

# 4th Grade Packet Ms.Sharon's Class

Name-  
Class

\*Please answer all essay questions in 3 paragraphs.

\*Be sure to check grammar, spelling,  
And punctuation.

\* You may work on Commonlit and IXL.

# Shoes

32

44h

**Activity:** Write two paragraphs about shoes. In the first paragraph, explain why shoes are used. Give examples of times in your own life when shoes have been very helpful. Describe different kinds of shoes, as well as when these different kinds of shoes are worn.

In the second paragraph, tell what you think the first shoes looked like long ago and what they were made of. Then contrast that with the shoes you are wearing now. Which shoes do you prefer?

A large rectangular writing area with a decorative, scalloped border. Inside the border are 18 horizontal lines for writing.

# Marvelous Meal

**Activity:** Write a short story. In your first paragraph, tell how you are trying to make a marvelous meal. Describe the ingredients, as well as how you want people to feel about eating the dish.

In your second paragraph, describe the dining experience. Will it just be you or other people, too? Tell how no one likes the meal. Use action words so the reader can imagine how horrible the dish tastes.

For your last paragraph, surprise your readers. Tell about someone coming and taking a bite. Report how you and everyone else were shocked to find that the person likes the dish.

*3 paragraphs*

When you are done, review what you have written. Check your spelling, punctuation, and grammar.

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# The Simple Physics of Soccer

by ReadWorks



Everyone knows that kicking a soccer ball causes it to roll across the grass. But what makes this happen? What is required to make the ball move faster? What's the difference, in other words, between passing the soccer ball to a teammate and shooting for the goal?

Kicking a ball may seem simple, but physicists spent years trying to figure out why objects move the way they do. What they discovered is that kicking a soccer ball requires applying force to the surface of the ball. The greater the force, the faster the ball will go, and the further it will travel. How much force you apply to the ball, that is, will often determine whether you score a goal or not.

The combination of force and distance equals what is called "work." In this case, we don't mean the noun form of work, like a job. We are talking about work as a verb, as a form of action. Work can be taking out the trash or cleaning dishes in your house. Furniture movers work by carrying chairs and tables out of one apartment and into another. If the first apartment is on the second floor and the second apartment is on the fourth floor, carrying the furniture into the second apartment will require about twice as much work as the first.

Keep in mind that force and work are not the same things as energy. Energy comes in several forms. But the best way to understand it is as something that creates the ability to do work.

When someone says, "I don't have any energy," what do they usually mean? Often, they mean they don't have the strength or motivation to work.

Without energy, it is hard to play soccer or lift furniture. In fact, it may even be difficult to get out of bed. Energy is what allows us to do work. The more energy we have, the more work we can do.

Mathematicians use the following simple equation to define the meaning of work:  $\text{force} \times \text{distance} = \text{work}$ . The heavier an object is, in other words, the more force it exerts in the form of gravity. Picking an anvil up off the ground requires more energy than picking up a feather. If you're interested in building muscles, though, keep in mind that lifting heavier things will make you stronger over time. And the stronger you are, the more likely you are to win at soccer.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Which sport does the passage use to examine physics?
  - A. baseball
  - B. football
  - C. hockey
  - D. soccer
  
2. What does the author describe in the passage?
  - A. how to score a goal in soccer
  - B. the relationship between work, force, and distance
  - C. physics experiments that led to important discoveries
  - D. different types of energy
  
3. A soccer ball will travel a greater distance the harder it is kicked. What evidence from the text best supports this statement?
  - A. Physicists spent years trying to figure out why objects move the way they do.
  - B. Kicking a soccer ball requires applying force to the surface of the ball.
  - C. The greater the force, the faster the ball will go, and the further it will travel.
  - D. How much force you apply to the ball will often determine whether you score a goal or not.
  
4. What is the difference between passing the ball to a teammate and shooting a goal?
  - A. the amount of force applied to the ball
  - B. the way that the ball rolls
  - C. the distance the ball has to travel
  - D. it is more difficult to pass the ball
  
5. What is this passage mostly about?
  - A. geometry
  - B. biology
  - C. physics
  - D. chemistry

6. Read the following sentences: "Everyone knows that kicking a soccer ball causes it to roll across the grass. But what makes this happen? What is **"required"** to make the ball move faster?"

What does **required** mean?

- A. allowed
- B. needed
- C. ordered
- D. stopped

7. Choose the answer that best completes the sentence below.

The tired soccer player does not have any energy left; \_\_\_\_\_, he is unable to do any more work.

- A. however
- B. finally
- C. specifically
- D. therefore

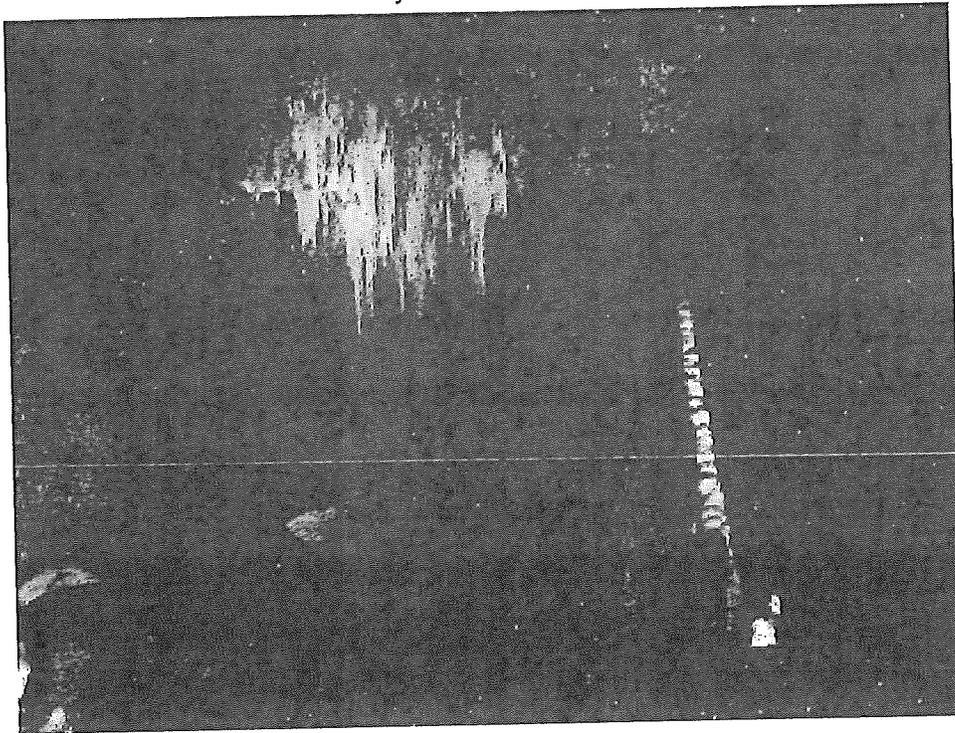
8. Define "work."

9. Why does carrying furniture up four flights of stairs require twice as much work as carrying furniture up two flights of stairs?

10. Imagine three different soccer players are shooting at the goal. Player A has a lightweight ball and is close to the goal, Player B has a heavy ball and is close to the goal, and Player C has a heavy ball and is far from the goal. Which player will need the most energy to score a goal, and which player will need the least energy? Support your answer using the text.

# Inside and Outside Carlsbad Caverns

by ReadWorks



Imagine watching hundreds of thousands of bats swirl around you, swarming to form a large, black mass that flies off into the horizon. At Carlsbad Caverns in New Mexico, this scene is a regular occurrence. The caverns, located in a United States National Park, are home to around 400,000 Mexican free-tailed bats that fly out into the night sky each evening at dusk to feed on nearby moths and insects, returning at dawn to their caves. The spectacle draws crowds from around the world into the Chihuahuan Desert, where the park is located. One such visitor was Laurel Mathews, who once visited the caves with her family on a road trip.

"At the entrance to one of the caves, there's stadium seating for visitors to watch the bats," she remembers. "We waited a long time to see them. Finally, they started circling out of the cave and they flew off—out came more and more and more, all of them flying in loops and then out into the sky. It was amazing that there were so many!"

Laurel also remembers the sound the bats made, describing the high, screeching noise. "It was really creepy, but also really cool," she says.

Laurel recalls her family's arrival at the Carlsbad Caverns National Park. "It didn't look very

spectacular when we first drove in," she admits. "But then we started exploring the big network of underground caves."

The formation of the caves is a result of a fossilized reef that existed 250 to 280 million years ago in an inland sea that has long since disappeared. Since limestone is typically made up of fragments of coral, a large limestone deposit eventually formed in the area. Today, you can still find several fossilized plants and animals in the caves' limestone that date back to a time before dinosaurs walked the earth. Starting sometime between four and six million years ago, water from the earth's surface began moving through the cracks in the stone deposit. There is a type of acid in surface water. When this water combined with rainwater, the two mixed to form another type of acid as a result of their chemical compositions. This acid slowly dissolved the limestone to eventually form the winding caves that exist today in Carlsbad Caverns. This is a very common process that happens to limestone-many caves all around the world exist in limestone deposits due to the stone's solubility (the ability of a substance to be dissolved) in a mixture of water and acid.

Eventually, speleothems-formations that arise from mineral deposits in caves-began to take shape in the lower levels of the caverns. In fact, these speleothems existed during the last ice age, when instead of a desert, a pine forest sat above the caves. Over the years, park employees and rangers have found clues that hint at the caves' history. For example, according to the National Park Service, people have found some bones of ancient ice age animals scattered around the entrance to some of the caves. In 2003, an employee found a part of a stone scraper dating back to the last ice age near a cave entrance as well. Clearly, the caves have a long history-researchers have discovered that American Indians first inhabited the area sometime between 12,000 and 14,000 years ago. Ever since then, the caves have been explored by several groups, including Spanish explorers in the 1500s, and later by American explorers and guides who drew attention from all across the country to the natural phenomenon.

Laurel remembers this phenomenon very well. "It took us between one and two hours to get all the way to the bottom," she says, recounting the windy pathway leading deeper and deeper into the heart of the caves. "The park had put in blue and red lights to highlight the beautiful rock formations."

Once they reached the bottom, Laurel says that she had to take an elevator to get back to the top. "My ears popped so much in the elevator!" she remembers. "It took a really long time to reach the top; I didn't realize how far down we were until we were on our way back up."

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. According to the passage, what currently lives in the caves at Carlsbad Cavern National?

- A. Native Americans
- B. bats
- C. bears
- D. explorers

2. What does the author describe at the beginning of the passage?

- A. how speleothems are formed
- B. the formation of limestone caves
- C. fossils found in Carlsbad Cavern
- D. watching bats at Carlsbad Cavern

3. Limestone deposits can help researchers learn about what the area was like thousands of years ago. What evidence from the passage best supports this conclusion?

- A. Limestone can contain fossilized plants and animals.
- B. Acid can slowly dissolve limestone to form winding caves.
- C. Limestone is typically made up of coral fragments.
- D. Many caves around the world exist in limestone deposits.

4. "At the entrance to the cave, there's stadium seating for visitors to watch the bats." Based on this information, what can you conclude about the popularity of the bats at Carlsbad Cavern?

- A. The bats are not a popular attraction at Carlsbad Cavern.
- B. People go to Carlsbad Cavern to see the caves, not the bats.
- C. The bats are a popular attraction at Carlsbad Cavern.
- D. Most people who visit Carlsbad Cavern don't know about the bats.

5. What is this passage mostly about?

- A. Laurel Mathews' family vacation
- B. how bats navigate using sound
- C. how speleothems are formed
- D. caves at Carlsbad Cavern National Park

6. Read the following sentences: "The caverns, located in a United States National Park, are home to around 400,000 Mexican free-tailed bats that fly out into the night sky each evening at dusk to feed on nearby moths and insects, returning at dawn to their caves. The **spectacle** draws crowds from around the world into the Chihuahuan Desert, where the park is located."

As used in this sentence, what does the word "**spectacle**" mean?

- A. a very impressive show
- B. something that happens irregularly
- C. something that happens at night
- D. something that people watch with glasses

7. Choose the answer that best completes the sentence below.

\_\_\_\_\_, Laurel did not think the Carlsbad Cavern National Park looked very spectacular, but her opinion changed after she explored the caves.

- A. For instance
- B. Initially
- C. Particularly
- D. Therefore

8. What are speleothems?

9. Explain how the limestone caves at Carlsbad Cavern were formed.

10. Explain how researchers may learn about the history of the caves at Carlsbad Cavern. Support your answer using information from the passage.

