

**NTI**

**Non-Traditional Instruction**

**Days 11-15**

**4<sup>th</sup> Grade**



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

**READ THE PASSAGE**

Think about the type of people the Rowlands are and the lesson that Greg learns.

**The Amazing Rowlands**

Greg Rowland sat in the living room, feeling miserable. His father was a famous magician. His mother was an expert archer and acrobat. And his older sisters were lion tamers. Everyone in Greg's family was amazing, except for Greg. The most exciting thing he could do was to make grilled cheese sandwiches.

"Why so glum?" his mother asked, walking into the living room on her hands.

"I feel very un-amazing," Greg said.

"That's silly," said Greg's father, who appeared in the room in a puff of purple smoke. "You're the most amazing Rowland of all!"

"That's impossible," Greg said. "I can't do magic, I roll sideways whenever I try a somersault, and I'm not brave enough to pet a kitten, much less a lion."

"Yes, but who helps me practice my new tricks?" Dad asked. "And who points out when I make a mistake or when people can see the rabbit wriggling under my hat?"

"And who makes sure my bow and arrows are all in good shape?" asked Mom.

"And who helps us clean out the lions' cages?" called Greg's sisters from the kitchen.

Greg's mother rolled into a sitting position on the floor beside him and ruffled his hair.

"You don't have to be flashy to be amazing, son," she said.

**SKILL PRACTICE**

Read each question. Fill in the bubble next to the correct answer.

1. What is the lesson of the story?
  - (A) Appearances can be deceiving.
  - (B) People cannot change who they are.
  - (C) Sometimes greatness is not easily seen.
  - (D) Trust in people's actions, not their words.
2. Which of these best describes Greg?
  - (A) helpful
  - (B) brave
  - (C) unkind
  - (D) grateful
3. Why does Greg feel bad?
  - (A) He does not appreciate his family.
  - (B) He does not think he has talent.
  - (C) He is tired of helping others.
  - (D) He wishes his family were more normal.
4. Where does the story take place?
  - (A) at the circus
  - (B) near a lion's cage
  - (C) in Greg's room
  - (D) in the Rowland home

**STRATEGY PRACTICE**

Why do you think the author chose Greg's mother to speak first and last in the story? How did the order of who spoke when help you follow the theme?

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Most foods must undergo some kind of processing before they are eaten. Millers grind grains into flour and cereal foods. Dairy farmers send milk to creameries and dairy plants where it is bottled. Dairy plants also produce butter, cream, cheese, buttermilk, canned milk, and other milk products. Ranchers ship cattle to stockyards and meat-packing plants. Meat-packing plants process, grade, and pack meat for shipment to market. Vegetable and fruit growers sell much of their produce to companies that can, freeze, or dry food. Many different workers help prepare the food you enjoy at your meals.

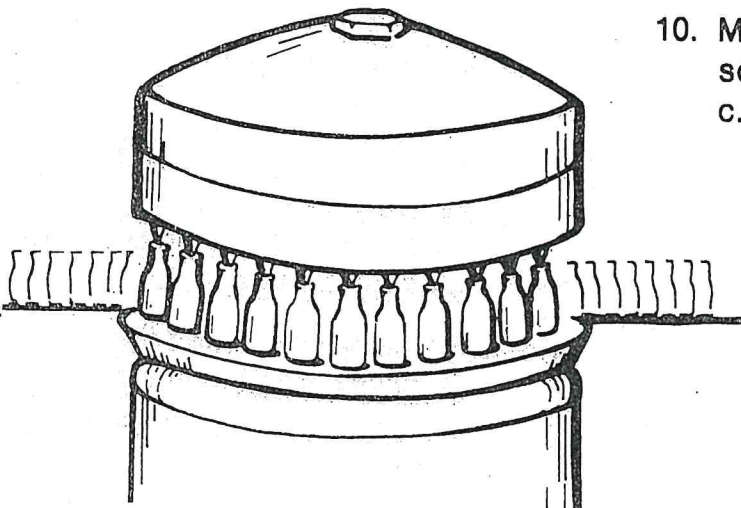
Underline the correct answers.

1. When food is processed, it is (a. ground b. frozen c. canned d. dried).
2. Milk is processed at (a. stockyards b. dairy plants c. the grocery store d. the farm).
3. Ranchers raise (a. vegetables b. fruits c. flowers d. cattle).
4. Bacon is processed (a. on a ranch b. at a creamery c. in meat-packing plants d. at the supermarket).
5. A miller (a. grinds grain b. cans vegetables c. boxes fruit d. makes candy).
6. Cheese is made (a. on the farm b. at a dairy plant c. at meat-packing plants d. on ranches).
7. Most fruits and vegetables are canned (a. by farmers b. by supermarkets c. in factories d. in creameries).
8. Canned food (a. must be eaten immediately b. can be kept for a long time c. is very expensive d. must be prepared in a factory).
9. Processed meat is packed (a. by ranchers b. by supermarkets c. at dairy plants d. at meat-packing plants).

10. Most fruits and vegetables are picked and sorted by (a. farmworkers b. packing plants c. ranchers d. supermarkets).

11. Improperly processed food (a. is safe to eat b. is never sold c. can cause illness d. may cause food to spoil).

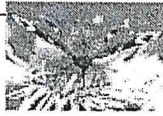
12. Properly processed food will (a. have a good flavor b. have a good color c. have food value d. be safe to eat).





## What's Eating You?

Cross-Curricular Focus: Life Science



All the living things in an ecosystem have a role to play. Plants are **producers**. Inside their green leaves they have round discs called chloroplasts. They are in stacks called grana. A green substance called chlorophyll fills the chloroplasts. It is what gives plants their green color. The chloroplasts allow plants to use water, sunlight and carbon dioxide to produce their own food. That's why they are called producers.

When an animal eats a plant, energy that the plant got from the sun is transferred to the animal. An animal that eats plants is called an herbivore. Since it is the first animal in the food chain, it is also the primary **consumer**. A consumer is an animal that eats plants or other animals. Consumers that eat only other animals are called carnivores. Consumers that eat both plants and animals are called omnivores.

Producers are critical to the survival of all living organisms in an ecosystem. Consumers depend on producers for the food which gives them energy. None of the other living things in the ecosystem would survive for long without producers.

Many plants make seeds by combining pollen from their flowers with pollen from other flowers. Water or wind occasionally help pollen get where it needs to go. Sometimes it is carried by animals, especially birds and insects.

Since some animals eat plants, it makes sense that animals sometimes help plants to reproduce, or make more plants. These animals that help plants reproduce by carrying pollen from one plant to another are called **pollinators**. Larger animals often help plants reproduce without even realizing it. Some seeds are caught in animal fur or eaten with fruit from the plants. The animal carries seeds from one place to another so plants can spread to new places. The seeds are deposited and grow in their new locations. Carrying and scattering plant seeds so they will have the opportunity to expand to new areas is called **seed dispersal**.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is the relationship between producers and consumers?

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2) What is the ultimate source of energy for all living things?

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3) How do animals help ensure that plants reproduce?

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4) Give an example of a pollinator.

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5) Describe a food chain with at least three links. What is the producer? What is the primary consumer? What is the secondary consumer?

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Science - Day 11

DAY 11

Name : \_\_\_\_\_ Score : \_\_\_\_\_

Teacher : M. Lewis Date : \_\_\_\_\_

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$$\begin{array}{r} 2199 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1693 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2127 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1823 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1083 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1324 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1375 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1770 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1107 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1285 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1798 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2420 \\ \times 7 \\ \hline \end{array}$$



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

**READ THE PASSAGE**

Think about how snow skiing and water-skiing are alike and different. Use clues from the passage and your background knowledge to make inferences.

**Skiing Year-round**

Skiing on water and skiing on snow have been popular sports for many years. In both types of skiing, people use long, flat boards to glide across a surface. But the similarities end there.

Snow skiing has been around for at least 5,000 years. Scientists in Norway have found cave drawings that show people skiing. There are two types of snow skiing. Cross-country skiers pump their arms and legs to push themselves forward over snow. In downhill skiing, skiers rely on gravity to build up speed as they slide down a slope.

Water-skiing is a newer sport than snow skiing. It first began around 1920, though people disagree on exactly when. While snow skiers always use two skis, water-skiers stand on either one or two skis, and the skis are wider than snow skis. Also, water-skiers don't move themselves forward. Instead, they hold on to a rope as a boat pulls them.

Skiing is a good sport for people who like to be active all year long. Winter weather is perfect for snow skiing, while the warm days of summer make water-skiing a great way to cool off.

**SKILL PRACTICE**

Read each question. Fill in the bubble next to the correct answer.

1. What is one way that snow skiing and water-skiing are alike?
  - (A) Both sports are thousands of years old.
  - (B) Skiers hold on to a rope in both sports.
  - (C) Both sports require snow.
  - (D) Skiers can use two skis in both sports.
2. Why do you think water-skiing is a newer sport than snow skiing?
  - (A) because water-skiing only happens in the summer
  - (B) because water-skiing is more difficult than snow skiing
  - (C) because water-skiers need a fast motorboat, which is a recent invention
  - (D) because there were no cave drawings to help people learn to water-ski
3. What is one difference between water-skiing and snow skiing?
  - (A) Only snow skiers use gravity to help them move.
  - (B) Only water-skiers stand on two skis.
  - (C) Only water-skiing is a popular sport.
  - (D) Only snow skiers use their arms while skiing.
4. Why do you think water-skiing is done in the summer or places where it is warm?
  - (A) because water-skiers need to stay warm
  - (B) because there are no places with water in the winter
  - (C) because water-skiing is only allowed in the summer
  - (D) because boats do not work when it is cold

**STRATEGY PRACTICE**

Describe one more detail about water-skiing or snow skiing that you know.



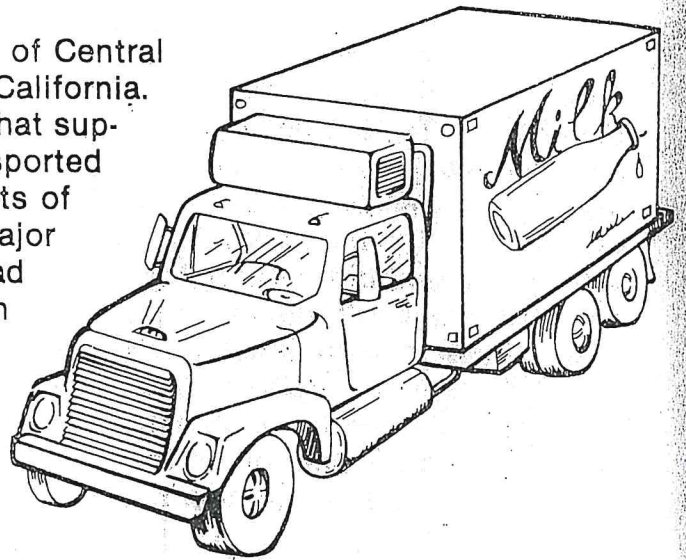
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## How Food Is Transported

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Bananas are grown in the warm countries of Central America. Oranges are grown in Florida and California. Ranchers in Texas raise much of the cattle that supplies our meat. How are all these foods transported from the places they are raised to other parts of our country? The transportation of food is a major part of the food industry. Refrigerated railroad cars and trucks transport fresh and frozen meat, fruits, and vegetables. Ships bring many foods to us from other countries. Cargo planes transport expensive foods, such as lobster, and other foods that spoil quickly. When you buy food at the market, the cost of transportation is included in the price you pay for it.



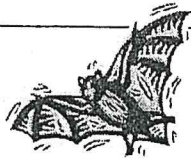
### Short Answers

1. Name four means of food transportation. \_\_\_\_\_
2. What means of transportation would be used for foods that spoil quickly? \_\_\_\_\_
3. What means of transportation would be used to transport foods from faraway countries? \_\_\_\_\_
4. When food is unloaded from a ship, plane, truck, or railroad car, where will it be taken? \_\_\_\_\_
5. How would food be transported from a wholesale market to grocery stores in nearby towns and cities? \_\_\_\_\_
6. Why does fresh food have to be handled and transported with great speed? \_\_\_\_\_  
\_\_\_\_\_
7. Name two ways fresh meat is usually transported. \_\_\_\_\_  
\_\_\_\_\_
8. Who pays for the cost of transporting food? \_\_\_\_\_
9. Must all fresh food be refrigerated when it is transported? \_\_\_\_\_
10. Does transportation affect the cost of food? \_\_\_\_\_
11. Do workers who help to get food from faraway places to cities have important jobs? \_\_\_\_\_
12. Do canned foods have to be refrigerated during transportation? \_\_\_\_\_
13. Do machines help to load and unload food that is transported? \_\_\_\_\_



## They See With Their Ears

**Cross-Curricular Focus: Life Science**



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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

Bats have an interesting way of looking at their world. Bats are nocturnal, which means they are most active at night. They don't use their eyes to find their way around in the dark. They use their ears instead!

Bats are among a very select group of animals. The animals in this group also include whales, porpoises and dolphins. They all use **ultrasound**, which is a special noise, to do what other animals do with their eyes. This skill is known as **echolocation**. Echolocation allows bats to hunt for food. It also helps them avoid obstacles in their path as they fly in the dark. It even lets them communicate with other bats.

So how does echolocation work? It's just like echoes in a large, empty room or at the edge of a canyon. Bats move air across their vocal chords just like people do when they speak or yell. Some bats make the sound come out of their mouths. Others make the sound come out of their noses. The sound they make has a very high pitch. This means the sound waves move very quickly. The energy from the sound waves goes out in front of the bat and bounces off any objects there. It creates an echo that returns back to the bat.

A bat's ears often appear quite large compared to the size of its head. Depending on where the sound hits on the folds of the bat's ear, the bat can tell very precisely where an object is. The strength of the echo can even tell the bat how large the object is. The echo from a moving object has a different sound than one that is still. It is either softer or louder. The sound is louder if the object is coming closer and softer if it's going away. This is important because it helps the bat find insects to eat.

The process of echolocation is very natural for the bat. The bat does not have to think about listening, or what to do next. It works so well that the bat doesn't care that he is "as blind as a bat." He can see with his ears!

1) What kind of sound does a bat use for echolocation?

2) What kind of echo does a bat hear from a object moving way from it?

3) What would you miss if you suddenly switched from seeing with your eyes to echolocation? Why?

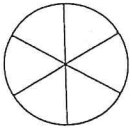
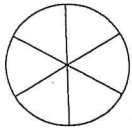
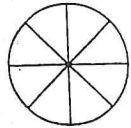
4) What is the main idea of this reading passage?

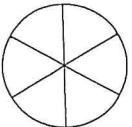
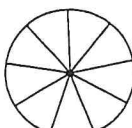
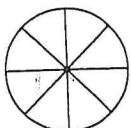
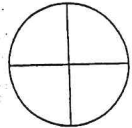
5) What might cause echolocation to work differently for whales than it does for bats?

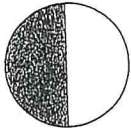
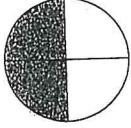
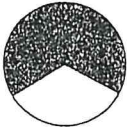
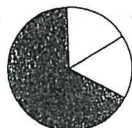
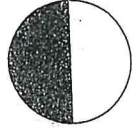
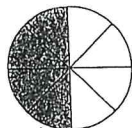
Science - Day 12

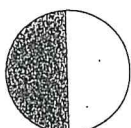
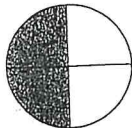
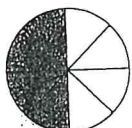
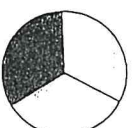
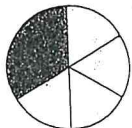
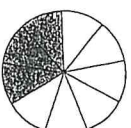
# Practice 14



<p>1. Shade the shape to show the equivalent fraction. Write the fraction.</p> <p><math>\frac{1}{2}</math></p>  <p>_____</p>	<p>2. Shade the shape to show the equivalent fraction. Write the fraction.</p> <p><math>\frac{2}{3}</math></p>  <p>_____</p>	<p>3. Shade the shape to show the equivalent fraction. Write the fraction.</p> <p><math>\frac{3}{4}</math></p>  <p>_____</p>
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<p>4. Shade the shape to show the equivalent fraction. Write the fraction.</p> <p><math>\frac{1}{3}</math></p>   <p>_____</p>	<p>5. Shade the shape to show the equivalent fraction. Write the fraction.</p> <p><math>\frac{1}{2}</math></p>   <p>_____</p>
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<p>6. Write the equivalent fraction.</p>   <p><math>\frac{1}{2}</math> _____</p>	<p>7. Write the equivalent fraction.</p>   <p><math>\frac{2}{3}</math> _____</p>	<p>8. Write the equivalent fraction.</p>   <p><math>\frac{1}{2}</math> _____</p>
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<p>9. Write the equivalent fraction.</p>    <p><math>\frac{1}{2}</math> _____</p>	<p>10. Write the equivalent fraction.</p>    <p><math>\frac{1}{3}</math> _____</p>
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Name: \_\_\_\_\_

**Main Idea and Details**

**READ THE PASSAGE**

Make sure you understand the facts about fungi (FUN-geye or FUN-jeye).

**Fascinating Fungi**

Do you like pizza with fungus on it? You do if you eat mushrooms on your pizza. Mushrooms are a type of fungus, and so are molds. They are living things that grow best where conditions are damp and warm. Unlike plants, fungi do not make their own food. Fungi take what they need from whatever they are growing on.

Fungi are not particular about where they feed. A peach that's getting soft is a perfect place for mold to grow. Mold will settle on the peach and attach itself with fine threads. These spread rapidly and form black, white, pink, or green fuzz. A moist shower curtain may not sound as tasty as a peach, but to mold it's just as nutritious! And in the woods, fungi flourish. They are everywhere and help dead plants and animals break down and rot.

There is no one shape or color of fungi. Many fungi have names based on the types of mushrooms they produce. Small yellow buttons of fungi are called fairy cups. Shiny globs of slimy fungi are known as witches' butter. Red mushrooms trimmed with tiny fibers are called eyelashes. But no matter what they are called, all fungi are fascinating!

**SKILL PRACTICE**

Read each question. Fill in the bubble next to the correct answer.

1. What is the main idea of the passage?
  - (A) People eat fungi on pizza and other foods.
  - (B) Fungi grow in warm and damp places.
  - (C) Fungi are interesting living things that eat almost anything.
  - (D) Fungi help things in the forest rot.
2. Based on the passage, which one is true about fungi?
  - (A) All fungi are good toppings for food.
  - (B) Fungi grow mostly in areas where it snows.
  - (C) Some shiny fungi are used as butter.
  - (D) Fungi grow on both living and nonliving things.
3. Why might a soft peach have green fuzz?
  - (A) A soft peach is wet and cold.
  - (B) Mold is living on the peach.
  - (C) The peach is making some mold.
  - (D) The peach is a living thing.
4. Based on the passage, which one is true about mushrooms?
  - (A) Mushrooms are types of mold.
  - (B) All mushrooms are brown or tan.
  - (C) Mushrooms help break down dead trees.
  - (D) Like plants, mushrooms use the sun to make their food.

**STRATEGY PRACTICE**

In your own words, write three facts about fungi.

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Let's visit a supermarket. As you enter the store, you see several checkout counters. People are waiting in line for the checkout clerk to total up the amount of money they owe for the items that are in their baskets. Beyond the checkout counters, the store is divided into many sections. Rows of shelves hold such items as canned goods, health and beauty aids, cake mixes, cereals, bakery goods, and housewares. One area of the store has long refrigerators where meat and dairy products are kept. Freezers contain frozen meat, fruits, vegetables, and dairy products. In the produce department many different kinds of fruits and vegetables are displayed. People push baskets up and down the aisles, deciding what they need to buy. Stockboys work to keep the shelves fully stacked. It takes many people to help make supermarkets convenient places for their customers to shop.

**A Matching**

- \_\_\_ 1. dairy products
- \_\_\_ 2. produce department
- \_\_\_ 3. checkout counter
- \_\_\_ 4. display
- \_\_\_ 5. supermarket
- \_\_\_ 6. housewares
- \_\_\_ 7. stockboy
- \_\_\_ 8. checkout clerk

- a. a large, self-service, retail food store or market
- b. a place where people pay for things they have bought
- c. the person who totals up the amount of money customers spend in a store
- d. items such as brooms, soap, dishes, and cooking utensils
- e. such foods as milk, cheese, butter, and ice cream
- f. a person who unpacks and puts merchandise in its place in a store
- g. the section of a grocery store where fresh fruits and vegetables are kept
- h. show in a special way, so as to attract attention



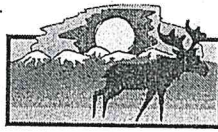
**B In the blanks write the letters of the supermarket sections in which you would find these items.**

- |                           |     |                |     |                  |
|---------------------------|-----|----------------|-----|------------------|
| a. dairy case             | ___ | 1. broom       | ___ | 13. syrup        |
| b. meat counter           | ___ | 2. milk        | ___ | 14. cat food     |
| c. produce counter        | ___ | 3. steak       | ___ | 15. beef         |
| d. canned foods           | ___ | 4. toothpaste  | ___ | 16. cheese       |
| e. housewares             | ___ | 5. ice cream   | ___ | 17. frozen peas  |
| f. bakery goods           | ___ | 6. oranges     | ___ | 18. soap         |
| g. health and beauty aids | ___ | 7. bread       | ___ | 19. tuna fish    |
| h. frozen foods           | ___ | 8. butter      | ___ | 20. pans         |
|                           | ___ | 9. baked beans | ___ | 21. onions       |
|                           | ___ | 10. celery     | ___ | 22. razor blades |
|                           | ___ | 11. eggs       | ___ | 23. nuts         |
|                           | ___ | 12. donuts     | ___ | 24. bleach       |



## Taiga Ecosystems

Cross-Curricular Focus: Life Science



Taiga ecosystems cover large areas of North America. They are also found in Europe and Asia. A good example of a taiga ecosystem in the United States is the state of Alaska.

The weather is very cold in taiga ecosystems. The winter season lasts a long time. It gets icy cold. Storms are severe, bringing biting cold winds. Summers never get very warm and are extremely short. There isn't much precipitation in a taiga ecosystem. When moisture does fall, it usually comes in the form of dry, powdery snow.

Living in the extreme conditions of a taiga ecosystem takes a special kind of organism. Some common animals you could find in the area are moose, wolves and deer. Each animal **population** has to adapt to the severe conditions. Short, stubby grass and shrubs grow in taiga regions. Beautiful evergreen trees grow there, too. All the trees you think of when you imagine a Christmas tree are at home in the taiga. Pines, firs, and spruce trees are common. The thin, waxy leaves of evergreen trees are sometimes called needles. They hold in water all year round. They also do not freeze easily. In the taiga, temperatures drop down very low.

All green plants are an important source of oxygen for our planet. The many trees of the taiga region add oxygen to the air. Green plants go through the process of photosynthesis to make their food. They use the carbon dioxide that humans and other animals breathe out. At the end of the process, they release oxygen into the air. Since taiga ecosystems have so many trees, they help make up for areas with less plants, like the desert.

People living and working in taiga regions affect the natural balance. Activities such as hunting, trapping and fishing change the animal populations. Animals can be over-hunted and become endangered. Drilling for oil and gas destroys the soil. Harvesting trees damages animal habitats. It also robs the Earth of oxygen sources. Even tourism can cause problems. Some tourists do not respect wildlife and plants. They are willing to sacrifice the habitat for developed recreational areas. People have the right to use natural resources. They should, however, use them in a way that doesn't harm the ecosystem.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Why do you think that taiga ecosystems are home to evergreen trees?

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2) Give an example of an organism that lives in the taiga.

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3) What do green plants release that humans breathe?

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4) What is a human activity that might harm the taiga ecosystem?

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5) What is summer like in the taiga?

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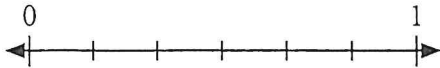
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Science - Day 13

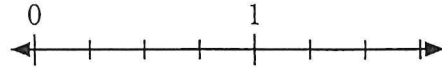


Mark each location described.

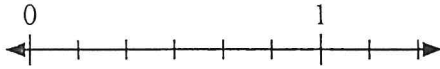
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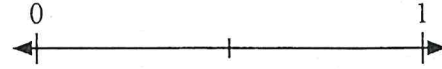
2) Mark the location of  $\frac{1}{4}$



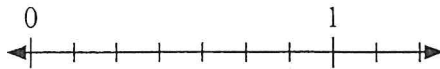
3) Mark the location of  $\frac{4}{6}$



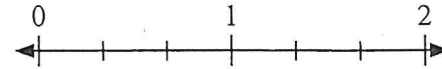
4) Mark the location of  $\frac{2}{2}$



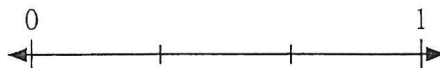
5) Mark the location of  $\frac{7}{7}$



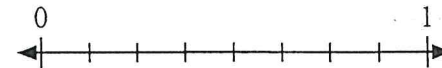
6) Mark the location of  $\frac{0}{3}$



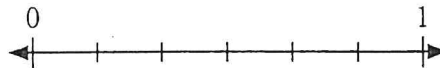
7) Mark the location of  $\frac{2}{3}$



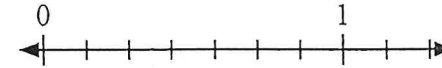
8) Mark the location of  $\frac{3}{8}$



9) Mark the location of  $\frac{2}{6}$



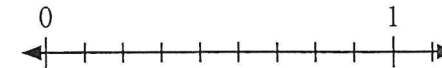
10) Mark the location of  $\frac{0}{7}$



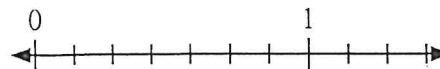
11) Mark the location of  $\frac{3}{6}$



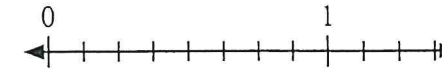
12) Mark the location of  $\frac{8}{9}$



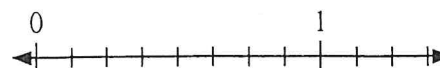
13) Mark the location of  $\frac{6}{7}$



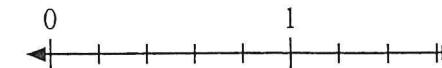
14) Mark the location of  $\frac{5}{8}$



15) Mark the location of  $\frac{8}{8}$



16) Mark the location of  $\frac{4}{5}$



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

Cause and Effect

**READ THE PASSAGE**

Look for causes and effects that explain how and why a koala lives the way it does.

**Calm Koalas**

Tucked into the branches of a eucalyptus (yoo-kuh-LIP-tuss) tree in Australia, a koala is forced to live a lazy life. Its diet consists almost entirely of eucalyptus leaves.

Eucalyptus leaves contain a lot of moisture. Therefore, a koala doesn't need to leave its tree to find water. But the leaves don't provide much nutrition. As a result, a koala has little energy and must nap between 16 and 20 hours a day.

When a koala is not sleeping, it is eating. An adult koala will chew about 1,000 leaves a day! The koala has special front teeth that help it nip a thin branch off a eucalyptus tree. Then it uses its back teeth to strip the leaves from the branch. The animal chews the leaves into a paste that makes the leaves easier for the koala's stomach to handle.

Eucalyptus leaves are poisonous to other mammals, so they don't dare eat them. But a koala's stomach can break down the poisons in most kinds of eucalyptus leaves. Because of this, the leaves are not harmful. However, there is one kind of eucalyptus leaf that koalas *cannot* eat. That means a koala must smell each leaf before eating it. The animal's strong sense of smell can detect the odor of the poison in dangerous leaves.

**SKILL PRACTICE**

Read each question. Fill in the bubble next to the correct answer.

1. Why does a koala smell each leaf before eating it?
  - (A) to check if it has enough water in it
  - (B) to check if it is safe to eat
  - (C) to check if other koalas have tried to eat it
  - (D) to check if the leaf is poisonous to other animals
2. According to the passage, a koala does *not* need to look for water because \_\_\_\_\_.
  - (A) water is difficult to find
  - (B) eucalyptus leaves contain enough water
  - (C) koalas do not have the energy to drink water
  - (D) koalas cannot climb down trees
3. Which is a cause for koalas leading slow and sleepy lives?
  - (A) Their food does not give them much energy.
  - (B) Their food has too much moisture in it.
  - (C) They get poisoned from eating eucalyptus leaves.
  - (D) They live in eucalyptus trees.
4. Koalas chew eucalyptus leaves into a paste because the paste \_\_\_\_\_.
  - (A) tastes better than the leaves
  - (B) removes all the poison from the leaves
  - (C) gives the koala more water
  - (D) is easier for their stomachs to handle

**STRATEGY PRACTICE**

In your own words, tell how a koala spends its time.

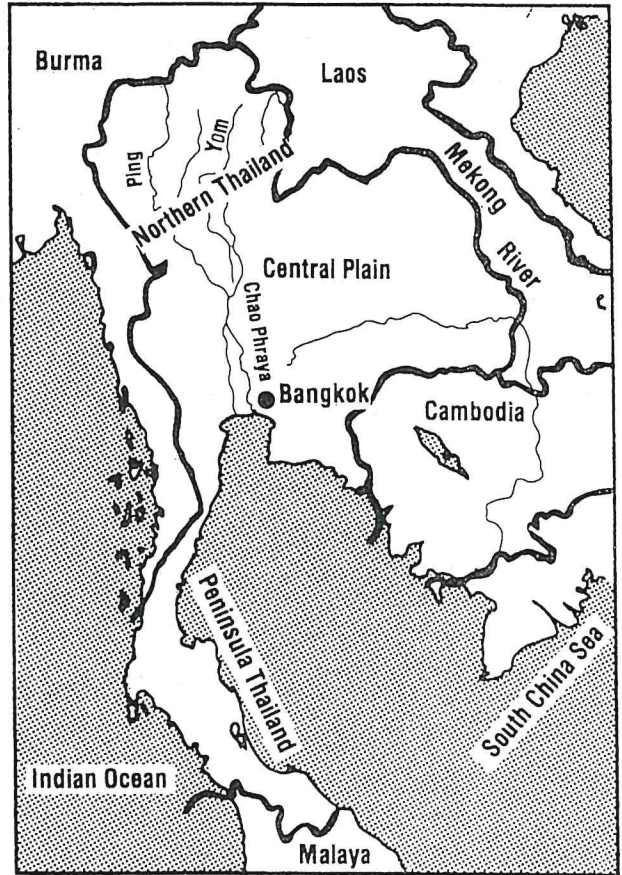
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On the other side of the world from the United States, across the Pacific Ocean, is a country called Thailand. Thailand is in the southern part of the continent of Asia. Its official name, in the Thai language, is "Muang Thai," which means "Land of the Free." Thailand is ruled by a king. Its capital and largest city is Bangkok. Because it is near the equator, the climate in Thailand is mild. Most of the Thai people live in villages and work as farmers.



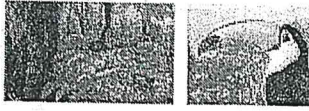
**Short Answers**

1. On what continent is Thailand found?  
\_\_\_\_\_
2. Thailand is divided into three sections. What are they?  
\_\_\_\_\_  
\_\_\_\_\_
3. What four countries border Thailand? \_\_\_\_\_
4. What river is the boundary between Thailand and Laos? \_\_\_\_\_
5. What is the capital of Thailand? \_\_\_\_\_
6. What river do the Ping and Yom Rivers flow into? \_\_\_\_\_
7. What ocean lies west of Peninsula Thailand? \_\_\_\_\_
8. What body of water lies east of Peninsula Thailand? \_\_\_\_\_
9. Is the equator north or south of Thailand? \_\_\_\_\_
10. What ocean would you have to cross to get to Thailand from the United States?  
\_\_\_\_\_
11. What is the head of the government in Thailand called? \_\_\_\_\_
12. What language is spoken in Thailand? \_\_\_\_\_
13. What is the official name for Thailand? \_\_\_\_\_
14. What does this name mean? \_\_\_\_\_
15. Why is the climate in Thailand mostly mild? \_\_\_\_\_
16. How do most of the Thai people earn a living? \_\_\_\_\_
17. Where do most of the people in Thailand live? \_\_\_\_\_
18. What is the largest city in Thailand? \_\_\_\_\_



## Rainforest Ecosystems

Cross-Curricular Focus; Life Sciences



Rainforest ecosystems are found near the equator, the center imaginary line of latitude that runs east and west around Earth. Tropical rainforests have more rain than other areas. The weather is warm and humid all year long. There is lots of sunlight.

Living things are **abundant** in the rainforests. There are thousands of species of animals and even more kinds of plants. Their needs for sun, water and warmth are all met by the conditions of the rainforest. The excellent conditions allow them to **thrive**. There is an amazing amount and variety of plants in that one location. This variety makes the rainforests a major source of Earth's overall oxygen supply.

Tropical rainforests have layers of life. The uppermost layer is called the **canopy**. Very mature, tall trees stretch out their branches and leaves, nearly blocking out the sun in some places. Many animals live high in this green, leafy habitat. You can find monkeys, tree frogs and many different species of birds.

Below the treetops is a second layer, called the understory. The understory is shaded by the canopy. Not as much sunlight reaches the plants in the understory. Bushes and growing trees make up the understory. It is home to birds, reptiles and small climbing animals.

The third layer, the forest floor, is busy with life. Vines, shrubs, mosses, ferns, flowers and large predator animals, such as jaguars, can be found there. Small animals burrow into the ground and live in bushes. Leaf-cutter ants and other insects busily hunt for food and water.

Rainforests contain some of Earth's greatest biological treasures. Many medicines are made from plants found there. Scientists have used them to make some promising drugs for treating cancer and AIDS. Food sources are very rich, too. There are over 3,000 fruits alone. Rainforests also grow the vegetables and grains that make up most of the world's daily diet. You can find corn, potatoes, rice and squash there. Spices like ginger, cinnamon, and chocolate grow alongside coffee and a variety of nuts. The rainforests produce all this in addition to providing oxygen for Earth. The rainforests are very valuable to the planet.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is the canopy of the rainforest?

\_\_\_\_\_

\_\_\_\_\_

2) Why might a scientist be interested in the rainforests?

\_\_\_\_\_

3) Do you think you could survive alone in a rainforest? Why, or why not?

\_\_\_\_\_

\_\_\_\_\_

4) Describe the conditions that make a rainforest a good place for many living things.

\_\_\_\_\_

\_\_\_\_\_

5) Rainforests are found near what imaginary line?

\_\_\_\_\_

\_\_\_\_\_

Science - Day 14

Day 14

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

Score : \_\_\_\_\_

Teacher : Lewis

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

### Converting Improper Fractions to Mixed Numbers

1)  $\frac{22}{10} =$  \_\_\_\_\_

2)  $\frac{14}{4} =$  \_\_\_\_\_

3)  $\frac{7}{3} =$  \_\_\_\_\_

4)  $\frac{57}{9} =$  \_\_\_\_\_

5)  $\frac{30}{4} =$  \_\_\_\_\_

6)  $\frac{11}{2} =$  \_\_\_\_\_

7)  $\frac{5}{2} =$  \_\_\_\_\_

8)  $\frac{79}{10} =$  \_\_\_\_\_

9)  $\frac{57}{10} =$  \_\_\_\_\_

10)  $\frac{52}{8} =$  \_\_\_\_\_

11)  $\frac{39}{10} =$  \_\_\_\_\_

12)  $\frac{37}{6} =$  \_\_\_\_\_

13)  $\frac{35}{9} =$  \_\_\_\_\_

14)  $\frac{43}{6} =$  \_\_\_\_\_

15)  $\frac{14}{3} =$  \_\_\_\_\_

### Converting Mixed Numbers to Improper Fractions

1)  $4\frac{1}{3} =$  \_\_\_\_\_

2)  $3\frac{1}{2} =$  \_\_\_\_\_

3)  $6\frac{4}{5} =$  \_\_\_\_\_

4)  $9\frac{3}{8} =$  \_\_\_\_\_

5)  $2\frac{1}{2} =$  \_\_\_\_\_

6)  $8\frac{2}{3} =$  \_\_\_\_\_

7)  $4\frac{6}{7} =$  \_\_\_\_\_

8)  $4\frac{1}{7} =$  \_\_\_\_\_

9)  $3\frac{5}{8} =$  \_\_\_\_\_

10)  $8\frac{3}{4} =$  \_\_\_\_\_

11)  $5\frac{4}{5} =$  \_\_\_\_\_

12)  $7\frac{3}{5} =$  \_\_\_\_\_

13)  $6\frac{4}{7} =$  \_\_\_\_\_

14)  $3\frac{1}{3} =$  \_\_\_\_\_

15)  $7\frac{1}{4} =$  \_\_\_\_\_



**Fortnite Fandom**

There are few things that have captivated the audience of both adults and children over the last few years quite like the virtual video game download of *Fortnite: Battle Royale*. Interestingly enough, the term "fortnite" refers to the literal time period of two weeks, or 14 days. If you ask any friend or relative of an avid *Fortnite* gamer, you might quickly realize that the players of this game have spent *much* more time than 14 days leveling up in squad matches with their friends.

As of July 2018, the 'free' download of *Fortnite: Battle Royale* appeals to over four million players worldwide, as they outwit, outplay, and outlast other players on an island. Although the initial download of the game is free, there are multiple in-game purchases that generates an average income of over \$300 million dollars per month for its developers. Gamers can purchase *Premium Battle Passes*, allowing them to buy exclusive outfits and weapons, as they play along side of other gamers.

The cartoon-like graphics, along with its ease of access on all gaming systems, as well as on Smartphones, makes it the most popular game among children as young as 8 years old. Also, the multiplayer mode allows for a single player to interact with literally 100s of players at a time. The versatility of interaction is a huge draw for many players as well.

Although the game itself isn't overly violent or gory in nature, it is based on survival and fighting. Still, many parents, as well as teachers and main-stream media, are becoming concerned by the number of hours that children are spending playing this game. *Fortnite* was designed to be more than a game; it was made to be an experience. However, gamers that aren't limited in their time playing or monitored in the hours spent advancing levels could find themselves easily addicted.

1) \_\_\_\_\_ **PART A:** What is the overall text structure of this passage?

- a) Descriptive
- b) Chronological
- c) Compare and Contrast
- d) Cause and Effect

\_\_\_\_\_ **PART B:** How does the author use details to express this text structure?

- a) The author explains how gamers play the game *Fortnite*.
- b) The author describes the elements of the game *Fortnite* and information about the game.
- c) The author tells what can happen to players if they do not monitor that amount of the time they spend playing the game.
- d) The author compares the game *Fortnite* to other popular video games of the past ten years.

2) \_\_\_\_\_ **PART A:** Who would benefit *most* from the information in this article?

- a) Players
- b) Grandparents
- c) Children
- d) Parents

**PART B:** What evidence from the text best supports your answer for part A?

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The farmers in Thailand plant and harvest rice in much the same way as their ancestors did for thousands of years. Rice fields are divided into smaller parts by dirt walls called dikes. This holds the water in the fields. The Thailand rice farmer sows his seed by hand. Then he floods the field with water from the river. Oxen, called water buffalo, help the farmer do his work. When the green rice plants turn yellow, the farmer drains the fields; the rice ripens in the hot sun. At harvest time, he cuts the rice with a sickle. Then the rice must be threshed. Sometimes this is done by spreading the stalks on the ground and letting oxen trample on

them. Two rice crops a year can be grown in the Central Plains because the climate is warm the year round, and there is a good supply of water.

**A Matching**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. dike</li> <li>2. sow</li> <li>3. water buffalo</li> <li>4. harvest</li> <li>5. sickle</li> <li>6. thresh</li> </ol> | <ol style="list-style-type: none"> <li>a. an ox that works well in water and mud</li> <li>b. tool with a short curved blade on a handle</li> <li>c. scatter seed on the ground</li> <li>d. a bank of earth built to hold water in or out</li> <li>e. separate the grain or seeds from</li> <li>f. gathering in food crops</li> </ol> |
|---|--|

**B True or False**

1. Rice farmers in Thailand use modern machinery to plant and harvest their crops.
2. Rice fields are divided into smaller sections by walls of dirt.
3. The water used to flood rice fields in Thailand comes from the sea.
4. Rice plants are kept in flooded fields until they are harvested.
5. Water buffalo are especially useful to Thailand rice farmers.
6. Thailand farmers take all their rice to mills to be threshed.
7. It is possible to grow two rice crops a year in Thailand.
8. Thailand farmers must wear heavy clothing in the damp rice fields because it is very cold there.
9. Rice farmers use a tool that looks like scissors to cut the rice.
10. Rice can be grown only where there is a good supply of water and a warm climate.



## Endangered Species

Cross-Curricular Focus: Life Science



Today, some type of animals are an **endangered** species. This means there are very few animals of that kind left on Earth. The animals could face **extinction**. Extinction is when all the animals of that kind die. When a type of animal is extinct, it is gone forever.

One problem for animals is that their habitat is sometimes destroyed by humans. As human populations increase, more and more space is needed for people. Building areas for people to live pushed animals out of their natural homes. Forest and swamp habitats are the most threatened. Trees are cut down to make room for homes and businesses. Swamps are filled in so that neighborhoods can expand. The habitat is destroyed. The animals have nowhere else to go. Without a habitat, the number of animals begins to go down.

Humans must prevent the extinction of animals due to the loss of their habitat. We have to become more aware of animal populations when considering building and expansion projects. Other options may not be as convenient, but the survival of the animals needs to be taken into consideration. Better planning and an awareness of how human actions affect animals can make a difference. It is still possible to maintain a diverse animal population for future generations to enjoy.

Another major cause of endangerment of animals is overhunting by humans. The practice of shooting animals as a sport can quickly bring the animals to extinction. This is a worldwide problem. The governments of countries around the world must unite to agree on laws regarding animals. Some animals may have large enough populations so hunting will not endanger them. Others must be protected.

There is still hope for animals who are already on the endangered species list. Some organizations are working hard to recreate habitats for them. Breeding programs are helping animal populations increase. We all have to be aware and think before we act. The things we do can affect more than just ourselves.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What would be the result if worldwide laws were passed to protect animal habitats?

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2) Give an example of something that can be done to help keep endangered animals from becoming extinct.

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3) What statement supports the idea that the author believes animals need to be protected?

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4) Based on the article, what does extinction mean?

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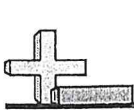
5) What is one way that humans affect animal populations?

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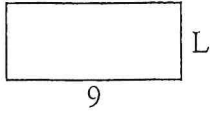
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Science - Day 15

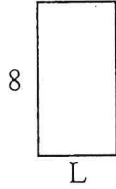


Determine the value of 'L'. Lengths are in cm (not to scale).

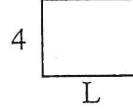
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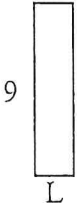
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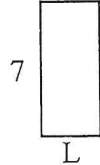
3) Perimeter = 18



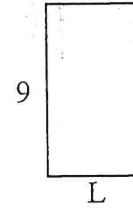
4) Perimeter = 22



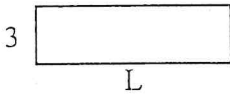
5) Perimeter = 20



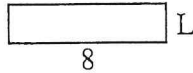
6) Perimeter = 28



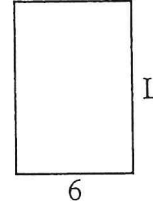
7) Perimeter = 26



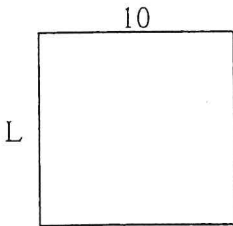
8) Perimeter = 20



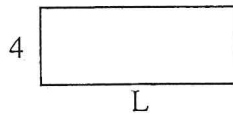
9) Perimeter = 30



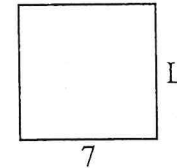
10) Perimeter = 40



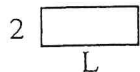
11) Perimeter = 28



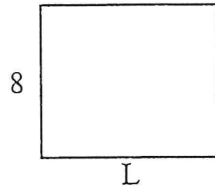
12) Perimeter = 28



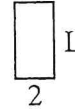
13) Perimeter = 14



14) Perimeter = 34



15) Perimeter = 12



Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_



**NTI**

**Non-Traditional Instruction**

**Days 16-20**

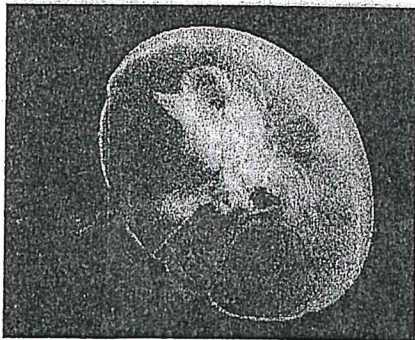
**4<sup>th</sup> Grade**





### A Jelly-Fish By Marianne Moore

Visible, invisible,  
A fluctuating charm,  
An amber-colored amethyst  
Inhabits it; your arm  
Approaches, and  
It opens and  
It closes;  
You have meant  
To catch it,  
And it shrivels;  
You abandon  
Your intent—  
It opens, and it  
Closes and you  
Reach for it—  
The blue  
Surrounding it  
Grows cloudy, and  
It floats away  
From you.



- 1) \_\_\_\_\_ The author uses language to help the reader visualize the actions of a jelly-fish.

Which of the following lines helps you to imagine a jelly-fish opening and closing?

- a) "The blue, Surrounding it..."
- b) "Visible, invisible,..."
- c) "Inhabits it; your arm..."
- d) "You abandon, Your intent -..."

- 2) \_\_\_\_\_ What does the word *fluctuating* mean in this poem?

- a) Funny
- b) Living
- c) Moving
- d) Beautiful

- 3) \_\_\_\_\_ The author uses language that allows the reader to compare the jelly-fish to the person trying to catch the jelly-fish.

Which of the following descriptions of the jelly-fish are similar to that of the person trying to catch the jelly-fish?

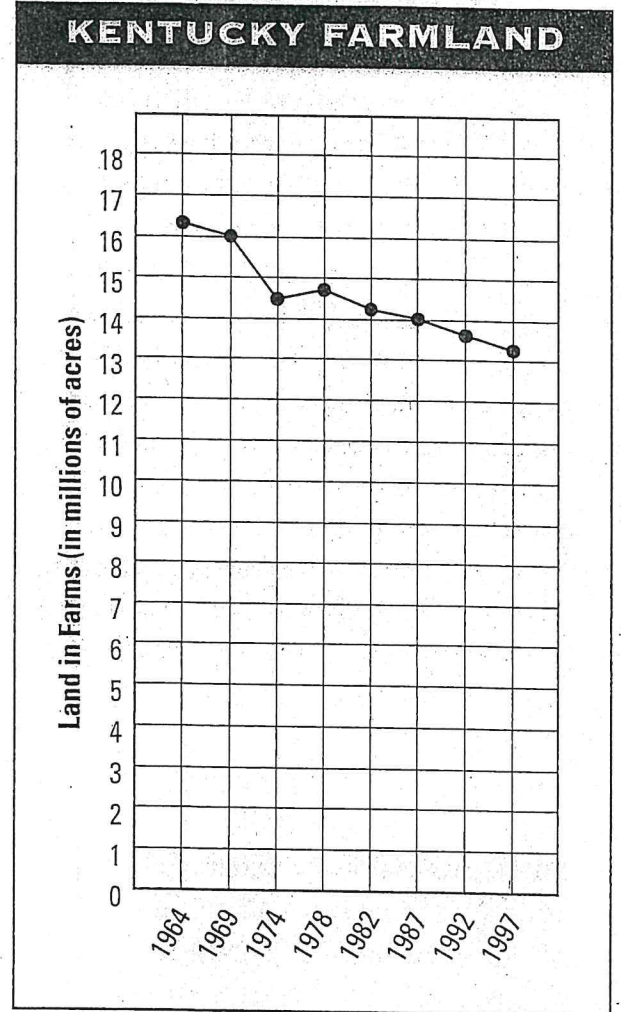
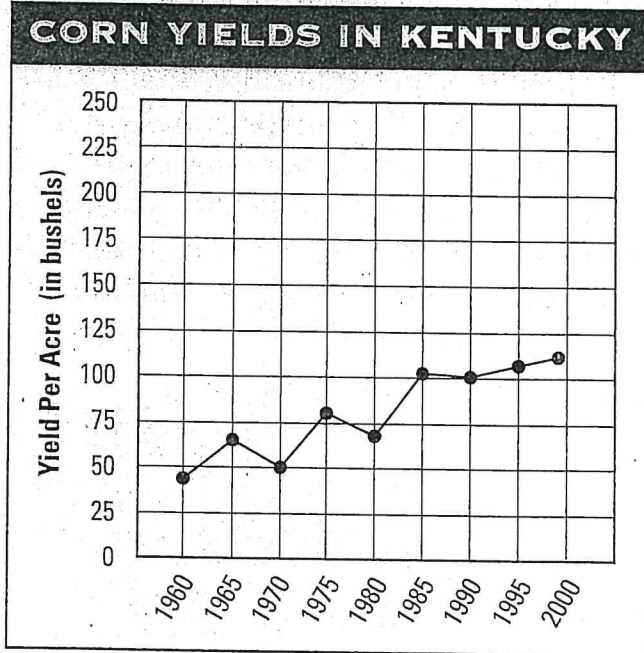
- a) Both the jelly-fish and the person are confused about their purpose in life and how they should approach situations.
- b) The jelly-fish seems smarter than the person that is trying to catch it, and the person seems only focused on what they want.
- c) Both the jelly-fish and the person live in the same habitat, and they know how to co-exist without bothering the other.
- d) Both the jelly-fish and the person can't make up their mind about what they are doing; opening or closing and trying to catch the jelly-fish or giving up.

- 4) \_\_\_\_\_ Which of the following is a possible underlying theme of this poem, *A Jelly-fish*?

- a) Enjoy nature and all of its beauty.
- b) Humans and their emotions are flexible and ever changing.
- c) The world is like the ocean: vast and deep.
- d) Be sure to know which direction you are going before you start.

# Kentucky's Farms Past and Present

During the last half of the twentieth century, the number of farms in Kentucky decreased dramatically. In 1959 there were more than 150,000 farms in the state. By 1998 there were just about 90,000 farms. Even so, farm production has increased. Better farm machines and stronger plant chemicals have helped make this possible.



**DIRECTIONS:** Study the graphs, and then answer the questions.

1. About how much land was devoted to farms in Kentucky in 1964? In 1997?  
\_\_\_\_\_
2. About how many bushels of corn were produced per acre in 1960? In 1995?  
\_\_\_\_\_
3. What factors explain the decrease in the number of farms and acres of farmland in Kentucky along with the increase in production?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

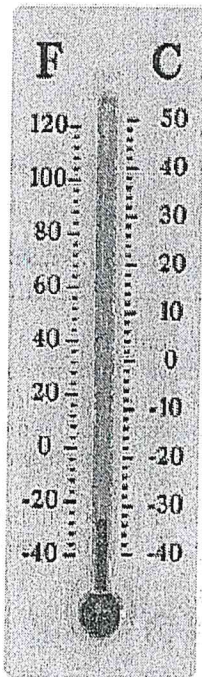


## Measuring Temperature

**Cross-Curricular Focus: Physical Science**

The thermometer is the most common tool for measuring temperature. Many thermometers use two different temperature scales: Fahrenheit and Celsius. You may have wondered how they relate to each other. Both scales were invented in the 1700's and are named after their inventors.

The Fahrenheit scale was invented by Gabriel Fahrenheit. He set the boiling point for water at 212°, and the freezing point at 32°. Temperatures are measured all along the scale, much like a number line or ruler. The unit of measurement for temperature is a degree, instead of an inch on a ruler.



Anders Celsius invented the Celsius scale after the Fahrenheit scale. He kept Fahrenheit's anchor points. The anchor points are the temperatures at which water would freeze or boil. Celsius however, changed the numbers of his temperature scale. Under the Celsius scale, water freezes at 0° and boils at 100°. This numbering scale has been adopted for most scientific purposes. It works well with the metric system.

Many thermometers work because liquid changes its volume, or the amount of space it takes up, based on its temperature. When a liquid is cold, it takes up less space than it does when it is warm. Many of the changes in temperature are very small. Thermometers use a large bulb filled with liquid and a very narrow tube to show the changes. The markings on the thermometer are based on the freezing point and boiling point of water. Why? Because Gabriel Fahrenheit chose them as conditions that are easy to recreate. Anders Celsius agreed. Sometimes, inventors set the standard for everyone.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Which scale came first: Fahrenheit or Celsius?

---



---

2) Why do scientists use the Celsius scale?

---



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3) Why do many thermometers use liquid?

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4) What is the unit of measurement for temperature?

---



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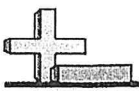
5) Which temperature would be more comfortable for most people: 80° Fahrenheit or 80° Celsius?

---



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Science - Day 14



Shade in the fraction to solve the problem.

Ex)

1)

2)

3)

4)

5)

6)

7)

8)

9)

10)

**Answers**

- Ex.  $\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$
1. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
2. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
3. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
4. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
5. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
6. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
7. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
8. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
9. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
10. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_



Name:

Nonfiction: Explicit Meaning – Q1:3

Date:

As you answer this week's questions, highlight your evidence in the text.

## Scorpions

Do scorpions give you the creeps? Imagine seeing a scorpion the size of a crocodile! Fossils of giant sea scorpions date back more than 400 million years. Those creatures died out with the dinosaurs, but the scorpion species did not. Scorpions are found on every continent except Antarctica. The majority live in hot, dry climates.

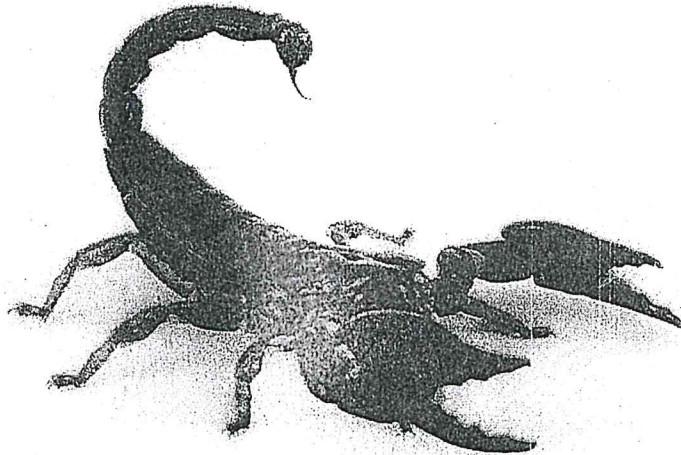
Scorpions are closely related to spiders. Like spiders, they have eight legs. They also have two strong front pincers, similar to the claws of lobsters. Their skeleton is outside their body. It serves as a protective shell. Their color varies by species. Colors include tan, yellow, brown, black, red and even blue. Scorpions range in length from less than a dime to over 8 inches. Scorpions have between six to twelve eyes, but they don't have great vision. Their special sense of smell helps them find food and detect danger. They eat insects, spiders, other scorpions and small lizards. Most scorpions hide during the day and hunt at night. They can go six to twelve months without food or water.

Scientists look for scorpions using black light flashlights. Why? Because in black light a scorpion glows blue. But even scientists don't agree on why their blue glow occurs.

Insects and most spiders lay eggs. The scorpion gives birth to live babies. As many as 100 babies can be born at one time. Their skeletons are very soft. The babies crawl up on their mother's back. She carries them on her back for 10 – 20 days, until their skeletons harden.

A scorpion doesn't actually bite, it stings. They have a stinger at the tip of their tail. Scorpions grab prey with their pincers, then sting it with their tail. The **venom** of most scorpions is only strong enough to kill their prey. There are almost 2000 species of scorpions. Only 30 to 40 of them have venom that is fatal to humans. The most venomous scorpion in the United States is the bark scorpion. Its sting can be very painful. However, no one in the U.S. has died from a bark scorpion sting in the last 20 years. In most cases, the sting of a scorpion feels like a bad bee sting. While it hurts, the sting is usually harmless unless the person is very young or very old.

Scorpion venom might even be helpful to humans. Some claim the venom can help treat diseases, including cancer. Scientists need to do more tests to prove whether or not these claims are true.



Nonfiction: Explicit Meaning – Q1:3

<p>Day 17</p>	<p>Top</p>
<p>What is this text mainly about?</p> <hr/>	<p>How might you be able to tell one species of scorpions from another?</p> <hr/>
<p>Where in the world might you NOT find a scorpion?</p> <hr/>	<p>What helps scorpions find food?</p> <hr/>
<p>How are scorpions like spiders?</p> <hr/>	<p>What is a scorpion likely to eat?</p> <hr/>
<p>Why do you think the author included a picture of a scorpion?</p> <hr/>	<p>Why do scientists use a black light to find scorpions?</p> <hr/>
<p>Day 18</p>	
<p>What other animals does the author compare a scorpion to?</p> <hr/>	<p>Why do scorpions protect their babies for up to 20 days after they are born?</p> <hr/>
<p>How is a scorpion different from other insects and spiders?</p> <hr/>	<p>How does a scorpion attack their prey?</p> <hr/>
<p>Is it likely that a scorpion sting will be deadly to a human? Why or why not?</p> <hr/>	<p>How might scorpions be helpful to humans?</p> <hr/>
<p>When might a sting from a scorpion harm a person?</p> <hr/>	<p>How do you feel about scorpions now that you have read this text?</p> <hr/>



SS17

# Kentucky Products

Manufacturing companies in Kentucky produce a wide variety of products. Kentucky plants make important products from glass to airplane engines.

SELECTED KENTUCKY MANUFACTURERS			
Company Name	Product	City	Number of Employees in Kentucky
General Electric	airplane engines	Madisonville	10,620
	appliances	Louisville	
	glass	Lexington, Somerset	
	large motors	Owensboro	
Ford Motor Company	trucks	Louisville	8,567
Toyota Motor Corporation	cars	Georgetown	8,500
Lexmark International Group	printers	Lexington	6,000

**DIRECTIONS:** Use the information on the table to match the correct description to each term. Write the letter of the description in the blank beside the matching term.

- \_\_\_\_\_ 1. General Electric
- \_\_\_\_\_ 2. cars
- \_\_\_\_\_ 3. appliances
- \_\_\_\_\_ 4. Lexmark International Group
- \_\_\_\_\_ 5. Owensboro
- \_\_\_\_\_ 6. Louisville

- a. product manufactured by General Electric in Louisville
- b. manufacturer with 10,620 workers in Kentucky
- c. city where large motors are made
- d. manufacturer that employs 6,000 Kentuckians making printers
- e. product made by 8,500 Kentuckians in Georgetown
- f. city where trucks are made



# Magnetic Attraction

**Cross-Curricular Focus: Physical Science**



An object that attracts metals, especially iron, is called a **magnet**. The area near the magnet where it has enough power to attract things is called its **magnetic field**. The farther away from the magnet an item is, the weaker the magnetic field is. When it is weak, it is less likely an object will become attracted to the magnet.

Magnets can be either **permanent** or **temporary**. A permanent magnet stays magnetized for a long time. A temporary magnet loses its magnetism after only a short time. You can even turn something made out of iron into a temporary magnet by rubbing it against a permanent magnet. The more you rub, the stronger your temporary magnet gets. However, the effects will wear off over time.

The two ends of the magnets are called **magnetic poles**. The poles are found at the ends of bar magnets and the tips of the horseshoe magnets. They are the strongest parts of the magnet. Each magnet has a north pole and a south pole. Opposite poles attract, or pull toward each other. Poles that are the same repel, or push away from each other. A north pole and a south pole will pull toward each other. Two north poles will push away from each other. The same happens with two south poles. When you hold magnets, you can actually feel the push and pull effects of magnetism.

A special kind of temporary magnet uses electricity to create a magnetic field. It is called an **electromagnet**. An electromagnet can be an extremely strong magnet. However, it only acts like a magnet when it has electricity. A stronger electrical current will produce a stronger magnet. Unlike other magnets, an electromagnet can be controlled by a switch. When the switch turns the electrical current off the electromagnet loses its magnetism. Whatever the electromagnet was holding drops to the ground. We use this technology to operate large cranes that lift heavy metal objects, such as cars.

Electromagnets are also used to make motors run in small appliances. Combining regular magnets and electromagnets makes it possible for electrical energy to be turned into energy of motion.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Explain the difference between a temporary magnet and a permanent magnet.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2) Would two north poles attract each other or push away from each other?

\_\_\_\_\_

\_\_\_\_\_

3) What is different about an electromagnet?

\_\_\_\_\_

\_\_\_\_\_

4) What do we use electromagnets for?

\_\_\_\_\_

\_\_\_\_\_

5) What does attract mean when speaking about magnets? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Science - Day 17



**Problem-Solving Practice***Multiply and Divide Facts Through 10***Solve.**

1. If you have 8 dogs, how many total legs are there? How many total eyes and ears?  
\_\_\_\_\_
2. If you have 4 pens to a set and you have 9 sets, how many pens do you have altogether?  
\_\_\_\_\_
3. There were 4 siblings that each visited the dentist twice a year. How many total times did they visit the dentist in 7 years? 8 years? 10 years?  
\_\_\_\_\_
4. There are 5 kids on each relay team. How many teams would 35 kids make?  
\_\_\_\_\_
5. If the boys make 7 toy cars to sell at a fund-raiser for \$5 each, how much money will they raise?  
\_\_\_\_\_
6. If you have a belt that is 10 inches long, how long would 7 belts be?  
\_\_\_\_\_
7. If you have a basket of 9 strawberries, and you pick 5 more baskets with the same amount, how many berries are there altogether?  
\_\_\_\_\_
8. If you can fit 8 toy dinosaurs in a box, and you have 5 boxes, how many total toy dinosaurs do you have?  
\_\_\_\_\_





SS18

# Imports and Exports in Kentucky

Kentucky, like other states, both imports and exports products. An **import** is a good brought into one place from another place. An **export** is a good shipped from one place to another. Kentucky still exports some of the same things it has exported in the past, including tobacco, grains, livestock, and coal. Today, though, these products represent only a small portion of Kentucky exports. Manufactured goods, especially cars and car parts, make up the largest number of exports. Kentucky imports some of the materials to make these cars and other manufactured items.

**KENTUCKY'S TOP EXPORT DESTINATIONS, 1999**

COUNTRY	VALUE OF EXPORTS
Canada	about \$3,000,000,000
United Kingdom*	about \$822,000,000
France	about \$820,000,000
Japan	about \$760,000,000
Mexico	about \$476,000,000

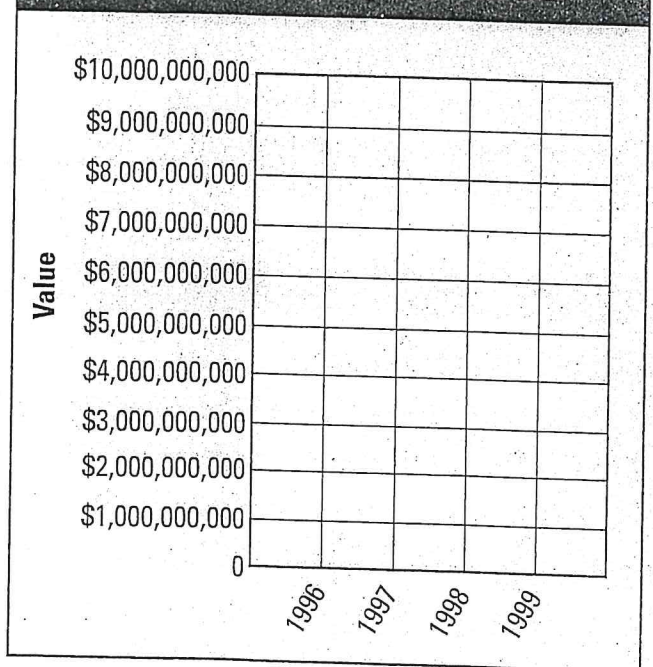
\*includes Great Britain and Northern Ireland

**DIRECTIONS:** Use the information provided in the table on the left to complete the bar graph on the right on the value of Kentucky's exports.

**VALUE OF KENTUCKY'S EXPORTS, 1996-1999**

YEAR	VALUE
1996	about \$6,700,000,000
1997	about \$8,600,000,000
1998	about \$8,800,000,000
1999	about \$9,660,000,000

**VALUE OF KENTUCKY'S EXPORTS, 1996-1999**



Harcourt Brace School Publishers

**Charge It!****Cross-Curricular Focus: Physical Science**

Many people do not really understand how **electricity** works. They just know that when they need power to run an appliance, they have to plug it into the wall.

Energy comes from charged particles that are moving around. Have you ever rubbed a balloon against your clothes to make it stick? Have you held a balloon or a comb over someone's head to watch his hair stand up straight? That's static electricity and electrically charged particles. But these particles don't do much unless we control their energy.

**Static** electricity builds up on certain materials. Other materials, though, let electrical charges flow through them. This creates an electric current. Electric current travels very easily through metals like copper, gold, silver, and aluminum. We call materials that electric current flows through easily **conductors**. Water is also a good conductor of electricity. That's why electrical charges can travel through people, too. There is water in every cell of a person's body. Electric current can travel through these cells.

Since metal is a good conductor of electricity, electrical wires are often made out of metal. Wiring can also be made out of non-metal materials, such as graphite.

Conductors have to be enclosed in a material that is an **insulator**. Insulators do not allow electric current to pass through them. The rubber coating that you see on electrical cords covers the metal. The electric current stays inside the cord so we can direct the current to the appliance that needs power. Other good insulators are glass and some plastics.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What are two materials that are good conductors of electricity?

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---

2) How is static electricity different from electric current?

---



---

3) What could happen if the rubber coating on a power cord is damaged?

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---

4) Is water a conductor or an insulator?

---



---

5) In your own words, explain the difference between a conductor and an insulator.

---



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Science - Day 18



**4.NBT.2**

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

## Comparing Numbers

Use  $<$ ,  $>$ , or  $=$  to compare both sets of numbers.

Five hundred forty-  
three thousand,  
six hundred  
seventeen

$$500,000 + 40,000 + \\ 3,000 + 600 + 70 + 1$$

$$200,000 + 70,000 + \\ 600 + 20 + 8$$

Two hundred  
seventy-two  
thousand, six  
hundred twenty-eight

Work Space:

Explain how you compared the two sets of numbers.

---

---

---





Reading Day 19

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

(front / back)

# Stomach Ache Supreme

If your mother kindly asks you to make supper,  
Don't protest, pout, or scream.  
You can use my favorite recipe  
Called "Stomach Ache Supreme."

First get ice cream from the freezer,  
And put the ice cream in a baking dish,  
Pour some chocolate syrup on it  
With a lovely can of tuna fish.

Sprinkle it with chocolate chips,  
some salt and pepper too.  
Then dump an entire jar of pickles on top,  
Now there's a "treat" for you!

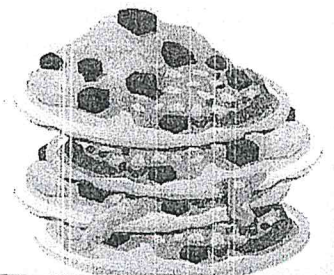
Spread a spoonful of peanut butter on it,  
Add cinnamon and hot sauce to taste.  
Garnish it with spinach or broccoli  
And an entire tube of minty toothpaste.

Place the baking dish in the oven  
And bake it for a while.  
Then serve it to your family,  
But don't forget to smile!

Give them plenty of helpings,  
Expect some stomach pain.  
They will never, never want you  
to ever cook supper again!



Write the main idea of the poem:



1. Why does the poet use the exclamation points in the fifth stanza?

- [A] To show the speaker's excitement  
[B] To describe how the speaker is angry  
[C] To show the speaker's fear  
[D] To show the speaker's disappointment

2. Which of these lines from the poem rhyme?

- [A] Lines 1 and 2  
[B] Lines 10 and 12  
[C] Lines 23 and 24  
[D] Lines 11 and 12

3. The reader can tell that the speaker of the story -

- [A] dislikes making supper for himself  
[B] enjoys creating new dishes for himself  
[C] dislikes making supper for the family  
[D] enjoys making supper for the family

4. In line 2, protest means -

- [A] give a compliment  
[B] to accept or approve  
[C] to run away  
[D] to disapprove or complain

5. What is the main message the speaker is trying to tell?

- [A] Don't be afraid to put different ingredients together; you might invent a new delicious meal.  
[B] Creating the perfect meal requires careful planning.  
[C] The more meals you make, the better you get at cooking.  
[D] If you cook a disgusting meal, your mother won't ask you to make supper ever again.

6. This poem can BEST be described as a -

- [A] free verse  
[B] limerick  
[C] humorous  
[D] nonfiction

7. Put an entire tube of minty toothpaste -

- [A] before adding peanut butter  
[B] after garnishing with spinach or broccoli  
[C] after baking the dish in the oven  
[D] before adding cinnamon and hot sauce

8. What is a synonym for helpings in the last stanza?

- [A] servings  
[B] to smile or grin  
[C] to help someone with something  
[D] poison

9. This poem has a total of \_\_\_\_\_ stanzas.

10. This poem has a total of \_\_\_\_\_ lines.



# George Rogers Clark

George Rogers Clark was born in the British colony of Virginia but moved to Kentucky as a young man. When the American Revolution began, most American colonists wanted to force the British out of the 13 colonies. Clark hoped to push the British out of the western frontier as well. He did not want the British to continue holding onto this land after the Revolution ended.

In 1777 Clark got permission from the Virginia governor to lead forces against the British on the western



Captain George Rogers Clark

frontier. Then he put a small army together.

Captain Clark and his soldiers captured three British supply bases in the southern parts of Illinois and Indiana. The army captured the last of these bases near Vincennes, Indiana, in 1778. British General Henry Hamilton surrendered the base near Vincennes to Captain Clark. The British no longer controlled the western frontier.

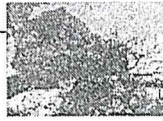
However, Native Americans continued to attack settlers in Kentucky. In 1782 a large force of Native Americans under British command attacked a settlement called Bryan Station. The Native Americans retreated, but the Kentuckians caught up with them at Blue Licks. The Native Americans and the British defeated the Kentuckians in the battle that followed. Kentucky settlers under Captain Clark later destroyed many Native American campsites. The Battle of Blue Licks was one of the last battles of the revolutionary years.

**DIRECTIONS:** Read the paragraphs. Then mark the statements below that are true with a "T" and the statements that are false with an "F." On a separate sheet of paper rewrite false statements to make them true.

- \_\_\_\_\_ 1. George Rogers Clark lived in Kentucky all his life.
- \_\_\_\_\_ 2. George Rogers Clark wanted to drive the British out of the frontier.
- \_\_\_\_\_ 3. After 1778, Native Americans no longer attacked Kentucky settlers.
- \_\_\_\_\_ 4. The Battle of Blue Licks was an important Kentucky battle.
- \_\_\_\_\_ 5. The Battle of Blue Licks was one of the first battles of the American Revolution.

## What Glaciers Leave Behind

Cross-Curricular Focus: Earth Science



Glaciers are like huge mountains of moving ice. Many years ago, the movement of glaciers across our landscapes slowly made some changes to Earth's surface. Ice is heavy. When a glacier moves it can damage the ground that it is moving over. It can push rocks and soil in front of it as it moves. A glacier can also drag the rocks and soil with it as it travels. In time, the ice gradually melts.

There are many places on Earth that haven't had any glaciers for many years. However, land formations are evidence that there was ice there at one time. A **moraine** is a rut in the ground that is lined with small rocks and debris. It was formed by a slow-moving glacier that scraped the ground as it moved. The glacier dropped small rocks as it melted. An **erratic** is a large boulder left behind after a glacier has melted. A huge stone boulder can also be called a **monolith**. A **cirque** is an area that is rounded out like a bowl.

Sometimes the changes in the landscape caused by glaciers can be beautiful. The U.S. national parks are home to many of these natural wonders. When the government chose which land to protect and preserve its natural condition, the areas with sculptured landscapes were the first choices. By including them in national parks, the government protected them for future generations to see.

California's Yosemite (yo-SEM-it-tee) Valley is one of the best examples of how glaciers can transform a landscape. Nearly all of the lakes in the Yosemite Valley were formed by glaciers. The glaciers melted after cirques had been formed by the slow-moving giants. As the ice melted, the water settled in the bowl instead of running off across the land. There are also many examples of erratics and moraines scattered throughout the Yosemite National Park.

Visitors come to Yosemite and other national parks by the thousands. They want to see what glaciers have left behind. It's interesting that leftovers can be so picturesque.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is the main idea of this passage?

---



---

2) What can happen when the glacier melts in a cirque?

---



---

3) What is the author mean by "slow-moving giant"?

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4) Based on the content of the passage, what do you think the word picturesque means in the last line of the passage?

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5) Explain how a moraine is formed.

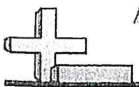
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Science - Day 19





Round each number to the place value specified.

Answers

- 1) Round 314 to the nearest hundred.
- 2) Round 4,843 to the nearest hundred.
- 3) Round 67,545 to the nearest ten.
- 4) Round 43,050 to the nearest ten.
- 5) Round 7,888 to the nearest thousand.
- 6) Round 524,548 to the nearest thousand.
- 7) Round 256,804 to the nearest hundred thousand.
- 8) Round 9,984 to the nearest hundred.
- 9) Round 404,869 to the nearest ten.
- 10) Round 215,328 to the nearest thousand.
- 11) Round 83,295 to the nearest ten thousand.
- 12) Round 422 to the nearest ten.
- 13) Round 88,257 to the nearest thousand.
- 14) Round 2,796 to the nearest ten.
- 15) Round 637,900 to the nearest thousand.
- 16) Round 753 to the nearest ten.
- 17) Round 4,706 to the nearest hundred.
- 18) Round 770 to the nearest hundred.
- 19) Round 212 to the nearest ten.
- 20) Round 92,240 to the nearest ten thousand.

1. \_\_\_\_\_
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17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_





### Photos in a Snap!

In 2008, Evan Spiegel and Bobby Murphy were just two guys attending Stanford University in California. Spiegel and Murphy had a common goal: to create a social media platform that would allow users to send pictures to each other that would disappear after a short time period. This idea of ephemeral, or temporary, photography was not only appealing to both Spiegel and Murphy, but evidently to 300+ million users world-wide as of January 2017. This alluring platform is none other than *Snapchat*, of course.

The original design of *Snapchat* launched as *Picaboo* in July 2011. At first, the application only worked on iOS devices, and only allowed users to send photographs that lasted only seconds. Although the original concept of *Picaboo* would allow photographs to disappear, users soon began using screenshots to capture fleeting images.

By September 2011, *Picaboo* had been rebranded as *Snapchat*, and the app created a notification that let each user know if someone had, in fact, taken a screenshot of their photo. After several marketing renderings, Spiegel and Murphy spent most of their time focusing on technological updates to make *Snapchat* more user-friendly, interactive, and innovative.

Overtime, users gained the ability to add captions, create movies, add "Stories", and add fun filters to their "snaps".

1) \_\_\_\_\_ **PART A:** What is the central idea of this article?

- a) Snapchat is the most popular social media platform available for users of Smartphones.
- b) Since the invention of Snapchat, photography has become more popular.
- c) The app Snapchat has improved over the years, becoming more user friendly and creative.
- d) The design of Snapchat is targeted only toward teenagers and their friends.

\_\_\_\_\_ **PART B:** Which of the following details from the text BEST supports your answer to Part A?

- a) By September 2011, *Picaboo* had been rebranded as *Snapchat*, and the app created a notification that let each user know if someone had, in fact, taken a screenshot of their photo.
- b) After several marketing renderings, Spiegel and Murphy spent most of their time focusing on technological updates to make *Snapchat* more user-friendly, interactive, and innovative.
- c) Spiegel and Murphy had a common goal: to create a social media platform that would allow users to send pictures to each other that would disappear after a short time period.
- d) This alluring platform is none other than *Snapchat*, of course.

2) \_\_\_\_\_ **PART A:** In what ways does the author persuade the reader to check out the application Snapchat for themselves?

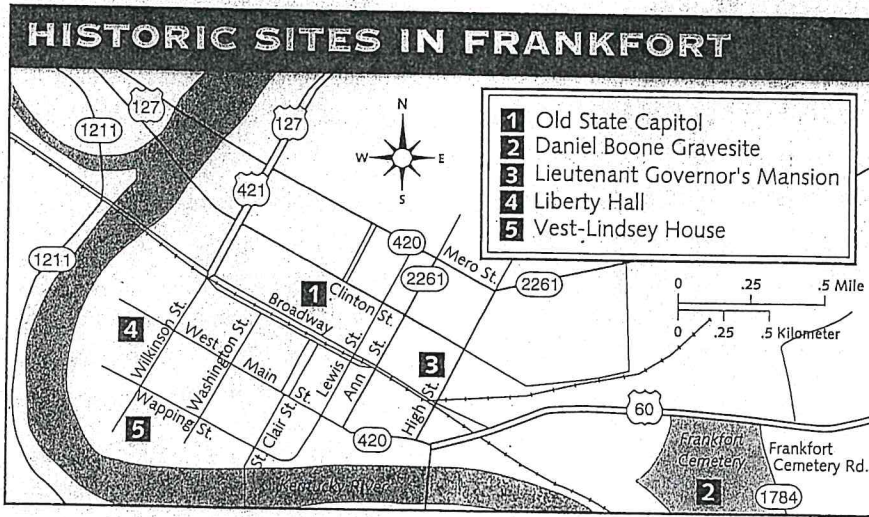
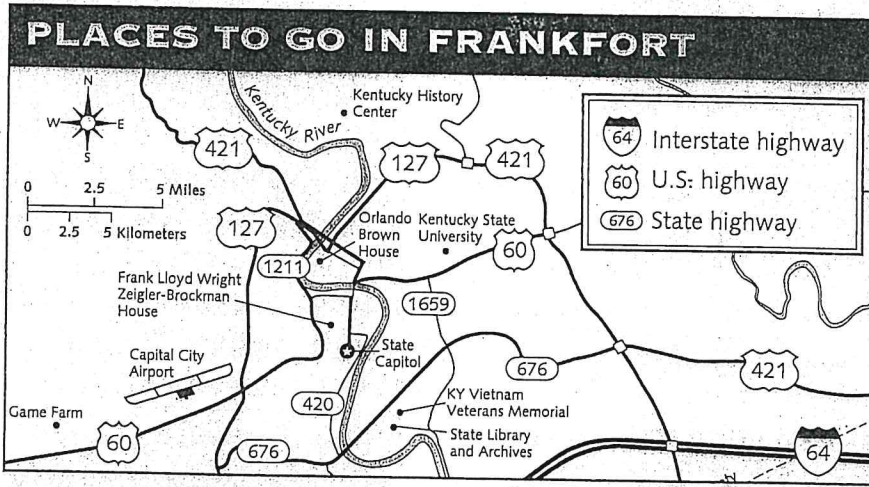
- a) The author explains how the creators of Snapchat spent most of their time creating an application that is user focused.
- b) The author describes how to correctly use Snapchat and how to have the most fun while using the application.
- c) The author conveys the message that Snapchat is a great application, and that if you have an iOS device, you need to check it out.
- d) The author offers advice for new Snapchat users that provides basic information needed to use the application.

**PART B:** What evidence from the text best supports your answer for part A?

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0520

# A Visit to Frankfort



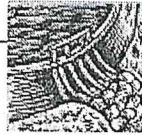
**DIRECTIONS:** Use the maps to answer the questions.

1. On the scale for the Places to Go in Frankfort map, how many miles are equal to one inch? On the Historic Sites in Frankfort map?  
\_\_\_\_\_
2. What is the shortest route from the Old State Capitol to the Lieutenant Governor's Mansion? Which map did you use to find this out? Why?  
\_\_\_\_\_
3. How many miles would you travel to drive from Kentucky State University to Capital City Airport? Which map did you use to figure this out? Why?  
\_\_\_\_\_
4. What kind of information is the Places to Go in Frankfort map most useful for finding? The Historic Sites in Frankfort map?  
\_\_\_\_\_



## Water Carves the Land

Cross-Curricular Focus: Earth Science



The coastlines of North America have a beautiful, but unusual shape. The ocean waves are responsible for weathering away bits of soil, rock, and sand wherever the water meets the land. Some beaches change more than others. Those that experience severe storms or frequent winds change the most. Water carries the sediment, or sand, soil and rocks, and drops it along another part of the coast.

A bay is formed when wears away the land in a natural curve. This creates a body of water that has a wide opening to the sea, but is partly enclosed by land. The waters of a bay are usually calm.

Ocean waves aren't the only water sources that pick up and redeposit sediment. River systems are made up of many different rivers. They join up on their journey toward the ocean. They all eventually join a major river that will take them all the way to the ocean. One example of this is the Mississippi River system. It eventually empties into the Gulf of Mexico. At the mouth of the river, deposits of sediment build up over time. This forms a large land area called a **delta**.

Sometimes people change the path that water naturally follows. Man-made lakes are created by building dams. The lake that forms is called a **reservoir** and stores the region's fresh water supplies. In some areas, the dam may also use the force of gravity to make electricity. Water rushing from a high place to a low one turns huge turbines, or wheels, creating and storing electricity for the region's power system. Water from reservoirs can also be used in irrigation projects that help farmers get enough water to grow crops.

Water often shapes our land. Humans also shape and control the water sources of the Earth.

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

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is sediment?

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2) What happens when sediment builds up over time?

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3) What is responsible for the unusual shape of a coastline?

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4) What is an example of people changing the way water flows?

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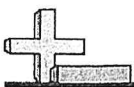
5) What is one benefit of building a dam?

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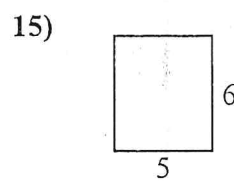
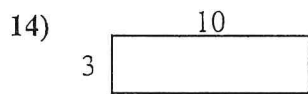
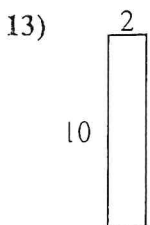
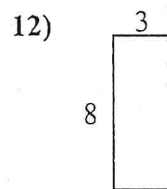
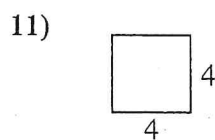
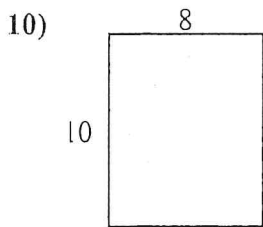
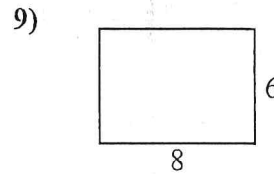
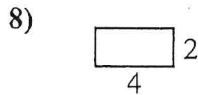
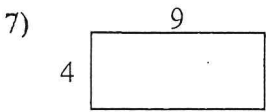
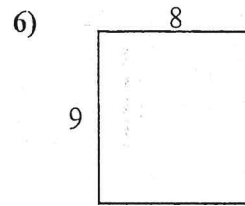
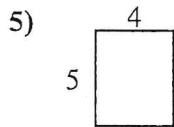
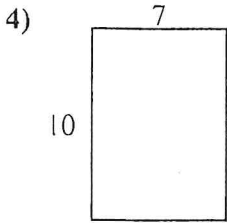
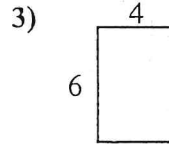
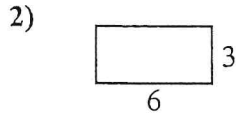
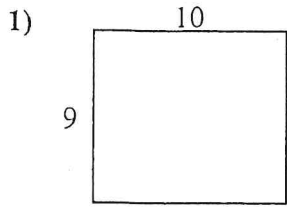


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Science - Day 20



Find the perimeter and area of each figure. Each figure is in inches (in). Not to scale.



Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
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