

4th Grade Spring Break



Vacation Packet

Name: _____

Due: Monday, April 9, 2018

ELA

Directions

Read this story. Then answer questions 1 through 6.

A Project for Two

by Wesley Vanderbilt

- 1 I don't understand why Mrs. Lowe gets so excited about projects. Maybe it's because she doesn't have to do any of the work.
- 2 "I would like you and a partner to prepare a demonstration for the class," Mrs. Lowe said. "First, choose a topic and then submit it to me for approval."
- 3 "Can we pick our own partners?" Inez asked. I saw her look at her friend, Dee. Inez has always gotten on my nerves. She's always jumping up to help Mrs. Lowe, and she seems to have all the right answers. On top of that, she's disliked me ever since the day she tripped over my foot in class and dropped her model of a Native-American teepee. She thinks I did it on purpose. I didn't. I can't help it if I have big feet.
- 4 "No," Mrs. Lowe said. "In the real world, you'll have to work with people you don't know well, don't like, or don't get along with. I'm assigning partners."
- 5 Mrs. Lowe ignored our groans and went on. "After I approve your topic, you have one week to prepare your demonstration. I will post the schedule for presentations later this week."
- 6 I'm not sure how random Mrs. Lowe's partner choices were. When Mrs. Lowe said, "Inez and Emilio are partners," I saw her look straight at me for a reaction. I rolled my eyes.
- 7 Inez lives in the same apartment building as I do. Having her for a partner was at least convenient. We met after school that day to pick a topic.
- 8 For the first few seconds, Inez and I just stared at each other. "I'm not happy about this," she said finally.
- 9 "I'm not thrilled either," I said.
- 10 "I always get good grades," Inez said. "But I'm not doing all the work."
- 11 "I didn't expect you to," I said. "What if we demonstrate how to fly a plane?"
- 12 "You know how to fly a plane?" Inez gasped.
- 13 "No," I said.
- 14 She rolled her eyes. "I think the goal is to show something we know," Inez said. "What if we demonstrate figure skating?"

GO ON

- 15 “First of all,” I said, “I don’t figure skate. Second, we’d need an ice rink.”
- 16 “Oh, right,” she said sarcastically. “For your idea, we would only need a plane.”
- 17 Our brainstorming session continued like this for an hour. I was ready to give up and beg Mrs. Lowe for a new partner when Inez’s mom asked if I’d like to stay for dinner. “We’re having tacos,” she said.
- 18 “My favorite,” I said. “I’ll call my mom.”
- 19 A few minutes later, Mrs. Santos was busy browning meat and chopping lettuce, tomatoes, and cucumbers. She asked if we’d like to help. Since we weren’t getting anywhere with topic ideas, we agreed.
- 20 Inez showed me how to assemble each taco, layering refried beans, the spicy ground beef, and the chopped veggies.
- 21 “This is fun,” I said. “I like to cook. Whenever my dad makes pizza, I help. I’m getting great at throwing the dough in the air and shaping it into a circle.”
- 22 Inez looked up and smiled. I knew exactly what she was thinking.
-

1 Based on the story, which word **best** describes Inez’s attitude toward school?

- A** cautious
- B** amused
- C** carefree
- D** serious

2 Read these sentences from paragraph 6 of the story.

When Mrs. Lowe said, “Inez and Emilio are partners,” I saw her look straight at me for a reaction. I rolled my eyes.

Emilio rolls his eyes because he

- A** knows that rolling his eyes will make Mrs. Lowe laugh
- B** is bothered about having Inez assigned as his partner
- C** is motioning to Inez that she should listen to Mrs. Lowe
- D** wants to show Mrs. Lowe that he is paying attention

3

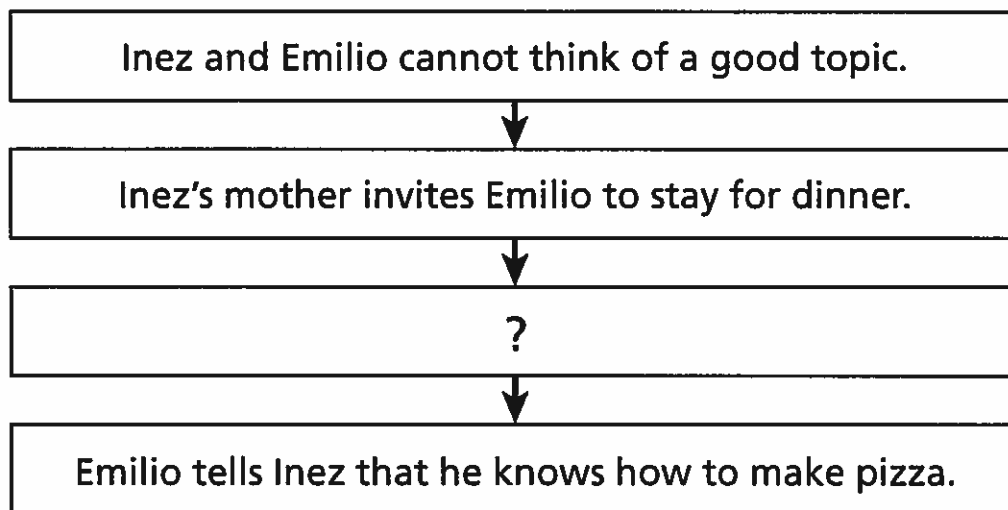
What is the **first** idea Emilio has for their demonstration?

- A how to make a teepee
- B how to make pizza
- C how to figure skate
- D how to fly a plane

4

The chart below shows what happens in the story.

WHAT HAPPENS IN THIS STORY



Which step completes the chart?

- A Inez shows Emilio how to put tacos together.
- B Inez and Emilio brainstorm ideas for their project.
- C Emilio goes to Inez's apartment to work on the project.
- D Emilio wants to beg Mrs. Lowe for a new partner.

GO ON

5

Read this sentence from the last paragraph of the story.

Inez looked up and smiled.

Why does Inez smile?

- A** She realizes that she enjoys spending time with Emilio after all.
- B** She thinks it is funny to imagine Emilio throwing pizza dough.
- C** She gets an idea for the project from listening to Emilio.
- D** She sees that the tacos are ready for her and Emilio.

6

Which statement **best** describes how Emilio and Inez's relationship changes throughout the story?

- A** Emilio and Inez start out as enemies who have to work together, but they end up being best friends.
- B** Emilio and Inez do not want to work together at first, but they later realize they have a common interest.
- C** Emilio and Inez are excited to work together, but they realize that they have a hard time agreeing on anything.
- D** Emilio and Inez are willing to work together at first, but they finally decide to ask their teacher for new partners.

Directions

Read this article. Then answer questions 14 through 19.

What Is Supersonic Flight?

*by Heather R. Smith, www.NASA.gov
NASA Educational Technology Services*

What Is Supersonic Flight?

- 1 Supersonic flight is one of the four speeds of flight. Objects moving at supersonic speeds are going faster than the speed of sound.
- 2 The speed of sound is about 768 miles per hour at sea level. That is about four times faster than a racecar.
- 3 Supersonic includes speeds up to five times faster than the speed of sound!
- 4 The first person to fly an aircraft faster than the speed of sound was Capt. Charles E. “Chuck” Yeager.

What Flies at Supersonic Speeds?

- 5 A bullet fired from a gun flies at supersonic speeds. Some military aircraft also fly this fast. The space shuttle flies at supersonic speeds during parts of its mission.
- 6 The most famous airplane to fly passengers at supersonic speeds was called the Concorde. The Concorde’s fastest speed was more than twice the speed of sound. It could fly people from London, England, to New York in less than 3 ½ hours. A regular airplane would take twice that long! The Concorde stopped flying in 2003.

Why Does NASA Study Supersonic Flight?

- 7 Learning more about supersonic flight helps NASA make better aircraft and spacecraft. When NASA studies supersonic flight, it is studying aeronautics. Aeronautics is the science of flight.

How Does NASA Study Supersonic Flight?

- 8 One way NASA learns more about supersonic flight is by testing models of airplanes in wind tunnels.
- 9 Wind tunnels are tube-shaped buildings that move air over a vehicle as if it were flying. Flying model airplanes in wind tunnels helps NASA learn how the real aircraft will fly. In wind tunnels, NASA can test new designs for airplanes.
- 10 NASA also studies supersonic flight by flying real supersonic aircraft.
- 11 Another way NASA learns about it is by using computers. Computers help scientists test what will happen to a plane when it flies.

What Is a Sonic Boom?

- 12 A sonic boom is a loud noise like thunder. A person on the ground hears a sonic boom when an aircraft flies overhead at supersonic speeds.
- 13 The noise is caused by a fast release of air pressure. Air pressure builds up as a plane flies through the air. When the pressure is released, it makes a loud noise. This is similar to when a balloon pops. A pin that pops a balloon releases the air pressure inside the balloon and causes a loud “pop.”
- 14 NASA is studying and testing things that could be used on aircraft to lessen the noise from sonic booms.
-

- 14** Read these two sentences from paragraph 6.

[The Concorde] could fly people from London, England, to New York in less than 3 ½ hours. A regular airplane would take twice that long!

Which of the following describes the relationship between these two sentences?

- A** The sentences describe two steps in the same process.
- B** The sentences show how two objects are different.
- C** The first sentence explains the effect of the second.
- D** The second sentence gives the reason for the first.

- 15** What does NASA learn from testing models of airplanes in wind tunnels?

- A** how real airplanes will fly in the air
- B** how real airplanes will fly in cold weather
- C** how pilots will be able to fly in the dark
- D** how pilots will react during an emergency

GO ON

16

Which heading in the article would you look under to find the rate at which sound travels?

- A What Is Supersonic Flight?
- B What Flies at Supersonic Speeds?
- C Why Does NASA Study Supersonic Flight?
- D What Is a Sonic Boom?

17

The sentences below are from paragraph 13 of the article.

Air pressure builds up as a plane flies through the air. When the pressure is released, it makes a loud noise.

Which of the following **best** describes the text structure of these sentences?

- A Cause-effect: The sentences tell how the air pressure is what enables planes to fly.
- B Comparison: The sentences tell how the sound of a flying plane is similar to a loud noise.
- C Cause-effect: The sentences tell how a loud sound is the effect of the release of built-up air pressure.
- D Comparison: The sentences tell similarities and differences between air pressure and loud noises.

18

Which sentence from the article **best** shows that sonic booms are unpleasant?

- A** “A person on the ground hears a sonic boom when an aircraft flies overhead at supersonic speeds.” (paragraph 12)
- B** “The noise is caused by a fast release of air pressure.” (paragraph 13)
- C** “A pin that pops a balloon releases the air pressure inside the balloon and causes a loud ‘pop.’” (paragraph 13)
- D** “NASA is studying and testing things that could be used on aircraft to lessen the noise from sonic booms.” (paragraph 14)

19

Which detail would you **most likely** include in a summary of the article?

- A** The science of flight, including supersonic flight, is called aeronautics.
- B** The supersonic aircraft called the Concorde stopped flying in 2003.
- C** NASA studies supersonic flight so they can make better aircraft and spacecraft.
- D** Captain “Chuck” Yeager was the first person to fly an aircraft faster than the speed of sound.

GO ON

Directions Read this article. Then answer questions 25 and 26.

Myths and Facts About the Earwig

by Harriet Gershwin

- 1 Imagine this: you're in your bedroom. Your parents have informed you that, before you can play any more Ukulele Hero III, you must first clean up the pile of magazines and comic books by your bed. Grumbling, you grab a handful of papers. You start to lift them toward the recycling bin when something crawls out from between two pages of a comic book. The thing runs onto your hand and makes you drop the papers and shake your whole arm back and forth. The thing falls on the floor from your shaking. Now you can see that it's a half-inch long, flat, reddish-brown insect with creepy antennae on its head and what look like two grabby stingers coming from its rear end. And it's coming toward you again! You run out of your room and shut the door, vowing never to return.
- 2 What was that thing? You've just had a run-in with an earwig. Many people fear earwigs. And with those pinchers on its bottom, who can blame them? They are scary-looking bugs! There's even a myth that earwigs like to live in people's ears. (That may even be where the earwig gets its name.) But in truth, the earwig is completely harmless. You're in no more danger from an earwig than you are from a sweet little kitten. And you've probably never had a kitten in your ear.
- 3 Why are people so afraid of earwigs? The fears may have started over two thousand years ago. A Roman man named Pliny the Elder wrote about earwigs and how to remove them from people's ears. Pliny believed that earwigs could lay eggs in human ears. This myth is completely false. It has never happened in recorded history. Today, many people still believe the same myth that Pliny the Elder believed. But Pliny also believed that caterpillars come from the dew on leaves. Nobody believes that anymore. We know now that caterpillars come from eggs laid by butterflies. So why are we still afraid of earwigs?
- 4 In reality, there is no reason to think an earwig has ever made a home in anyone's ear. Even if an earwig could crawl inside an ear, there is a thick bone in the ear canal that would keep it from getting very far.

- 5 And those grabby things on their backsides aren't even stingers. They're called forceps. If you pick up an earwig and don't let it go, it might try to get away by squeezing you with its forceps. The forceps can give a very slight pinch, but can't really do any harm. The worst thing an earwig can do is release a stinky liquid from its scent gland. They do this so you will leave them alone and they can get away.
- 6 Even though it can do no real harm, thousands still fear this harmless bug. It's feared because years ago, people made up stories about it. The stories were based on what the bug looks like. People thought, "Look at those pinchers. Surely that bug is harmful!" Then other people who heard those stories repeated them to other people as facts. Now, those "facts" are widely believed, even though they are false. And it's all because of what the earwig looks like. But we tell each other not to judge people based on their appearances. Why is it okay to do the same to a bug?
- 7 So let's go back to our scene in your room. Everything is the same, except this time, you know all about earwigs. You don't panic. You know it's harmless. Instead, you just take the papers outside and let the bug go. Then you're proud of yourself for using your brain instead of being afraid of something that can't hurt you. The myths we allow to come into our ears and live in our minds are much more harmful than the feared (but not fierce) earwig.

25

Does the author believe that Pliny the Elder understood nature as well as people do today? Use **two** details from the article to support your response.

GO ON

26

How does the author support the idea that earwigs look scarier than they actually are? Use **two** details from the article to support your response.

Directions Read this myth. Then answer question 27.

How Beaver Stole Fire

*a Nez Perce tale, retold by Katharine B. Judson,
from Myths and Legends of the Pacific Northwest: Especially of Washington and Oregon,
published by A. C. McClurg & Co., 1910*

- 1 Long ago there were no people in the world. Animals and trees talked just as men do now. They also walked about. Now in those days, Pine Trees had the secret of fire. They would tell no one else. No one could have a fire, no matter how cold it was, unless he were a Pine. One winter it was so cold the animals almost froze to death. Then they called a council. They wanted to steal fire from Pine Trees.
- 2 Now on Grande Ronde River, Pine Trees were holding also a great council. They had built a large fire to warm themselves. Guards were put around the fire to keep off all animals. But Beaver hid under the bank, near the fire, before the guards took their places, so they did not see him. After a while a live coal rolled down the bank near Beaver. He hid it in his breast and ran away. Pine Trees started after him. When Pine Trees caught up near him, Beaver dodged from side to side. Other times he ran straight ahead. That is why Grande Ronde River winds from side to side in some places. In other places it is straight.
- 3 When they had run a long way, Pine Trees grew tired. They stopped on the river banks. So many stopped there, and so close together, that even today hunters can hardly get through the trees. A few kept on after Beaver and stopped here and there. These also remain here and there on the river bank.
- 4 A few Pine Trees kept close after Beaver. So did Cedar. Cedar said, "I will run to the top of that hill. I will see how far ahead he is." So Cedar ran to the top of the hill. Beaver was far ahead. He was just diving into Big Snake River where Grande Ronde joins it. Beaver swam across Big Snake River and gave fire to Willows on the opposite bank. Farther on he gave fire to Birches and to other trees. So these woods have fire in them. Ever since then animals and Indians can get fire from these woods by rubbing two pieces together.
- 5 Cedar still stands all alone on the very top of the hill. He is very old. His top is dead. The chase was a long one. You can see that because there are no other cedars within a hundred miles of him. Old men of the tribes point him out to the children. They say, "There is Old Cedar. He stands just where he stopped when he chased Beaver."

GO ON

27 In “How Beaver Stole Fire,” what changes to the land does Beaver cause when he runs away with fire? Use **two** details from the myth to support your response.

Directions Read this myth. Then answer questions 28 through 31.

Stealing Fire from Zeus

as told by Prometheus

- 1 If you ask me, sometimes it can be absolutely impossible to get along in a big family, and in my family, my cousin and I are no exception! A long time ago, my cousin, Zeus, and I got into an enormous argument. After hearing my story, you can tell me who you think was right!
- 2 I should first tell you that my name is Prometheus. That's Greek. I should also tell you in my family we are mostly gods, although I am a Titan. Some of us have more power than others. Zeus, for example, has a huge amount of power. Most people call him the King of the Gods because he controls the sky, weather, and law and order. I guess you can tell that Zeus really likes being in control.
- 3 Power isn't really my thing; I am more a "titan" of the people. I always liked humans more than most of the gods in my family. I liked to watch how humans lived, and I sometimes tried to make their lives better. So as you can imagine, when I noticed that humans were always shivering in caves, I thought to myself, "If I give them fire, they can be warm and cook their food. This will fix everything for them!"
- 4 I went to my cousin and asked him to give fire to people in order to warm them up. And can you believe that he refused? He said, "Your humans don't have enough brains to take care of fire. They are far too careless!" Personally, I think he was afraid humans would become too strong for him to control. I listened to Zeus, but I didn't agree with him.
- 5 Finally, I was through with Zeus's bossiness, and I decided to steal fire for the humans. I climbed Mount Olympus where Zeus lived, I crept into Zeus's house, and I stole a spark from his lightning bolt. I carefully took it back down the mountain and gave it to the humans. I am sure you can imagine how happy they were, especially after I showed them how to build a fire and how to cook food.
- 6 The only problem was that Zeus was not happy at all. When he looked down from Mount Olympus and saw that humans had fire, he exploded like a mighty volcano. It didn't take him long to guess that I was the one who had stolen the fire. It's not surprising that he was mad, but do you think it was fair to chain me to the side of a mountain? Lucky for me, Heracles came along just in time. He unchained me and I was free.
- 7 So, do you think what I did was so bad, or maybe I should ask this—when you are cold, whom should you thank? Zeus or me?

GO ON

28

What is a theme of “Stealing Fire from Zeus”? Use **two** details from the myth to support your response.

29

In paragraph 6, what does the phrase “he exploded like a mighty volcano” mean? Use **two** details from the myth to support your response.

30

How are the points of view in “How Beaver Stole Fire” and “Stealing Fire from Zeus” different? Use **one** detail from each myth to support your response.

GO ON

Planning Page

You may **PLAN** your writing for question 31 here if you wish, but do **NOT** write your final response on this page. Write your final response on pages 27 and 28.



These myths come from two different cultures. Both myths explain how fire was given to those who needed it. How are the explanations the same, and how are they different? Use details from **both** myths to support your response.

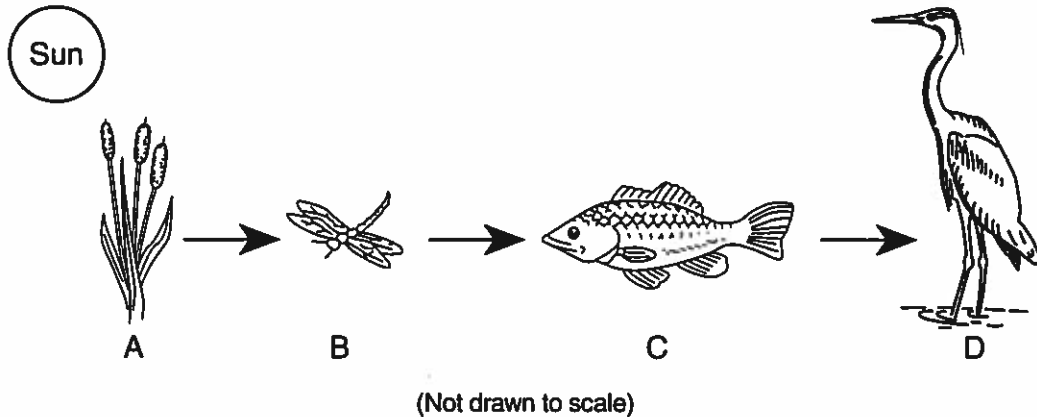
In your response, be sure to do the following:

- explain how the myth “How Beaver Stole Fire” tells how fire was given to those who needed it
- explain how the myth “Stealing Fire from Zeus” tells how fire was given to those who needed it
- compare and contrast the two explanations
- include details from **both** myths to support your response

Science

Part I

Base your answers to questions 1 and 2 on the food chain below and on your knowledge of science. Four organisms in the food chain are labeled *A*, *B*, *C*, and *D*.



1 Which organism in this food chain is both predator and prey?

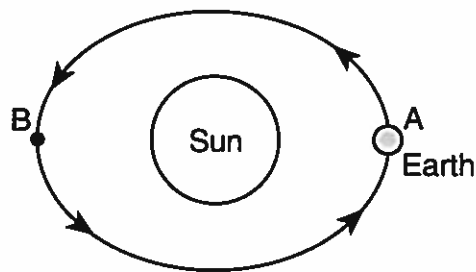
- A A
- B B
- C C
- D D

Note that question 2 has only three choices.

2 If the population of organism *A* **decreases**, the population of organism *B* would most likely

- A decrease
- B increase
- C remain the same

- 3 The diagram below shows Earth revolving around the Sun. Letters *A* and *B* show two locations in Earth's orbit around the Sun.



(Not drawn to scale)

It takes Earth one year to revolve around the Sun. How long will it take for Earth to travel from point *A* to point *B*?

- A 1 month
 - B 3 months
 - C 6 months
 - D 9 months
- 4 Which two terms are used to describe weather?
- A wind direction and amount of erosion
 - B gravity and amount of rain
 - C groundwater and cloud cover
 - D air temperature and wind speed
- 5 Which process occurs when ocean waves drop seashells on a beach?
- A condensation
 - B deposition
 - C classification
 - D rotation

- 6 Which unit of measurement should be used to describe the mass of an apple?
- A gram
 - B liter
 - C minute
 - D meter

Note that question 7 has only three choices.

- 7 An object is attracted to a magnet. When the magnet is moved away from the object, the magnetic force on the object will
- A decrease
 - B increase
 - C remain the same

- 8 Which characteristic describes the texture of a kitten's fur?
- A gray
 - B warm
 - C long
 - D soft

- 9 The diagram below shows a pencil being measured with paper clips.



What is the length of the pencil in paper clips?

- A 4.0
- B 4.5
- C 5.0
- D 5.5

Base your answers to questions 33 and 34 on the data table below and on your knowledge of science. A student observes the color, temperature, and volume of five different liquids, *A*, *B*, *C*, *D*, and *E*. The observations are shown in the data table.

Observations of Five Liquids

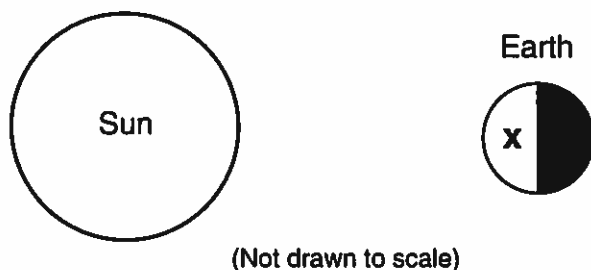
Liquid	Color	Temperature	Volume
A	brown	80°C	6 mL
B	white	40°C	10 mL
C	clear	60°C	15 mL
D	pink	80°C	18 mL
E	brown	40°C	20 mL

33 Based on the data table, which liquid is brown and has the lowest temperature? [1]

Liquid _____

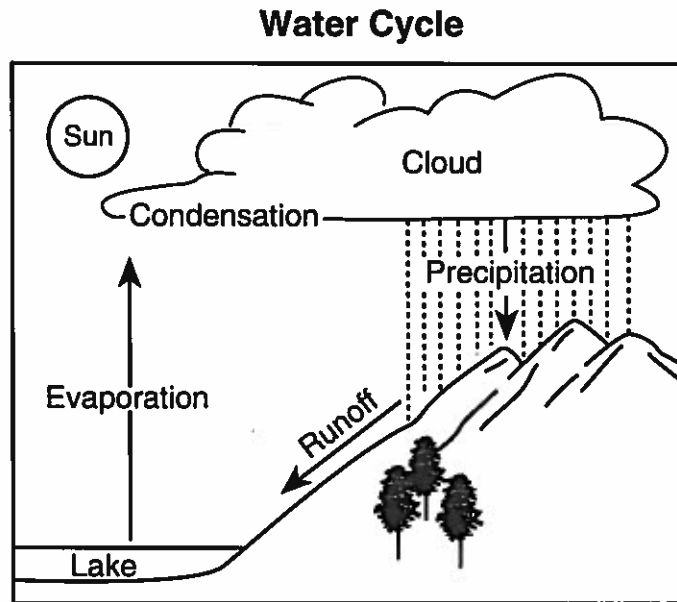
34 Write a statement that describes the difference between the volume of liquid *A* and the volume of liquid *D*. [1]

35 The diagram below shows the Sun and Earth. Letter *X* shows a location on Earth's surface.



Location *X* is shown during the day. Explain why it will be night at location *X* in 12 hours. [1]

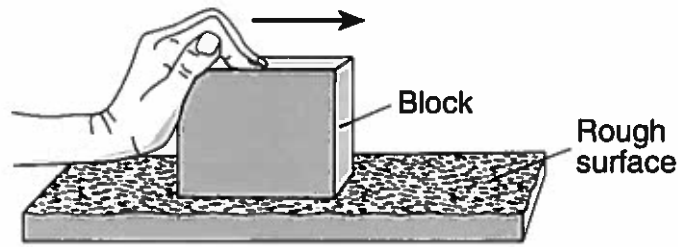
36 Four processes in the water cycle are labeled in the diagram below.



The first column of the chart below describes what happens during each process in the water cycle. Complete the chart by filling in the word for **each** process. The process in the first row is shown. [1]

What Happens During the Process	Water Cycle Process
Water falls from the cloud to the ground.	precipitation
Liquid water flows over Earth's surface.	
Liquid water changes into water vapor.	
Water vapor changes into liquid water.	

Base your answers to questions 37 and 38 on the diagram below, which shows a wooden block being pushed across a rough surface.



37 Explain why pushing the wooden block across the rough surface will make the bottom of the block feel warm. [1]

38 Describe **one** change to the block or to the surface that could be made so that the bottom of the block will **not** feel as warm after it is pushed. [1]
