ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

Released Item Booklet

Grade 3

Augmented Benchmark Examination

April 2014

Arkansas Department of Education

Acknowledgments

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Text

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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 3 students in Arkansas public schools participated in the *Grade 3 Augmented Benchmark Examination* in April 2014.

This Released Item Booklet for the *Grade 3 Augmented Benchmark Examination* contains test questions or items that were asked of students during the April 2014 operational administration. The test items included in Part II of this booklet are some of the items that contributed to the student performance results for that administration.

Students were given approximately two hours each day to complete assigned test sessions during the four days of testing in April 2014. Students were permitted to use a calculator for the mathematics items (both multiple-choice and open-response items), with the exception of mathematics questions 1–6 in this Released Item Booklet (items 1–10 in the test 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 33 of this booklet.) All of the reading, writing, and mathematics multiple-choice items within this booklet have the correct response marked with an asterisk (*). The open-response questions for reading, mathematics, and the essay 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 3 Augmented Benchmark Examination* was based on the Arkansas Curriculum Frameworks. These frameworks have common distinct levels: Strands to be taught in concert, Content Standards within each Strand, and Student Learning Expectations within each Content Standard. Abridged versions of the *Arkansas English Language Arts Curriculum Framework—Reading Strand, Arkansas English Language Arts Curriculum Framework—Writing Strand,* and *Arkansas Mathematics 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 contains a tabular listing of 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 3 Augmented Benchmark Examination* were developed in close association with the Arkansas education community. Arkansas teachers participated as members of the Content Advisory Committee, for each subject area, providing routine feedback and recommendations for all items. The number of items associated with specific Strands, Content Standards, and Student Learning Expectations was based on approximate proportions suggested by the Content Advisory Committee, and their recommendations were accommodated to the greatest extent possible given the overall test design. Part III of the Released Item Booklet provides Arkansas educators with specific information on how the *Grade 3 Augmented Benchmark Examination* items align or correlate with the Arkansas Curriculum Frameworks to provide models for classroom instruction.

While multiple-choice items are scored by machine to determine if the student chose the correct answer from four options, responses to open-response items must be scored by trained "readers" using a pre-established set of scoring criteria.

The Arkansas Benchmark Rangefinding Committee assisted in the development of the scoring criteria. The committee comprises active Arkansas educators with expertise in math, English, and/or language arts education.

Reader Training

Readers are trained to score only one content area. Qualified readers for Arkansas scoring will be those with a four-year college degree in math, English, language arts, education, or related fields.

Before readers are allowed to begin assigning scores to any student responses, they go through intensive training. The first step in that training is for the readers to read the writing prompt, the math open-response item, or the reading passage and its open-response item as it appeared in the test booklet and to respond—just as the student test takers are required to do. This step gives the readers some insight into how the students might have responded. The next step is the readers' introduction to the scoring rubric. All of the specific requirements of the rubric are explained by the Scoring Director who has been specifically trained to lead the scoring group. Then, responses (anchor papers) that illustrate the score points of the rubric are presented to the readers and discussed. The goal of this discussion is for the readers to understand why a particular response (or type of response) receives a particular score. After discussion of the rubric and anchor papers, readers practice scoring sets of responses that have been pre-scored and selected for use as training papers. Detailed discussion of the responses and the scores they receive follows.

After three or four of these practice sets, readers are given "qualifying rounds." These are additional sets of pre-scored papers, and, in order to qualify, each reader scoring responses must score in exact agreement on at least 80% of the responses, and each reader scoring writing responses must score in exact agreement with 70% of the responses in each domain. Readers who do not score within the required rate of agreement are not allowed to score the *Grade 3 Augmented Benchmark Examination* responses.

Once scoring of the actual student responses begins, readers are monitored constantly throughout the project to ensure that they are scoring according to the criteria. Daily and cumulative statistics are posted and analyzed, and the Scoring Director or Team Leaders reread selected responses scored by the readers. These procedures promote reliable and consistent scoring. Any reader who does not maintain an acceptable level of agreement is dismissed from the project.

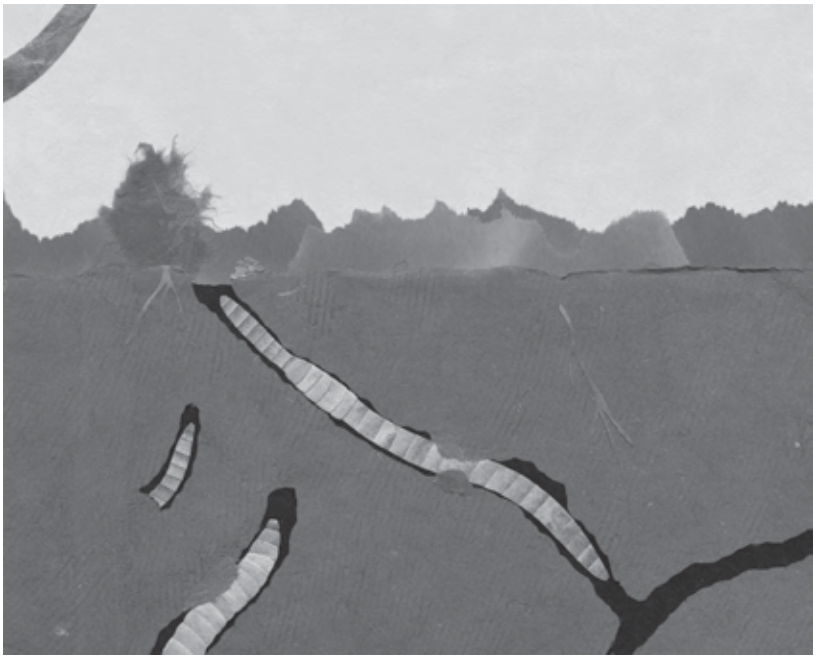
Scoring Procedures

All student responses to the *Grade 3 Augmented Benchmark Examination* open-response test items are scored independently by two readers. Those two scores are compared, and responses that receive scores that are non-adjacent (a "1" and a "3," for example) are scored a third time by a Team Leader or the Scoring Director for resolution.

from **Wiggling Worms at Work**

by Wendy Pfeffer
illustrated by Steve Jenkins

Down in the ground, under your feet, thousands of worms wiggle around flower bulbs and tunnel under trees. They twist and turn, eating almost anything in their way. These wiggling worms are at work.



Farmers plow their fields to loosen the soil. Crumbly soil lets the roots of plants spread out and grow. Worms also loosen the soil as they wiggle along. They are called nature's plows.

3 As worms twist and turn, they push aside loose soil. This creates tunnels. Air flows along these tunnels. Rainwater trickles down. Roots drink it up. Moist ground helps plants grow better.

Worms tunnel in hard-packed soil by swallowing it. The soil goes in the worm's mouth, slides into the crop[1], then passes down to the gizzard[2].

[1] crop: a pouch in the food tube of some animals where food is stored
[2] gizzard: a small digestive pouch found in certain animals

Worms do not have teeth. Muscles, fine grains of sand, and small stones in the gizzard grind the soil. Worms digest leaf and plant bits that are found in soil, just as you digest a salad.

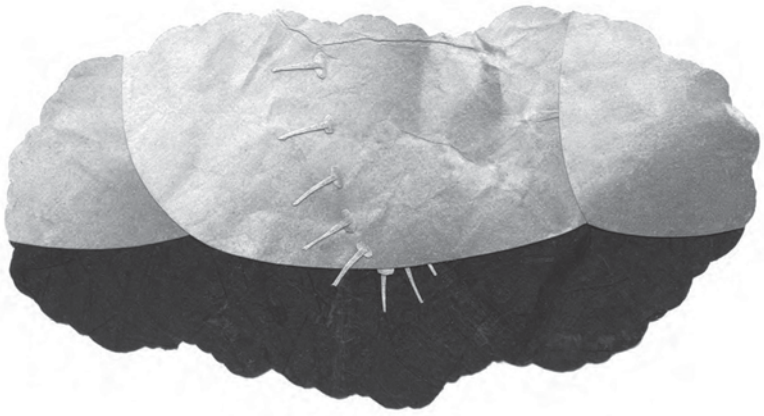
6 What's left passes through a worm's body and comes out its tail end in the form of pellets, called worm castings. These castings make good plant food. They help fruits and vegetables grow bigger and better.

Sometimes worms crawl above ground. When they tunnel back down into the ground, they pull dead leaves and plants down with them.

These plants make the soil better as they rot. Seeds come down, too. Some of these seeds send out roots. Seedlings sprout. Worms help new plants begin to grow.

9 Worms can wiggle, twist, turn, and even tie themselves in knots because they have no backbones. Their soft bodies are made up of rings, or segments. These segments act like the coils on a Slinky toy. They let a worm bend.

A worm has no legs, but eight bristles under each segment act a little like legs. They help a worm move. Strong muscles allow the worm to stretch out its front end. It becomes long and thin. Then the worm fastens its front bristles to the soil. The back end slinks up, making the worm short and fat.



This drawing shows the eight bristles under each segment of the worm's body.

The worm wiggles along, stretching and slinking, stretching and slinking. With all its wiggling, twisting, and turning, it's a wonder a worm knows where it's headed. It has no eyes, no nose, no ears, and hardly any brain at all.

But a worm knows what's happening nearby. It feels vibrations on the ground and senses a hungry robin. Quickly the worm slips back into its burrow. Hiding is the only way it can protect itself from enemies.

Worms also hide from the sun. They must live in damp soil since they breathe air through their moist skin. In the hot sun their skins dry up and they can't breathe.

14 Sometimes worms crawl to the surface to find food. They select dead and decaying plants to drag back to their burrows. These plants contain bacteria that worms eat. Healthy plants do not. Worms pick leaves with pointed ends rather than round ones. No one knows why.

Worms also eat fungi and mold. They slurp the hairlike strands of mold the same way you might slurp strands of spaghetti.

Worms eat at the entrance of their burrows. Then each worm covers any leftover plants with its castings. This pile of worm castings is called a midden. It hides the top of the worm's burrow and acts like a door to keep out bad weather and rain.

1 Which **best** tells why someone would read this passage?

A to read a funny story about worms

* **B** to learn new information about worms

C to persuade other people to watch out for worms

D to find directions for making better soil for worms

2 Read this dictionary entry.

root

noun **1** part of the hair under the skin **2** part of a plant under the ground **3** part of a tooth below the skin **4** part of a word that is added on to

Which definition from the dictionary **best** matches the meaning of root as it is used in paragraph 3?

A definition 1

* **B** definition 2

C definition 3

D definition 4

3 Read the graphic organizer.

What is the **best** title for this organizer?

* **A** How Worms Eat
B How Worms Work
C How Worms Move
D How Worms Grow

4 What does the word <u>they</u> refer to in paragraph 6?

A foods
B fruits
* **C** castings
D vegetables

5 Paragraph 9 is organized by

A retelling a sequence of worm events.
B comparing worms to other animals.
C stating a problem and offering a solution.
* **D** presenting a main idea and details about worms' bodies.

6 Why can worms stretch out their bodies?

* **A** They have strong muscles.
B They have a gizzard.
C They have no legs.
D They have a crop.

7 How does a worm know when there's trouble?

A It sees it.
* **B** It feels it.
C It hears it.
D It smells it.

8 What does <u>burrows</u> mean as it is used in paragraph 14?

A foods
B plants
C worms
* **D** homes

Reading Item A—2014 Grade 3

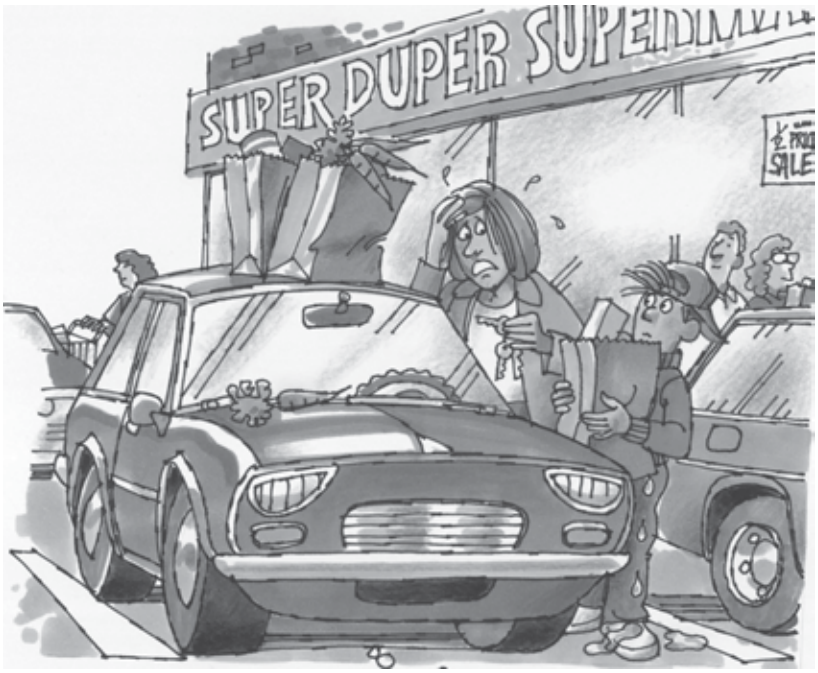
A Describe four ways that worms help plants grow. Use specific information from the passage in your answer.

Reading Item A Scoring Rubric—2014 Grade 3

Score	Description
4	The response describes four ways that worms help plants grow using specific information from the passage.
3	The response describes three ways that worms help plants grow using specific information from the passage.
2	The response describes two ways that worms help plants grow using specific information from the passage.
1	The response describes one way that worms help plants grow using specific information from the passage. **OR** The response demonstrates minimal understanding of the question.
0	The response is totally 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" is assigned for the item.)

Mrs. Doosilly's Car Won't Open

by Carolyn Crimi



Mrs. Doosilly and Willy Doosilly came out to the supermarket parking lot with their arms full of grocery bags. Willy Doosilly held the bag with the mint chocolate chip ice cream.

2 "Hurry, Willy, or we'll be late for your oboe lesson," said Mrs. Doosilly as she hurried to the car. She tried to unlock the door on the driver's side. Nothing happened. She turned the key again, but the door still would not unlock.

"Oh, honestly!" said Mrs. Doosilly. "What in the world is the matter with this car now?"

4 Mrs. Doosilly tried unlocking the door on the other side. She tried the door in the back. None of them would open. She peered through the window of the car and sighed.

"Well, something is definitely the matter," said Mrs. Doosilly. "I don't know what to do."

"But, Mom—" said Willy.

"Please be quiet!" said Mrs. Doosilly. "I have to think of something to do."

Just then a woman walked by with a French poodle on a leash.

"Excuse me," said Mrs. Doosilly. "I can't unlock my car, my son is late for his oboe lesson, and our ice cream is melting. Can you help?"

"I'll try," said the woman. First she tried the door on the driver's side. Then she tried the door on the other side. Then she tried the back door. None of them would open. She and her French poodle peered into the windows.

"I can't get it open," she said.

"Oh my," said Mrs. Doosilly. "Neither can I. What can I do?"

"But, Mom—" said Willy.

"Hush, Willy, while I think of something."

A man walked by humming a little tune.

"Excuse me, sir, but I can't get into my car, my son is late for his oboe lesson, and our ice cream is melting. Can you help?"

"Why, certainly," said the man. He hummed while he tried the door on the driver's side. He hummed while he tried the door on the other side. He hummed while he tried the back door. Finally he stopped humming and peered through the car window.

"Something's wrong," said the man.

"Very wrong," said the woman with the French poodle.

"Oh my," said Mrs. Doosilly. "What can I do now?"

"But, Mom—" said Willy.

"Quiet, Willy," said Mrs. Doosilly. "Something must be done!"

Mrs. Doosilly stopped a Girl Scout troop as they were walking by, a soccer team on their way to a game, a clown on his way to the circus, a marching band on its way to a parade, and a kindergarten class on their way to the zoo. No one could help. They all waited to see what Mrs. Doosilly would do.

"I guess I'll have to break the car window," said Mrs. Doosilly. She took a can of peas out of the bag. Then she wound up her arm as if she were a baseball pitcher.

"NO, MOM, WAIT!" shouted Willy. Everyone turned to look at him.

"Oh, Willy, what is it?"

"That's our car over there!" said Willy.

And so it was.

Mrs. Doosilly thanked everyone for their help. Then she and Willy drove home. It was too late for Willy's oboe lesson, so they drank mint chocolate chip soup instead.

9 Read the graphic organizer.

Letter	Instructions	Short Story	Magazine Article

"Mrs. Doosilly's Car Won't Open" **best** fits under the heading

A Letter.

B Instructions.

* **C** Short Story.

D Magazine Article.

10 In the word unlock in paragraph 2, the prefix *un-* means

A to do again
* **B** to do the opposite
C a person who does this
D a place where this happens

11 When Mrs. Doosilly cannot unlock her car, she thinks that

A she has the wrong car.
B she has the wrong key.
C something is wrong with Willy.
* **D** something is wrong with the car.

12 What is the meaning of peered as it is used in paragraph 4?

A reached
B pressed
* **C** looked
D tried

13 Which of these words is a synonym for hush as it is used in the sentence below?

"Hush, Willy, while I think of something."

A help
B stop
C hear
* **D** quiet

14 The woman with the poodle and the man who hums

* **A** do just what Mrs. Doosilly did.
B try only the front car doors.
C try using a different key.
D ask Willy for his help.

15 The author writes, "She wound up her arm as if she were a baseball pitcher," to show that Mrs. Doosilly

* **A** is about to throw very hard.
B used to be on a baseball team.
C knows how to throw a baseball.
D knows her windows will not break.

16 The author **most likely** writes "NO, MOM, WAIT!" in capital letters to show that

A other people near the car are not listening.
* **B** the words are very loud and important.
C the words are for Mrs. Doosilly only.
D Mrs. Doosilly does not hear well.

Reading Item B—2014 Grade 3

B How does Mrs. Doosilly try to solve her problem? Use at least four details from the passage in your answer.

Reading Item B Scoring Rubric—2014 Grade 3

Score	Description
4	The response tells how Mrs. Doosilly tries to solve her problem using at least four details from the passage.
3	The response tells how Mrs. Doosilly tries to solve her problem using three details from the passage.
2	The response tells how Mrs. Doosilly tries to solve her problem using two details from the passage.
1	The response tells how Mrs. Doosilly tries to solve her problem using only one detail from the passage. **OR** The response demonstrates minimal understanding of the question.
0	The response is totally 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" is assigned for the item.)

1 **Jill goes fast to catch the ball.**

Which word correctly replaces the underlined words with the same meaning?

* **A** races
B walks
C moves
D wants

2 Dad takes me fishing on the weekend. First, we find a good spot at the pond. Next, we set up our fishing lines. Then, we sit back and wait.

Which of the following words are the transition words used in this paragraph?

A on, at, back
B find, set, sit
* **C** first, next, then
D weekend, pond, lines

3 Which underlined word is correct?

* **A** Nan tells me a funny story.
B Luke gets a book for I.
C Jesse asks I to jump rope.
D Kate and me won a prize.

Dear _____,

My new Red Gate backpack fell apart after just one month. It is supposed to last for two years. I would like Red Gate to replace it soon.

Sincerely,
Melanie Evans

4 Melanie mailed this letter. Who will **probably** read it?

A her mother
B her grandparents
* **C** a business person
D her teacher at school

WRITING PROMPT

Read this sentence and write a story about what happened next.

When I woke up this morning, I looked out and saw a bear in a uniform!

Now write a story about the bear in a uniform and what happened next. Give enough detail so that your teacher will understand.

WRITER'S CHECKLIST

1. Look at the ideas in your response.
   - _____ Have you focused on one main idea?
   - _____ Have you used enough detail 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 a variety of 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
- Sentence variety
- Tone
- Voice
- Selected information

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:

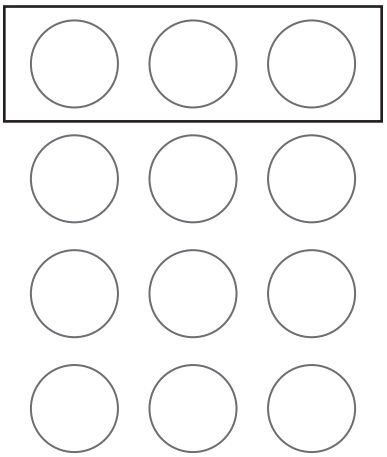
- Capitalization
- Punctuation
- Formatting
- Spelling

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.

Nonscoreable and Blank Papers
Nonscoreable papers include student responses that are off-topic, illegible, incoherent, written in a language other than English, or too brief to assess. Nonscoreable papers will receive a score of "0." Blank papers indicate no response was written and will be reported as NA (no attempt), which translates into a score of "0."

CALCULATOR NOT PERMITTED—ITEMS 1–6

1 This picture shows 12 circles. A box is drawn around 3 of the circles to show a fraction.



Which fraction means the same as the fraction of boxed circles in the picture above?

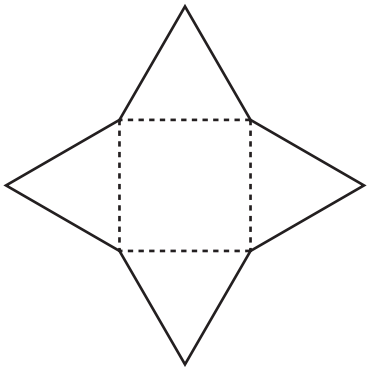
A $\frac{1}{12}$

B $\frac{3}{4}$

C $\frac{1}{3}$

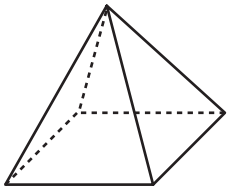
* **D** $\frac{1}{4}$

2 This is a picture of a paper shape that has been unfolded.

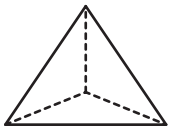


Which shape does it make when it is folded back up?

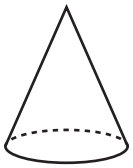
* **A**



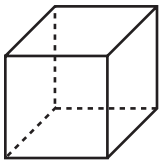
B



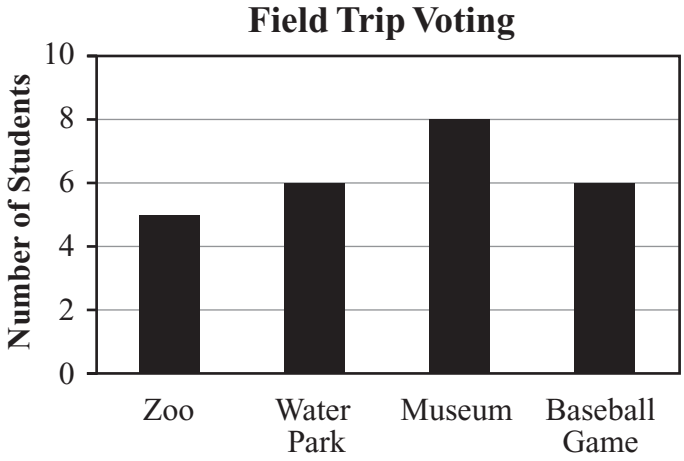
C



D



3 The bar graph shows how the students voted for going on a field trip.



How many students voted?

A 19 students
B 24 students
* **C** 25 students
D 26 students

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4 Calvin has 4 pairs of black socks, 2 pairs of blue socks, 3 pairs of red socks, and 7 pairs of white socks in his drawer. He pulls 1 pair of socks from his drawer without looking.

Which sock color is Calvin least likely to pull from his drawer?

A black
* **B** blue
C red
D white

5 Chris is making fruit smoothies for a backyard cookout. Each quart of smoothie will make 4 cups.

Quarts	Cups
1	4
2	8
3	12
4	?

How many cups of smoothies will be in 4 quarts?

A 1
B 2
C 4
* **D** 16

6 Matt plays a game with numbered disks as shown below.

Matt puts the numbers in order from **least** to **greatest**. Where should he put the above disk?

* **A** 

B 

C 

D 

CALCULATOR PERMITTED—ITEMS 7–20 and A–C

7 Sandra left the house at the time shown on the clock.

What time is shown on the clock?

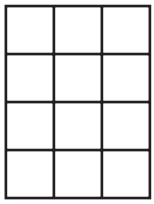
A 3:35
B 3:37
* **C** 7:17
D 7:34

8 Which of the following goes in the ☐ to make the statement true?

$$25 + 8 > \square$$

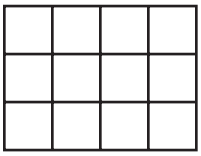
A $25 + 9$
B $25 + 17$
C $50 - 17$
* **D** $50 - 20$

9 The model shown represents 4×3.



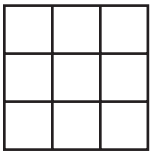
Which model represents an operation that is equal to 4×3 by the commutative property?

* **A**

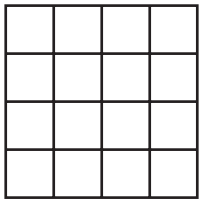


B

C



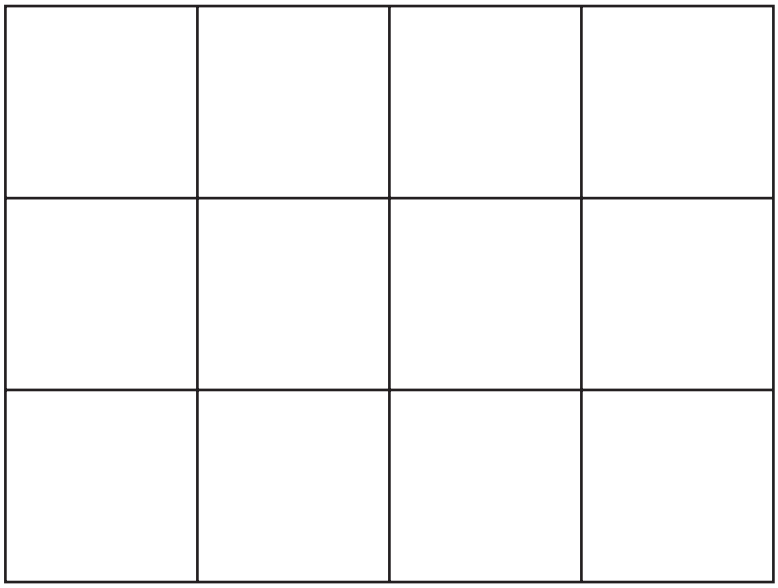
D



10 There are 7 days in one week. A year can have either 365 or 366 days. How many complete weeks make up one year?

A 7
B 12
C 30
* **D** 52

11 Keyanna used squares to make the shape shown below.

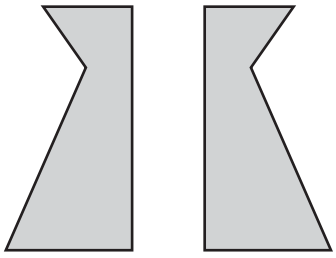


What is the perimeter of Keyanna's shape? Use your ruler to measure the perimeter of the shape.

* **A** 14 inches
B 12 inches
C 8 inches
D 7 inches

---

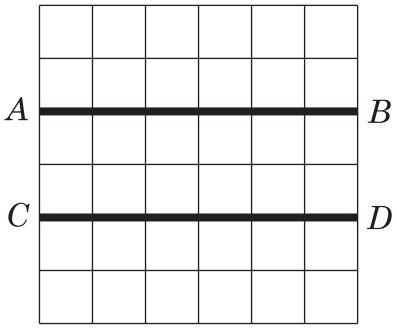
12 What **best** describes the change from Shape A to Shape B?



A B

A turn (rotation)
* **B** flip (reflection)
C slide (translation)
D change size (dilation)

13 Celia drew two segments on a grid.



What is the relationship between $\overline{AB}$ and $\overline{CD}$?

* **A** parallel
B diagonal
C intersecting
D perpendicular

14 A shower head uses 3 gallons of water each minute. Which number sentence should be used to find the gallons of water, w, used in a 15-minute shower?

A $15 + 3 = w$
B $15 - 3 = w$
* **C** $15 \times 3 = w$
D $15 \div 3 = w$

15 Jacob measured how deep the water was in a pond for 5 weeks over the summer.

Pond Depth

Week	Depth (in feet)
1	8
2	7
3	9
4	8
5	7

It rained during one of the weeks. In which week did it rain?

A Week 2
* **B** Week 3
C Week 4
D Week 5

16 Janie keeps small model horses in a box. Each horse is the same size and shape. She has 4 black horses, 3 brown horses, and 1 white horse. Janie reaches in the box and selects 1 horse without looking. What is the probability that it will be brown?

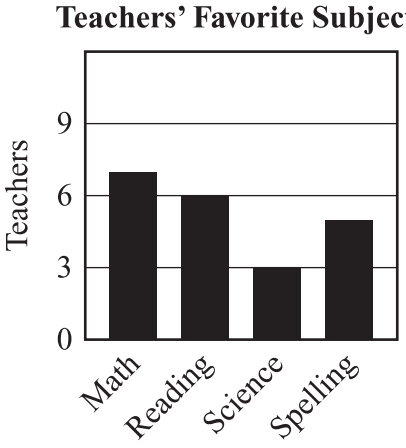
A $\frac{1}{3}$
B $\frac{1}{8}$
C $\frac{3}{5}$
* **D** $\frac{3}{8}$

17 Ned asked the teachers at his school which subject they most liked to teach. He recorded their answers in this table.

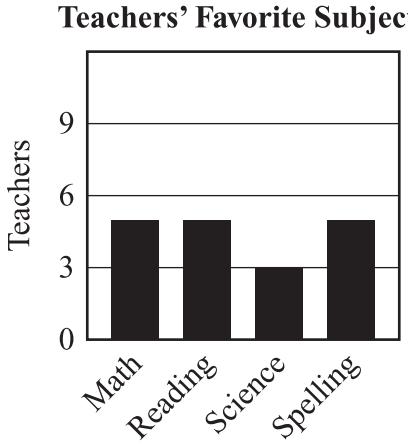
Favorite Subject	Number of Teachers
Math	𝍸 ||
Reading	𝍸 |
Science	|||
Spelling	𝍸

Which bar graph shows this data?

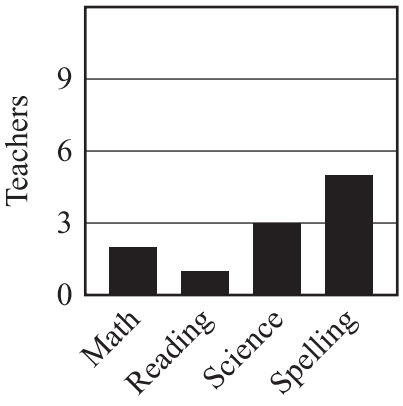
* **A**



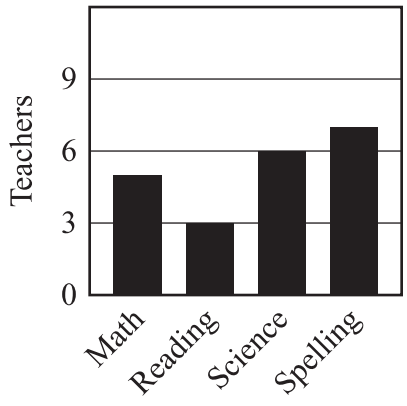
B



C

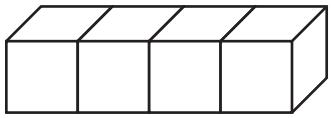


D

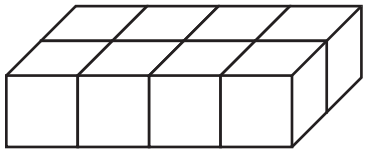


18 Gorman has a rectangular box that is 4 feet long, 2 feet wide, and 2 feet high. In the pictures of blocks, each edge of a cube is equal to one foot. Which stack of blocks is the same size as Gorman's box?

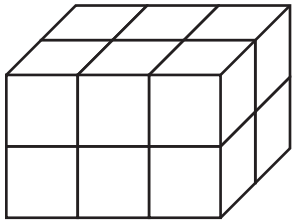
A



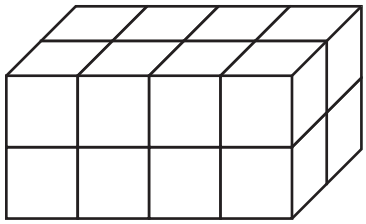
B



C

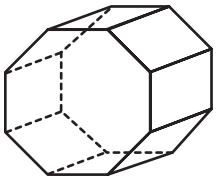


* **D**

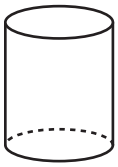


19 Which figure has 8 vertices?

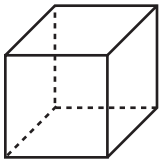
A



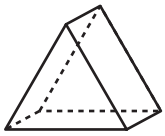
B



* **C**



D



20 José has 3 stacks of baseball cards with the same number of cards in each stack. He has a total of 57 baseball cards. He wrote the equation below to find the number of baseball cards, $\triangle$, in each stack.

$$3 \times \triangle = 57$$

How many baseball cards does José have in each stack?

A 12

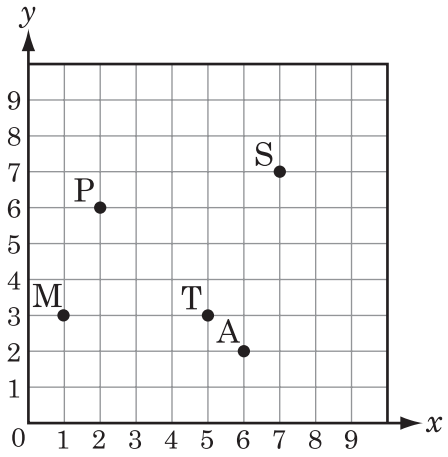
* **B** 19

C 60

D 171

Mathematics Item A—2014 Grade 3

A A town developer is planning a new neighborhood. He uses a coordinate grid to map the location of some of the new places to be built. The grid shows each building and its location.



1. Copy the table below in your answer document. Complete the table using ordered pairs to identify the locations of the buildings.

Building	Location
Park (P)	
School (S)	
Athletic Club (A)	
Tennis Court (T)	

2. Each square on the grid equals one city block. Describe the shortest way to go from the Movie Theater (M) to the Athletic Club (A) along the grid lines.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

Mathematics Item A Scoring Rubric—2014 Grade 3

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 is 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" is assigned for the item.)

Solution and Scoring

<table>
<tr><th>Part</th><th>Points</th></tr>
<tr><td>1</td><td>
2 points possible:

2 points: 4 correct ordered pairs

Give credit for the following or equivalent:
<table>
<tr><th>Building</th><th>Location</th></tr>
<tr><td>Park (P)</td><td>(2, 6)</td></tr>
<tr><td>School (S)</td><td>(7, 7)</td></tr>
<tr><td>Athletic Club (A)</td><td>(6, 2)</td></tr>
<tr><td>Tennis Court (T)</td><td>(5, 3)</td></tr>
</table>
OR

1 point: 2 – 3 correct ordered pairs

OR

1 point: 4 correct ordered pairs
Table is missing
</td></tr>
<tr><td>2</td><td>
2 points possible:

2 points: Correct description of the shortest route from Point M to Point A along the gridlines

Give credit for the following or equivalent:
Ex. “Go 5 blocks right, then 1 block down”
Ex. “Go 1 block down, then 5 blocks right”
Ex. “Go 5 blocks horizontally, then 1 block vertically down”
Ex. “Go across five and down one”

OR

1 point: Correct description of a route from Point M to Point A along the gridlines that is not the shortest route

Give credit for the following or equivalent:
Ex. “Go 2 blocks down, 5 blocks right, then back up a block”
Ex. “I would go up three blocks, right six blocks, then down four blocks, and lastly left one block”

OR

1 point: Correct description of the shortest route from Point M to Point A but not along the gridlines

Give credit for the following or equivalent:
Ex. “I went in a straight line from (1,3) to (6,2)”
</td></tr>
</table>

Mathematics Item B—2014 Grade 3

B Langdon is looking at this flyer of bicycle sale prices.

BIKE SALE!!!!

THIS WEEKEND ONLY!!!

Red Rocket
Eighty-nine dollars and twenty-nine cents

Yellow Jacket
Forty-four dollars and eighty-nine cents

Blue Dragon
Forty-eight dollars and ninety-seven cents

1. Write the price of each bike in number form using decimals. Be sure to label the price with the name of the bike.
2. List the prices of the bikes in order from least expensive to most expensive.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

Mathematics Item B Scoring Rubric—2014 Grade 3

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 is 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" is assigned for the item.)

Solution and Scoring

Part	Points
1	**2 points possible:** 2 points: **Three correct and labeled prices** Give credit for the following or equivalent: Ex. "Red Rocket: $89.29, Yellow Jacket: $44.89, Blue Dragon: $48.97" **OR** 1 point: **Three correct but unlabeled prices** Give credit for the following or equivalent: Ex. $89.29, $44.89, $48.97 Ex. 89.29, 44.89, 48.97 **OR** 1 point: **One or two correct and labeled prices** Give credit for the following or equivalent: Ex. "The Red Rocket is $89.29, the others are $44.89 and $48.97" Ex. "The Blue Dragon is $48.97" Ex. "Red Rocket $89.29, Yellow Jacket $44.89" **OR** 1 point: **Three correct and labeled prices in numerical form without a decimal** **Note:** The response must have a dollar sign with <u>at least one</u> of the prices in Part 1. If this condition is not met it is a 4/3 issue.

Solution and Scoring

Part	Points
2	**2 points possible:** 2 points: **Correct listing of all prices from least expensive to most expensive** *May be based on an incorrect answer in Part 1* Give credit for the following or equivalent: Ex. $44.89, $48.97, $89.29 **OR** 1 point: **Two consecutive prices are listed in the correct order from least expensive to most expensive** *May be based on an incorrect answer in Part 1* Give credit for the following or equivalent: Ex. $44.89, $48.97 Ex. $48.97, $89.29 Ex. $48.97, $89.29, $44.89 **OR** 1 point: **Listing of all prices from most expensive to least expensive** *May be based on an incorrect answer in Part 1* Give credit for the following or equivalent: Ex. $89.29, $48.97, $44.89 **Note:** The response must have a dollar sign with <u>at least one</u> of the prices in Part 2. If this condition is not met it is a 4/3 issue.

Mathematics Item C—2014 Grade 3

C Trevor helps to put rope measured in yards around garden plots. The rope is sold by the foot. He uses the table below to determine how much rope to buy.

Number of Yards	Number of Feet
1	
2	
3	
4	
5	

1. Copy the table in your answer document and complete it to find the number of feet in the given number of yards.
2. The total number of yards around all of the garden plots is 15 yards. How many feet of rope will Trevor need? Show your work and/or explain your answer.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

Mathematics Item C Scoring Rubric—2014 Grade 3

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 is 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" is assigned for the item.)

Solution and Scoring

Part	Points
1	**2 points possible:** 2 points: **5 correct table values** Give credit for the following or equivalent: Ex. 3, 6, 9, 12, 15 **OR** 1 point: **3 – 4 correct table values** Give credit for the following or equivalent: Ex. 3, 6, 9
2	**2 points possible:** 1 point: **Correct answer:** **45** (feet) *Or correct answer based on previous parts* **AND** 1 point: **Correct and complete explanation** or work shown *Work may contain an arithmetic or copy error* Give credit for the following or equivalent: Ex. $3 \times 15 = \#$ Ex. From Part 1 table: $1 + 2 + 3 + 4 + 5 = 15$ (yards) $3 + 6 + 9 + 12 + 15 = 45$ (feet) Both steps required

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Mathematics Reference Sheet
Grade 3

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

1 foot = 12 inches
1 yard = 3 feet

1 cup = 8 ounces (oz)
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 kilogram = 1000 grams
1 liter = 1000 milliliters

1 pound (lb) = 16 ounces (oz)

The Arkansas English Language Arts Curriculum Framework—Reading Strand*

Content Standards	Student Learning Expectations
9. Comprehension: Students shall apply a variety of strategies to read and comprehend printed material.	5. Generate questions and check the text for answers. 7. Ask questions and support answers by connecting prior knowledge with literal and inferential information found in the text. 8. Discuss why an author may have selected particular words or phrases. 9. Draw inferences, such as conclusions or generalizations, and support them with text evidence and/or personal experiences. 10. Organize information and events logically. 11. Determine the purpose for reading. 13. Summarize major points found in nonfiction materials.
10. Variety of Text: Students shall read, examine, and respond to a wide range of texts for a variety of purposes.	6. Use graphic organizers including character webs and K-W-L charts to make meaning of the reading selection. 9. Recognize *expository* text structures which are sequential. 20. Use a dictionary, index, thesaurus, encyclopedia, and online reference materials to enhance reading.
11. Vocabulary, Word Study, and Fluency: Students shall acquire and apply skills in vocabulary development and word analysis to be able to read fluently.	1. Use context clues to determine the precise meaning of new words. 2. Use knowledge of irregular plurals, verb tenses, *homonyms, homographs, homophones*, prefixes, and suffixes to read with meaning. 3. Recognize the relationship between a pronoun and its referent. 5. Recognize and use variations of print. 9. Categorize words as nouns, action verbs, synonyms, and antonyms during discussions about words.

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

Released Items for Reading*

Item	Strand	Content Standard	Student Learning Expectation
1	R	9	11
2	R	10	20
3	R	10	6
4	R	11	3
5	R	9	10
6	R	9	7
7	R	9	9
8	R	11	1
A	R	9	13
9	R	10	6
10	R	11	2
11	R	9	7
12	R	11	1
13	R	11	9
14	R	9	7
15	R	9	8
16	R	11	5
B	R	9	10

* Only the predominant Strand, Content Standard, and Student Learning Expectation are listed for the English Language Arts items.

Non-Released Items for Reading*

Strand	Content Standard	Student Learning Expectation
R	10	9
R	9	9
R	11	3
R	9	10
R	9	5
R	9	9
R	10	6
R	9	9
R	9	9

* Only the predominant Strand, Content Standard, and Student Learning Expectation are listed for the English Language Arts items.

The Arkansas English Language Arts Curriculum Framework—Writing Strand*

Content Standards	Student Learning Expectations
4. Process: Students shall employ a wide range of strategies as they write, using the writing process appropriately.	11. Edit for spelling of appropriate words, *usage*, punctuation, capitalization, and sentence structure.
5. Purpose, Topics, Forms, and Audiences: Students shall demonstrate competency in writing for a variety of purposes, topics, and audiences employing a wide range of forms.	1. Write for a specific purpose and audience.
6. Conventions: Students shall apply knowledge of Standard English conventions in written work.	6. Use the pronouns *I* and *me* correctly in sentences.
7. Craftsmanship: Students shall develop personal style and voice as they approach the craftsmanship of writing.	4. Use transition words. 5. Make word choices to accurately convey the message.

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

Released Items for Writing*

Item	Strand	Content Standard	Student Learning Expectation
1	W	7	5
2	W	7	4
3	W	6	6
4	W	5	1

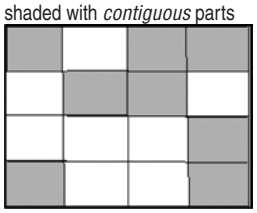
* Only the predominant Strand, Content Standard, and Student Learning Expectation are listed for the Writing items.

Non-Released Items for Writing*

Strand	Content Standard	Student Learning Expectation
W	4	11
W	4	11
W	4	11
W	4	11

* Only the predominant Strand, Content Standard, and Student Learning Expectation are listed for the Writing items.

The Arkansas Mathematics Curriculum Framework*

Strands	Content Standards	Student Learning Expectations
1—Number and Operations (N)	1. Number Sense: Students shall understand numbers, ways of representing numbers, relationships among numbers, and number systems.	2. Use the *place value* structure of the base ten number system and be able to represent and compare *whole numbers* including thousands (using models, illustrations, symbols, *expanded notation* and problem solving). Ex. 2,308___2,038 4. Represent fractions (halves, thirds, fourths, sixths and eighths) using words, numerals and physical models. Ex. • identify and illustrate parts of a whole and parts of sets of objects • recognize that a fractional part of a rectangle does not have to be shaded with *contiguous* parts  6. Use the *place value* structure of the base ten number system and be able to represent and compare decimals to hundredths in money (using models, illustrations, symbols, *expanded notation*, and problem solving). Ex. $193.76 ____ $139.67 7. Write a fraction that is *equivalent* to a given fraction with the use of models. Ex. 1/2 = 4/8 = 8/16
	2. Properties of Number Operations: Students shall understand meanings of operations and how they relate to one another.	1. Develop an understanding of the *commutative* and *identity properties* of *multiplication* using objects. 4. Model, represent and explain division as measurement and partitive division including equal groups, related rates, price, *rectangular arrays* (area model), combinations and multiplicative comparison. Ex. • translate contextual situations involving division into conventional mathematical symbols • explain how a remainder may impact an answer in a real world situation
	3. Numerical Operations and Estimation: Students shall compute fluently and make reasonable estimates.	1. Develop, with and without appropriate *technology, computational fluency,* in multi-*digit* addition and subtraction through 999 using contextual problems. • *strategies* for adding and subtracting numbers • *estimation* of sums and *differences* in appropriate situations • relationships between operations 2. Develop, with and without appropriate *technology*, fluency with basic number combinations for multiplication and division facts (10 x 10). 3. Develop, with and without appropriate *technology*, *computational fluency* in multiplication and division up to two-*digit* by one-*digit* numbers using two-*digit* by one-*digit* number *contextual problems* using • *strategies* for multiplying and dividing numbers, • performance of *operations* in more than one way, • *estimation* of *products* and *quotients* in appropriate situations, and • relationships between operations. 4. Solve simple problems using one operation involving addition and subtraction using a variety of methods and tools (e.g., objects, mental computation, paper and pencil and with and without appropriate *technology*).

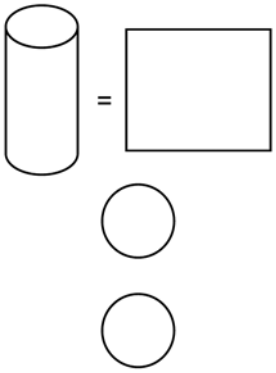
* The Content Standards and Student Learning Expectations listed are those that specifically relate to the released and non-released test items in this booklet.

The Arkansas Mathematics Curriculum Framework* (continued)

Strands	Content Standards	Student Learning Expectations
2—Algebra (A)	4. Patterns, Relations, and Functions: Students shall recognize, describe, and develop patterns, relations, and functions.	1. Count forward and backward when given a number less than or equal to 1000. ____, 399, ____ , ____ 2. Relate *skip-counting patterns* to multiplication. 3. Identify a number that is more or less than any *whole number* up to 1000 using *multiples* of ten and/or 100. Ex. 100 less than 587 is 487 10 more than 196 is 206 4. Use repeating and growing numeric or geometric *patterns* to solve problems. 5. Determine the relationship between sets of numbers by selecting the rule (1 step rule in words).
	5. Algebraic Representations: Students shall represent and analyze mathematical situations and structures using algebraic symbols.	1. Select and/or write number sentences (*equations*) to find the unknown in problem-solving contexts involving two-*digit* times one-*digit* multiplication using appropriate labels. 2. Express mathematical relationships using *equalities* and *inequalities* (>, <, =, ≠). Ex. 4 x 9 ____ 36 – 3 3. Use a symbol to represent an unknown quantity in a number sentence involving *contextual situations* and find the value. Ex. Mary buys *two* bags of candy with the same number of pieces in each bag. If she has sixteen pieces in all, how many pieces of candy are in each bag? 2 x ˜ = 16
	6. Algebraic Models: Students shall develop and apply mathematical models to represent and understand quantitative relationships.	1. Complete a chart or table to organize given information and to understand relationships and explain the results. Ex. The library has 5 workstations. Four students can sit at each station. How many students can sit at all the stations? stations / students 1 / 4 2 / ? 3 / ? 4 / ? 5 / ?
	7. Analysis of Change: Students shall analyze change in various contexts.	1. Identify the change over time. Ex. We have recorded the morning and afternoon temperatures all week. Which day had the greatest change in temperature?

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

The Arkansas Mathematics Curriculum Framework* (continued)

Strands	Content Standards	Student Learning Expectations
3—Geometry (G)	8. Geometric Properties: Students shall analyze characteristics and properties of 2- and 3-dimensional geometric shapes and develop mathematical arguments about geometric relationships.	1. Compare, contrast and build *three-dimensional* solids by investigating the number of *faces, edges*, and *vertices* on models. 2. Identify regular *polygons* with at least 4 sides (square, pentagon, hexagon and octagon). 3. Identify and draw *line*, *line segment* and *ray* using appropriate labels. 4. Identify and draw *intersecting* and *parallel lines*.
	9. Transformation of Shapes: Students shall apply transformations and the use of symmetry to analyze mathematical situations.	1. Draw one or more *lines of symmetry* in a *polygon.* 2. Describe the motion (*transformation*) of a *two-dimensional* figure as a *flip* (*reflection*), *slide* (*translation*) or *turn* (*rotation*).
	10. Coordinate Geometry: Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems.	1. Locate and identify points on a *coordinate grid* and name the *ordered pair* (*quadrant* one only) using common language and geometric vocabulary (horizontal and vertical).
	11. Visualization and Geometric Models: Students shall use visualization, spatial reasoning, and geometric modeling.	1. Replicate a *three-dimensional* model composed of *cubes* when given a physical model. 2. Determine which new figure will be formed by combining and subdividing models of existing figures. Ex. 

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

The Arkansas Mathematics Curriculum Framework* (continued)

Strands	Content Standards	Student Learning Expectations
4—Measurement (M)	12. Physical Attributes: Students shall use attributes of measurement to describe and compare mathematical and real-world objects.	1. Determine the number of days in a month, days in a year, and identify the number of weeks in a year. 3. Distinguish the temperature in contextual problems using the Fahrenheit scale on a thermometer. Ex. If I need to wear mittens and a scarf, what temperature would it be? 35° F or 70° F? 5. Create and complete a conversion table (from larger unit to smaller unit) to show relationships between units of measurement in the same system. Ex. change feet to inches using multiplication
	13. Systems of Measurement: Students shall identify and use units, systems, and processes of measurement.	2. Tell time to the nearest one-minute intervals. 4. Determine *elapsed time* in *contextual situations* to five-minute intervals. End time unknown Ex. Lunch began at 10:45 and lasted 25 minutes. When was lunch over? Elapsed hours unknown Ex. John went to Tim's house at 3:15. He left at 4:20. How long did he stay? 9. *Estimate* and measure length, *capacity/volume* and *mass* using appropriate customary units. Length: 1 inch Perimeter: inches, feet, etc. Area: square inches (use models) Weight: pounds/ounces Capacity: cups, pints, quarts, gallons 10. Find the *perimeter* of a figure by measuring the length of the sides.
5—Data Analysis and Probability (D)	14. Data Representation: Students shall formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.	1. Design a survey question after being given a topic and collect, organize, display and describe simple data using *frequency tables* or *line plots*, *pictographs*, and *bar graphs*.
	15. Data Analysis: Students shall select and use appropriate statistical methods to analyze data.	1. Read and interpret *pictographs* and *bar graphs* in which symbols or intervals are greater than one. 2. Match a set of data with a graphical representation of the data.
	16. Inferences and Predictions: Students shall develop and evaluate inferences and predictions that are based on data.	1. Make predictions for a given set of data.
	17. Probability: Students shall understand and apply basic concepts of probability.	1. Use fractions to predict *probability* of an event. Ex. If there were 5 blue tiles, 3 red tiles, and 2 green tiles in a bag, what is the *probability* you would pull out a green tile? 2. Conduct simple *probability* experiments, record the data and draw conclusions about the likelihood of possible *outcomes* (roll number *cubes*, pull tiles from a bag, spin a spinner, or determine the fairness of games). 3. Use physical models, pictures, and organized lists to find combinations of two sets of objects. Ex. Sarah has a red shirt, white shirt, and blue shirt. She also has a pair of khaki pants and blue pants. How many different combinations of shirts and pants can she wear?

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

Released Items for Mathematics*

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

* Only the predominant Strand, Content Standard, and Student Learning Expectation are listed for the Mathematics items.

Non-Released Items for Mathematics*

Strand	Content Standard	Student Learning Expectation
A	4	2
G	8	2
A	6	1
D	15	1
M	12	3
G	8	3
A	4	3
D	14	1
A	4	5
D	17	3
G	9	1
N	3	2
D	16	1
M	13	4
N	3	4
N	3	3
M	13	9
A	4	4
N	1	4
N	1	2
N	2	4
N	3	1

* Only the predominant Strand, Content Standard, and Student Learning Expectation are listed for the Mathematics items.

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