OKLAHOMA SCHOOL TESTING PROGRAM

PARENT, STUDENT, AND TEACHER GUIDE ENGLISH LANGUAGE ARTS, MATHEMATICS & SCIENCE 2022–2023 GRADE 5



Oklahoma School Testing Program Administration Dates

2022–2023 School Year English Language Arts, Mathematics, and Science

> Online Testing Window April 20-May 17, 2023

> Paper Testing* Window April 20-May 3, 2023

cognia

Developed and published under contract with the Oklahoma State Department of Education by CogniaTM, 9115 Westside Parkway Alpharetta, GA 30009. Copyright © 2023 by the Oklahoma State Department of Education. All rights reserved. Only State of Oklahoma educators and citizens may copy, download, and/or print the document, located online at oklahoma.onlinehelp.cognia.org/parent-student-teacher-guides/. Any other use or reproduction of this document, in whole or in part, requires written permission of the Oklahoma State Department of Education and the publisher. All brand and product names found in this publication are the trademarks of their respective owners.

^{*}under special circumstances only

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 that is located at https://sde.ok.gov/office-assessments. Preliminary test results will be available online to families through the Oklahoma Parent Portal in June.

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.

The OSTP measures your student's progress in learning the Oklahoma Academic Standards for English language arts, mathematics, and science. For an overview of the tests and a 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. The guides will help you and your student understand what to expect on the state assessments.

To learn more about the subject standards, please visit https://sde.ok.gov/oklahoma-academic-standards. The Oklahoma Academic Standards serve as expectations for what students should know and be able to do by the end of the school year.

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

Sincerely,

Oklahoma State Department of Education, Office of Assessments

TABLE OF CONTENTS

Administration Dates	ii
Letter from OSDE	1
The Oklahoma School Testing Program	3
Helping Your Student Prepare	3
Grade 5 English Language Arts (ELA)	4
What is my student learning?	4
How can I help my student at home?	4
How can I help increase my student's reading comprehension?	4
English Language Arts Practice Questions	5
Grade 5 Mathematics	34
What is my student learning?	34
How can I help my student at home?	34
How can I help increase my student's math curiosity?	34
Mathematics Practice Questions	35
Grade 5 Science	42
What is my student learning?	42
How can I help my student at home?	42
How can I help increase my student's science curiosity?	42
Science Practice Questions	43
Answer Keys	54
Answer Shoot INSIDE RACK	COVER

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 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?

Children in fifth grade will read a variety of more challenging texts of different types (books, newspapers and poems, for example). They will read for different purposes, such as to find information or for fun. Fifth-graders are focusing 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 based on how and where they are used. This information is a snapshot of learning in English language arts (ELA) for Grade 5.

How can I help my student at home?

- Encourage your child to read several pieces of information on a topic and discuss the differences between them.
- Work together to write a paragraph on a topic your child is interested in, including key details, facts and information.
- Ask your child to find and discuss interesting words in the books they are reading.
 Consider words with several meanings (bark, for example) or more descriptive words, such as saunter instead of walk.
- Support your child's curiosity with questions like these:
 - · If you were in a play, what would your character be like?
 - · If you could end your favorite movie a different way, how would you change it? Why?
 - · How would you explain eating spaghetti to someone who has never done it before?
- Support your child's communication skills with questions like these:
 - · What goals can you set to make tomorrow better than today?
 - · What was your favorite part of the week? Why?
 - · How did you help someone today?

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 $21^{\rm st}$ 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 22-23 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.

Read the passage. Then answer the questions that follow.

Scratch Cooking

- 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."
- 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?"
- "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.
- Next, using a rolling pin, Aunt Lila rolled the dough forward and back, forward and back in a <u>repetitive</u> rhythm, until it finally became a large rectangle. She handed the rolling pin to Sophie and said, "Your turn."
- 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.



- "Keep rolling," said Aunt Lila, "because the dough has to be extremely thin."
- 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."
- 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."
- 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?"
- 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.
- "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."
- For dinner that night Sophie had a big bowl of chicken and noodles.
- "So what do you think of our meal?" asked Aunt Lila, her eyes sparkling.
- With a grin Sophie proclaimed, "Scratch cooking—mmm!" She swallowed her last bite. "May I please have another helping?"



"Scratch Cooking." Copyright © 2022 by Cognia, Inc.



- 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.
- 2 Read the sentence.

The dough fought against Sophie's efforts.

What does the personification of the dough suggest?

- **A** The dough does not have all the ingredients.
- **B** The dough is not ready to be rolled out.
- **C** The dough is difficult to knead.
- **D** The dough prefers Aunt Lila.



Read this passage. Then answer the questions that follow.

Man's Best Friend

- Did you know that people have been keeping dogs as pets for thousands of years? Dogs have been kept both for companionship and for work. Many people in ancient Greece kept watchdogs. People living in ancient Rome also used dogs to guard their homes. In fact, Romans who kept a watchdog were required to post a sign warning "Cave Canem," which translates roughly to "Beware of Dog."
- In modern times, many dogs still work as watchdogs or guard dogs. Dogs often work other types of jobs too. Ranchers and farmers still use dogs to help with livestock. Many dogs are used for hunting.
- Other dogs work as guides, helping people with a disability. Dogs also help rescue workers. The dogs' incredible sense of hearing and sharp sense of smell help them find people who are lost or hurt. Some dogs even work side by side with police officers helping to keep the public safe.
- While many dogs perform important jobs, most dogs in the United States today are kept as pets. Millions of families have one or more of these canine companions. They are prized for their friendship and loyalty. Unfortunately, people sometimes choose a dog that is not right for their lifestyle. Veterinarians suggest that people learn how different types of dogs behave before choosing one as a pet.
- Potential dog owners should first consider how large their pets will grow. Almost all puppies are cute, cuddly, and little. However, the puppy stage will not last long—most dogs reach full size in less than a year. That tiny pup may grow into a surprisingly large adult dog. Dog owners must make sure they are just as willing to take care of the adult dog as they are the puppy.
- To make sure they continue to be happy with their pets, dog owners must take care to choose the right breed. Different types of dogs have different types of personalities. Some are calm and relaxed. Others are playful and energetic. Dog owners who want to play ball or go jogging with their pets should choose an active and lively breed. A collie or shepherd might be a good choice. Likewise, someone who spends most of his or her free time watching television needs a less active dog. A poodle or basset hound might be a better choice. Some dogs are more patient than others. They are better with smaller children. People who live alone and spend much of their time at work need a dog that is more independent.



- By taking the time to do a little research, potential dog owners have a better chance of choosing the right pet. However, dogs are unpredictable. They do not always turn out as expected. Purebred dogs are easiest to predict. They usually have personalities and habits similar to other dogs in their breed. Mixed-breed dogs are harder to predict, but these dogs tend to be more social.
- 8 Whether working side by side with people or as family pets, dogs have proven to be faithful companions. They are certainly worthy of the title "man's best friend."



"Man's Best Friend." Copyright © 2022 by Cognia, Inc.



3 Read the dictionary entry.

stage (stāj) n. 1. A raised level platform for performing. 2. The scene of an event or series of events. 3. A part or section of a trip or journey. 4. A step or level of development.

Which **best** fits the meaning of **stage** as it is used in paragraph 5?

- **A** 1
- **B** 2
- **C** 3
- **D** 4
- 4 Paragraphs 4 through 7 are **mainly** about
 - **A** the jobs dogs can perform.
 - **B** how cute and cuddly puppies are.
 - **C** choosing the right dog to be a pet.
 - **D** dogs that are good for active people.
- Which of these would be the **best** resource for locating additional information about specific dog breeds?
 - **A** an encyclopedia article: "Dogs Throughout Human History"
 - **B** a website: "Veterinary Association's Guide to Dog Types"
 - **C** a book: "The Pet Lover's Handbook for a Happy Dog"
 - **D** an article: "How to Train Your New Puppy"



You will now read two related passages and answer the questions that follow. Some of these questions may ask you to compare the two passages.

Quiz Bowl

- "Ladies and gentlemen, boys and girls, welcome to the tenth annual Meadow Elementary Quiz Bowl! Please join me in welcoming our contestants, representatives from each fifth and sixth grade homeroom!" A wild roar followed Mr. Smith's remarks. Instead of smiling, I just sat there; my face was stone.
- The youngest child in our family, I dreamed of carrying on the Wilson family tradition of being the homeroom representative at the Quiz Bowl. While other kids goofed around with their friends, I studied trivia cards. Actually, I ate, drank, and slept trivia for months, and today was my big day.
- Mr. Smith officially started the game. "Adam Wilson, the first question will be yours. Who was the fortieth President of the United States?"
- Without even consulting my brain, the answer rolled off my tongue, "President Reagan!"
- 5 "Correct! Give the young man ten points." Each time I answered correctly, my classmates beamed with pride. One by one, we churned out answers like butter.
- Suddenly, it seemed as if my rhythm had gone from melodic to flat.

 Mr. Smith asked, "Adam, what is the name of the Minnesota state bird?" My brain was an ice cube. I knew it started with the letter *L*, but the word would not come. "Five seconds, Adam," Mr. Smith cautioned. In the very last second, I spit out the word *loon*, and the audience let out a relieved sigh.
- My biggest rival, Sara Jensen, had the edge over me by only ten points. Aware the last round would be worth double, I knew I had a great chance of overtaking her.
- The final round was upon us. "Contestants, I want you all to know that each of you will be asked one last question worth twenty points. Sara, in what year did the very first astronaut land on the moon?" Sara's eyes grew wide, and her face turned as pale as a sun-bleached towel. It was obvious she did not know the answer, and after what seemed like an eternity, she spoke, "1978."
- 9 "I'm sorry, but that answer is incorrect, Sara." My heart was racing a thousand miles a minute now. Sara had just opened the door to victory for me—one correct answer, and the championship was mine.
- "Ladies and gentlemen, this will be the final question of our Quiz Bowl. Adam Wilson, are you ready?"
- 11 "Yes sir," I replied.



- "In which country is the world's tallest mountain found?" My grandfather, an expert mountain climber, and I had discussed this, and though I could recall our conversation vividly, I could not remember the name of the country. My mind raced, and then it happened. The name was on the tip of my tongue, but when I opened my mouth to let it out, it would not come; my voice was paralyzed.
- "Time is up, Adam. I'm sorry."
- "Nepal!" I shouted, snapping out of my trance, but it was too late.



"Quiz Bowl." Copyright © 2022 by Cognia, Inc.



Read this passage, which goes with the previous passage. Then answer the questions that follow.

Talent Show

I remember the whole school, silent, the bright white of the spotlight from the back of the gymnasium, a light I could not take my eyes away from,

5 like staring at the sun until I started to see small spots.

I stood there, my classmates, teachers, six grades of students with legs crossed and chins resting on their folded hands

10 waiting for me to recite my poem.

I opened my mouth to speak—
I stuttered
and sputtered
and swallowed my voice.

I looked at the piece of paper in my hands, the words floating around the white page, the letters swimming like insects in a pond during a hard rain.

I imagined my poem looking back at me,
seeing my dry mouth and shaking its head,
thinking of the weeks that we had practiced
in front of the long mirror
at the end of the hall.
I imagined my poem's disappointment growing,

25 first a small hill, then as tall as the tallest mountain.



My poem and I stood atop that mountain of disappointment; we took one step to the side, and then my voice began to work.

30 It wheezed and whined and whistled and went.

"Talent Show." Copyright © 2022 by Cognia, Inc.



- **6** Based on information from "Quiz Bowl," what **best** describes the difference between Sara and Adam?
 - **A** Adam spends all his time studying, and Sara rarely studies.
 - **B** Sara doesn't know her answer, and Adam can't remember his answer.
 - **C** Sara has answered all her questions correctly, and Adam has missed a few.
 - **D** Adam gets a second chance to answer a question, and Sara only gets one chance.
- 7 In "Quiz Bowl," which effect does Adam's conversation with his grandfather have on the plot?
 - **A** It helps Adam know the answer to a question.
 - **B** It disrupts the rhythm Adam has answering questions.
 - **C** It causes Adam to lose his concentration during a round.
 - **D** It makes Adam think that his rival will answer a question incorrectly.
- In "Talent Show," what seems to cause the speaker to remember the lines to the poem?
 - A the speaker's paper
 - **B** the audience's stares
 - **C** the speaker's memories
 - **D** the poem's disappointment

English Language Arts • Section 1



- **9** The theme in **both** "Quiz Bowl" and "Talent Show" is about
 - **A** winning at all costs.
 - **B** getting help from family.
 - **C** competing against a classmate.
 - **D** being nervous in front of an audience.
- **10** Which idea is supported by details in **both** "Talent Show" and "Quiz Bowl"?
 - **A** Standing under a spotlight can cause one to lose focus.
 - **B** Trying to live up to the expectations of others is usually challenging.
 - **C** No matter how much one prepares, performing in front of others is difficult.
 - **D** Once a person gets used to it, speaking to an audience becomes second nature.



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
\square Is the topic addressed in my writing?
☐ Have I written to the requested mode?
\square 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?
\square Are my ideas arranged in clear order for the reader to follow?
\square 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 <u>both</u> 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.
- 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

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

- 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.
- 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.
- 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

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. Katydids use a similar trick. They look like tree leaves, so predators will move right past them without even noticing.

"Animals in Disguise." Copyright © by Cognia, Inc.



Seeing Animals Differently

- 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.
- 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.
- 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.
- 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.
- 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.

[&]quot;Seeing Animals Differently." Copyright © 2022 by Cognia, Inc.



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 <u>both</u> 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



PRACTICE RESPONSE SPACE

	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.
,	
,	
,	
•	
,	
,	



Practice Response Space (continued)	



Practice Response Space (continued)



Practice Response Space (continued)	



	Practice Response Space (continued)	
	Tractice Response Space (continued)	
·		



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 <u>both</u> 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 camoflage and special vision to keep themselves alive. Today I learned that those tricks both work together to help the primals. Squirels, Zebras, polar bears, and other animals all use camoflage to survive. They took it is things in nature. It's almost like their invisible! Animals use camoflage to hide from predators, and to hunt their projets remember one time when I was little, I asked my mom why the army were camo flauge 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 goods, use vision to help them survive. Most animals with special vision can see all around themselves. Others, like the snake, can see heat. I magine just looking out your window to check the temperature! Frogs have two eyelids to help them see underwater like built-in godgles. Owls have good vision, but can't move there eyes. That's why they can turn their heads all the way around. This helps them stay aware of others. Vision and comoflage both work together by keeping animals from going extinct the animals that have gone extinct, probably didn't have camo flauge or good vision. I noticed that the cuttle fish 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 stance. Their prey would really increase, and it



Example Response (continued)

all be a big, huge mess!
Now you know why and how mast animal
Survive. I hope that in a million years, all
specials are still alive. I hope the lions
are still rooning, 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	 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.
	 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.
3	 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.
	Content is inconsistent for the audience and task/purpose and the writing has an unclear focus; ideas are principally developed and provide listed.
	 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.
2	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.
	 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
1	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.
	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 STOP



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. This information is a snapshot of learning in mathematics for Grade 5.

How can I help my student at home?

- Cook with children using recipes that include fractions, then ask them to double or triple the recipe ingredients.
- Pour the same liquid into containers of different sizes and discuss what your child observes and how to measure the volumes.
- Ask your child to keep track of how many times people do something (leave a room or make baskets in a basketball hoop, for example), then ask them to create a graph of that data and explain it to you.
- Give your child five numbers—for example, 26, 30, 32, 32, 35. Ask your child to use the data 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?

Children are naturally curious and motivated to learn about things that interest them. Since curiosity helps students be successful in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with questions like these:

- What would happen if houses were shaped like pyramids? How big would they have to be for our family to live comfortably?
- 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?

Your child will have plenty of questions. It's okay if you don't always have the answer. The best response is always, "Let's find out together."

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

The OSTP Grade 5 Mathematics Assessment consists of selected-response (multiple-choice) and technology-enhanced items (TEIs) 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 $21^{\rm st}$ 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.

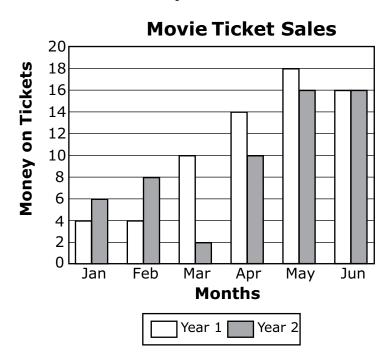
For more information about the Grade 5 Math Standards and/or Assessment, visit the Test and Item Specs at https://sde.ok.gov/sites/default/files/documents/files/OK 22-23 TIS Math G5 ADA.pdf.



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.

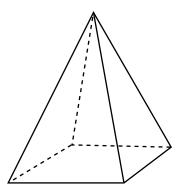


Which month had the <u>greatest</u> difference in the amount of money spent on movie tickets between year 1 and year 2?

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

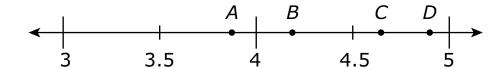


2 Wade drew a square pyramid for his art project.



Which statement is true of the square pyramid?

- **A** The square pyramid has 8 faces.
- **B** The square pyramid has 2 bases.
- **C** The square pyramid has 5 vertices.
- **D** The square pyramid has a triangular base.
- Which point on the number line below <u>best</u> represents the location of 4.82?



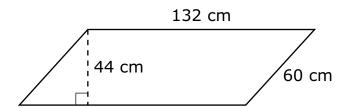
- A point A
- **B** point *B*
- **C** point *C*
- **D** point *D*



4 Misty created the number pattern below.

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

- $\mathbf{A} n + 4$
- **B** n-4
- **c** n 4
- **D** $n \div 4$
- **5** What is the perimeter of this parallelogram?



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



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

High Temperatures

Town	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?

- **A** 2°
- **B** 3°
- **C** 4°
- **D** 6°
- 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 questions.

A baker made 64 doughnuts at his bakery on Monday.

- 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?
 - **A** 8 boxes with 6 doughnuts left over
 - **B** 6 boxes with 8 doughnuts left over
 - **C** 5 boxes with 4 doughnuts left over
 - **D** 4 boxes with 5 doughnuts left over
- 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

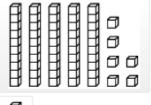


10

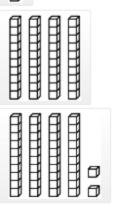
This model represents 1.



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.







 $\frac{1}{10}$

 $\frac{56}{100}$

 $\frac{42}{100}$

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?" This information is a snapshot of learning in science for Grade 5.

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 or ingredients together, they sometimes form a new substance.
- Talk about how the construction of a new house or building might change the ecosystem.
- Go outside on clear nights and look at the stars. Ask your child to describe patterns they see and explain how the sky looks different in the summer and winter.
- Research your town's local recycling program or facility.

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

Children are naturally curious and are motivated to learn about things that interest them. Since curiosity contributes to success in the classroom, it is important to encourage it at home. Play is a wonderful way to spark curiosity, so be sure to allow plenty of playtime. Encourage your child to ask questions, be creative, discover answers and explore their world.

Support your child's curiosity with 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

The OSTP Grade 5 Science Assessment consists of selected-response (multiple-choice) and technology enhanced items (TEIs) 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 $21^{\rm st}$ 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 Science Standards and/or Assessment, visit the Test and Item Specs at https://sde.ok.gov/sites/default/files/documents/files/OK_22-23_TIS_Sci_G5_ADA.pdf.

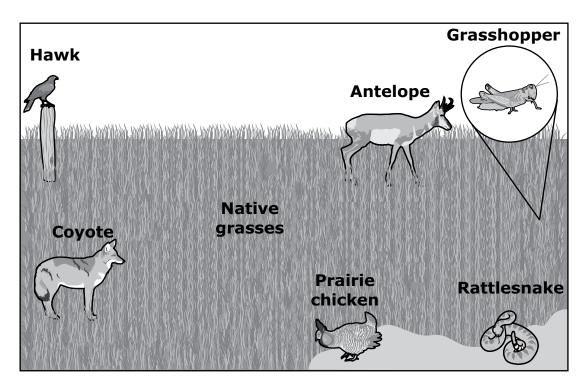


Directions

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 Science Test.

Use the information to answer the following 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.

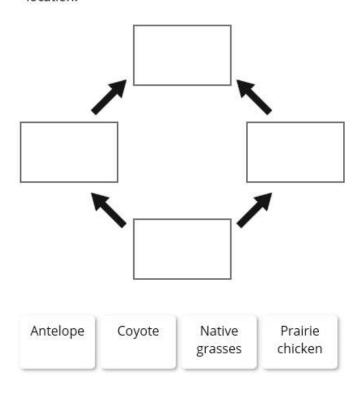


1

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.





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

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

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



Use the information to answer the following questions.

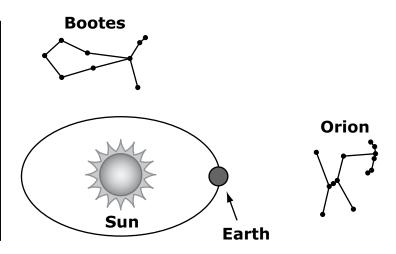
A student in Oklahoma studying the night sky wondered why different stars are seen at different times of the year. The student decided to study two constellations.¹ One of the constellations was Orion, and the other constellation was Bootes.

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.

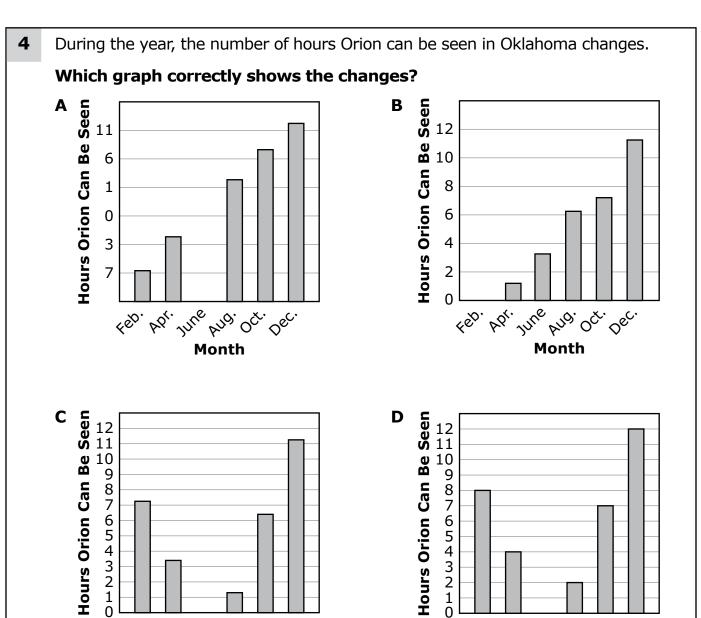
When Can Orion Be Seen?

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



¹constellation: a group of stars





Kep. Wy. Jule My. Og. Dec.

Month

Kep. bdr. Ing brid. Og. Dec.

Month



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?

В

D

Month Hours Orion Can Be Seen at Night

September 1.25

November 6.25

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

Month Hours Orion Can Be Seen at Night

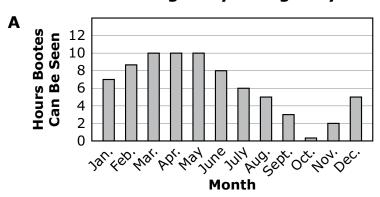
September 0.8

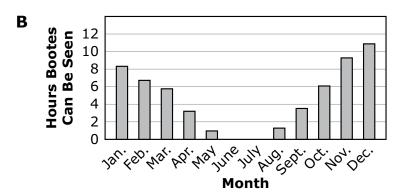
November 5.3

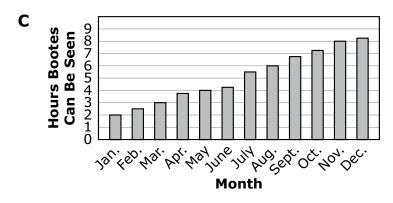
Month	Hours Orion Can Be Seen at Night
September	7.25
November	3.25

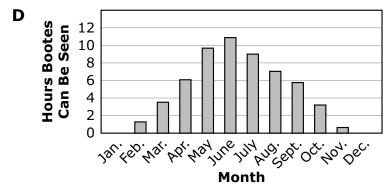


Which graph shows the number of hours Bootes will most likely be seen in the Oklahoma night sky during the year?







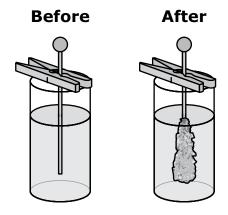




Use the information to answer the following questions.

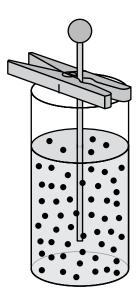
A student and a teacher made homemade syrup from sugar and water. They noticed that when they added too much sugar to the water, the syrup formed crystals when it cooled. During an investigation of why this happened, the following occurred:

- 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.



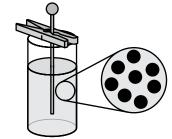


7 The teacher drew this model of the sugar and water particles after the sugar was added to the water. The teacher used black circles to represent sugar particles and white circles to represent water particles.

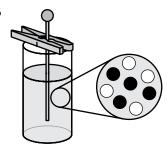


Which model shows the mixture in the jar when the sugar was no longer visible?

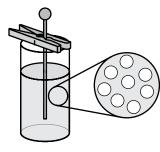




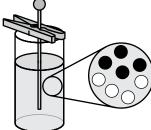




C









8 Which statement <u>best</u> describes how sugar crystals formed during the investigation?

- **A** Crystals of sugar took several days to form.
- **B** Matter was destroyed when the water was stirred.
- **C** Sugar particles collected together until they were big enough to see.
- **D** 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

	English Language Arts		
Number	Reporting Category	Item Distractor Rationales	
1	Vocabulary	A. "Repair" is not a synonym for the idea of "to do again." B. Correct. "Repeat" is a synonym for the idea of "to do again." C. "Rewind" is not a synonym for the idea of "to do again." D. "Remove" is not a synonym for the idea of "to do again."	
2	Critical Reading/Writing	 A. The personification does not suggest that ingredients are missing. B. The personification does not suggest that the dough is not ready to be rolled out. C. Correct. The personification suggests that the dough is difficult to knead. D. The personification does not suggest that the dough prefers a certain person. 	
3	Vocabulary	 A. This definition does not fit the context of the sentence. B. This definition does not fit the context of the sentence. C. This definition does not fit the context of the sentence. D. Correct. This definition best fits the meaning of the word as it is used in the passage. 	
4	Reading and Writing Process	 A. The passage describes some jobs that dogs perform, but this is not what the paragraphs are mainly about. B. The passage mentions puppies being cute and cuddly, but this is not what the paragraphs are mainly about. C. Correct. The paragraphs are mainly about choosing the right dog to be a pet. D. The passage says that some dogs are more active than others, but this is not what the paragraphs are mainly about. 	
5	Research	 A. An encyclopedia article about the history of dogs would probably not provide information on specific dog breeds. B. Correct. A website about dog types would provide additional information about specific dog breeds. C. A book about having a happy dog would not likely provide information on specific dog breeds. D. An article about training a puppy would focus on teaching a puppy how to behave rather than provide information on specific dog breeds. 	
6	Critical Reading/Writing	 A. The passage does not provide any information about how Sara prepared for the contest. B. Correct. Paragraph 8 describes how Sara struggles to come up with an answer. Paragraph 12 shares how Adam tries to recall the answer. C. Paragraph 7 says that Sara has 10 points more than Adam, but it does not say that she's answered all the questions correctly. It is not clear how many items Adam may have missed. D. Based on the information in the passage, both Adam and Sara had only one chance to answer the question posed. 	

English Language Arts		
Number	Reporting Category	Item Distractor Rationales
7	Critical Reading/Writing	 A. Correct. Based on the details in paragraph 12, recalling the conversation with his grandfather helped him remember the answer to the question. B. The passage does not suggest that remembering this conversation had any effect with Adam's rhythm. In fact, the rhythm of the contest seems to have changed in paragraph 6 rather than at the end of the contest. C. The passage does not suggest that Adam lost his concentration; rather, it seems to direct his focus. D. The recollection of the conversation does not cause Adam to think Sara will answer a question incorrectly. In fact, she has already answered incorrectly. Adam has the last question.
8	Critical Reading/Writing	 A. There is nothing in the passage to suggest this. B. The passage does mention the audience at the beginning of the poem, but it is not mentioned after line 10. C. The passage does not mention the speaker's memories to help her recall the poem. D. Correct. Lines 24–29 illustrate the moment when the speaker senses the poem's disappointment.
9	Critical Reading/Writing	 A. Only "Quiz Bowl" includes a contest and has a winner. "Talent Show" does not have a winner. B. In "Quiz Bowl," Adam remembers a conversation with his grandfather that provides him some help with a question, but the speaker in "Talent Show" does not reference a family member. C. In "Quiz Bowl" Adam and Sara compete against each other, but in "Talent Show," the speaker is trying to read a poem to an audience. D. Correct. In paragraph 9 of "Quiz Bowl," Adam's "heart was racing a thousand miles a minute," which suggests he is nervous. Beginning in line 11 of "Talent Show," the speaker begins to describe a state of nervousness that causes the speaker to be unable to recite the poem.
10	Critical Reading/Writing	 A. Only the speaker in "Talent Show" stands under a spotlight. B. In "Quiz Bowl," Adam is challenging himself to follow in his siblings' tracks by being the homeroom representative in the game, but he is not trying to live up to the expectations of others. In "Talent Show," the speaker does not try to live up to anyone's expectations. C. Correct. In "Quiz Bowl," paragraph 2 states that Adam studies trivia cards for months, and in "Talent Show," lines 21–23 share that the speaker practiced for weeks. Yet in both passages Adam and the speaker experience stage fright at a critical moment. D. Neither passage shows characters becoming increasingly comfortable speaking in front of an audience.

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

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

Science		
Number	Reporting Category	Item Distractor Rationales
1	Life Sciences	Sample Response Coyote Prairie chicken Native grasses Or Prairie chicken Antelope Native
2	Life Sciences	A. The student may think that rocks in the soil will show movement of matter. B. The student may think that the Sun provides matter for organisms. C. The student may think that wind will show movement of matter into organisms. D. Correct. Decomposers (an organism) move matter from organisms into the environment.
3	Life Sciences	 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.
4	Earth & Space Sciences	 A. The student may think the values should increase from left-to-right and may not understand that the values on the <i>y</i>-axis should be in order. B. The student may think the values should increase from left-to-right. C. Correct. This graph has a proper <i>y</i>-axis and correctly matches the data from the table to the data shown in the graph. D. The student may think that they should round the values in the graph to the nearest integer.

	Science		
Number	Reporting Category	Item Distractor Rationales	
5	Earth & Space Sciences	 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. B. Correct. The September value is between the August and October values while the November value is between the October and December values. 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. 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. 	
6	Earth & Space Sciences	 A. 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. B. The student may think that Bootes will have the same amount of visible time as Orion. C. The student may think that Bootes has an increasing visibility time throughout a calendar year. D. The student may think that Bootes will be offset 6 months relative to Orion, rather than 3 months. 	
7	Physical Science	 A. The student may not understand that sugar particles and water particles should be represented differently. B. Correct. There are different representations for sugar particles and water particles and the two types of particles are mixed together. C. The student may not understand that sugar particles and water particles should be represented differently. 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. 	
8	Physical Science	 A. The student may not understand that the amount of time does not describe how the sugar crystals formed. B. The student may think that dissolving destroys matter. C. 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. D. The student may think that enough sugar is created to make the sugar visible. 	
9	Physical Science	 A. Correct. The sugar particles are close to each other and held together by intermolecular forces. B. The student may not understand that the sugar crystals are held together. C. The student may think that the particles are held together, but remain far apart as they are when they are dissolved. D. The student may think that solids have particles that are far apart and not held together. 	

Blank



ANSWER SHEET

USE NO.2 PENCIL ONLY

ENGLISH LANGUAGE ARTS

- (C) (D) 1 (A) $^{\circ}$
- B (C) D 2 (A)
- $^{\mathsf{B}}$ © D 3 (A)
- A $^{\mathsf{B}}$ © D
- B © (D) 5 A
- © D 6 A B
- © D 7 (A) $^{\mathsf{B}}$
- $^{\mathsf{B}}$ © D A
- lacksquare© (D) A
- 10 A (B) D



MATHEMATICS

- 1 (A) B 0 **(D)**
- $^{\mathsf{B}}$ D 2 (A) 0
- D 3 (A) B ©
- D B © 4 (A)
- D lacksquare© 5 A
- lacksquareD 6 A
- D B C 7 A
- © **(** B 8 A
- B (c) (D) 9 (A)
- **10** TEI



SCIENCE

- 1 TEI
- 2 (A) $^{\mathsf{B}}$ © (D)
- $^{\mathsf{B}}$ © D 3 (A)
- 4 (A) \bigcirc B © D
- $^{\mathsf{B}}$ © D 5 A
- © D B A
- © (D) 7 (A) B
- D B © (A)
- $^{\circ}$ (D) 9 (A)
 - STOP

