Arkansas Mathematics Curriculum Framework*, *Arkansas English Language Arts Curriculum Framework—Reading Strand*, *Arkansas English Language Arts Curriculum Framework—Writing Strand*, and *Arkansas Science Curriculum Framework* can be found in Part III of this booklet. It is important to note that these abridged versions list only the predominant Strand, Content Standard, and Student Learning Expectation associated with each item. However, since many key concepts within the Arkansas Curriculum Frameworks are interrelated, in many cases there are other item correlations or associations across Strands, Content Standards, and Student Learning Expectations.

Part III of the *Released Item Booklet* also contains a tabular listing of both released and non-released items, aligned to the Strand, Content Standard, and Student Learning Expectation that each question was designed to assess. The multiple-choice and open-response items found on the *Grade 7 Augmented Benchmark Examination* were developed in close association with the Arkansas educational community. Arkansas teachers participated as members of Content Advisory Committees for each subject area, providing routine feedback and recommendations for all items. Part III of the *Released Item Booklet* provides Arkansas educators with specific information on how the *Grade 7 Augmented Benchmark Examination* items align or correlate with the Arkansas Curriculum Frameworks to provide models for classroom instruction.

CALCULATOR NOT PERMITTED—ITEMS 1–3

1

Janet wanted to create a square pyramid and a rectangular prism using 1 straw for each edge of each figure. How many more straws will she need for the rectangular prism than for the square pyramid?

- A 0
- B 2
- C 4
- D 8

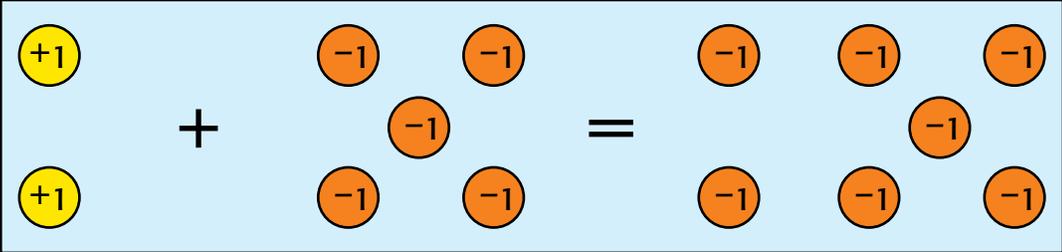
2

KEY	
	represents +1
	represents -1

Using the key shown, which correctly models the expression below?

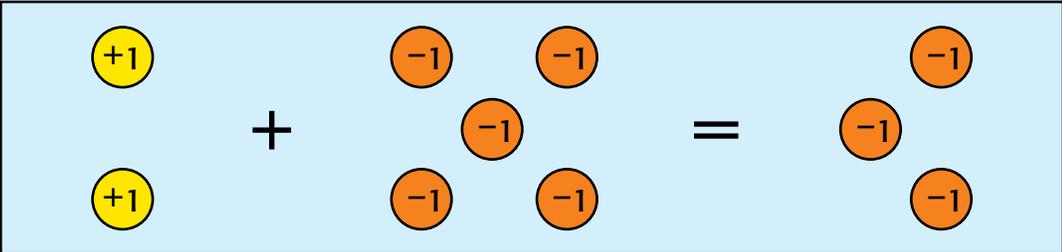
$$2 + -5$$

A



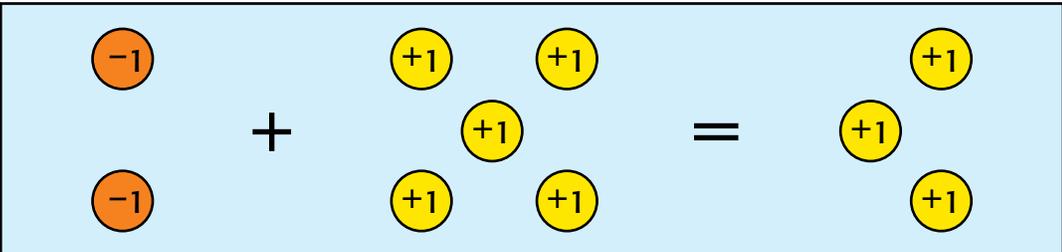
Model A shows 2 yellow circles (+1) and 5 orange circles (-1) on the left of an equals sign, and 5 orange circles (-1) on the right. This represents the expression 2 + (-5) = -5.

B



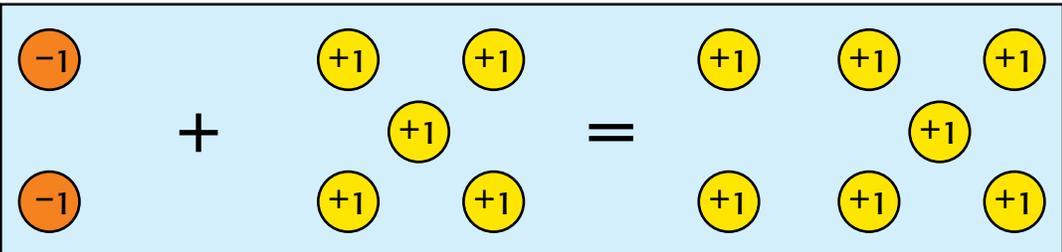
Model B shows 2 yellow circles (+1) and 5 orange circles (-1) on the left of an equals sign, and 3 orange circles (-1) on the right. This represents the expression 2 + (-5) = -3.

C



Model C shows 2 orange circles (-1) and 5 yellow circles (+1) on the left of an equals sign, and 5 yellow circles (+1) on the right. This represents the expression -2 + 5 = 3.

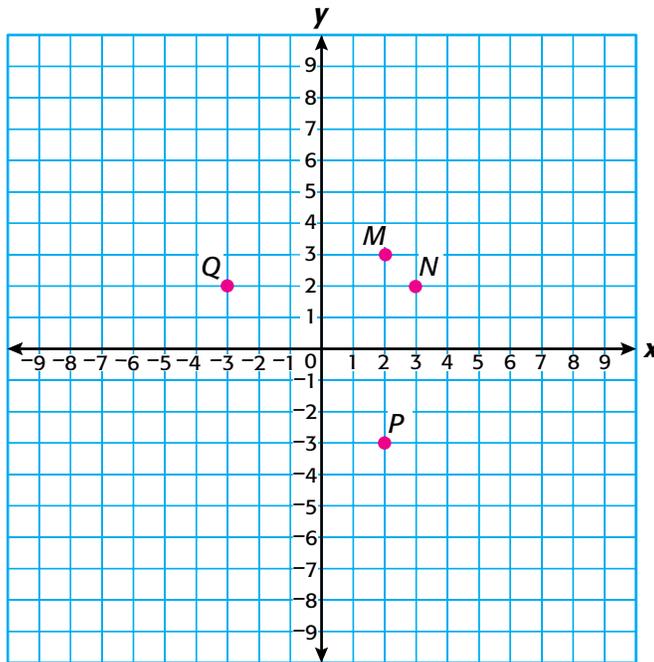
D



Model D shows 2 orange circles (-1) and 5 yellow circles (+1) on the left of an equals sign, and 8 yellow circles (+1) on the right. This represents the expression -2 + 5 = 3.

3

Which point is best represented by $(-3, 2)$ on the coordinate grid below?



- A M
- B N
- C P
- D Q

CALCULATOR PERMITTED—ITEMS 4–10 and A–B

4

The regular price of a shirt James bought was \$24.99. The shirt was on sale for 15% off the regular price. What was the sale price of James's shirt?

- A \$24.84
- B \$21.24
- C \$9.99
- D \$3.75

5

Which measure for the list of data below has the greatest value?

60, 62, 72, 72, 72, 79, 82, 82, 85, 89, 89, 92, 92, 95, 99

- A Mean
- B Median
- C Mode
- D Range

6

On April 26, Ben made the statement, "In two days my birthday will have been two weeks ago."

What is the date of Ben's birthday?

- A April 12
- B April 13
- C April 14
- D April 15

7

What is the value of the expression below when $p = \frac{1}{8}$?

$$16p - 10$$

- A -8
- B -2
- C 8
- D 12

8

A rule for a function table is given below.

Multiply the input value by 2 and add that product to 10 to get the output value

Which function table below only has values that follow the rule above?

A

Input	Output
-2	6
0	0
2	14
3	16

B

Input	Output
-2	14
0	0
2	4
3	6

C

Input	Output
-2	14
0	10
2	4
3	6

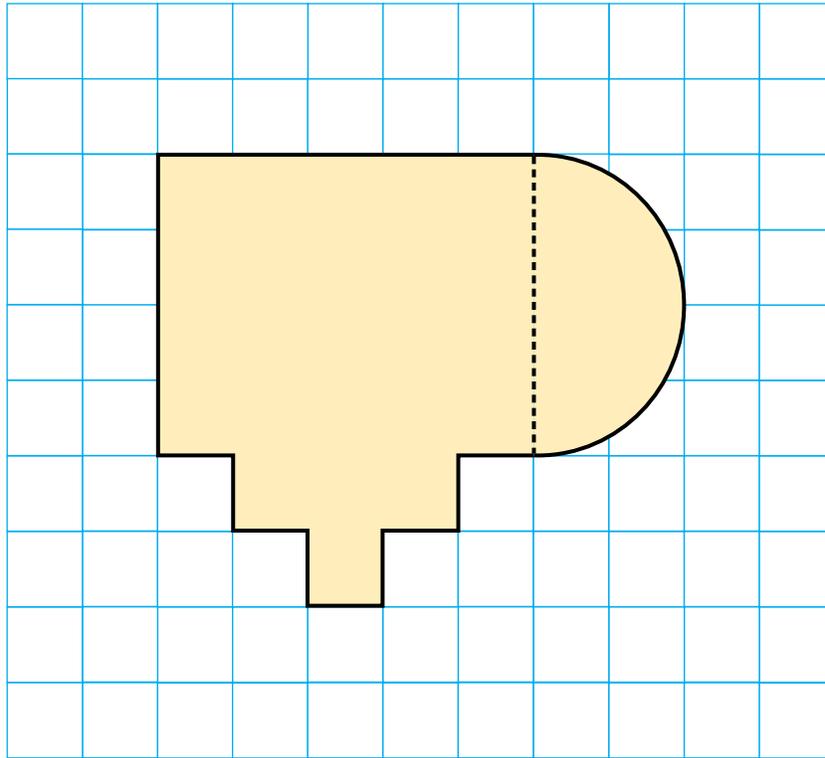


D

Input	Output
-2	6
0	10
2	14
3	16

9

Which is closest to the area of the figure shown?

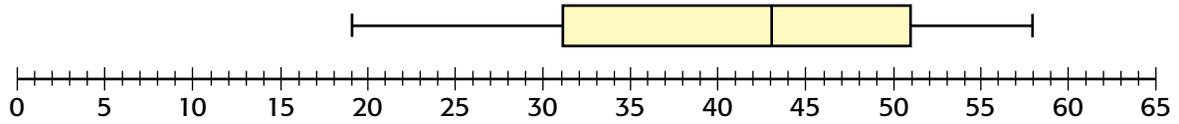


 = 1 square unit

- A 26.0 units²
- B 28.0 units²
-  C 30.3 units²
- D 36.6 units²

10

The ages, in years, of employees at a fabric store are represented by the box-and-whisker plot shown.



Which best represents the age range of the youngest 25% of employees?

- A 19–31
- B 19–58
- C 31–43
- D 31–51

MATHEMATICS OPEN-RESPONSE ITEM A

A

The Pep Club wants to sell spirit bracelets as a fund-raiser. The equation $y = 2x - 30$ represents the profits earned, y , from selling spirit bracelets. The number of bracelets sold is represented by x .

1. In your answer document, copy and complete the function table below.

x	y
0	
10	
20	
30	
40	

2. On the grid in your answer document, graph the x - and y -values from the table above on a coordinate plane.
3. How many bracelets would need to be sold for the Pep Club to make a profit of \$60? Show your work and/or explain your answer.

BE SURE TO LABEL YOUR RESPONSES 1, 2, AND 3.

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM A

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work.
3	The student earns $3-3\frac{1}{2}$ points.
2	The student earns $2-2\frac{1}{2}$ points.
1	The student earns $\frac{1}{2}-1\frac{1}{2}$ points, or some minimal understanding shown.
0	The student earns 0 points. No understanding is shown.
B	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

PART II Released Mathematics Items—2009 Augmented Benchmark Grade 7

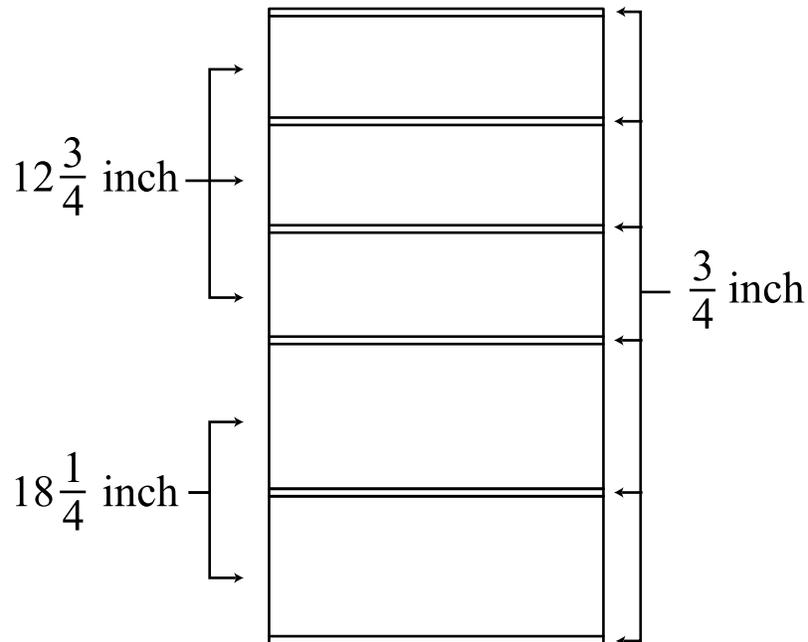
Solution and Scoring

Part	Points
1	1 Point Possible 1 point: Correct and complete table showing the y-values.
2	1 Point Possible 1 point: Correct and complete graph based on table. OR 1/2 point: Correct and complete graph using 4 out of 5 of the data points from the table.
3	2 Points Possible 1 point: Correct answer: Writes that the Pep Club sold 45 bracelets to make \$60. AND 1 point: Correct and complete explanation shown and/or explained Give credit for the following or equivalent: Extending the table to show that 45 bracelets are needed to earn \$60. Using $y = 2x - 30$, $y = 60$ ($x = 45$) to determine that 45 bracelets are needed to earn \$60. Use the graph to determine that 45 bracelets are needed to earn \$60. OR 1/2 point: Only verifying that 45 bracelets produce a profit of \$60.

MATHEMATICS OPEN-RESPONSE ITEM B

B

Charlene is building a bookcase, as shown in the scale drawing below. The top three shelves within the bookcase each have $12\frac{3}{4}$ inches of space above them. The two lower shelves each have $18\frac{1}{4}$ inches of space above them. The thickness of the wood used for the shelves, including the one used for the top of the bookcase, is $\frac{3}{4}$ of an inch.



1. What is the total height of the bookcase, in inches? Write your answer as a decimal. Show all your work and/or explain your answer.
2. What percentage of the height of the bookcase is from the shelves? Round your answer to the nearest whole percent. Show your work and/or explain your answer.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM B

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point, or some minimal understanding shown.
0	The student earns 0 points. No understanding is shown.
B	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

Solution and Scoring

Part	Points
1	<p>2 Points Possible</p> <p>1 point: Correct answer: 79.25 (in.) Note: Label of "inches" is not required at any level.</p> <p>AND</p> <p>1 point: Correct and complete procedure shown and/or explained Work may contain a calculation or copy error Give credit for the following or equivalent:</p> <ul style="list-style-type: none"> • $3(12.75) + 2(18.75) + 6(.75) =$ or • $3(12\frac{3}{4}) + 2(18\frac{1}{4}) + 6(\frac{3}{4}) = \#$
2	<p>2 Points Possible</p> <p>1 point: Correct answer: 6 (%) or correct answer based on Part 1 response Note: Label of "%" is not required at any level. Note: If the work provided in Part 2 clearly indicates the correct answer of 6% is obtained as a result of an incorrect procedure, no points will be awarded for the correct answer.</p> <p>AND</p> <p>1 point: Correct and complete procedure shown and/or explained Work may contain a calculation or copy error Give credit for the following or equivalent:</p> <ul style="list-style-type: none"> • $\frac{4.5}{79.25} = .057$ or 6% or • $\frac{4\frac{1}{2}}{79\frac{1}{4}} = .057$

Mathematics Reference Sheet Grade 7

Use the information below, as needed, to answer questions on the Mathematics test.

<p>Square Area = s^2 Perimeter = $4s$</p>	<p>Rectangle Area = lw Perimeter = $2(l + w)$</p>	<p>Triangle Area = $\frac{1}{2}bh$ Perimeter = $a + b + c$</p>
<p>Circle Area = πr^2 Circumference = $2\pi r$</p>	<p>Parallelogram Area = bh Perimeter = $2a + 2b$</p>	<p>Equilateral Triangle Perimeter = $3s$</p>
<p>Cube Volume = s^3</p>	<p>Cone Volume = $\frac{1}{3}\pi r^2 h$</p>	<p>Rectangular Prism Volume = lwh</p>
<p>Pyramid Volume = $\frac{1}{3}(\text{area of base})h$</p>	<p>Sphere Volume = $\frac{4}{3}\pi r^3$</p>	<p>Cylinder Volume = $\pi r^2 h$</p>
<p>Miscellaneous Formulas and Conversions</p>		<p>Trapezoid Area = $\frac{1}{2}h(b_1 + b_2)$</p>

$\pi \approx 3.14$

distance = rate \times time

1 foot = 12 inches

1 cup = 8 ounces (oz)

1 kilogram = 1000 grams

1 yard = 3 feet

1 pint = 2 cups

1 meter = 100 centimeters

1 mile = 5,280 feet

1 quart = 2 pints

1 decimeter = 10 centimeters

1 gallon = 4 quarts

1 centimeter = 10 millimeters

1 kilometer = 1000 meters

1 liter = 1000 milliliters

Read the passage. Then answer multiple-choice questions 1 through 8 and open-response question A.

The Mystery in the Attic

by Jeanne B. Hargett

Staring at the ancient three-story house, I'd have changed places with just about anybody. It had turrets and bay windows and carvings as fancy as those on a fairy-tale castle. It had a sundial at one end of the garden and a fish pond at the other. Inside, we discovered that it also had peeling paint, mildew-stained walls, and a shortage of bathrooms.

"I love it," Mom said.

"I hate it," I said at the same instant.

Dad cleared his throat. "It was built almost a century ago. It'll be good for another hundred years when a few repairs are made."

My older brother, Greg, darted from doorway to doorway counting. "What a house—fifteen rooms if you include the attic. And maybe an extra room behind a secret panel, Molly. Bet I find it first!"

Greg led the way up the stairs, carrying a flashlight. But when he pushed open the attic door, we stood blinking at early afternoon sunlight streaming through three windows.

- 7 "Some attic," Greg said. "If it had a floor everywhere we could roller skate up here. Be careful to stay on the wooden beams, or you could crash into the rooms below." Stepping carefully, he went to raise a window. "Wow! We're as high as the moon. Come see how small the sundial looks from here."



8 “High places scare me, and you know it,” I told him. “I’m not coming near a window.” Instead I followed a bridge of creaky flooring till it ended at a chimney. I was standing on tiptoe to *trace* the chimney’s exit through the roof when I saw the doll-sized trunk. It sat on a brick ledge. Layers of dust had woven a blanket over its rounded top.

“Greg, come here—I’ve found something!” I said. Both of us reached for it. The trunk slipped from our fingers and dust swirled around us. After our sneezing stopped, we crouched by the chimney to examine the doll clothes that had tumbled from the trunk. Green velvet jackets, dresses of yellowed satin, and beautifully made silk bonnets.

The trunk’s lid had been lined with silk, too. Someone had cut a slit in the fabric and tucked in a thin sheet of notepaper.

I let Greg unfold the brittle paper. Then, squinting at the faded ink, I read aloud these words:

“September 5, 1921. I, Hannah Forbes, must grow up. Mama says life in a new place will help us forget our trouble. But I cannot bear taking Samantha, Angenetta, and Cynthia from this home where my mother also grew up. The dolls belonged first to her, and she agrees. I shall leave them . . . resting under wooden rails, sheltered when the cold wind wails, hidden where the shadows flee, and sunbeams mark their place at three.”

My voice trembled and trailed off. What long ago trouble had driven Hannah away? And how old was she then?

Greg interrupted my trance. “Molly—‘Hidden where the shadows flee, and sunbeams mark their place at three.’ It’s clear as anything. They’re buried near the sundial!”

We found shovels in the garage and raced out to the yard. After an hour of digging produced no results, I asked, “But what about the wooden rails?”

“There was probably a fence here then. Who knows what changes have been made in so many years? Keep digging!”

Finally Greg agreed to take a break. There was someone I wanted to see. “Miss Jamison at the library knows everything,” I said. “As soon as I clean up I’m going to ask if she can tell us about the Forbes family.”

Greg snorted. “And leave me with the dirty work? Nothing doing. I’m coming, too.”

Miss Jamison’s information set me shivering in spite of the afternoon heat. Hannah’s father had been a president of a local bank and had been convicted of

embezzling thousands of dollars. Depending on which person you believed, he was either a shameless thief or a kind man too softhearted when folks needed money. He'd died shortly after being sent to prison. Like me, Hannah was eleven when she had had to change homes. I was glad we didn't share the same reason.

"Those dolls simply have to be found, Greg," I said as we walked back to the house.

"Five blisters prove I've been trying," he grumbled.

"It's more important now," I insisted. "I'll help dig. Just give me time to put their clothes away in the trunk."

Greg agreed and came back to the attic with me to shut the window. I finished folding the clothes, then picked up the fragile note. In the bright sunlight I saw two faded ink strokes I'd missed before.

"Greg," I yelled, "it says, 'resting under wooden TRAILS.' These walkways are Hannah's wooden trails. The dolls are here!" I soon got hot and dusty again trying to look under the boards, but Greg sat quietly by a window. "Aren't you going to help look?" I asked.

He pointed to a patch of sunlight on the floor near the window. "I told you the sundial had to be involved. Hannah looked at it out this window. How else did she know the sun touches here at three o'clock?"

As we lifted a loose plank in the sunlit spot, I didn't care who got credit for finding the bundle below.

The dolls' china faces were still rosy. Gently I touched one painted smile after another. Which was Samantha? Which Angenetta? Which Cynthia? It didn't matter. Somewhere, I was sure of it, Hannah was smiling, too.

"Mystery in the Attic" by Jeanne B. Hargett: Copyright © 1997 by Highlights for Children, Inc., Columbus, Ohio.

1

What is the “trouble” Hannah refers to in her note?

- A Moving to a new place
- B The difficulty in leaving her dolls behind
- C Her own refusal to grow up
- D Her father’s conviction of a crime

2

Molly can *best* be described as —

- A frightened
- B determined
- C confused
- D humorous

3

In paragraph 7, the statement “We’re as high as the moon” helps the reader understand that —

- A the sundial is tiny
- B Greg is very happy
- C the house is quite tall
- D Molly is afraid of heights

4

The author includes the information in the first paragraph to —

- A introduce the characters
- B describe the setting
- C establish the time period
- D begin the conflict

5

What is the definition of *trace* as it is used in paragraph 8?

- A To draw or sketch
- B To find the origin of
-  C To follow the path of
- D To copy through paper

6

What will Molly *most likely* do with the dolls?

- A Attempt to locate Hannah and return the dolls to her
- B Sell the dolls and use the money to help restore the house
-  C Keep the dolls as a way to feel a connection to Hannah
- D Give the dolls to the librarian to thank her for the information

7

What would have *most likely* happened if Molly had not been afraid of heights?

- A Greg would have discovered the trunk.
-  B The trunk would have remained hidden.
- C Molly would have discovered the trunk sooner.
- D The trunk would have been moved out of the way.

8

The *main* reason Hannah hides the dolls in the attic is because she —

- A wants to protect them from the wind and rain
- B hopes to eventually move them to her new home
-  C wants to keep them safe after she moves away
- D thinks her mother approves of her leaving them

Read the article. Then answer multiple-choice questions 9 through 16 and open-response question B.

Gardens Under Glass

by Gail A. Wolfson

- 1 If you lived in Victorian London, you'd carry a black umbrella and have a house with dark furniture and wallpaper. Why? London was a city of smoky factories. Your black umbrella would protect you from soot-filled rain and wouldn't show the dirt. Your house's dark furnishings and walls would camouflage the dust from coal-fueled stoves. Like other Victorians, you'd love gardening and houseplants, but your plants couldn't *thrive* in the dirty city air—that is, until London surgeon Dr. Nathaniel Ward made an amazing discovery.
- 2 Ward, who loved plants and nature, decided to put a sphinx moth cocoon and some soil into a bottle and close the lid. Somehow, he misplaced the bottle, and found it only months later. To his surprise, a fern had *sprouted* in it—a fern that looked healthier than those growing in his London yard.

While experimenting with other bottle gardens, Ward built a large glass case, filled it with English ferns, sealed it, and sent it on a six-month voyage to Australia. The ferns flourished. In 1842, Ward published a book describing these gardens under glass. Soon, Wardian Cases, as they were called, became a fixture in drawing rooms.

The cases protected plants from coal dust and from the frigid nighttime temperatures in Victorian homes. Ward designed an elaborate garden under glass for his house with ferns, fish, a lizard, and a toad all living in it.

Wardian Cases were also used to ship exotic plants, such as orchids, to Britain. Victorians were enchanted with orchids, which have unique petals and colors and come in thousands of varieties. Queen Victoria created the position of royal orchid grower. Wealthy Victorians often collected these flowers, and some hired

hunters to find and ship them from tropical locations. Before Wardian Cases were invented, most orchids died from the salt spray and varying temperatures on the long sea voyage.

Terraria (plural of terrarium), as Wardian Cases were later called, are still popular. Although houseplants today don't need protection from coal dust or cold household temperatures, terrariums are perfect, low-maintenance, indoor gardens. Here's how you can make one.

Most supplies are available at garden centers. If you can't find a large glass jar at home, look in the houseware department at a discount store or ask a delicatessen if they have an empty one.

Plant selection:

- select small, slow-growing, nonflowering plants that grow in medium light and fit the size of your jar. Consider these:
- aluminum plant (Pilea)
- small ivies
- small ferns
- Ficus
- Peperomia
- prayer plant (Mimosa)

If your jar can hold several plants, an odd number is best, artistically speaking. Look for variety in the shapes and colors of leaves to add interest. Place the tallest plant in the middle.

Directions

1. Wash your jar. Rinse it several times with plain water. Dry it completely.
2. Wash and drain the pebbles. Pour pebbles into the jar to a depth of $\frac{1}{2}$ inch.
3. Use a funnel (or make one from paper) to add a thin layer of powdered charcoal on top of the pebbles.
4. Use a funnel to add 2 to 3 inches of sterile potting soil on top of the charcoal. Make an indentation for each plant in the soil. Unpot the plants and place them in the container. Pat the soil around them.

5. Add accessories, if desired.
6. Lightly water or mist the terrarium until the soil is moist, but not soggy. Close the lid. Place the terrarium in a room with medium, not direct, sunlight. Water only when the soil feels dry. Many terraria need watering only once a month.

Don't be surprised if your terrarium steams up in the morning. It'll clear by itself when the temperature inside and outside the jar becomes the same.

YOU NEED:

- clear glass jar (not plastic) with a lid and an opening wide enough for your hand
- small plants (see list)
- pebbles or gravel (for drainage)
- powdered charcoal (to absorb odors)
- sterile potting soil
- small stones (not pebbles or gravel), a small mirror, small ceramic animals (optional)

"Gardens Under Glass" by Gail A. Wolfson: From CALLIOPE's May 2003 issue: Queen Victoria, © 2003 Carus Publishing Company, published by Cobblestone Publishing, Peterborough, NH. All Rights Reserved. Used by permission of the publisher.

9

The *most likely* reason the author wrote this article was to —

- A entertain readers with stories about life in London
- B explain to readers how exotic plants became popular
- C persuade readers to find and grow rare orchids
-  D inform readers about the history of terrariums and how to create one

11

When selecting a glass jar to make a terrarium, it is important to use one with a large opening to —

-  A make assembling the terrarium easier
- B allow excess water to evaporate quickly
- C keep the potting soil in the terrarium sterile
- D make sure the plants get enough sunlight

10

Taking care of a terrarium is *most similar* to —

- A adopting a young puppy
-  B maintaining a fish tank
- C raising a hamster
- D feeding birds in the winter

12

Which of the following would be the *best* subheading for paragraph 2?

- A London Ferns
- B Moth in a Bottle
-  C The First Terrarium
- D Mystery of the Sphinx

13

As used in paragraph 1 in the article, what does *thrive* mean?

- A Stay clean
-  B Grow well
- C Produce flowers
- D Absorb water

14

What is the *most* important reason to choose small plants for a terrarium?

-  A The plants have a limited amount of space to grow in a terrarium.
- B Small plants are what are recommended for a terrarium.
- C The plants in a terrarium are prettier when they are small.
- D Small plants are easier to plant in a terrarium.

15

Read the following sentence from paragraph 2 in the article:

To his surprise, a fern had *sprouted* in it—a fern that looked healthier than those growing in his London yard.

Which word in the sentence is a synonym that helps the reader determine the definition of *sprouted*?

- A surprise
- B fern
- C healthier
-  D growing

16

The purpose of an accessory in a terrarium is to —

- A help the plants grow better
-  B add interest to the planting
- C give more light to the plants
- D make putting in the plants easier

READING OPEN-RESPONSE ITEM A, FOR PASSAGE “THE MYSTERY IN THE ATTIC”

A

Explain what happens throughout the story that improves Molly’s opinion of moving into the old house.

Use details from the passage to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM A, FOR PASSAGE “THE MYSTERY IN THE ATTIC”

SCORE	DESCRIPTION
4	The response provides four details from the passage that demonstrate a change in her opinion of moving into the old house from the beginning to the end.
3	The response provides three details from the passage that demonstrate a change in her opinion of moving into the old house from the beginning to the end.
2	The response provides two details from the passage that demonstrate a change in her opinion of moving into the old house from the beginning to the end.
1	The response provides one detail from the passage that might explain why Molly’s opinion of moving into the old house changes. OR The response demonstrates minimal understanding of the question.
0	The response is incorrect and shows no evidence that the student understands the task. The response may be off topic or completely irrelevant.
B	Blank—No response. A score of “B” will be reported as “NA.” (No attempt to answer the item.) Score of “0” assigned for the item.

READING OPEN-RESPONSE ITEM B, FOR PASSAGE “GARDENS UNDER GLASS”

B

Explain why the Wardian Case was important to the gardeners of Victorian London.
Use details from the article to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM B, FOR PASSAGE “GARDENS UNDER GLASS”

SCORE	DESCRIPTION
4	The response explains why the Wardian Case was important to the gardeners of Victorian London and provides three accurate and relevant details from the passage to support the explanation. OR The response provides four relevant details that could explain why the Wardian Case was important to the gardeners of Victorian London.
3	The response explains why the Wardian Case was important to the gardeners of Victorian London and provides two accurate and relevant details from the passage to support the explanation. OR The response provides three relevant details that could explain why the Wardian Case was important to the gardeners of Victorian London.
2	The response explains why the Wardian Case was important to the gardeners of Victorian London and provides one accurate and relevant detail from the passage to support the explanation. OR The response provides two relevant details that could explain why the Wardian Case was important to the gardeners of Victorian London.
1	The response explains why the Wardian Case was important to the gardeners of Victorian London. OR The response provides one relevant detail that could explain why the Wardian Case was important to the gardeners of Victorian London. OR The response demonstrates minimal understanding of the question.
0	The response is incorrect and shows no evidence that the student understands the task. The response may be off topic or completely irrelevant.
B	Blank—No response. A score of “B” will be reported as “NA.” (No attempt to answer the item.) Score of “0” assigned for the item.

17

Which would *most likely* be found in a student letter trying to persuade the mayor to allow a school parade?

- A A description of the positive and negative points of having a parade
- B A section explaining why the history of parades is important
-  C Reasons why a parade would be valuable to the entire community
- D Questions asking the purpose of the mayor's reluctance to allow a parade

18

Read the sentence.

The first photos of a giant squid were taken in 2004.

Which of these is the *best* revision of the sentence when the phrase “by Japanese researchers” is included?

- A By Japanese researchers in 2004, the first photos of a giant squid were taken.
- B The first photos were taken by Japanese researchers in 2004 of a giant squid.
-  C In 2004 the first photos of a giant squid were taken by Japanese researchers.
- D Giant squid photos in 2004 were the first to be taken by Japanese researchers.

Writing Prompt C

C

Your class has been discussing this idea:

“Television has made America a nation of watchers, not doers.”

Before you begin to write, think about what this statement means. Has television made Americans less active? Do you agree or disagree?

Now write an essay about whether or not you agree that television has made America a nation of watchers. Give specific reasons explaining why you think the way you do.

Writer’s Checklist

1. Look at the ideas in your response.
 - Have you focused on one main idea?
 - Have you used enough details to explain yourself?
 - Have you put your thoughts in order?
 - Can others understand what you are saying?

2. Think about what you want others to know and feel after reading your paper.
 - Will others understand how you think or feel about an idea?
 - Will others feel angry, sad, happy, surprised, or some other way about your response? (Hint: Make your reader feel like you do about your paper’s subject.)
 - Do you have sentences of different lengths? (Hint: Be sure you have variety in sentence lengths.)
 - Are your sentences alike? (Hint: Use different kinds of sentences.)

3. Look at the words you have used.
 - Have you described things, places, and people the way they are? (Hint: Use enough detail.)
 - Are you the same person all the way through your paper? (Hint: Check your verbs and pronouns.)
 - Have you used the right words in the right places?

4. Look at your handwriting.
 - Can others read your handwriting with no trouble?

Domain Scoring Rubric

Content (C)

The Content domain includes the focusing, structuring, and elaborating that a writer does to construct an effective message for a reader. It is the creation of a product, the building of a composition intended to be read. The writer crafts his/her message for the reader by focusing on a central idea, providing elaboration of the central idea, and delivering the central idea and its elaboration in an organized text. Features are:

- Central idea
- Elaboration
- Unity
- Organization

Style (S)

The Style domain comprises those features that show the writer purposefully shaping and controlling language to affect readers. This domain focuses on the vividness, specificity, and rhythm of the piece and the writer’s attitude and presence. Features are:

- Selected vocabulary
- Selected information
- Sentence variety
- Tone
- Voice

Sentence Formation (F)

The Sentence Formation domain reflects the writer’s ability to form competent, appropriately mature sentences to express his/her thoughts. Features are:

- Completeness
- Standard word order
- Absence of fused sentences
- Expansion through standard coordination and modifiers
- Embedding through standard subordination and modifiers

Usage (U)

The Usage domain comprises the writer’s use of word-level features that cause written language to be acceptable and effective for standard discourse. Features are:

- Standard inflections
- Agreement
- Word meaning
- Conventions

Mechanics (M)

The Mechanics domain includes the system of symbols and cueing devices a writer uses to help readers make meaning. Features are:

- Capitalization
- Punctuation
- Formatting
- Spelling

Scoring Scale

Each domain is scored independently using the following scale:

4 = The writer demonstrates **consistent**, though not necessarily perfect, control* of almost all of the domain’s features.

3 = The writer demonstrates **reasonable**, but not consistent, control* of most of the domain’s features, indicating some weakness in the domain.

2 = The writer demonstrates **inconsistent control*** of several of the domain’s features, indicating significant weakness in the domain.

1 = The writer demonstrates **little** or **no** control* of most of the domain’s features.

*Control: The ability to use a given feature of written language effectively at the appropriate grade level. A response receives a higher score to the extent that it demonstrates control of the features in each domain.

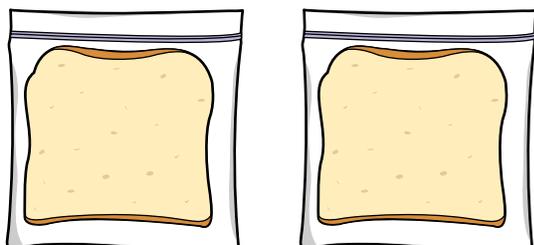
The application of the scale, using actual student writing, is done with the assistance of a committee of Arkansas teachers, language arts supervisors, and representatives of the Arkansas Department of Education.

Non-scoreable and Blank Papers

Compositions are scored, unless they are off-topic, illegible, incoherent, refusals to respond, written in a language other than English, or too brief to assess. A score of “NA” indicates that the student’s writing entry was non-scoreable and that entry will receive a score of “0.”

1

A group of students is investigating how long it takes for mold to grow on slices of bread at different temperatures.



4 °C

20 °C

Which is the *best* means of collecting data for this investigation?

- A Check each piece of bread for mold once a week
- B Check each piece of bread daily until mold appears
- C Check the warm bread daily and the cool bread once a week
- D Check only the warm bread daily, since the cool bread is a control

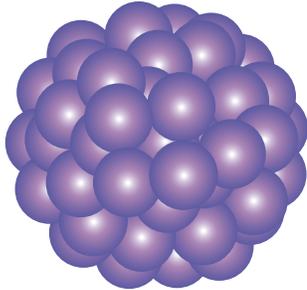
2

Sodium chloride, commonly called “table salt,” is made up of sodium and chlorine that have been combined chemically. Which term *best* describes sodium chloride?

- A Acid
- B Atom
- C Element
- D Compound

3

The diagram below shows an early step in the development of an embryo.



Individual units shown in the diagram were formed by the division of which of the following cells?

- A A fertilized egg
- B A fertilized sperm
- C An unfertilized egg
- D An unfertilized sperm

4

Which planet has the longest planetary year?

- A Earth
- B Venus
- C Jupiter
- D Neptune

5

Which investigation might be used to demonstrate potential energy?

- A Roll one ball toward another, and see what happens when they collide.
- B Place a glass of water in the freezer, and see how long the water takes to become solid.
- C Compress a spring by different amounts, and see how far it can launch a ball into the air.
- D Roll a ball from the top of an inclined plane and determine the amount of time it takes to get to the bottom.

6

Stomata are tiny pores located on the leaves of plants. These pores permit the exchange of gases between air in the environment and plant cells located inside the leaf. Which tissue performs a similar function in vertebrates?

- A The cornea in the eye
- B The alveoli in the lungs
- C The chambers in the heart
- D The salivary glands in the mouth

7

Which would provide evidence of seafloor spreading?

- A** higher levels of salinity in the ocean water
- B** stronger currents at the surface of the ocean
-  **C** cooled magma found on the edge of the plates
- D** greater reproduction levels for organisms at the bottom of the ocean

8

Which of the following statements is a scientific hypothesis?

- A** Flossing has proven to be an effective method of improving oral health.
- B** Many infectious diseases, such as gum disease, are caused by microorganisms.
- C** In general, any method that reduces bacteria in the mouth will improve oral health.
-  **D** An individual who flosses daily will be less likely to get gum disease than one who flosses weekly.

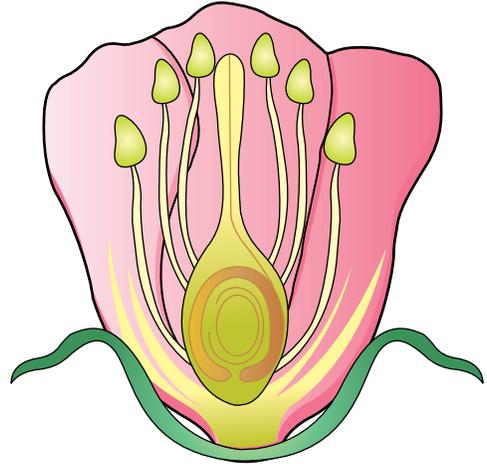
9

A ball rolling on the ground is observed to slow down and stop. Based on Newton's first law of motion, what is the **best** conclusion?

- A An object in motion eventually stops.
- B The ball must have been going slightly uphill.
- C The ball did not have enough mass to keep going.
- D There must have been an outside force acting on the ball.

10

The following drawing illustrates a flower of a certain type of angiosperm.



Which organ system in vertebrates is similar in function to the flower shown?

- A The skeletal system
- B The circulatory system
- C The respiratory system
- D The reproductive system

11

What is the **best** measure to use in determining the effect of solar energy on Earth's atmosphere?

-  **A** the temperature of the air
- B** the temperature of the ocean
- C** the density of clouds in the sky
- D** the amount of rainfall on a rainy day

12

Historically, how has the compass been used?

-  **A** for navigation
- B** to predict weather
- C** to measure temperature
- D** for mineral identification

13

A wind turbine primarily uses which type of energy?

- A** nuclear
- B** thermal
- C** chemical
-  **D** mechanical

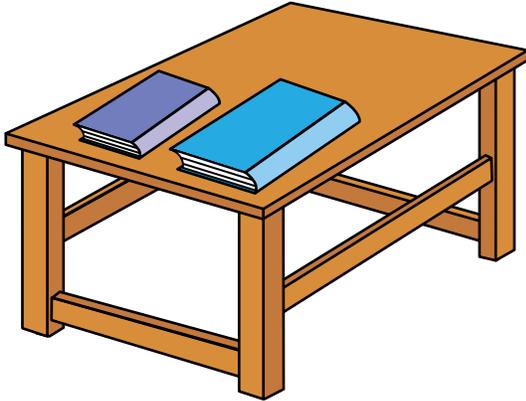
14

Which nongaseous compound can be made from two elements that are gases at room temperature?

-  **A** water
- B** table salt
- C** iron oxide
- D** carbon dioxide

15

The drawing below shows two books on a table.



Amanda places a book cover under each book. She quickly pulls out each cover, and the books do not move. Which of Newton's laws does Amanda's investigation *best* demonstrate?

- A The second because the books have different sizes and masses.
- B The first because the books stay at rest while the covers are moved.
- C The third because the books do not move in the same direction as the covers.
- D The second because the books do not have the same surface area and friction.

16

Frank needs to move a box by sliding it across the floor. Which two factors will *most* strongly affect how hard Frank needs to push the box?

- A The density of the box material and the hardness of the floor
- B The thickness of the box material and the hardness of the floor
- C The total mass of the box and the friction between the box and the floor
- D The total height of the box and the distance between his hands and the floor

17

In plants, which describes sexual reproduction but **not** asexual reproduction?

- A Five limbs are grafted onto the same tree.
- B New plants are grown from pieces of other plants.
- C A fertilized egg cell divides to produce an embryo.
- D Offspring are produced that have the same genetic information as the parent.

SCIENCE OPEN-RESPONSE ITEM A

A

A student is given the following question to answer: Is global warming affected by how much people enjoy using fossil fuels?

1. What is wrong with the wording of the question above? Rewrite the question so that it can be answered through scientific inquiry.
2. When conducting an experiment to answer your question from Part 1, what two things should be analyzed?

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR SCIENCE OPEN-RESPONSE ITEM A

SCORE	DESCRIPTION
4	Response shows a <i>complete understanding</i> of the problem's essential scientific concepts. The student presents all procedures correctly and responds to all parts of the task.
3	Response shows a <i>nearly complete understanding</i> of the problem's essential scientific concepts. The student presents nearly all procedures correctly and responds to all parts of the task. The response may contain minor errors.
2	Response shows a <i>limited understanding</i> of the problem's essential scientific concepts. The student presents some procedures correctly and responds correctly to most parts of the task. The response may contain a major error.
1	Response shows a <i>minimum understanding</i> of the problem's essential scientific concepts. The student presents some correct work that contributes to a correct solution. The response contains incomplete procedures and major errors.
0	Response shows <i>insufficient understanding</i> of the problem's essential scientific concepts. The procedures, if any, contain major errors. There may be no explanation of the solution, or the reader may not be able to understand the explanation. The reader may not be able to understand how and why decisions were made.

Solution and Scoring

Part	Points
1	<p>2 Points Possible</p> <p>1 point: Identifies that the word "enjoy" is not scientifically testable and is not proper word choice for scientific inquiry.</p> <p>1 point: Gives a new question that can be answered scientifically.</p>
2	<p>2 Points Possible</p> <p>1 point: Determines that fossil fuel consumption should be measured.</p> <p>1 point: Determines that Earth's temperature should be analyzed to draw a comparison</p> <p>Attribute Note #1 - Listing only "fossil fuels" and/or "global warming" with insufficient or no elaboration earns 1/2 point for each phrase.</p>

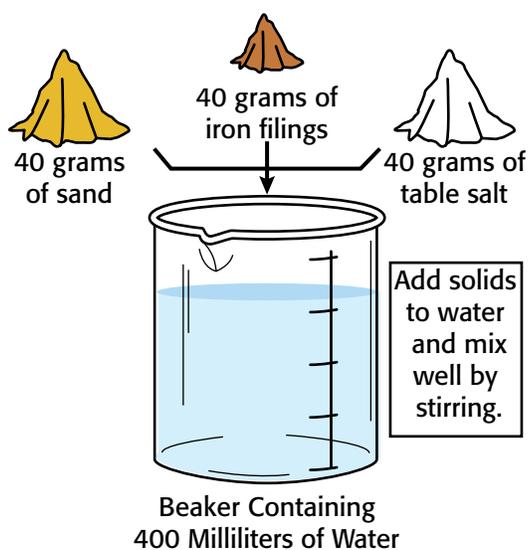
SCIENCE OPEN-RESPONSE ITEM B

B

Mr. Henson gave each group of students in his science class the following substances:

- 40 grams of table salt
- 40 grams of iron filings
- 40 grams of sand
- 400 milliliters of water

The substances were mixed together, as illustrated in the drawing.



Mr. Henson wants the students to separate the salt, sand, and iron filings from the water. The water can then be discarded.

1. Describe each of the three processes needed to separate the mixture into its original components.
2. Explain why separating the water from the salt would be the last step.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR SCIENCE OPEN-RESPONSE ITEM B

SCORE	DESCRIPTION
4	Response shows a <i>complete understanding</i> of the problem’s essential scientific concepts. The student presents all procedures correctly and responds to all parts of the task.
3	Response shows a <i>nearly complete understanding</i> of the problem’s essential scientific concepts. The student presents nearly all procedures correctly and responds to all parts of the task. The response may contain minor errors.
2	Response shows a <i>limited understanding</i> of the problem’s essential scientific concepts. The student presents some procedures correctly and responds correctly to most parts of the task. The response may contain a major error.
1	Response shows a <i>minimum understanding</i> of the problem’s essential scientific concepts. The student presents some correct work that contributes to a correct solution. The response contains incomplete procedures and major errors.
0	Response shows <i>insufficient understanding</i> of the problem’s essential scientific concepts. The procedures, if any, contain major errors. There may be no explanation of the solution, or the reader may not be able to understand the explanation. The reader may not be able to understand how and why decisions were made.

Solution and Scoring

Part	Points
1	<p>3 Points Possible</p> <p>1 point: Separate the iron filings with a magnet</p> <p>1 point: Separate the sand with a filter.</p> <p>1 point: Separate the salt by evaporating the water.</p>
2	<p>1 Point Possible</p> <p>1 point: If iron filings or sand are present during evaporation, salt will adhere (stick) to them, making further separation difficult.</p>

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

The Arkansas Mathematics Curriculum Framework*

Strands	Content Standards	Student Learning Expectations
Number and Operations	2. Properties of Number Operations Students shall understand meanings of operations and how they relate to one another	4. Model and develop addition, subtraction, multiplication and division of <i>integers</i>
	3. Numerical Operations and Estimation Students shall compute fluently and make reasonable estimates	2. Solve with and without appropriate <i>technology</i> , multi-step problems using a variety of methods and tools (i.e., objects, mental computation, paper and pencil) 6. Solve, with and without <i>technology</i> , real world <i>percent</i> problems Ex. I = PRT
Algebra	4. Patterns, Relations and Functions Students shall recognize, describe, and develop patterns, relations and functions	1. Create and complete a <i>function</i> table (<i>input/output</i>) using a given rule with two operations DOK – mostly 3
	5. Algebraic Representations Students shall represent and analyze mathematical situations and structures using algebraic symbols	4. Write and evaluate <i>algebraic expressions</i> using positive <i>rational numbers</i>
	6. Algebraic Models Students shall develop and apply mathematical models to represent and understand quantitative relationships	2. Represent, with and without appropriate <i>technology</i> , <i>linear equations</i> by plotting and graphing points in the <i>coordinate plane</i> using all four <i>quadrants</i> given data in a table from a real world situation
Geometry	8. Geometric Properties Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships	1. Identify, draw, classify and compare geometric figures using models and real world examples
	10. Coordinate Geometry Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems	1. Plot points in the <i>coordinate plane</i>
Measurement	12. Systems of Measurement Students shall identify and use units, systems and processes of measurement	1. Solve real world problems involving two or more <i>elapsed times</i> , counting forward and backward (calendar and clock) 7. Estimate and compute the <i>area</i> of more complex or irregular <i>two-dimensional</i> shapes by dividing them into more basic shapes
Data Analysis and Probability	14. Data Representation Students shall formulate questions that can be addressed with data and collect, organize and display	3. Construct and interpret <i>circle graphs</i> , <i>box-and-whisker plots</i> , <i>histograms</i> , <i>scatter plots</i> and <i>double line graphs</i> with and without appropriate <i>technology</i>
	15. Data Analysis Students shall select and use appropriate statistical methods to analyze data	2. Analyze, with and without appropriate <i>technology</i> , a set of data by using and comparing measures of <i>central tendencies</i> (<i>mean</i> , <i>median</i> , <i>mode</i>) and <i>measures of spread</i> (<i>range</i> , <i>quartile</i> , <i>interquartile range</i>)

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	G	8	1
2	N	2	4
3	G	10	1
4	N	3	6
5	D	15	2
6	M	13	1
7	A	5	4
8	A	4	1
9	M	13	7
10	D	14	3
A	A	6	2
B	N	3	2

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Non-Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	N	1	3
2	N	2	1
3	D	15	1
4	G	8	3
5	G	8	6
6	M	13	7
7	D	15	2
8	A	5	2
9	G	10	2
10	G	9	2
11	G	8	2
12	D	17	1
13	A	4	3
14	A	6	1
15	M	13	5
A	G	8	6
B	M	12	3
C	D	17	2

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

The Arkansas English Language Arts Framework–Reading Strand*

Content Standards	Student Learning Expectations
9. Comprehension: Students shall apply a variety of strategies to read and comprehend printed material.	6. Connect own background knowledge and personal experience to make inferences and to respond to new information presented in text 7. Infer a character's impact on plot development 9. Analyze literary elements of fiction with emphasis on plot development, including conflict, rising action, climax, falling action, and resolution 12. Identify main ideas and supporting evidence in short stories and novels 15. Organize information, including simple outlining
10. Variety of texts: Students shall read, examine, and respond to a wide range of texts for a variety of purposes.	6. Organize and synthesize information for use in written and oral <i>presentation</i>
11. Vocabulary, Word Study, and Fluency: Students shall acquire and apply skills in vocabulary development and word analysis to be able to read fluently.	5. Use context to determine meaning of multiple meaning words 7. Determine useful and relevant words 8. Identify and explain idioms and comparisons such as analogies, metaphors and similes to infer the literal and figurative meanings or phrases 10. Use context to determine meaning of multiple meaning words.

* The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

Released Items for Reading*

Item	Content Standard	Student Learning Expectation	Passage Type
1	9	6	Literary
2	9	7	Literary
3	11	8	Literary
4	9	9	Literary
5	11	5	Literary
6	9	6	Literary
7	9	9	Literary
8	9	7	Literary
9	9	12	Practical
10	9	6	Practical
11	9	12	Practical
12	9	15	Practical
13	11	10	Practical
14	9	6	Practical
15	11	7	Practical
16	9	6	Practical
A	9	9	Literary
B	10	6	Practical

Non-Released Items for Reading*

Item	Content Standard	Student Learning Expectation	Passage Type
1	9	13	Content
2	11	10	Content
3	9	12	Content
4	10	5	Content
5	9	13	Content
6	9	13	Content
7	9	15	Content
8	9	12	Content
A	9	12	Content

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

The Arkansas English Language Arts Framework–Writing Strand*

Content Standards	Student Learning Expectations
5. Students shall demonstrate competency in writing for a variety of purposes, topics and audiences employing a wide range of forms.	1. Write to develop narrative, <i>expository</i> , descriptive, and persuasive pieces
6. Conventions: Students shall apply knowledge of Standard English conventions in written work.	2. Write effective sentences by <i>embedding</i> clauses, prepositional and appositive phrases, and all compound elements

* The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

Released Items for Writing*

Item	Content Standard	Student Learning Expectation
17	5	1
18	6	2

Non-Released Items for Writing*

Item	Content Standard	Student Learning Expectation
9	6	12
10	7	6

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

The Arkansas Science Curriculum Framework*

Strands	Content Standards	Student Learning Expectations
Nature of Science	1. Characteristics and Processes of Science Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.	2. Analyze components of <i>experimental design</i> used to produce <i>empirical evidence</i> : <ul style="list-style-type: none"> • <i>hypothesis</i> • replication • sample size • appropriate use of <i>control</i> • use of standardized <i>variables</i> 6. Develop and implement strategies for long-term, accurate data collection 9. Compare and contrast hypotheses, <i>laws</i> , and <i>theories</i>
Life Science	2. Living Systems: Characteristics, Structure, and Function Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.	3. Identify <i>organ systems</i> in <i>vertebrates</i> and plants 4. Analyze the structure and function of <i>tissues, organs</i> , and <i>organ systems</i> of a <i>vertebrate</i> and an <i>angiosperm</i> using various models or methods of dissection
	3. Life Cycles, Reproduction, and Heredity Students shall demonstrate and apply knowledge of life cycles, reproduction, and heredity using appropriate safety procedures, equipment, and technology.	4. Investigate and analyze the development of <i>embryos</i> 7. Differentiate between sexual and <i>asexual reproduction</i> in <ul style="list-style-type: none"> • <i>vertebrates</i> • plants
Physical Science	5. Matter: Properties and Changes Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.	3. Identify <i>compounds</i> as substances consisting of two or more <i>elements</i> chemically combined 4. Compare and contrast properties of <i>compounds</i> to those of the <i>elements</i> that compose them: <ul style="list-style-type: none"> • salt: sodium, chlorine • water: hydrogen, oxygen • carbon dioxide: carbon, oxygen 5. Demonstrate techniques for forming and separating <i>mixtures</i> : <ul style="list-style-type: none"> • mixing • magnetic attraction • evaporation • filtration • chromatography • settling
	6. Motion and Forces Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.	2. Conduct investigations demonstrating Newton's first law of motion 3. Demonstrate Newton's second law of motion
	7. Energy and Transfer of Energy Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.	2. Describe alternatives to the use of <i>fossil fuels</i> : <ul style="list-style-type: none"> • <i>solar energy</i> • <i>geothermal energy</i> • wind • <i>hydroelectric power</i> • <i>nuclear energy</i> • <i>biomass</i> 3. Conduct investigations to identify types of <i>potential energy</i> and <i>kinetic energy</i>

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

**PART III Item Correlation with Curriculum Frameworks–
2009 Augmented Benchmark Grade 7**

The Arkansas Science Curriculum Framework* (continued)

Strands	Content Standards	Student Learning Expectations
Earth and Space Science	8. Earth Systems Students shall demonstrate and apply knowledge of Earth's structure and properties using appropriate safety procedures, equipment, and technology.	3. Conduct investigations demonstrating the effects of <i>solar energy</i> on the <i>atmosphere</i>
	9. Earth's History: Changes in Earth and Sky Students shall demonstrate and apply knowledge of Earth's history using appropriate safety procedures, equipment, and technology.	4. Analyze evidence of sea floor spreading: <ul style="list-style-type: none"> • magnetic reversal • molten material • drilling samples 5. Research ways in which people have used compasses
	10. Objects in the Universe Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.	4. Compare and contrast Earth's year to those of other planets in our <i>solar system</i>

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

Released Items for Science*

Item	Strand	Content Standard	Student Learning Expectation
1	NS	1	6
2	PS	5	3
3	LS	3	4
4	ES	10	4
5	PS	7	3
6	LS	2	4
7	ES	9	4
8	NS	1	9
9	PS	6	2
10	LS	2	3
11	ES	8	3
12	ES	9	5
13	PS	7	2
14	PS	5	4
15	PS	6	2
16	PS	6	3
17	LS	3	7
A	NS	1	2
B	PS	5	5

Non-Released Items for Science*

Item	Strand	Content Standard	Student Learning Expectation
1	ES	8	20
2	LS	3	11
3	PS	5	1
4	ES	8	16
5	LS	2	5
6	PS	7	2
7	LS	3	4
8	LS	2	10
9	LS	2	7
10	PS	5	5
11	ES	10	6
12	ES	8	14
13	LS	4	1
14	LS	2	1
15	ES	10	2
16	PS	7	4
17	ES	8	18
A	LS	3	12
B	PS	6	1
C	ES	10	4

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program