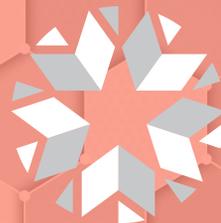


OKLAHOMA SCHOOL TESTING PROGRAM

PARENT, STUDENT, AND TEACHER GUIDE

**ENGLISH LANGUAGE ARTS,
MATHEMATICS & SCIENCE**

2021–2022 **GRADE 5**



OKLAHOMA
Education

**Oklahoma School Testing Program
Administration Dates
2021–2022 School Year
English Language Arts, Mathematics,
and Science**

**Online Testing Window
April 20–May 17, 2022**

**Paper Testing* Window
April 20–May 3, 2022**

*under special circumstances only



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JOY HOFMEISTER

STATE SUPERINTENDENT *of* PUBLIC INSTRUCTION
OKLAHOMA STATE DEPARTMENT *of* EDUCATION

Dear Families and Educators,

In order to expand instructional time and optimize student learning, the Oklahoma School Testing Program (OSTP) takes place in the final weeks of the school year for elementary and middle school students. Districts may select the dates that best fit their academic calendars within the approved testing window located at <https://sde.ok.gov/office-assessments>. Preliminary test results will be available online in June to families through the Oklahoma Parent Portal.

To access the Oklahoma Parent Portal and view past or new test results for your student, visit <https://okparentportal.emetric.net/login>. To create an account, you will need your student's 10-digit Student Testing Number (STN) and date of birth. If you do not know your student's STN please contact your student's school. The Oklahoma Parent Portal can help families monitor academic progress over time as well as provide specific information on needed support or enrichment to keep the momentum building.

For an overview of the tests and digital version of the OSTP Parent, Student and Teacher Guides please visit <https://sde.ok.gov/oklahoma-school-testing-program-ostp-families>. In the guides, you will find an explanation of what is covered in each test and sample questions to become familiar with the test format. These will help you and your student understand what to expect.

OSTP tests measure your student's progress in learning the Oklahoma Academic Standards for English language arts, mathematics and science. To learn more about the subject standards, which show what students should know and be able to do in each grade level, please visit <https://sde.ok.gov/oklahoma-academic-standards>.

If you have questions, please contact your school or the State Department of Education at (405) 521-3341 or assessments@sde.ok.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Joy Hofmeister".

Joy Hofmeister
State Superintendent of Public Instruction

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THE OKLAHOMA SCHOOL TESTING PROGRAM

Federal law requires all students to be assessed in English Language Arts (ELA) and Math each year in Grades 3–8 and once in high school. Federal law also requires students to be assessed in Science once in Grades 3–5, 6–9, and 10–12. The grade and subject level tests delivered through the Oklahoma School Testing Program (OSTP) meet federal law. Oklahoma educators were instrumental in building our state tests to ensure alignment to our Oklahoma Academic Standards (OAS). State tests provide a common measure of students’ performance relative to our academic standards. The Oklahoma Academic Standards (OAS) serve as a road map for what students should know and be able to do at each grade-level. Measuring real-world skills like problem-solving and critical thinking, state tests provide a valid way to measure students’ progress in gaining the knowledge, skills, and abilities they need to be ready for the next grade, course, or level. Results from state tests can be used to inform school or district level changes to programs and curriculum. They also help schools measure how students in a given class, school, or district are performing in relation to other students who take the same test. As such, OSTP State Tests serve as a component of the state’s accountability system—the Oklahoma School Report Card.

This year, students in Grade 5 will take assessments in English Language Arts (ELA), Mathematics, and Science. This *Parent, Student, and Teacher Guide* contains information to give you an idea of what your student is learning and being tested on and how you can help at home.

Helping Your Student Prepare

As a parent, there are a number of ways you can support your student’s learning habits on a daily basis that will help him or her be more prepared when it’s time to be tested.

Here are some ideas to consider before your student takes a test.

- Make sure your student gets plenty of rest and has a well-balanced diet.
- Reassure your student that the test is just one opportunity to show what he or she knows. Classwork, projects, and other tests also show how much a student has learned throughout the year.

GRADE 5 ENGLISH LANGUAGE ARTS (ELA)

What is my student learning?

In fifth grade, children will read a variety of increasingly difficult materials, including newspapers, magazines, books, plays, biographies, poetry, myths, legends and other informational and technology-based content. They will read for different purposes, such as to find information or for fun. At this age, children are able to focus on elements of writing including style, structure and the author's purpose for writing. They can explore words with multiple meanings and make educated guesses about what words mean and learn the places and countries they came from.

How can I help my student at home?

- Write summaries that follow a logical order and include the main points and details of a piece of writing.
- Develop stories with well-thought-out characters, descriptive settings and interesting plots.
- Use word parts such as affixes, roots and stems to determine the meaning of words.
- Develop a variety of sentences of different lengths with correct structure.
- Provide evidence (facts, examples and details) from a piece of writing to support ideas and draw conclusions.
- Develop longer writing pieces through editing and rewriting to create clear and organized work.

How can I help increase my student's reading comprehension?

Reading is a building block for success in all school subjects and a critical skill that develops with time and practice. Encourage your child to read for pleasure, and be a good role model by reading things you enjoy.

Use the following questions to help fifth-graders understand what they are reading.

Before Reading

- Is this the type of book you usually choose? Why or why not?
- By looking at the cover, what do you think the author's reason for writing the book might be?
- What do you think the book will be about?

During Reading

- Will you read a short section to me with feeling in your voice?
- What do you do when you don't understand what you just read?
- What resources can you use to understand words you aren't familiar with?

After Reading

- Give a summary of the book in 10 words.
- What problem did the main character face? What was the solution to that problem?
- What message is the author sharing with the reader? Why do you think that?

English Language Arts Practice Questions

The OSTP Grade 5 ELA Assessment consists of selected-response (multiple-choice) and an extended constructed response question designed to measure our Oklahoma Academic Standards. The practice questions you see here represent the types of questions and interactions your student will see when they take the state test. The tests are designed to be administered on the computer and feature a variety of tools and interactive questions that are more engaging and aligned with 21st century teaching and learning practices. The OSTP Practice Test platform can be accessed using the information shown below:

URL: <https://okpracticetest.cognia.org/student/login>

Login credentials are not required for the Practice Test. Use the drop-down menu under “Select a Test” to select OSTP Practice Test. Then click “Go.”

Note: If login credentials are requested, clear your browser’s cache and relaunch the Practice Test.

A student’s performance on the sample items provided in the OSTP Practice Test platform and in this guide does not predict their overall performance on the OSTP Assessment. The purpose of the sample items is to allow students and parents to familiarize themselves with the types of questions that may be seen. An explanation as to why a particular response is correct or incorrect is located at the end of this guide with the answer key.

For more information about the Grade 5 ELA Standards and/or Assessment, visit the Test and Item Specs at https://sde.ok.gov/sites/default/files/documents/files/OK_21-22_TIS_ELA_G5_ADA.pdf.



Directions

Read each question and choose the best answer. Then mark your answer on the answer document. Make sure you find the question number on the answer document that matches the question number in English Language Arts Section 1.

1 Read the sentence.

“Ouch! That really hurt!” I cried after I fell off my bike.

Why is the interjection “Ouch!” used in the sentence?

- A** to show pain
- B** to show worry
- C** to give directions
- D** to give suggestions



2 Read the sentence.

Everybody in the auditorium were
asked to stand.

What change, if any, should be made to were in the sentence?

- F** am
- G** was
- H** are
- J** no change



Read the passage. Then answer the questions that follow.

Scratch Cooking

- 1 On Saturday, Aunt Lila came to stay with Sophie while her father and mother went to visit friends. Immediately, Aunt Lila took charge of making dinner. She placed chicken in a big pot, supplied Sophie with an apron, and then announced that tonight's menu would be chicken and noodles "from scratch."
- 2 "Nothing can compete with scratch cooking," said Aunt Lila, lifting the chicken out of its broth and arranging it on a platter. "Now for the noodles."
- 3 "I'll get a bag of noodles from the cupboard," said Sophie.
- 4 "Are you kidding? We're going to make our own noodles!" Aunt Lila said with the enthusiasm of a cheering fan.
- 5 "Making noodles from scratch seems like a lot of work," grumbled Sophie.
- 6 "Positive results require hard work," declared Aunt Lila. "We'll need some flour, salt, an egg, a little milk, and a rolling pin."
- 7 Aunt Lila mixed the flour and salt in a big bowl and with a spoon made a little crater in the middle. She told Sophie to beat the egg in a bowl, measure two tablespoons of milk, and then put the egg and milk into the crater in the flour and stir.
- 8 Sophie stirred and stirred, and the dough became stiffer and stiffer. Sophie's hands began to hurt. "It's too hard to stir," she complained. "Isn't it ready yet?"
- 9 "Good things are worth the effort," replied Aunt Lila, dusting the counter with flour. She then took the bowl from Sophie, lifted out the dough, and positioned it on the cutting board. "Now we must knead the dough." She showed Sophie how to use the palms of her hands to press out the dough and then fold it until it was stretchy like a big rubber band.
- 10 Next, using a rolling pin, Aunt Lila rolled the dough forward and back, forward and back in a repetitive rhythm, until it finally became a large rectangle. She handed the rolling pin to Sophie and said, "Your turn."
- 11 Sophie attempted to roll the dough exactly as Aunt Lila had done. The dough fought against Sophie's efforts. "This sure is hard work," she said.
- 12 "Keep rolling," said Aunt Lila, "because the dough has to be extremely thin."



- 13 Sophie rolled and rolled until the dough was as thin as a sheet of paper. Finally, Aunt Lila examined the dough, gave an approving smile, and said, "Now we cut the noodles."
- 14 Aunt Lila picked up one edge of the dough and rolled the rectangle into a long rope. With a sharp knife, she sliced a thin chunk of dough from the end of the rope. The chunk of dough was coiled up like a snail. Handing the dough to Sophie, she instructed, "Shake it out."
- 15 Sophie took one end of the spiraled dough and shook it until it became a long golden ribbon. "It's a noodle!" she said, her eyes shining in amazement. "Can I cut some?"
- 16 Aunt Lila helped Sophie cut the rest of the dough rope into many small pieces. Together they unrolled each piece until a huge pile of golden noodles blanketed the counter. Aunt Lila dusted the noodles with some more flour while Sophie spread out the noodles so they would not stick together.
- 17 "We'll let the noodles dry a little as we take the chicken off the bone," said Aunt Lila. "Then we'll cook the noodles in the chicken broth, and when they're done, we'll add the chicken."
- 18 For dinner that night Sophie had a big bowl of chicken and noodles.
- 19 "So what do you think of our meal?" asked Aunt Lila, her eyes sparkling.
- 20 With a grin Sophie proclaimed, "Scratch cooking—mmm!" She swallowed her last bite. "May I please have another helping?"





3 Based on the Latin word *repetere*, which means “to do again,” the word repetitive from paragraph 10 means

- A to repair something.
- B to repeat something.
- C to rewind something.
- D to remove something.

4 Read the sentence.

The dough fought against Sophie’s efforts.

What does the personification of the dough suggest?

- F The dough does not have all the ingredients.
- G The dough is not ready to be rolled out.
- H The dough is difficult to knead.
- J The dough prefers Aunt Lila.



5 Which sentence from the passage best suggests that Aunt Lila is determined?

- A** “Nothing can compete with scratch cooking,’ said Aunt Lila, lifting the chicken out of its broth and arranging it on a platter.”
- B** “Are you kidding? We’re going to make our own noodles!’ Aunt Lila said with the enthusiasm of a cheering fan.”
- C** “Good things are worth the effort,’ replied Aunt Lila, dusting the counter with flour.”
- D** “We’ll let the noodles dry a little as we take the chicken off the bone,’ said Aunt Lila.”

6 How does the reader know that Sophie is unhappy at first about making noodles from scratch?

- F** She tries to stop helping.
- G** She complains to her aunt.
- H** She does a poor job of rolling.
- J** She asks her aunt lots of questions.



Read the passage. Then answer the questions that follow.

Catch a Burp From a Soft Drink

dissolve—to mix evenly

carbon dioxide—a colorless, odorless gas

saliva—the liquid in your mouth

acid—a sour chemical substance

Study the gas that puts the fizz in soda pop.

- 1 Burping is not polite in public, even for a soda bottle. And when a soda bottle burps, it can make a mess. So you must do this experiment over the kitchen sink. It will show you why you sometimes feel the urge to burp after having a soft drink.
- 2 The experiment is based on the fact that salt will release gas that has been dissolved in water. If you add a teaspoon of salt to a freshly opened bottle of soda pop, gas and foam will come rushing out. You can use the following trick to catch the gas in a balloon.
- 3 Choose a new balloon or a used one that you know is dry inside. Its neck must be large enough to fit over the mouth of a small, full soda bottle (one that holds twenty ounces or less). Put about a teaspoonful of salt into the balloon.
- 4 Remove the cap from the bottle. Now ask a friend to hold the bottle steady over the sink while you fit the opening of the balloon onto the bottle. Be sure to keep the round end of the balloon hanging down so that no salt falls into the soda yet.
- 5 As you hold the balloon tightly in place on the bottleneck, lift the end of the balloon straight up so that the salt pours into the soda.
- 6 Now you will see the burp going up into the balloon. Foam will go up, too. As you watch, the liquid from the foam will drain back into the bottle, and you will be left with a balloon full of gas.
- 7 Most of the gas in your balloon is carbon dioxide, which is used to make all carbonated drinks. Since you swallow about this much gas with each soda, you can see why you feel the need to burp afterward.
- 8 Carbon dioxide is an interesting gas. You have already seen that it can be dissolved in water. All of the gas in the balloon was dissolved in the soft drink.



- 9 To taste the gas, pour a small drinking cup about one-quarter full with fresh soda, then add salt into the soda a little at a time until the soda no longer fizzes. You will have a cup full of carbon dioxide with some flat, salty soda pop in the bottom. (The gas is heavy, so it will force the air out of the cup.) Taste some of the invisible gas the same way you would taste a drink. It can't hurt you. But it will taste pretty sour because carbon dioxide dissolves in water (such as your saliva) to make a mild acid.
- 10 Now you know why sodas fizz and why, after you drink a soda, the burp tastes sour.





7 Which detail from the passage best supports the idea that carbon dioxide rises?

- A** If you add a teaspoon of salt to a freshly opened bottle of soda pop, gas and foam will come rushing out.
- B** As you watch, the liquid from the foam will drain back into the bottle, and you will be left with a balloon full of gas.
- C** (The gas is heavy, so it will force the air out of the cup.)
- D** But it will taste pretty sour because carbon dioxide dissolves in water (such as your saliva) to make a mild acid.

8 How has the author organized the passage?

- F** through comparison and contrast
- G** with questions and answers
- H** by problem and solution
- J** in sequential order



9 Which example would be the best source of experiments with different gases?

- A a book, *How Science Uses Gases*
- B a Web site, *Science: Fun with Gases*
- C a newspaper article, "The Importance of Gases"
- D an encyclopedia article, "Gases in the Environment"

10 Which resource would be most relevant for a student to use to find information about carbon dioxide?

- F atlas
- G thesaurus
- H dictionary
- J encyclopedia





Practice Writing Task

Presented on the following pages is a practice Writing Task. This may be used as a classroom activity to help students prepare for the state assessment.

WRITER'S CHECKLIST

- Is the topic addressed in my writing?
- Have I written to the requested mode?
- Have I included information from both passages in my writing?
- Are my ideas expressed in complete sentences?
- Do I explain or support my ideas with enough details?
- Are the details I included directly related to my topic?
- Are my ideas arranged in clear order for the reader to follow?
- Do my paragraphs have topic sentences when appropriate?
- Do I start each sentence with a capital letter and capitalize other appropriate words?
- Have I used correct punctuation at the end of each sentence and within each sentence?
- Is my spelling correct throughout my writing?
- Will the reader be able to read my handwriting?

**Directions:**

Today you will be tested in English Language Arts. For this test, you will read two passages, then respond to a writing prompt. It is important that you do your best. If you are not sure of the writing prompt, you should still attempt to answer it.

You may use your planning page for planning. You might consider using a web, cluster, list, story map, or any other method to help you organize your writing. Be sure to write your answer on the five lined pages provided in your answer document.

Using the Writer’s Checklist tool, check your writing for paragraphing, grammar, spelling, punctuation, and the use of Standard English. Only your writing in the answer space will be scored.

When scorers evaluate your writing, they will look for evidence that you can:

- **address the prompt;**
- **develop your ideas thoroughly;**
- **organize your ideas;**
- **stay focused on your purpose for writing;**
- **make your writing thoughtful and interesting; and**
- **use correct spelling, capitalization, punctuation, grammar, usage, and sentence structure.**

**Practice Writing Topic:**

Write an informative essay explaining how camouflage and vision work together to help animals survive in their environments. Be sure to use information from both passages in your paper.

Before you begin planning and writing your paper, read the two passages:

- 1. Animals in Disguise**
- 2. Seeing Animals Differently**

Animals in Disguise

- 1 Many animals are masters of disguise. Some change their skin color. Others shape themselves in ways that help them look like their surroundings. These different forms of camouflage help animals survive.
- 2 The type of camouflage an animal develops depends mostly on its predators and its environment. Animals change in different ways to trick their predators. In most cases, their camouflage is designed to match their environment. This helps them become more difficult for their predators to spot.

Texture

- 3 Another way animals blend into their environment is through texture. Some insects have smooth shells that make them look like the leaves around them. Other animals, such as squirrels, have rough and uneven fur. This helps them blend in with tree bark, so they are nearly impossible to see when they hide in trees.

Design

- 4 Even pretty designs on some animals can be a type of camouflage. Animals that live in areas with tall grass may have stripes to help them hide. These stripes can confuse predators. A group of zebras with black and white stripes tricks the lion's eyes into thinking the group is a single large animal. This makes it difficult for the lion to hunt just one zebra.

**Color**

- 5 Animals may also use color as a disguise. The white polar bear's fur lets it blend into the snowy land. This helps the polar bear sneak up on its prey. Surprisingly, the polar bear's skin is black, but it looks white because of the way the light bounces off its skin and fur. Since some animals live in places where their surroundings change with the seasons, the color of their fur must also change. In order to blend in, these animals usually grow new fur every few months.
- 6 Other animals change their skin color in order to hide from predators. The cuttlefish is able to change its skin color by flexing its muscles. The cuttlefish has several small blobs on its skin that are colored with a special material called pigment. The blobs are so small that the color is hard to see when the muscles are relaxed. When the cuttlefish squeezes certain muscles, it forces the blobs to spread out. While this happens, more pigment is pushed in. The spreading blobs give the cuttlefish a whole new color. When the cuttlefish relaxes its muscles, the blobs become small again. The cuttlefish then returns to its normal color. In addition to helping the cuttlefish hide, scientists believe the changing colors help the cuttlefish communicate with each other.
- 7 The cuttlefish is not the only animal that can change its color. Nudibranches, which are small sea creatures, also have this amazing ability. To change color, the nudibranch eats a certain type of coral. After eating the coral, the nudibranch changes to match the color of the coral it just ate. Since the nudibranch also lives in this coral, the new color is the perfect disguise.

Shape

- 8 Other animals use shape as a disguise. There are some that look like they are part of the trees or the grass. Some animals even look like certain predators. For example, the hawk moth caterpillar looks like a snake head, so many of its predators leave it alone. Katydid use a similar trick. They look like tree leaves, so predators will move right past them without even noticing.



Seeing Animals Differently

- 1 From insects to mammals, animals have found ways to help them survive. One way is by developing interesting ways to see and use their eyes.
- 2 Many animals have eyes that see color differently than humans. Some are colorblind which means they cannot see certain colors. Other animals can see certain colors more easily than humans. The gecko, for example, has nighttime color vision that is almost 350 times better than that of humans.
- 3 Other animals can see light that is invisible to humans. Certain species of snakes have special areas called pits that allow them to see in infrared. This means they can actually see heat. Having this ability helps the snakes find their prey while staying safe from predators. Butterflies can see another type of light that cannot be seen by humans. This light is called ultraviolet light. Butterflies also see in all directions at the same time. The trade-off is that their vision is somewhat blurry.
- 4 Some animals do not have special vision. Instead, they have unusual eye features that help them survive. Frogs' eyes bulge out from their heads so they can see above the water while their bodies are underwater. They also have two sets of eyelids. One set is clear. When frogs close the clear set of eyelids, they can see underwater while keeping their eyes protected.
- 5 The cuttlefish can change the shape of its eye. It can see behind itself and in front of itself at the same time. Although the cuttlefish is colorblind, it is able to see well in dim light. Like the cuttlefish, the chameleon is able to look in two directions at the same time. This helps the chameleon catch insects as they fly by.
- 6 Even goats can see around themselves better than humans. While humans can see at a 185-degree angle, goats can see at a 330-degree angle. This means the goat can almost see completely behind itself without turning its head. The owl, on the other hand, is not able to move its eyes to see around itself. Instead, the owl can turn its head almost completely around to see what is behind it.



PRACTICE PLANNING PAGE

Writing Topic:

Write an informative essay explaining how camouflage and vision work together to help animals survive in their environments. Be sure to use information from both passages in your paper.



In the space below, you may PLAN your composition. You might consider using a web, cluster, list, story map, or any other method to help you organize your writing. Do not write your final draft on these pages. Any writing on these pages will not be scored. Write your composition on the lined pages that follow.



PRACTICE PLANNING PAGE

A large, empty rectangular box with a black border, intended for students to write their practice planning notes.

**Example of a Well-Written Response**

Presented in this section is an example of a well-written paper.

Example Writing Topic:

Write an informative essay explaining how camouflage and vision work together to help animals survive in their environments. Be sure to use information from **both** passages in your paper.

Example Response

Have you ever seen a butterfly or a frog and wondered how it survives in this cruel, harsh world? Well, it's because they have some tricks to help them out! Animals use camouflage and special vision to keep themselves alive. Today I learned that those tricks both work together to help the animals.

Squirrels, zebras, polar bears, and other animals all use camouflage to survive. They look like things in nature. It's almost like they're invisible! Animals use camouflage to hide from predators, and to hunt their prey. I remember one time when I was little, I asked my mom why the army wore camouflage clothing. She told me that it was to hide from the enemies. I feel like that's exactly what animals do!



Example Response (continued)

Snakes, butterflies, and goats, use vision to help them survive. Most animals with special vision can see all around themselves. Others, like the snake, can see heat. Imagine just looking out your window to check the temperature! Frogs have two eyelids to help them see underwater, like built-in goggles. Owls have good vision, but can't move their eyes. That's why they can turn their heads all the way around. This helps them stay aware of others.

Vision and camouflage both work together by keeping animals from going extinct. The animals that have gone extinct, probably didn't have camouflage or good vision. I noticed that the cuttlefish has both! That's probably why they are still alive today. Also, if animals didn't have these tricks, the food chain would get messed up. Animals would go extinct, and their predators would starve. Their prey would really increase, and it



Example Response (continued)

all be a big, huge mess!

Now you know why and how ~~most~~ animals survive. I hope that in a million years, all species are still alive. I hope the lions are still roaring, and the dogs are still barking. So next time you see an animal, remember that it might not survive without some very special tricks to help them out!



OSTP Grade 5 Holistic Writing Rubric



Score	Description
4	<ul style="list-style-type: none"> • Content is well-suited for the audience and task/purpose and the writing maintains a clear focus; ideas are fully developed. • Organization is strong, creating unity and coherence; contains an engaging introduction, effective conclusion and logical sequencing with smooth, effective transitions. • Word choice is varied and conveys meaning; language is effective and connects to the audience. • Sentence structure is clear and correct, and the writing demonstrates a rich variety of structures, types, and lengths; any errors are minor. • The writing demonstrates appropriate control of grammar, usage, and mechanics; errors are minor and do not affect readability.
3	<ul style="list-style-type: none"> • Content is adequate for the audience and task/purpose and the writing has an evident focus; ideas are somewhat developed. • Organization is adequate, creating some unity and coherence; introduction and conclusion are appropriate, and sequencing is logical with limited transitions. • Word choice is general and includes some variety; language is adequate and attempts to connect to the audience. • Sentence structure is correct and the writing demonstrates an adequate variety of structures, types, and lengths; errors may be present but do not interfere with fluency. • The writing demonstrates adequate control of grammar, usage, and mechanics; errors are noticeable but do not significantly affect readability.
2	<ul style="list-style-type: none"> • Content is inconsistent for the audience and task/purpose and the writing has an unclear focus; ideas are minimally developed and may be listed. • Organization lacks clarity, demonstrating weak unity and coherence; introduction and conclusion are ineffective, there is little or random sequencing, and transitions are limited. • Word choice lacks precision and variety; language may be inappropriate, ineffective, simplistic, or vague. • Sentence structure lacks control and the writing demonstrates limited variety of structures, types, and lengths; errors interfere with fluency. • The writing demonstrates limited control of grammar, usage, and mechanics; errors are distracting and may interfere with readability.
1	<ul style="list-style-type: none"> • Content is irrelevant for the audience and task/purpose and the writing has a confusing focus; ideas are repetitive or lack development. • Organization lacks logical direction; there is no evidence of unity or coherence. • Word choice is extremely limited or inaccurate; language fails to communicate meaning. The writing may be too short to demonstrate variety. • Sentence structure is inappropriate and the writing demonstrates no variety of structures, types, and lengths; errors interfere with fluency. The writing may be too short to demonstrate control of sentence structures. • The writing demonstrates minimal control of grammar, usage, and mechanics; errors are numerous and impede readability.

Responses receive a score designation of “unscorable” and performance level of "Below Standard" if they meet any of the following conditions:

- restatement of the task prompt) or a refusal
- in a language other than English
- illegible, incomprehensible, or otherwise indecipherable
- about a topic different from the assigned task



Grade 5 Mathematics

What is my student learning?

In fifth grade, students will practice more complex computation with fractions, decimals and larger numbers using the four basic operations: addition, subtraction, multiplication and division. Fifth-grade math also emphasizes real-world situations to help students strengthen their skills and solve problems that occur in their daily lives.

How can I help my student at home?

- Cook with children using recipes that include fractions.
- Determine the number of ice cubes it takes to fill a container to help your child understand the concept of volume.
- Sort objects into three to five categories and ask your child to create a graph based on the categories and explain it to you.
- Provide your child with five numbers – for example, 26, 30, 32, 32, 35. Ask your child to find the mean, or average (31); median, or middle number (32); mode, or number that occurs the most (32); and range, the difference between the highest and lowest number ($35 - 26 = 9$).

How can I help increase my student's math curiosity?

Cultivate your child's communication skills with questions like these:

- What would happen if houses were shaped like pyramids?
- Who do you think knows the largest number in the world, and how did they figure it out?
- If we didn't have coins or bills to use for money, what would we do?

Questions to ask your Fifth Grade Math Student:

- While grocery shopping, have your student compare the prices of two different items. Ask them which one costs more or less. Have them explain their thinking. Or give them a few items and have your student put them in order from least to greatest based on their prices.
- While cooking, have your student add the ingredients that involve fractions. For example, $\frac{1}{2}$ cup of sugar + $\frac{3}{4}$ cup of flour = $1\frac{1}{4}$ cups of ingredients.
- Ask your student what three-dimensional figures he or she sees around the house. Have them justify their answer by explaining the properties of the figure.
- Have your student count the number of cars that pass in one minute and repeat this 10 times throughout the day. Ask them to find the mean, median, mode, and range of the number of cars.

Mathematics Practice Questions

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URL: <https://okpracticetest.cognia.org/student/login>

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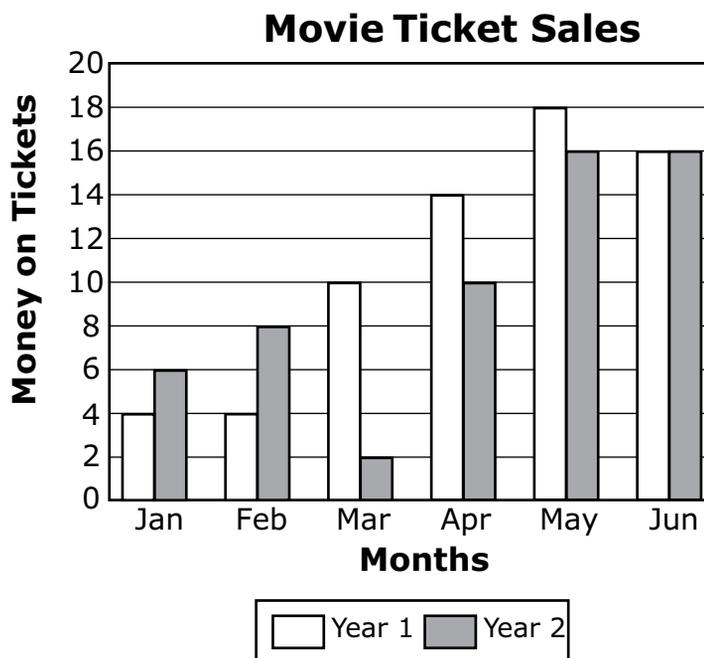
For more information about the Grade 5 Math Standards and/or Assessment, visit the Test and Item Specs at https://sde.ok.gov/sites/default/files/documents/files/OK_21-22_TIS_Math_G5_ADA.pdf.



Directions

Read each question and choose the best answer. Then mark your answer on the answer document. Make sure you find the question number on the answer document that matches the question number in the Mathematics Test.

- 1** The graph below shows how much Tisha spent on movie tickets for the first six months of two different years.

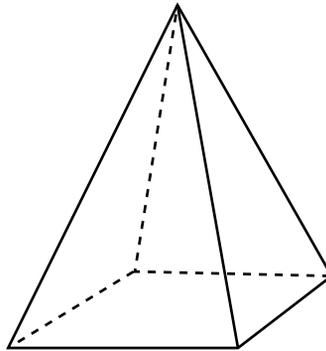


Which month had the greatest difference in the amount of money spent on movie tickets between year 1 and year 2?

- A March
- B April
- C May
- D June



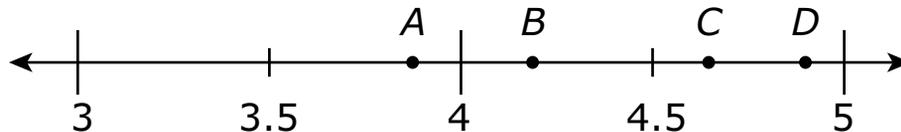
2 Wade drew a square pyramid for his art project.



Which statement is true of the square pyramid?

- F** The square pyramid has 8 faces.
- G** The square pyramid has 2 bases.
- H** The square pyramid has 5 vertices.
- J** The square pyramid has a triangular base.

3 Which point on the number line below best represents the location of 4.82?



- A** point A
- B** point B
- C** point C
- D** point D



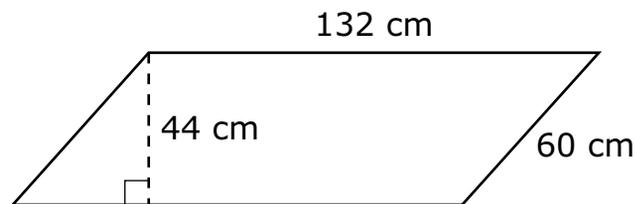
4 Misty created the number pattern below.

32, 28, 24, 20, . . .

If n represents a number in this pattern, which rule could be used to find the next number in the pattern?

- F $n + 4$
- G $n - 4$
- H $n \cdot 4$
- J $n \div 4$

5 What is the perimeter, in centimeters (cm), of this parallelogram?



- A 192
- B 236
- C 384
- D 428



- 6** This table shows the high temperatures for some Oklahoma towns in January 2010.

High Temperatures

City	Temperature (°F)
Arnett	67
Beaver	70
Boise City	64
Buffalo	68
Goodwell	67
Kenton	64
Slapout	70

What is the range of these high temperatures?

- F** 2°
- G** 3°
- H** 4°
- J** 6°

- 7** Lorelei counted the faces on some three-dimensional figures. She found two figures with exactly 5 faces each. Which two figures have exactly 5 faces each?

- A** rectangular prism and triangular prism
- B** rectangular pyramid and triangular pyramid
- C** rectangular prism and triangular pyramid
- D** rectangular pyramid and triangular prism



Use the information to answer the following two questions.

A baker made 64 doughnuts at his bakery on Monday.

8 The baker wants to put his doughnuts into boxes. Each box holds 12 doughnuts. What is the total number of boxes the baker can fill, and the total number of doughnuts he will have left over?

- F** 8 boxes with 6 doughnuts left over
- G** 6 boxes with 8 doughnuts left over
- H** 5 boxes with 4 doughnuts left over
- J** 4 boxes with 5 doughnuts left over

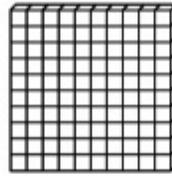
9 The baker continues to make the same number of doughnuts each day. How many days will it take to make an additional 768 doughnuts?

- A** 10 days
- B** 12 days
- C** 100 days
- D** 120 days

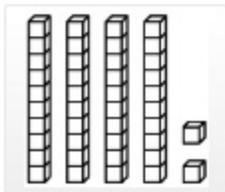
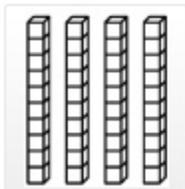
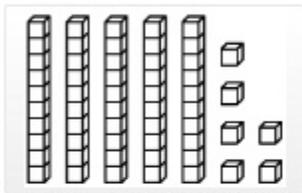


10

This model represents 1.



Match the model in the left column to the correct fraction in the right column. Each model in the left column matches to only one fraction in the right column. Click one model on the left and then click its match on the right. To remove a connection, hold the pointer over the line until it turns red, and then click it.



$$\frac{1}{10}$$

$$\frac{56}{100}$$

$$\frac{42}{100}$$

$$\frac{4}{10}$$



What is my student learning?

In fifth grade, students are able to answer more advanced scientific questions. These include: “When matter changes, does its weight change?”, “How much water can be found in different places on Earth?”, “Can new substances be created by combining other substances?”, “How does matter work its way through ecosystems?”, “Where does the energy in food come from, and what is it used for?”, “How do shadows or the amount of daylight and darkness change from day to day?” and “How does the appearance of some stars change in different seasons?”

How can I help my student at home?

- Ask your child to cook with you and discuss how, when you mix two or more substances together, they sometimes form a new substance.
- Discuss how the construction of a new house or building might change the ecosystem from before the construction began.
- Go outside on clear nights and look at the stars. Ask your child to describe patterns they notice and explain how the sky looks different in the summer versus the winter.
- Research your town’s local recycling program or facility.

How can I help increase my student’s science curiosity?

Cultivate your child’s curiosity with guiding questions like these:

- Do you think animals communicate? If so, how?
- What are the best things about nature?
- Does the night sky look the same every night of the year? Why or why not?

Your child will have plenty of questions. It’s okay if you don’t have the answer every time. The best response is always, “Let’s find out together.”

Science Practice Questions

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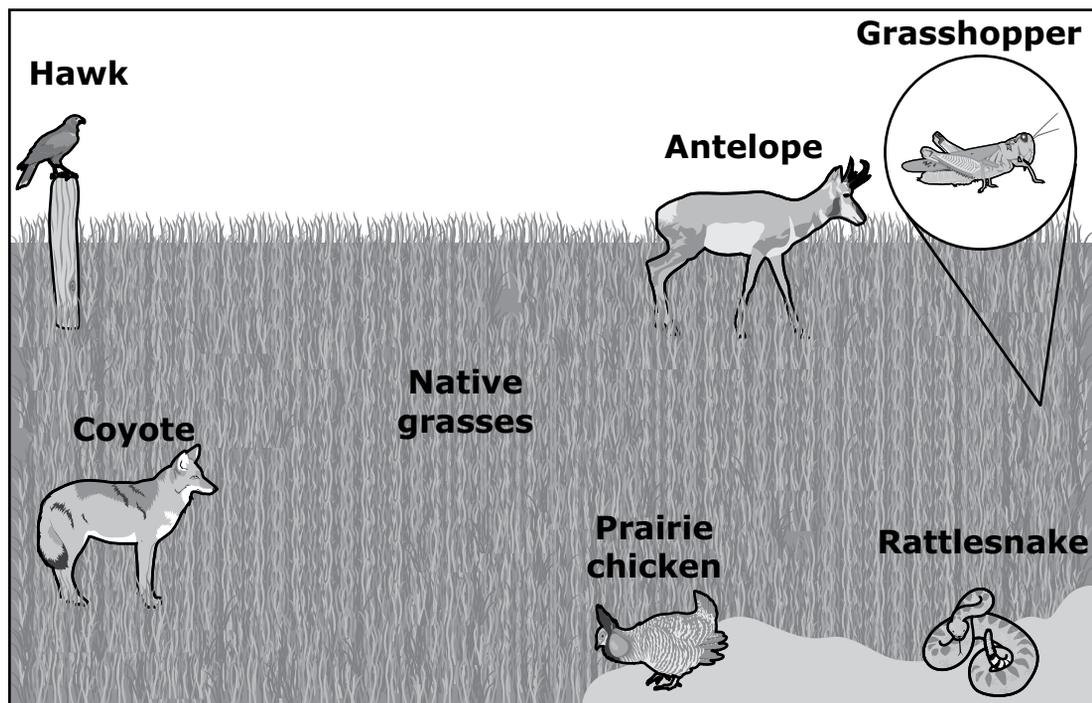


Directions

Read each question and choose the best answer. Then mark your answer on the answer document. Make sure you find the question number on the answer document that matches the question number in the Science Test.

Study the information. Then answer the following three questions.

The drawing shows some plants and animals that live in the Black Kettle National Grassland in southwestern Oklahoma.



Some students wanted to make a model to show how matter moves through this grassland. The students had learned that the movement of matter allows plants and animals in the grassland to get nutrients or food. If the plants and animals do not get the nutrients or food they need, they cannot survive.

By making the model, the students could predict how well plants and animals would survive if events such as fire or drought happened in the ecosystem.

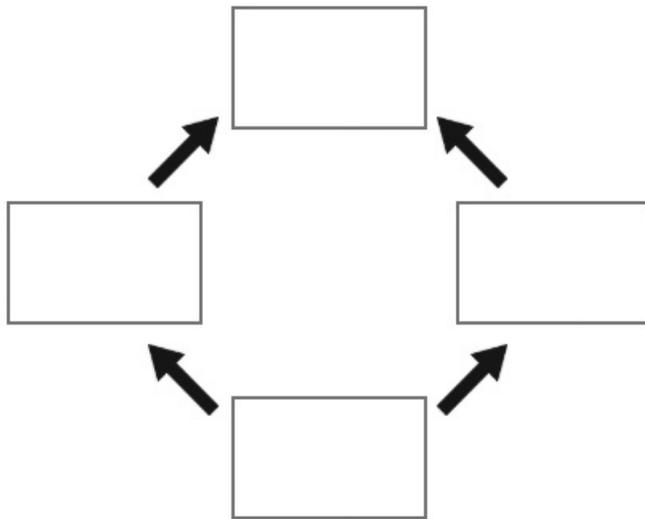


1

The students also learned what some of the organisms eat.

- Prairie chickens eat native grasses and coyotes eat prairie chickens.
- Native grasses are eaten by antelope and antelope are eaten by coyotes.

Drag the organisms into the food web to show how matter moves among the organisms. To drag an organism, click and hold the organism, and then drag it to the desired space. To change an organism, click and hold it, and then drag it back to the original location.



- Antelope
- Coyote
- Native grasses
- Prairie chicken



2 What can the students add to their model to show that matter also moves between organisms and the environment?

- F** rocks, because they are a common part of soil
- G** Sun, because it allows plants to make their own food
- H** wind, because it moves air and dust around the grassland
- J** decomposers, because they break down dead plants and animals

3 Which set of events should the students' model also include to show how matter moves in the ecosystem?

- A** Plants take up air and water to make food. → Animals eat plants. → Animals breathe out air.
- B** Plants release food as waste. → Animals break down wastes from plants. → Animals breathe out air.
- C** Animals take in air and water to make food. → Other animals eat these animals. → Animals release waste.
- D** Animals release waste into air. → Animals breathe in water in air. → Water is taken up by animals to make food.



Study the information. Then answer the following three questions.

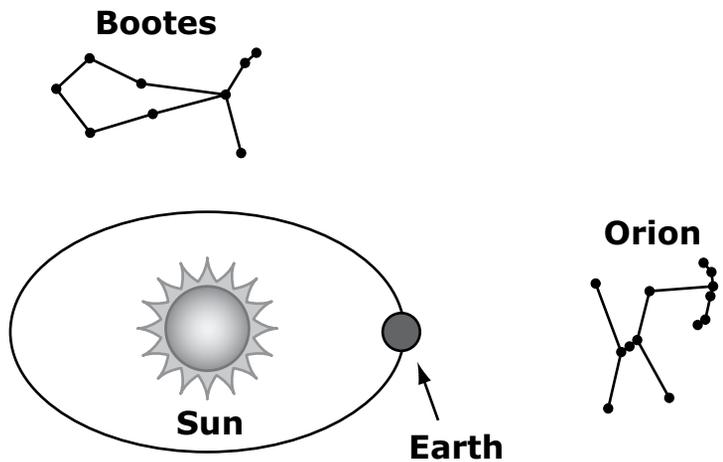
A student in Oklahoma studying the night sky wondered why different stars are seen at different times of the year. The student decided to study two constellations.¹ One of the constellations was Orion, and the other constellation was Bootes.

The student found two pieces of information about the constellations. First, the student found the number of hours Orion is visible each night. The student recorded the data for different months in a table. Next, the student found a picture to show where Earth is in its path around the Sun in December. The student copied the picture and also marked where the constellations, Orion and Bootes, are in December.

The student’s table and picture are shown.

When Can Orion Be Seen?

Month	Hours Orion Can Be Seen at Night in Oklahoma
February	7.2
April	3.4
June	0.0
August	1.3
October	6.4
December	11.2

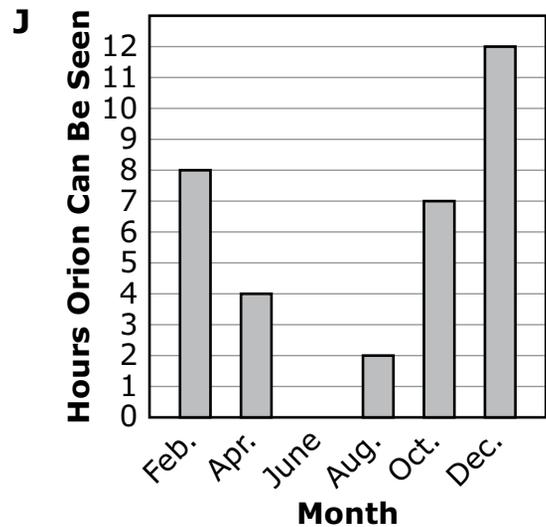
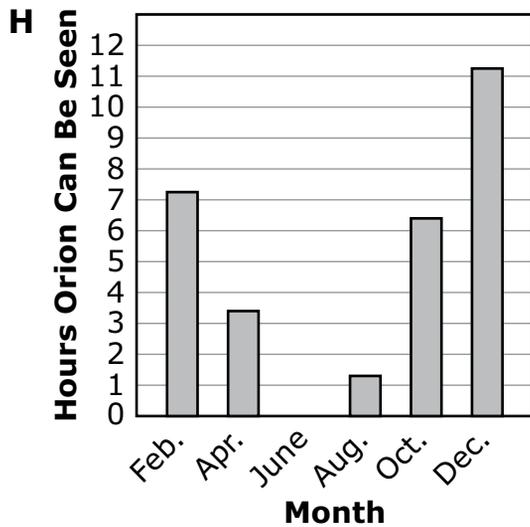
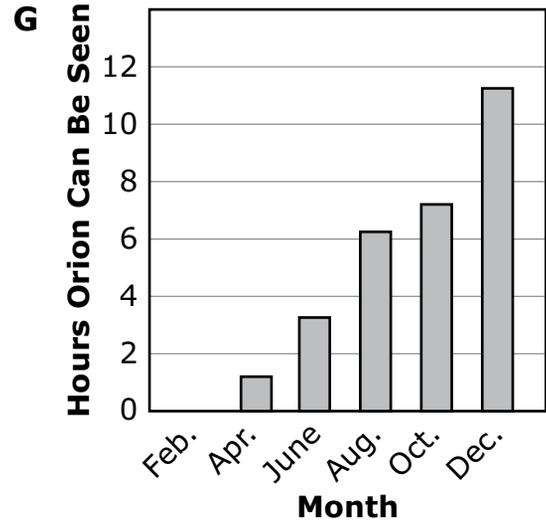
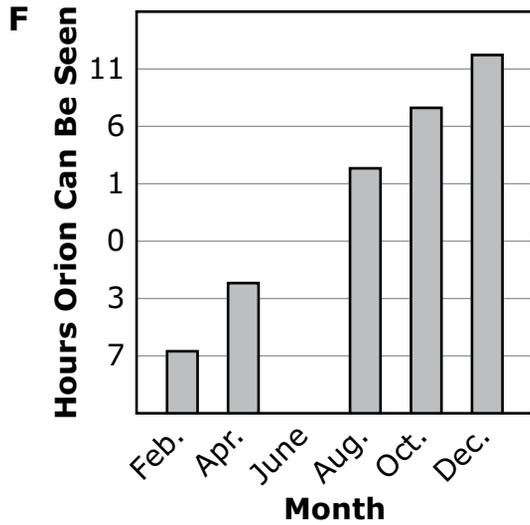


¹**constellation:** a group of stars



4 During the year, the number of hours Orion can be seen in Oklahoma changes.

Which graph correctly shows the changes?





5 Some months are missing from the student's data table.

Which table shows the number of hours Orion will likely be seen in September and November in Oklahoma?

A

Month	Hours Orion Can Be Seen at Night
September	1.25
November	6.25

B

Month	Hours Orion Can Be Seen at Night
September	3.8
November	9.8

C

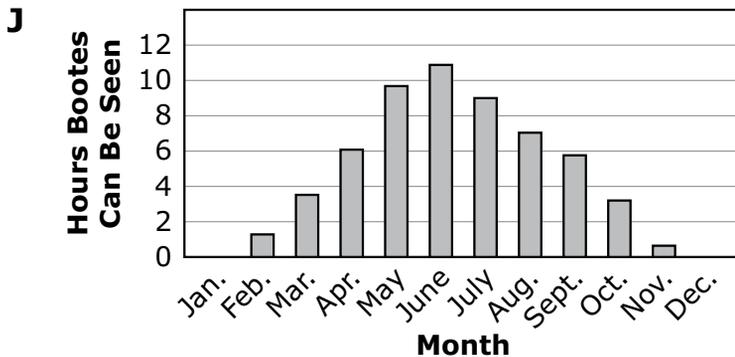
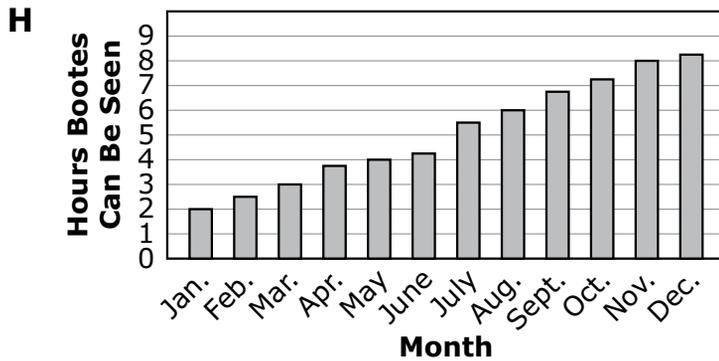
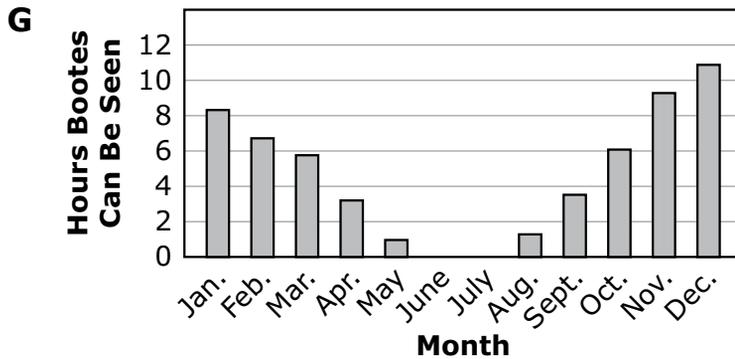
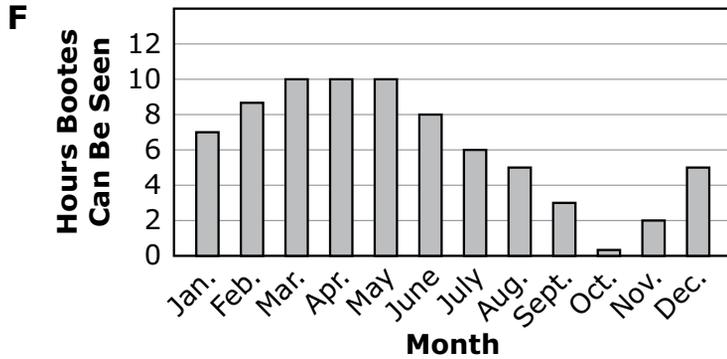
Month	Hours Orion Can Be Seen at Night
September	0.8
November	5.3

D

Month	Hours Orion Can Be Seen at Night
September	7.25
November	3.25



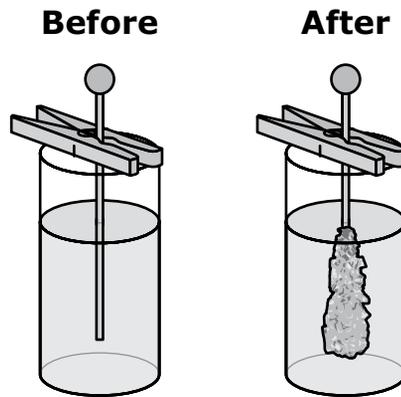
6 Which graph shows the number of hours Bootes will most likely be seen in the Oklahoma night sky during the year?



**Study the information. Then answer the following three questions.**

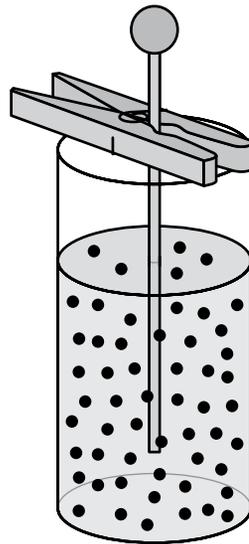
A student and a teacher made homemade syrup from sugar and water. They noticed that when they added too much sugar to the water, the syrup formed crystals when it cooled. During an investigation of why this happened, the following occurred:

1. They added sugar to boiling water and stirred.
2. The sugar was no longer visible and the mixture was clear.
3. They poured the mixture into jars and placed a stick inside each jar.
4. After several days, crystals of sugar started forming around each stick.
5. The student drew these pictures of the jar before and after the crystals of sugar formed.

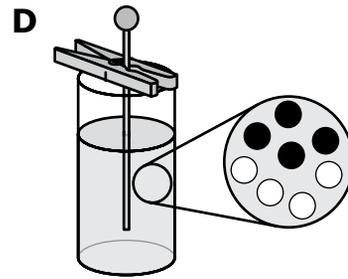
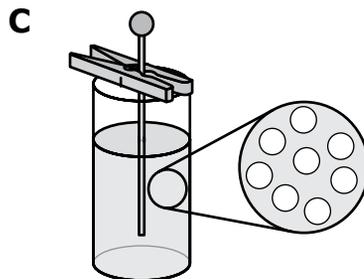
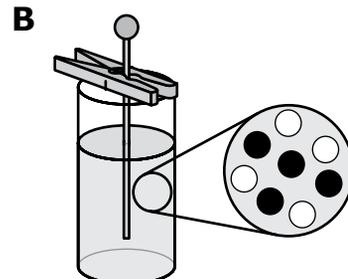
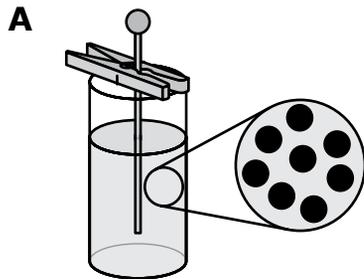




7 The teacher drew this model of the sugar and water particles after the sugar was added to the water. The teacher used black circles to represent sugar particles and white circles to represent water particles.



Which model shows the mixture in the jar when the sugar was no longer visible?





8 Which statement best describes how sugar crystals formed during the investigation?

- F** Crystals of sugar took several days to form.
- G** Matter was destroyed when the water was stirred.
- H** Sugar particles collected together until they were big enough to see.
- J** The amount of sugar inside the jar increased when the stick was added.

9 Which statement describes the particles in the sugar crystals after they formed on the stick?

- A** close together and stuck to each other
- B** close together and not stuck to each other
- C** far apart and stuck to each other
- D** far apart and not stuck to each other



ANSWER KEYS

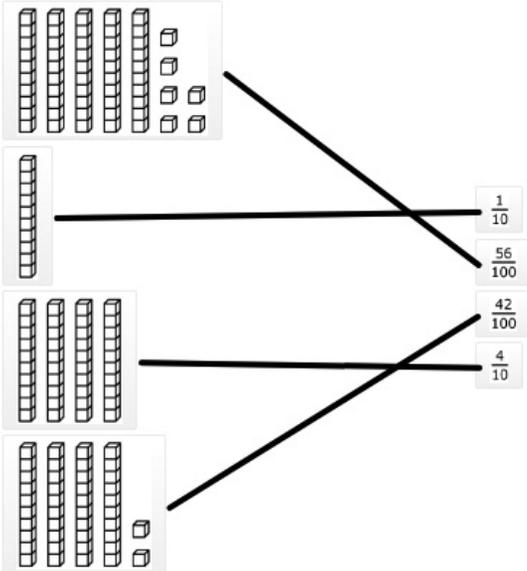
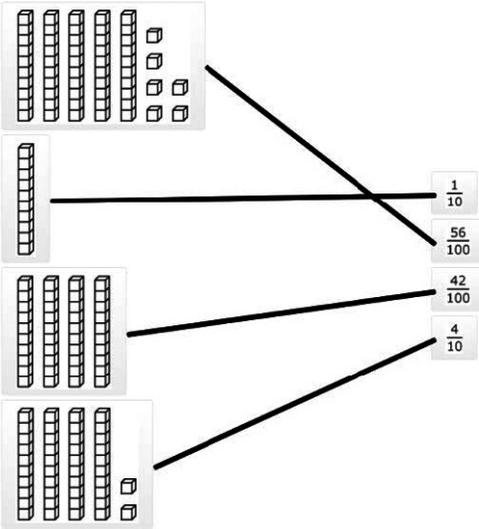
English Language Arts		
Number	Reporting Category	Item Distractor Rationales
1	Language	<p>A. Correct. The interjection is emphasizing the pain that is felt.</p> <p>B. The interjection is not showing worry.</p> <p>C. The interjection is not giving directions.</p> <p>D. The interjection is not giving suggestions.</p>
2	Language	<p>F. “Everybody” is a singular subject and “am” is a singular verb, but it is the incorrect form for the subject.</p> <p>G. Correct. “Everybody” is a singular subject and “was” is a singular verb in the past tense.</p> <p>H. “Everybody” is a singular subject and “are” is a plural verb.</p> <p>J. “Everybody” is a singular subject and “were” is a plural verb.</p>
3	Vocabulary	<p>A. “Repair” is not a synonym for the idea of “to do again.”</p> <p>B. Correct. “Repeat” is a synonym for the idea of “to do again.”</p> <p>C. “Rewind” is not a synonym for the idea of “to do again.”</p> <p>D. “Remove” is not a synonym for the idea of “to do again.”</p>
4	Critical Reading/Writing	<p>F. The personification does not suggest that ingredients are missing.</p> <p>G. The personification does not suggest that the dough is not ready to be rolled out.</p> <p>H. Correct. The personification suggests that the dough is difficult to knead.</p> <p>J. The personification does not suggest that the dough prefers a certain person.</p>
5	Critical Reading/Writing	<p>A. This sentence indicates that Aunt Lila thinks cooking from scratch is better than other ways of cooking.</p> <p>B. This sentence indicates that Aunt Lila is excited about cooking from scratch.</p> <p>C. Correct. This sentence indicates that Aunt Lila believes that sticking with a difficult task is worth the outcome.</p> <p>D. This sentence indicates that Aunt Lila is following the steps of a process.</p>
6	Critical Reading/Writing	<p>F. Nothing in the passage suggests that Sophie wants to stop helping. In fact, Sophie continues to help throughout the passage.</p> <p>G. Correct</p> <p>H. Paragraph 13 suggests that Sophie does a good job rolling the dough so that it is “as thin as a piece of paper.”</p> <p>J. Sophie asks questions, which suggests that she is interested and engaged in the process rather than unhappy.</p>
7	Vocabulary	<p>A. This detail supports that salt will cause carbon dioxide and foam to spew but not necessarily to rise.</p> <p>B. Correct. The gas that is formed when salt is put into the soda is carbon dioxide, and in order for it to fill the attached balloon, the gas must rise into the balloon.</p> <p>C. A gas being heavy does not support the idea of the gas rising.</p> <p>D. The taste of carbon dioxide does not support the idea of the gas rising.</p>

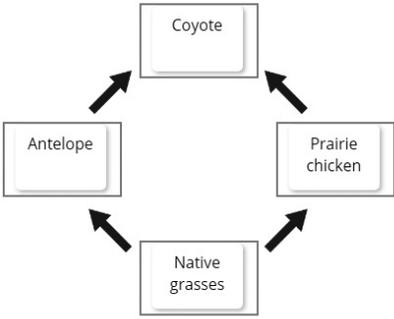
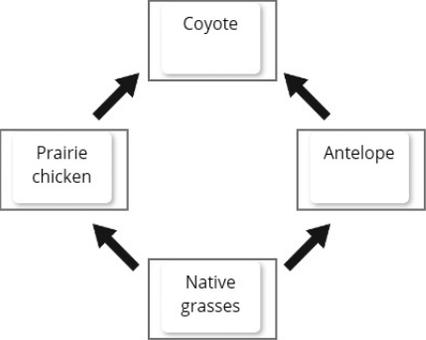
English Language Arts

Number	Reporting Category	Item Distractor Rationales
8	Critical Reading/Writing	F. The experiment does not compare or contrast any information. G. There are no questions with answers provided in the article. H. There are no problems presented that need solutions. J. Correct. The article provides step-by-step instructions of how to conduct the experiment.
9	Research	A. This book would have information about gases but not necessarily experiments. B. Correct. This Web site would most likely have experiments that could be done. C. A newspaper article about the importance of gases would not necessarily include experiments. D. An encyclopedia entry about gases in the environment would not necessarily have information about experiments.
10	Research	F. An atlas is a book of maps. G. A thesaurus is a book of synonyms and antonyms for words. H. A dictionary is a book of definitions of words. J. Correct. An encyclopedia is a book giving information on many subjects and is typically arranged alphabetically.

Mathematics		
Number	Reporting Category	Item Distractor Rationales
1	Data & Probability	<p>A. Correct. The student demonstrated an ability to analyze a double-bar graph with whole numbers.</p> <p>B. Balance distractor</p> <p>C. The student chose the month with the highest bar in the graph.</p> <p>D. The student did not know what difference means and identified two bars with the same height in the graph.</p>
2	Geometry & Measurement	<p>F. The student confused faces and edges.</p> <p>G. The student confused square pyramids and square prisms (cubes).</p> <p>H. Correct. The student demonstrated an ability to describe a square pyramid by the number of edges, faces, or vertices as well as the shape of faces.</p> <p>J. The student confused base and face.</p>
3	Number & Operations	<p>A. The student thought 4.82 is to the left of 4.</p> <p>B. The student confused 4.82 and 4.2.</p> <p>C. The student knew that 4.82 is more than 4.5, but did not go far enough.</p> <p>D. Correct. The student demonstrated an ability to locate a decimal on the number line.</p>
4	Algebraic Reasoning	<p>F. The student chose an incorrect operation.</p> <p>G. Correct. The student demonstrated an ability to describe a pattern of change with a rule.</p> <p>H. The student chose an incorrect operation.</p> <p>J. The student chose an incorrect operation.</p>
5	Geometry & Measurement	<p>A. The student computed $132 + 60$.</p> <p>B. The student added the numbers labeled on the figure.</p> <p>C. Correct. The student demonstrated an ability to find the perimeter of a parallelogram.</p> <p>D. The student included the height as part of the perimeter and computed $132 + 60 + 132 + 60 + 44$.</p>
6	Data & Probability	<p>F. The student found the difference between the highest temperature and the second highest temperature.</p> <p>G. The student found the range for the first and last temperatures in the table.</p> <p>H. Balance distractor</p> <p>J. Correct. The student demonstrated an ability to find the range of a set of data.</p>
7	Geometry & Measurement	<p>A. The student focused on the triangular prism.</p> <p>B. The student focused on the rectangular pyramid.</p> <p>C. Balance distractor</p> <p>D. Correct. The student demonstrated an ability to describe three-dimensional figures by the number of faces.</p>
8	Number & Operations	<p>F. Balance distractor</p> <p>G. The student computed $6 \times 12 = 72$ and then thought the 8 as left over meant subtraction.</p> <p>H. Correct. The student demonstrated an ability to represent a quotient as a number and an amount left over.</p> <p>J. The student confused the number of boxes and the number left over.</p>

Mathematics

Number	Reporting Category	Item Distractor Rationales
9	Number & Operations	<p>A. The student made a division error.</p> <p>B. Correct. The student demonstrated an ability to divide a multi-digit number by two-digit divisor.</p> <p>C. The student made division and place value errors.</p> <p>D. The student made a place value error.</p>
10	Number & Operations	<p>Correct:</p>  <p>Incorrect:</p>  <p>The student saw the 4 ten rods as 40 and chose 42/100 because this is close to 40.</p>

Science		
Number	Reporting Category	Item Distractor Rationales
1	Life Sciences	<p>Sample Response</p>  <p>Or</p> 
2	Life Sciences	<p>F. The student may think that rocks in the soil will show movement of matter. G. The student may think that the Sun provides matter for organisms. H. The student may think that wind will show movement of matter into organisms. J. Correct. Decomposers (an organism) move matter from organisms into the environment.</p>
3	Life Sciences	<p>A. Correct. This traces part of the path carbon takes in an ecosystem. B. The student may think that plants make food as waste and that animals break down waste from plants. C. The student may think that animals make food. D. The student may think that exhaled waste leads to inhaled water and that animals make food.</p>
4	Earth & Space Sciences	<p>F. The student may think the values should increase from left-to-right and may not understand that the values on the y-axis should be in order. G. The student may think the values should increase from left-to-right. H. Correct. This graph has a proper y-axis and correctly matches the data from the table to the data shown in the graph. J. The student may think that they should round the values in the graph to the nearest integer.</p>

Science		
Number	Reporting Category	Item Distractor Rationales
5	Earth & Space Sciences	<p>A. The student may think that the time Orion is visible each month after the months shown in the table should be less than the previous month.</p> <p>B. Correct. The September value is between the August and October values while the November value is between the October and December values.</p> <p>C. The student may think that the time Orion is visible each month after the months shown in the table should be significantly less than the previous month.</p> <p>D. The student may think that September is a month that Orion is visible for a peak amount of time before decreasing into October and November.</p>
6	Earth & Space Sciences	<p>F. Correct. Given the location of Bootes relative to Orion and the Orion data, this graph shows the amount of time Bootes will be visible each month.</p> <p>G. The student may think that Bootes will have the same amount of visible time as Orion.</p> <p>H. The student may think that Bootes has an increasing visibility time throughout a calendar year.</p> <p>J. The student may think that Bootes will be offset 6 months relative to Orion, rather than 3 months.</p>
7	Physical Science	<p>A. The student may not understand that sugar particles and water particles should be represented differently.</p> <p>B. Correct. There are different representations for sugar particles and water particles and the two types of particles are mixed together.</p> <p>C. The student may not understand that sugar particles and water particles should be represented differently.</p> <p>D. The student may not understand that the sugar and water particles would not be divided into two separate groups; they should be mixed together.</p>
8	Physical Science	<p>F. The student may not understand that the amount of time does not describe how the sugar crystals formed.</p> <p>G. The student may think that dissolving destroys matter.</p> <p>H. Correct. While dissolved in water, sugar particles are too small to be seen; as sugar particles come out of solution, the particles grow in size until they are visible.</p> <p>J. The student may think that enough sugar is created to make the sugar visible.</p>
9	Physical Science	<p>A. Correct. The sugar particles are close to each other and held together by intermolecular forces.</p> <p>B. The student may not understand that the sugar crystals are held together.</p> <p>C. The student may think that the particles are held together, but remain far apart as they are when they are dissolved.</p> <p>D. The student may think that solids have particles that are far apart and not held together.</p>

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ANSWER SHEET

USE NO.2 PENCIL ONLY 

ENGLISH LANGUAGE ARTS

- 1 (A) (B) (C) (D)
- 2 (F) (G) (H) (J)
- 3 (A) (B) (C) (D)
- 4 (F) (G) (H) (J)
- 5 (A) (B) (C) (D)
- 6 (F) (G) (H) (J)
- 7 (A) (B) (C) (D)
- 8 (F) (G) (H) (J)
- 9 (A) (B) (C) (D)
- 10 (F) (G) (H) (J)



MATHEMATICS

- 1 (A) (B) (C) (D)
- 2 (F) (G) (H) (J)
- 3 (A) (B) (C) (D)
- 4 (F) (G) (H) (J)
- 5 (A) (B) (C) (D)
- 6 (F) (G) (H) (J)
- 7 (A) (B) (C) (D)
- 8 (F) (G) (H) (J)
- 9 (A) (B) (C) (D)
- 10 TEI



SCIENCE

- 1 TEI
- 2 (F) (G) (H) (J)
- 3 (A) (B) (C) (D)
- 4 (F) (G) (H) (J)
- 5 (A) (B) (C) (D)
- 6 (F) (G) (H) (J)
- 7 (A) (B) (C) (D)
- 8 (F) (G) (H) (J)
- 9 (A) (B) (C) (D)





OKLAHOMA
Education