

# McCreary County Schools



## Elementary NTI Packet

Grade Level: 5<sup>th</sup> Grade

School: \_\_\_\_\_

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

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

# McCreary County Schools



## Elementary NTI Packet

**DAY 1**

**Student Name:** \_\_\_\_\_

## MOVIES AND BOOKS:

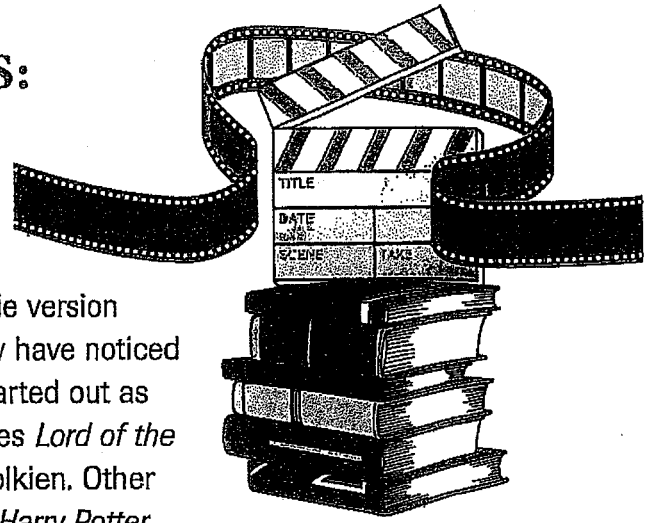
### TELLING THE SAME STORY IN DIFFERENT WAYS

Reading the book and seeing the movie version are two very different experiences. You may have noticed that many movies you see in the theater started out as books. For example, the popular movie series *Lord of the Rings* is based on a book series by J.R.R. Tolkien. Other movies based on books first include *Babe*, *Harry Potter*, *Charlotte's Web*, and *The Hunchback of Notre Dame*. So why read the book if you can see the movie?

First, reading the book will take you much longer than watching the movie. That is because books provide a lot more detail than movies do. For example, the first *Lord of the Rings* book, *The Fellowship of the Ring*, is 479 pages. How long do you think it would take to read the book? Probably a lot longer than the three hours it takes to watch the movie. That is because authors often use a great many words to describe a person, event, or thing. Movies, on the other hand, actually show the person, event, or thing, sometimes in a matter of seconds. For example, in the first chapter of *The Fellowship of the Ring*, the author takes 17 pages to describe the character Mr. Bilbo Baggins. It might take you an hour to read those 17 pages. But in the movie, Mr. Bilbo comes and goes in about 15 minutes. Movies need to cut out a great amount of information provided in books. Otherwise, movies would be too long.

Second, reading a book takes a lot of imagination. You are actively involved in what happens in the book because your brain is picturing what is taking place as you read about it. When you watch a movie, the work of imagination has been done for you. The director of a movie imagines scenery and characters in his or her own way. Directors project what they see onto the movie screen for others to see.

Reading books made into movies and watching movies made from books are both great forms of entertainment. Both tell a story, and both can be fun. There is no rule that says you must do one before the other. But it can be interesting to do both and then compare them. You can learn a lot about how the same story can be told in two different ways.



Reading

2. Some people say that reading the book is much better than seeing the movie. Do you agree or disagree with this statement? Use facts from the article to explain your opinion.

# Comparing and Ordering Decimals

5.NBT.3b

NTI DAY 1  
Math

List the numbers in order from least to greatest:

6.943, 5.229, 6.825, 6.852, 6.779

**Step 1:** Write the numbers, lining up places. Begin at the left to find the greatest or least number.

6.943  
5.229  
6.825  
6.852  
6.779

5.229 is the least.

**Step 2:** Write the remaining numbers, lining up places. Find the greatest and least. Order the other numbers.

6.943 ← greatest  
6.825 } → 6.825  
6.852 } → 6.852  
6.779 ← least

6.779 is the least.  
6.943 is the greatest.  
6.852 is greater than 6.825.

**Step 3:** Write the numbers from least to greatest.

5.229  
6.779  
6.825  
6.852  
6.943

Complete. Write  $>$ ,  $<$ , or  $=$  for each  $\bigcirc$ .

1. 7.539  $\bigcirc$  7.344      2. 9.202  $\bigcirc$  9.209      3. 0.75  $\bigcirc$  0.750

Order these numbers from least to greatest.

4. 3.898 3.827 3.779

\_\_\_\_\_

5. 5.234 5.199 5.002 5.243

\_\_\_\_\_

Which had the faster speed?

6. Driver A or Driver D

\_\_\_\_\_

7. Driver C or Driver A

\_\_\_\_\_

**Car Racing Winners**

Driver	Average Speed (mph)
Driver A	145.155
Driver B	145.827
Driver C	147.956
Driver D	144.809

Name \_\_\_\_\_

# Comparing and Ordering Decimals

Write  $>$ ,  $<$ , or  $=$  for each  $\bigcirc$ .

1.  $5.424 \bigcirc 5.343$

2.  $0.33 \bigcirc 0.330$

3.  $9.489 \bigcirc 9.479$

4.  $21.012 \bigcirc 21.01$

5.  $223.21 \bigcirc 223.199$

6.  $5.43 \bigcirc 5.432$

Order these numbers from least to greatest.

7. 8.37, 8.3, 8.219, 8.129 \_\_\_\_\_

8. 0.012, 0.100, 0.001, 0.101 \_\_\_\_\_

9. Name three numbers between 0.33 and 0.34.  
\_\_\_\_\_

10. Which runner came in first place?  
\_\_\_\_\_

11. Who ran faster, Amanda or Steve?  
\_\_\_\_\_

12. Who ran for the longest time?  
\_\_\_\_\_

**Half-Mile Run**

Runner	Time (minutes)
Amanda	8.016
Calvin	7.049
Liz	7.03
Steve	8.16

13. Which number is less than 28.43?

A 28.435

B 28.34

C 28.430

D 29.43

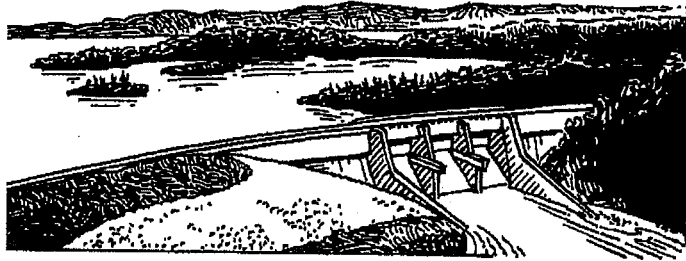
14. Explain why it is not reasonable to say that 4.23 is less than 4.13.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_



## How do we get electricity from moving water?

In 1959 the U. S. Army Corps of Engineers began building Barkley Dam across the Cumberland River. The 48-meter (157-foot) dam was built to help stop flooding, create a huge lake for recreation, and provide electricity. The Barkley Power Plant



transforms the energy stored in the lake into electrical energy people can use.

How do we use a dam to get electricity from a lake?

The water behind the dam has potential energy. This means that the water has the potential to cause change. The more water there is behind the dam, the more potential energy in the water. As the water moves through the dam, this potential energy changes to kinetic energy. Kinetic energy is energy due to motion. The amount of kinetic energy of the water depends on how much water there is and how fast it moves through the dam.

Turbines at the base of the dam have large blades, similar to fan blades. As the water rushes through the turbine, the kinetic energy of the water turns the blades. The spinning blades transfer their kinetic energy to a series of powerful magnets that rotate inside a generator. The rotating magnets change this kinetic energy into electrical energy.


Each of the Barkley Power Plant's four generators can produce 32,500 kilowatt hours of electricity. That's enough electricity to supply more than 100,000 homes.



Name \_\_\_\_\_



Please fill in the correct circle or write the correct answer.

1. What is the source of energy that the Barkley Power Plant uses to produce electricity?
  - the dam
  - the water behind the dam
  - the water in front of the dam
  - the Sun
2. What is the total amount of electricity that can be produced by the Barkley Power Plant?
  - 32,500 kilowatt hours
  - 65,000 kilowatt hours
  - 130,000 kilowatt hours
  - 400,000 kilowatt hours
3. What part of the power plant changes kinetic energy into electrical energy?
  - the dam
  - the blades
  - the generator
  - the water
4. If the lake level drops due to drought, the potential energy of the lake
  - increases.
  - decreases.
  - stays the same.
  - transfers more kinetic energy.
5.  **Main Idea and Details** Read the second paragraph. Write the main idea and TWO supporting details.

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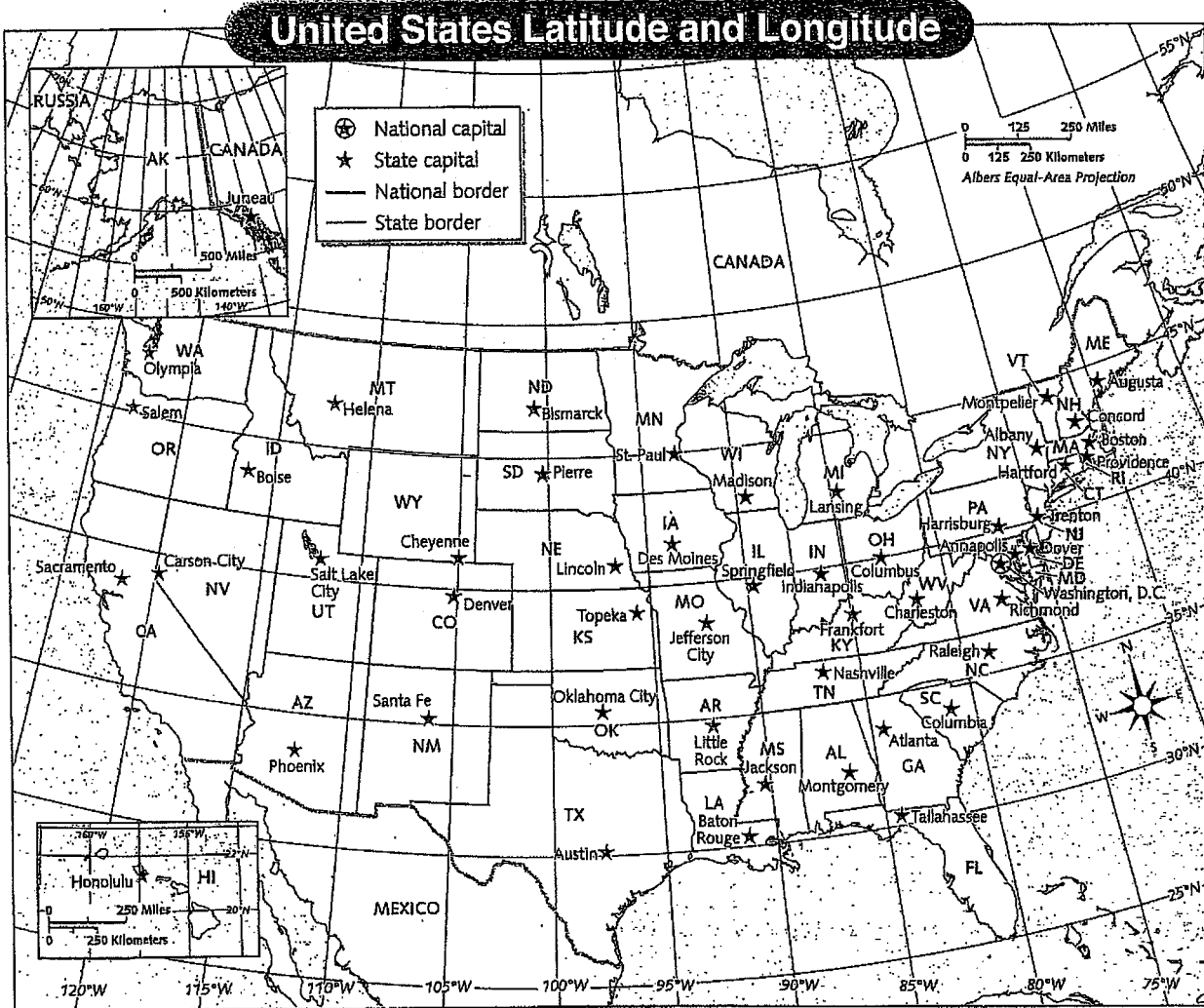
Name \_\_\_\_\_

Date \_\_\_\_\_

# Skills: Use Latitude and Longitude

**DIRECTIONS** Use the map to find each latitude and longitude given below, and then write the name of the state in each location.

DAY #1



- ① 30°N, 100°W \_\_\_\_\_
- ② 40°N, 90°W \_\_\_\_\_
- ③ 40°N, 80°W \_\_\_\_\_
- ④ 40°N, 110°W \_\_\_\_\_
- ⑤ 30°N, 90°W \_\_\_\_\_

DAY #1

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

**DIRECTIONS** Describe the absolute location of each state capital. Use the map on page 2 to find the approximate latitude and longitude for each capital listed, and complete the chart below.

State Capital	Latitude	Longitude
Denver, Colorado		
Trenton, New Jersey		
Springfield, Illinois		
Pierre, South Dakota		
Tallahassee, Florida		

**DIRECTIONS** Use the map on page 2 to find each state capital for the approximate latitude and longitude given, and complete the chart below.

Latitude	Longitude	State Capital
41°N	105°W	
43°N	85°W	
39°N	120°W	
30°N	98°W	
45°N	93°W	

# McCreary County Schools

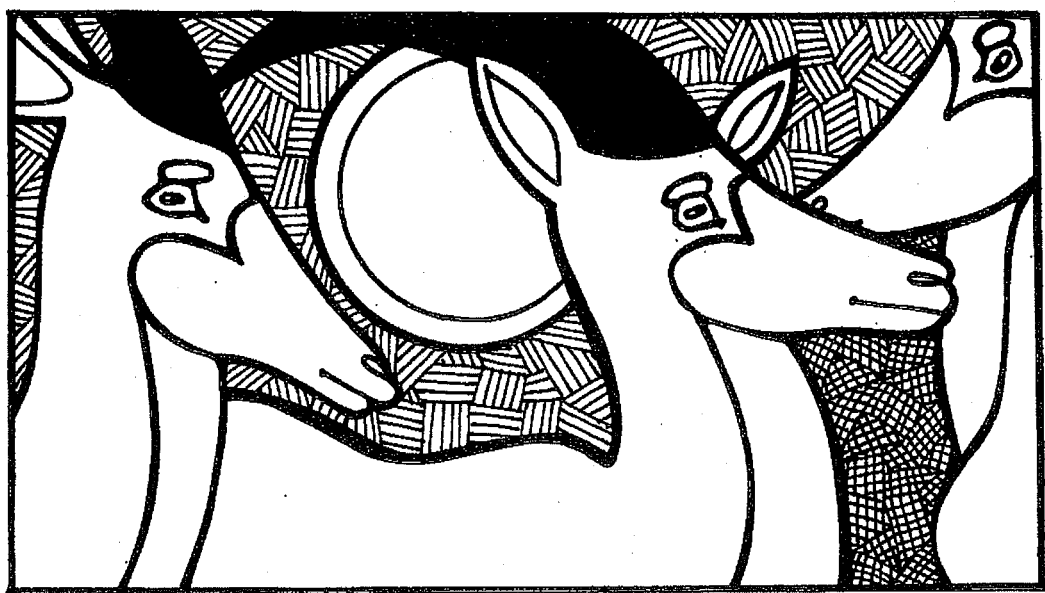


## Elementary NTI Packet

**DAY 2**

**Student:** \_\_\_\_\_

### Life on the Moon



On August 25, 1835, the *New York Sun* announced that famed British astronomer Sir John Herschel had made history from his new observatory at the Cape of Good Hope in Africa. Journalist Richard Adams Locke wrote that Herschel had constructed "a telescope of vast dimensions using an entirely new principle."

According to Locke, on January 18, 1835, at precisely 9:30 P.M. African time, Herschel reportedly looked through his telescope and saw basalt (a type of rock), yews (a class of trees), and a huge sea or lake, its waters bright blue. Readers were astounded! Was it possible? Life on the moon! Who would have believed it? Apparently, thousands of people did, and why not? After all, this was the age of scientific miracles. If steamboats and railroads were possible, then why not a powerful new telescope that revealed life on the moon?

The *New York Sun* articles continued daily. Locke wrote that Herschel had seen buffalo-like animals on the moon, including a bluish, goat-like animal with a single horn on its head. And then, wonder of wonders, subsequent issues of the paper reported that there were winged people on the moon! These winged beings were copper-colored, about four feet tall, and covered with hair.

Locke's articles not only became the talk of New York, but also captured the imagination of the entire United States. Unfortunately, nothing in the articles was true. Sir John Herschel, working in Africa, was actually unaware of these reports, his supposed findings, and even of Richard Adams Locke. The entire series was a fabrication. Once the hoax was exposed, Locke claimed he meant it as satire — writing that pokes fun at something — of astronomers. Perhaps this is true, but the fact is that his articles, presented as news stories, increased the circulation of the *New York Sun* significantly. Within a week of the start of the series, the *Sun* boasted the largest circulation of any newspaper on earth — or on the moon, for that matter!

# Life on the Moon

(continued)

Write the correct answers on the lines.

1. In what year did the series of newspaper articles appear? \_\_\_\_\_
2. What is the main idea of this story? \_\_\_\_\_  
\_\_\_\_\_
3. Why is the title of the story misleading? \_\_\_\_\_  
\_\_\_\_\_
4. Who was the astronomer in question? \_\_\_\_\_
5. On what date did he reportedly make his first moon discovery? \_\_\_\_\_
6. Who was the journalist involved? \_\_\_\_\_
7. What word in the third paragraph means "coming after; following in time or order"? \_\_\_\_\_  
\_\_\_\_\_
8. What is a **hoax**? \_\_\_\_\_  
\_\_\_\_\_
9. In the last paragraph, the noun **fabrication** comes from the verb **fabricate**. Write the noun form of a similarly constructed word in the same paragraph. \_\_\_\_\_  
What is its verb form? \_\_\_\_\_
10. What does the expression **wonder of wonders** mean? \_\_\_\_\_

Write T if a statement is true. Write F if it is false.

- \_\_\_ 11. It is a fact that the *New York Sun* reported that Herschel had discovered life on the moon.
- \_\_\_ 12. According to Locke, Herschel was able to see animals on the moon because he had constructed a new and more powerful telescope.
- \_\_\_ 13. The effect of Locke's articles was that the circulation of the *New York Sun* decreased.
- \_\_\_ 14. According to the articles, Herschel saw the copper-colored people before he saw the yews and basalt.
- \_\_\_ 15. Based on the facts of this story, one can conclude that many people love to read astounding news.

# NTI Day 2

## NTI Day 2 Math Open Response, Directions and Examples.

\*Open response questions require that all work is shown and the question is restated for each part.

\*When adding or subtracting decimals line up the decimal points so that all place value positions correctly line up.

\*When comparing decimal numbers stack them up with the decimals lined up. Then start at the left and find out what place value positions are different. Compare there!

\* Converting decimals example  $.7 = 7/10$

Read the following prompt and answer each part thoroughly on provided answer sheet.

The 5<sup>th</sup> grade classes collected aluminum pop tabs to help out disabled children. At the end of one month the tabs were weighed to see how much each homeroom collected. ( lbs.=pounds)

The results were: Mrs. Tucker's class total weight was 13.680 lbs.

Mrs. Kidd's class total weight was 14.62 lbs.

Mrs. Poland's class total was 13.608 lbs.

Mr. Duncan's class total was 14.7 lb.s.

Mrs. Loudermilk's class total weight was 13.86

- A.) What is the sum of all the 5<sup>th</sup> grade classes' total weights?
- B.) Which homeroom class had the most tabs according to their weight?
- C.) Which homeroom class had the least tabs according to their weight?
- D.) Convert each of the weights to a fraction. (see example above)

# Math Tools: Grid Paper

NTI Day 2 Math Open Response

Part A.

Part B.

Part C.

Part D.



Name \_\_\_\_\_

You have learned that the Sun supplies the energy that moves water through the water cycle. Energy from the Sun causes many other changes too. It causes wind to blow and drives ocean currents. It gives plants the energy for photosynthesis. Solar energy can also be used to heat homes.

Where does the Sun get its energy? A nuclear reaction called fusion powers the Sun and other stars. During nuclear fusion hydrogen atoms fuse together to make helium atoms. This reaction gives off a lot of energy in the form of electromagnetic radiation, which includes light. Electromagnetic radiation travels in all directions from the Sun. Only a small part of this energy reaches Earth.

The chart below shows what happens to the Sun's energy that reaches Earth. Notice that much of this energy doesn't reach the surface. Why not? It is because Earth is surrounded by a thin layer of gases called an atmosphere. When sunlight reaches the atmosphere, some of the light is reflected back into space. Clouds and gases in the atmosphere absorb some energy.

<b>What Happens to Radiation That Reaches Earth</b>	
3%	Absorbed by clouds
4%	Reflected by Earth's surface
6%	Reflected by atmosphere
16%	Absorbed by atmosphere
20%	Reflected by clouds
51%	Absorbed by land and oceans

Only about one-half of the Sun's energy that reaches Earth is absorbed by the land and the oceans. This energy moves water through the water cycle, causes wind and ocean currents, and gives plants the energy for photosynthesis. Without the Sun's energy, these processes could not happen and life could not exist on Earth.

The Sun loses energy by emitting electromagnetic radiation. Will the Sun ever run out of energy? The answer is yes—in about 5 billion years.








Name \_\_\_\_\_

Please fill in the correct circle or write the correct answer.

1. How does some of the energy released during nuclear fusion travel from the Sun to Earth?
  - as atoms of light
  - as helium gases
  - as electromagnetic radiation
  - as space
  
2. How much of the Sun's energy is reflected back into space?
  - 0%
  - 30%
  - 49%
  - 100%
  
3. How much of the Sun's energy does NOT reach Earth's surface?
  - 0%
  - 49%
  - 51%
  - 100%
  
4. Which of the following depend on light from the Sun?
  - water cycle
  - photosynthesis
  - wind
  - all of the above
  
5.  **Sequence** What happens to sunlight as it travels through the atmosphere to Earth's surface?

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Name \_\_\_\_\_

Date \_\_\_\_\_

DAY #2

# The Eastern Woodlands

**DIRECTIONS** Read the passage. Then answer the questions that follow.

In the late 1500s, Iroquois tribes battled among themselves. Often these battles were over control of hunting areas. According to one story, an Iroquois named Deganawida convinced a Mohawk leader named Hiawatha to join him in spreading the message that "All shall receive the Great Law and labor together for the welfare of man."

The result was a confederation called the Iroquois League. The league was made up of the Five Nations of the Seneca, the Cayuga, the Onondaga, the Oneida, and the Mohawk. A few years later, a sixth nation, the Tuscarora, joined the league.

Each nation in the league governed itself, and problems were often solved by a vote. Important matters that affected all the league's nations, such as war, were made by a Grand Council of 50 chiefs from all nations.

1 Who was Deganawida?

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2 Why did Deganawida think it was important to stop the fighting?

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3 Which tribes belonged to the Iroquois League?

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4 Which group made decisions that affected all the league's nations?

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5 What do you think Deganawida meant when he said, "All shall receive the Great Law and labor together for the welfare of man"?

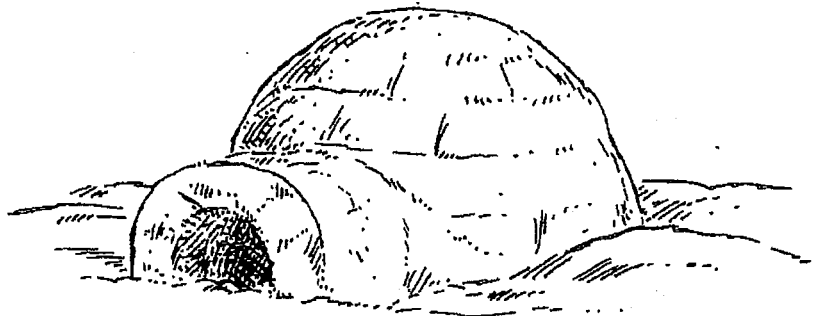
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# The Northwest and the Arctic

**DIRECTIONS** Read each question below, and choose the best answer. Then fill in the circle for the answer you have chosen.

- 1 Which objects did the Northwest Coast people NOT make from wood?
- (A) dishes (B) spoons (C) pottery (D) utensils
- 2 Which is NOT true about totem poles?
- (A) They were made of wood. (B) They showed characters used to tell stories. (C) They welcomed visitors. (D) They were made only by women.
- 3 How did the Inuit and the Aleut get much of their food?
- (A) by hunting (B) by farming (C) by trading (D) by gathering
- 4 What did the Inuit and the Aleut use to make most of their tools?
- (A) iron (B) bones (C) wood (D) stones
- 5 What did the Inuit use to build igloos?
- (A) stones (B) wood (C) adobe (D) ice



# McCreary County Schools



## Elementary NTI Packet

**DAY 3**

**Student:** \_\_\_\_\_

## They Traveled Far

Nellie Bly and Blanche Stuart Scott were adventuresome women. Nellie Bly was the pen name of Elizabeth Cochrane who was born in 1867 near Pittsburgh, Pennsylvania. At the age of eighteen, Cochrane wrote a letter to the editor of the newspaper *Pittsburgh Dispatch* in response to an article entitled "What Girls Are Good For." In her letter, Cochrane defended the rights of women. George Madden, the author of the article, liked her writing so much that he offered the young woman a job. She promptly accepted, and she adopted Nellie Bly as her pseudonym.

Bly wrote about slums, sweatshops, and corruption in government. There was no assignment she would not tackle. Once she even pretended to be insane and had herself committed to a mental hospital. After her release, she wrote a series of articles about the horrible conditions in insane asylums. Her articles helped initiate reforms in mental institutions.

Although Bly wrote many articles and had many adventures, she is perhaps most famous for her trip around the world. Nellie Bly announced this trip in 1889, claiming she would circle the globe in seventy-five days, five days fewer than Jules Verne's fictional hero, Phileas Fogg, took to complete a similar journey in *Around the World in Eighty Days*. People laughed at the notion of circling the colossal world in so short a time. Six months, maybe, but seventy-five days? Nellie Bly did it, though, completing her journey in a few hours less than seventy-three days!

Just about the time Nellie Bly was beginning her first job, another adventurer was born in Rochester, New York. Blanche Stuart Scott was known as "a terror" in her time. In a period when girls were supposed to act like "young ladies," Scott decided to become a trick bicyclist. She wrecked many bicycles (and nearly wrecked herself) while learning.

Once Scott had mastered cycling, she became a champion ice skater. Next, she got a job selling automobiles. From there it seemed a logical step to drive across the country in an automobile. This was a terribly exciting feat for the time, but it was not exciting enough for Blanche Stuart Scott. No, this determined young woman decided she would become a stunt pilot! By this time, it seemed that Blanche Scott could do just about anything. Scott later became a stunt pilot, a test pilot, an actress, a writer, and a radio commentator. She and Nellie Bly traveled a long way down the trail of challenge and adventure.

### Circle the letter of the best answer.

1. The period in which Bly and Scott lived was roughly
  - a. 1800-1900.
  - b. 1850-1950.
  - c. 1900-2000.
2. The main idea of this story is that Bly and Scott were
  - a. improper.
  - b. women.
  - c. travelers.
3. Another title for this story could be
  - a. "Bly and Cochrane."
  - b. "Men and Women."
  - c. "Across the Country and Around the World."



## They Traveled Far

(continued)

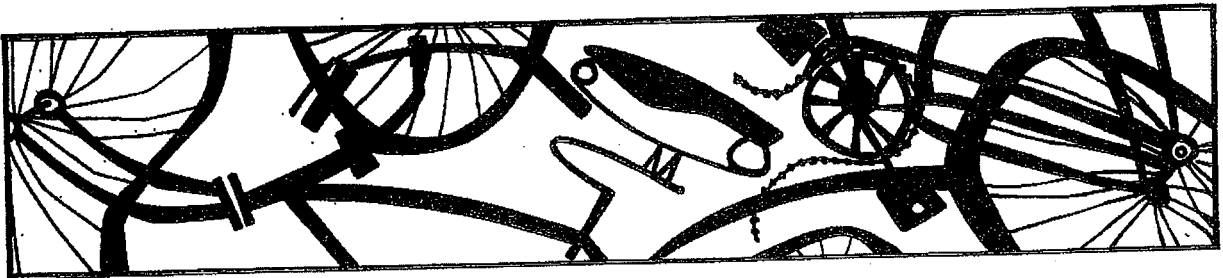
4. Scott was born  
 a. in Rochester, New York.    b. near Pittsburgh, Pennsylvania.    c. in 1867.
5. Bly made her famous trip  
 a. in a balloon.    b. in 1889.    c. in eighty days.

**Write the correct answers on the lines.**

6. How old was Cochrane when she was offered a job as a reporter? \_\_\_\_\_
7. What term in the first paragraph is a synonym for **pseudonym**? \_\_\_\_\_
8. What does **colossal** mean? \_\_\_\_\_
9. There are two compound words in the first paragraph that are not hyphenated. Write them here. \_\_\_\_\_
10. What does the expression **circle the globe** mean? \_\_\_\_\_
11. When people called young Blanche Stuart Scott "a terror," were they expressing a fact or an opinion? \_\_\_\_\_
12. What was the effect of Elizabeth Cochrane's letter to the editor? \_\_\_\_\_  
 \_\_\_\_\_
13. What caused her to write the letter? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
14. Name four things Scott did after becoming a trick bicycle rider? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
15. What can you infer about the character of people such as Bly and Scott? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Related Activity

- Write a song or poem about the adventures of Nellie Bly, Blanche Stuart Scott, or both.



Name \_\_\_\_\_

Reteaching

1-2

# Tenths and Hundredths 5.NBT.3a

NTE Day 3  
Math

Fractions can also be named using decimals.



8 out of 10 sections are shaded.

The fraction is  $\frac{8}{10}$ .

The word name is eight tenths.

The decimal is 0.8.

Remember: the first place to the right of the decimal is tenths.

Write  $\frac{2}{5}$  as a decimal.

Sometimes a fraction can be rewritten as an equivalent fraction that has a denominator of 10 or 100.

$$\frac{2}{5} = \frac{2 \times 2}{5 \times 2} = \frac{4}{10}$$

$$\frac{4}{10} = 0.4$$

$$\text{So, } \frac{2}{5} = 0.4.$$

Write  $3\frac{3}{5}$  as a decimal.

First write the whole number.

3

Write the fraction as an equivalent fraction with a denominator of 10.

Change the fraction to a decimal.

$$\frac{3}{5} = \frac{3 \times 2}{5 \times 2} = \frac{6}{10} = 0.6$$

Write the decimal next to the whole number

3.6

$$\text{So, } 3\frac{3}{5} = 3.6.$$

Write 0.07 as a fraction.

The word name for 0.07 is seven hundredths.

"Seven" is the numerator, and "hundredths" is the denominator.

$$\text{So, } 0.07 = \frac{7}{100}$$

Remember: the second place to the right of the decimal is hundredths.

Write each fraction or mixed number as a decimal.

1.  $\frac{1}{5}$  \_\_\_\_\_

2.  $\frac{6}{25}$  \_\_\_\_\_

3.  $2\frac{3}{4}$  \_\_\_\_\_

4.  $3\frac{9}{10}$  \_\_\_\_\_

Write each decimal as a fraction or mixed number.

5. 1.25 \_\_\_\_\_

6. 3.29 \_\_\_\_\_

7. 0.65 \_\_\_\_\_

8. 5.6 \_\_\_\_\_

9. Dan says  $\frac{3}{5}$  is the same as 3.5. Is he correct? Explain.

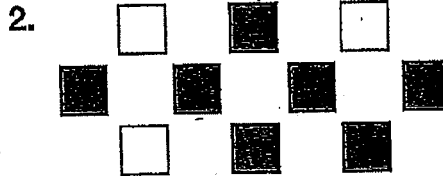
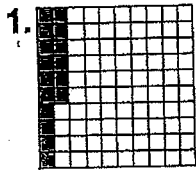
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Name \_\_\_\_\_

# Tenths and Hundredths

Write a decimal and fraction for the shaded portion of each model.



Write each decimal as either a fraction or a mixed number.

3. 0.6 \_\_\_\_\_ 4. 0.73 \_\_\_\_\_

5. 6.9 \_\_\_\_\_ 6. 8.57 \_\_\_\_\_

Write each fraction or mixed number as a decimal.

7.  $\frac{7}{10}$  \_\_\_\_\_ 8.  $\frac{33}{100}$  \_\_\_\_\_

9.  $7\frac{2}{10}$  \_\_\_\_\_ 10.  $3\frac{9}{100}$  \_\_\_\_\_

Use division to change each fraction to a decimal.

11.  $\frac{4}{5}$  \_\_\_\_\_ 12.  $\frac{12}{25}$  \_\_\_\_\_

13.  $\frac{1}{50}$  \_\_\_\_\_ 14.  $\frac{11}{20}$  \_\_\_\_\_

15. When you convert 0.63 to a fraction, which of the following could be the first step of the process?

- A Since there are 63 hundredths, multiply 0.63 and 100.
- B Since there are 63 tenths, divide 0.63 by 10.
- C Since there are 63 tenths, place 63 over 10.
- D Since there are 63 hundredths, place 63 over 100.





Name \_\_\_\_\_

Pollination is the process by which seed-bearing plants reproduce.



**Part A** Identify **THREE** ways pollen can move from one flower in the garden to another for pollination to occur.

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**Part B** Describe what happens from the time pollen lands on the female part of a flower until a seed forms.

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Name \_\_\_\_\_

Date DAY #3

# Exploration and Technology

**DIRECTIONS** Fill in the missing words in this letter from Christopher Columbus to Queen Isabella. Use the terms from the box.

technology

expedition

benefits

empire

costs



Dear Queen Isabella,

Thank you for agreeing to pay for my \_\_\_\_\_. With a better compass and astrolabe, I am sure that I have the \_\_\_\_\_ I need to reach Asia. As you know, the \_\_\_\_\_ of the trip are high. But I promise you that the \_\_\_\_\_ also will be high. Your \_\_\_\_\_ will gain great wealth and vast lands.

Your servant,

Christopher Columbus

DAY #3

# Spanish Explorations

**DIRECTIONS** Study the map. Then answer the questions about the routes of Spanish explorers and the distances they traveled.



- ① Which conquistador traveled the longest distance on land? \_\_\_\_\_
- ② Which conquistador crossed the Mississippi River? \_\_\_\_\_
- ③ Which conquistadors reached the Arkansas River? \_\_\_\_\_
- ④ Which conquistador traveled the farthest north? \_\_\_\_\_
- ⑤ Which conquistadors traveled through present-day Mexico?  
\_\_\_\_\_
- ⑥ Which conquistador started his exploration in Puerto Rico?  
\_\_\_\_\_

# McCreary County Schools



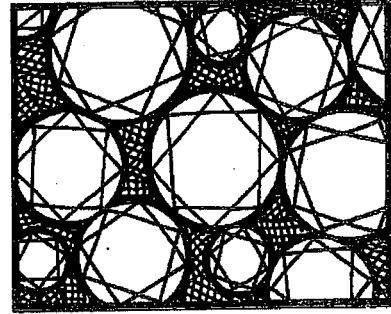
## Elementary NTI Packet

**DAY 4**

**Student:** \_\_\_\_\_

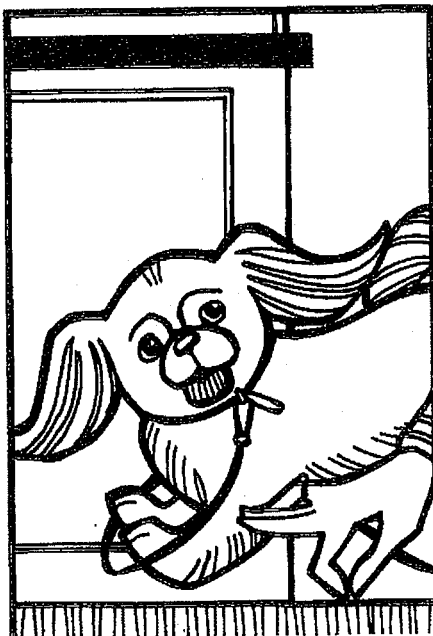
## The Disappearing Emerald

As the jeweler watched the street from the confines of his establishment, he noticed an elegantly dressed woman step out of a carriage. Her gown was brocade, and her cloak was trimmed in ermine to match the muff she carried to warm her hands. The driver handed the lady a dog — one of those yapping creatures that seek to make up in volume for what they lack in size. As the lady, now leading her pet on a leash, rang the bell of his exclusive shop, the jeweler eagerly let her in.



An hour later, his eagerness had faded. The lady had studied appreciatively each tray of gems set on the counter before her, but after each survey, she had shaken her head and asked to see another tray. "Was she here to buy," the jeweler wondered to himself, "or merely to browse?" Finally, she asked to see tray number thirteen one more time. Inwardly, the jeweler rejoiced, as that particular tray contained his most expensive stones. Then, as he was placing the tray on the counter, it happened. Gingerly reaching forward, with an exclamation of delight, the lady upset the tray. Bright stones scattered everywhere. The lady cried out in agitation, the jeweler moaned in dismay, and the dog yipped shrilly in accompaniment.

Scurrying about, the jeweler picked up the fallen stones. The lady tried to help him, though he would have preferred that she did not. Indeed, between trying to help him and soothing her nervous pet with little pieces of biscuit drawn from her silk purse, she was more of a hindrance than a help. As the jeweler gathered up the last of the gems, he realized something that made his heart stop: his prized Krucha emerald was missing! Frantically, he searched the floor again, but to no avail. Then his eyes settled suspiciously on the lady. Somewhat reluctantly, he called the police.



When the police arrived, the jeweler insisted that they search the woman. They complied, with the aid of a matron, but found nothing. There was nothing in the lady's purse, on her dress, or in her cloak. Indeed, the only unusual thing they found was a semisoft bit of dough in the lady's purse; and that, she explained, was a biscuit for her dog. The jeweler was heartbroken, but the police had no choice. They had to let the lady go. She left, taking her dog with her. Once again, the jeweler searched the premises and found no trace of his dazzling emerald. He knew that somehow he had been hoodwinked.

## The Disappearing Emerald

(continued)

From the words listed below, choose the correct ones to write on the lines.

diamond	ermine	jewels	past
dough	future	lady	summarizes
emerald	jeweler	mink	tray

1. This story takes place in the \_\_\_\_\_.
2. The main idea is that, after a \_\_\_\_\_ overturns a \_\_\_\_\_ of \_\_\_\_\_, a valuable \_\_\_\_\_ is missing.
3. The title \_\_\_\_\_ the main idea of the story.
4. The lady kept \_\_\_\_\_ in her purse.
5. The lady wore a muff of \_\_\_\_\_.

Write the correct answer for each question.

6. What was the number of the tray the lady asked to see again? \_\_\_\_\_
7. In the third paragraph, what does the word **soothing** mean? \_\_\_\_\_
8. What does the word **gingerly** mean in the second paragraph? \_\_\_\_\_
9. Analyze the word **hoodwink**. What are its parts? \_\_\_\_\_  
What does it mean? \_\_\_\_\_
10. "The jeweler realized something that made his heart stop." Is this statement literal or figurative? \_\_\_\_\_ How do you know? \_\_\_\_\_
11. Is it a fact or an opinion that the jeweler had been hoodwinked? \_\_\_\_\_
12. What caused the stones to scatter? \_\_\_\_\_
13. What effect did the falling gems have on the dog? \_\_\_\_\_
14. Put the jeweler's feelings in sequence: dismay, jubilation, eagerness, suspicion. \_\_\_\_\_
15. In what season of the year does the story take place? \_\_\_\_\_  
How do you know? \_\_\_\_\_

Name \_\_\_\_\_ *Math*

# Thousandths *NTI DAY 4 5.NBT.3a*

**Example 1:** Write 0.025 as a fraction.

Ones	.	Tenths	Hundredths	Thousandths
0	.	0	2	5

You can use a place-value chart to write a decimal as a fraction. Look at the place-value chart above. The place farthest to the right that contains a digit tells you the denominator of the fraction. In this case, it is thousandths. The number written in the place-value chart tells you the numerator of the fraction. Here, it is 25.

$$0.025 = \frac{25}{1,000}$$

**Example 2:** Write  $\frac{11}{1,000}$  as a decimal.

Ones	.	Tenths	Hundredths	Thousandths
	.			

You can also use a place-value chart to write a fraction as a decimal. The denominator tells you the last decimal place in your number. Here, it is thousandths. The numerator tells you the decimal itself. Write a 1 in the hundredths place and a 1 in the thousandths place. Fill in the other places with a 0.

$$\frac{11}{1,000} = 0.011$$

Write each decimal as a fraction.

1. 0.002 \_\_\_\_\_

2. 0.037 \_\_\_\_\_

3. 0.099 \_\_\_\_\_

Write each fraction as a decimal.

4.  $\frac{5}{1,000}$  \_\_\_\_\_

5.  $\frac{76}{1,000}$  \_\_\_\_\_

6.  $\frac{40}{1,000}$  \_\_\_\_\_

7. Matt reasoned that he can write  $\frac{9}{1,000}$  as 0.9. Is he correct? Explain your answer.

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Name \_\_\_\_\_

# Thousandths

Write each decimal as either a fraction or a mixed number.

1. 0.007 \_\_\_\_\_ 2. 0.052 \_\_\_\_\_

3. 0.038 \_\_\_\_\_ 4. 0.259 \_\_\_\_\_

5. 3.020 \_\_\_\_\_ 6. 4.926 \_\_\_\_\_

Write each fraction as a decimal.

7.  $\frac{73}{1,000}$  \_\_\_\_\_ 8.  $\frac{593}{1,000}$  \_\_\_\_\_

9.  $\frac{854}{1,000}$  \_\_\_\_\_ 10.  $\frac{11}{1,000}$  \_\_\_\_\_

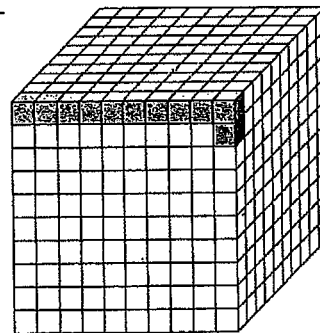
11.  $\frac{5}{1,000}$  \_\_\_\_\_ 12.  $\frac{996}{1,000}$  \_\_\_\_\_

Write the numbers in order from least to greatest.

13.  $\frac{5}{1,000}$ , 0.003,  $\frac{9}{1,000}$  \_\_\_\_\_

14. 0.021, 0.845,  $\frac{99}{1,000}$  \_\_\_\_\_

15. Look at the model at the right. Write a fraction and a decimal that the model represents.



\_\_\_\_\_

16. In Tasha's school, 0.600 of the students participate in a school sport. If there are one thousand students in Tasha's school, how many participate in a school sport?

A 6,000      B 600      C 60      D 6

17. Explain how knowing that
- $5 \div 8 = 0.625$
- helps you write the decimal for
- $4\frac{5}{8}$
- .

\_\_\_\_\_

\_\_\_\_\_



Name \_\_\_\_\_

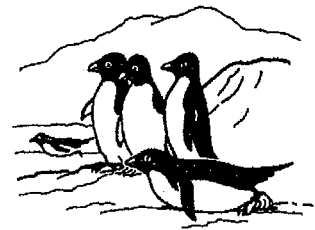


## What are the functions of some body systems?

Your body is made up of systems. Each system carries out a particular job, such as digestion or respiration, which is essential to life. The digestive system breaks down food and changes it into substances that cells can use. Without the digestive system, your cells would not get the nutrients they need to live. Without the respiratory system, your cells would not get oxygen. Without oxygen, cells could not use the energy from food that they need to live...

Each body system is made up of particular organs. For example, the stomach is an organ of the digestive system. The stomach helps break down food so its nutrients can be absorbed into the blood. Some tissues in the stomach release digestive juices. Muscle tissue in the stomach causes the stomach to move, which mixes the food and digestive juices. Almost every cell, tissue, or organ in your body is necessary to make a system work properly.

Just as cells, tissues, and organs have their roles in the body, living things have roles in the environment. Each organism is specialized for the habitat in which it lives. For example, think about the body design of a penguin. Although the penguin is a bird, it has become specialized for swimming. Its body is shaped like a torpedo so it can move easily through the water. Also, its wings are shorter than those of most birds, making them perfect paddles.




Sometimes animals lose organs they no longer need! This is true of the blind cavefish. In the dark caves where these fish live, eyes are useless. These fish don't have any eyes. Instead, they find their way around by detecting small changes in water pressure.





Name \_\_\_\_\_

Please fill in the correct circle or write the correct answer.

1. What is the function of the digestive system?
  - to get rid of wastes in the blood
  - to move materials around the body
  - to carry gases between the outside air and the blood
  - to change food into substances that cells can use
  
2. What is the function of the respiratory system?
  - to digest food
  - to take in oxygen
  - to protect the body
  - to keep the body warm
  
3. A penguin's body became specialized for
  - swimming.
  - flying.
  - talking.
  - breaking ice.
  
4. What surprising characteristic do cavefish have?
  - They have paddles instead of fins.
  - They cannot detect water pressure.
  - They do not have eyes.
  - They do not have scales.
  
5.  **Sequence** Describe the organization of parts within the body from smallest to largest. Use the words *body*, *tissues*, *body systems*, *cells*, and *organs*.

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Name \_\_\_\_\_

Date DAY #4

# The Spanish Colonies

**DIRECTIONS** Read the paragraphs. Then answer the questions below.

## Santa Fe, New Mexico

In 1598, Juan de Oñate led a large group of people from Mexico north to what would become the Spanish colony of New Mexico. That same year, Oñate built the headquarters of the colony at the San Juan pueblo. This settlement extended the Camino Real by about 600 miles.

In about 1610, Pedro de Peralta led the settlers in building a city high on a plateau, where the climate was cooler than it was in the desert. They named the city Santa Fe. The name is Spanish for "holy faith." It was the first permanent European settlement in western North America. New settlers and missionaries later arrived in the city. Santa Fe became the capital of Spain's territory in New Mexico.

- ① Who led the first group of people to New Mexico? \_\_\_\_\_
- ② Which city was the capital of New Mexico? \_\_\_\_\_
- ③ By how much did Juan de Oñate extend the Camino Real? \_\_\_\_\_
- ④ Why did the settlers build their city on a plateau? \_\_\_\_\_  
\_\_\_\_\_
- ⑤ When was the first permanent European settlement in western North America built? \_\_\_\_\_



DAY #4

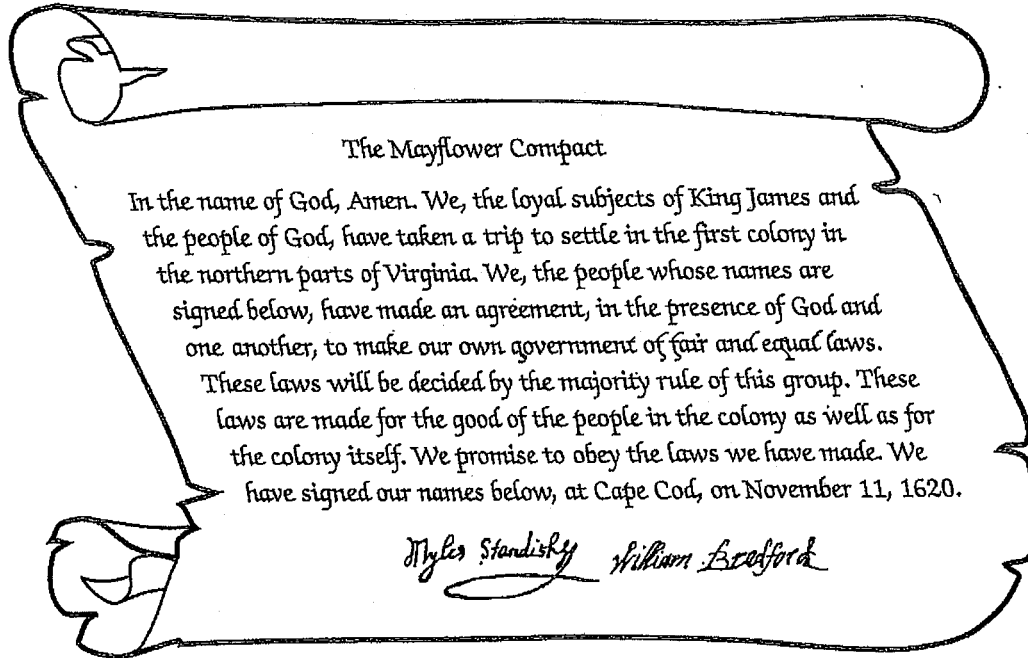
Name \_\_\_\_\_

Date

DAY #4

# The Plymouth Colony

**DIRECTIONS** When the Mayflower Compact was written in 1620, the English language was very different from what it is today. Below is a version of the Mayflower Compact written in present-day language. Use it to answer the questions that follow.



- ① Who is the English ruler named in the Mayflower Compact?  
\_\_\_\_\_
- ② Where did the Mayflower passengers think they were going to settle?  
\_\_\_\_\_
- ③ How did the writers of the Mayflower Compact say laws would be decided?  
\_\_\_\_\_
- ④ What did the passengers promise?  
\_\_\_\_\_
- ⑤ Where and when was the Mayflower Compact signed?  
\_\_\_\_\_

DAY #4

Name \_\_\_\_\_

Date DAY #4 Extended

*Response*

**DIRECTIONS** Use your completed organizer to help you write a narrative about life in early Jamestown. Your narrative may include facts that are not on the organizer.

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John Smith



Pocahontas

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DAY #4 (ER)

# McCreary County Schools

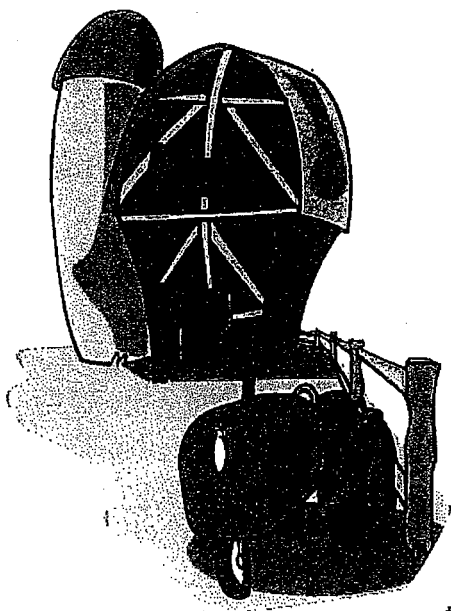


## Elementary NTI Packet

**DAY 5**

**Student:** \_\_\_\_\_

## STUCK ON THE FARM



The summer after fifth grade was supposed to be great. I would spend every day with K.C., my best friend. We would ride our bicycles, swim at the city pool, and just hang out. Then my parents told me their plans for my summer. I was really mad. They were sending me to stay on my grandparents' farm. They said they wanted to get me out of the hot city for the summer.

I love my grandparents. But arriving at their farm made me feel like I had moved to another planet. None of my friends were there, especially not K.C. There was no pool, and no one to ride bikes with. In fact, there was no bike to ride. There were no sidewalks on the farm. I couldn't ride my bike at all. Grandma and Grandpa told me I would find other things to do. They were sure I would love my summer with them.

The first thing Grandpa did was take me fishing. Down in the cow pasture, there was a big pond. He said there were catfish in the pond, along with perch and sunfish. There were turtles, too. Grandpa warned me the turtles would try to steal the bait off my hook. For bait, we used tiny pieces of raw liver. Yuck! It smelled bad, and made my stomach queasy. But Grandpa said the smell would attract the fish.

He was right. We caught five perch that day, and two catfish. Grandpa said this was going to be our dinner! I wasn't too sure about that. I was used to eating fish Mom bought at the grocery store.

Back at the house, we had to clean the fish. We had to cut off the heads and tails and take out the guts. Cleaning fish was gross. In fact, I left Grandpa to do it alone. I said I had to get a drink of water. I wasn't sure I'd ever eat fish again.

But Grandma fried up the fish in thin strips, which we dipped in some special sauce she made. On the side, we had hush puppies, which are fried balls of cornmeal. Grandma's recipe for hush puppies calls for a little sugar and bits of hot pepper. They were delicious. We also had French fries with ketchup. Overall, it was a pretty good dinner—as long as I didn't have to think about the fish.

After that fishing trip, I spent most of my time with Grandpa. He had a lot of work to do. He rents out most of his farm to a neighbor to grow corn. But Grandpa takes care of a big vegetable garden. Each day he weeded it and watered it. I helped him. I learned the difference between weeds and strawberry plants. I got to pick the ripe tomatoes and learned how to decide if the squash was ripe. With me along, the work went faster. Grandpa had time at the end of the day to play board games and work puzzles with me. Some hot nights we made ice cream with Grandma.

One day I realized I was having fun. The only thing missing was K.C. When I asked my grandparents if K.C. could come for a visit, they said sure. We talked to K.C.'s parents and set up a one-week visit. Right away I started planning all the things we would do together. K.C.'s visit turned out to be one of the best weeks of the summer. But that's a story for another time.





Reading

2. Imagine you are the narrator trying to convince your friend, K.C., why he should visit the farm. Persuade K.C. that the farm can be a lot of fun.

Name \_\_\_\_\_

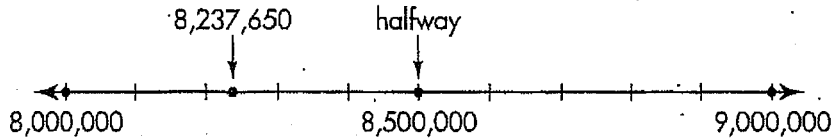
Reteaching

2-2

# Rounding Whole Numbers and Decimals 5.NBT.4

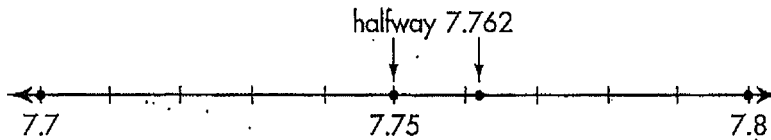
*NTI Day 5  
Math*

You can use the number line below to help you round 8,237,650 to the nearest million. Is 8,237,650 closer to 8,000,000 or 9,000,000?



8,237,650 is less than halfway to 9,000,000. 8,237,650 is closer to 8,000,000.

The number line can also help you round 7.762 to the nearest tenth. Is 7.762 closer to 7.7 or 7.8?



7.762 is more than halfway to 7.8. 7.762 is closer to 7.8.

Round each number to the place of the underlined digit.

1. 4,725,806

2. 7.049

\_\_\_\_\_

\_\_\_\_\_

3. 165,023,912

4. 18.692

\_\_\_\_\_

\_\_\_\_\_

5. Round the number of connected computers in Year 2 to the nearest ten million.

\_\_\_\_\_

**Number of Computers Connected to the Internet**

Year 1	30,979,376
Year 2	42,199,279
Year 3	63,592,854

6. Marc earned \$9.37 per hour working at the library. Round his wage to the nearest ten cents.

\_\_\_\_\_

Name \_\_\_\_\_

# Rounding Whole Numbers and Decimals

Round each number to the place of the underlined digit.

1. 32,60 \_\_\_\_\_

2. 489,334,209 \_\_\_\_\_

3. 324,650 \_\_\_\_\_

4. 32.073 \_\_\_\_\_

5. Name two different numbers that round to 30 when rounded to the nearest ten.

In 2000, Italy produced 7,464,000 tons of wheat, and Pakistan produced 21,079,000 tons of wheat. Round each country's wheat production in tons to the nearest hundred thousand.

6. Italy \_\_\_\_\_

7. Pakistan \_\_\_\_\_

The price of wheat in 1997 was \$3.38 per bushel. In 1998, the price was \$2.65 per bushel. Round the price per bushel of wheat for each year to the nearest tenth of a dollar.

8. 1997 \_\_\_\_\_

9. 1998 \_\_\_\_\_

10. Which number rounds to 15,700,000 when rounded to the nearest hundred thousand?

- A 15,000,000    B 15,579,999    C 15,649,999    D 15,659,999

11. **Writing to Explain** Write a definition of rounding in your own words.

\_\_\_\_\_  
\_\_\_\_\_



Name \_\_\_\_\_

## How does water's property as a solvent make the ocean salty?

Ocean water is a solution that contains many different substances. In fact, at least 72 different elements have been identified in ocean water. Most of these elements, such as gold and silver, are found in very small amounts. The chart shows the most common elements dissolved in Earth's oceans.

Main Dissolved Elements in Ocean Water	
Chlorine	Sodium
Sulfur	Magnesium
Calcium	Potassium
Carbon	Bromine

Most of the substances dissolved in ocean water are salts. Sodium chloride, or table salt, is the most common salt dissolved in ocean water. Sodium chloride gives ocean water its salty taste.

Where do ocean salts come from? Most salts in ocean water come from the rocks on the land. Water is a powerful solvent. A solvent is a substance that dissolves other substances. As water flows across the land in rivers and streams, it dissolves many minerals from the rocks. Once these minerals are dissolved, they can form salts. When water flows from the land into the ocean, it carries these salts with it.

Because the water cycle continuously recycles water to form precipitation, water flows over the land again and again. As a result, salts are continually flowing into the ocean. When water evaporates from the ocean, the salts are left behind. This is why ocean water is 220 times saltier than the water in lakes and rivers.

Sometimes other chemicals help water dissolve minerals from rocks. Carbon dioxide in the atmosphere can react with rainwater. This reaction makes the rainwater slightly acidic. This slightly acidic rainwater can break down and dissolve minerals that regular rainwater cannot.


Humans can affect the dissolved materials in ocean water. Fertilizers and wastes can be picked up by water flowing over land. These materials can then be carried to the ocean. There they can cause algae to grow out of control. These algae can cause the amount of oxygen dissolved in the water to drop. This can kill the fish and other animals that live there.





Name \_\_\_\_\_

Please fill in the correct circle or write the correct answer.

1. When salt dissolves in water, the water acts as
  - a mineral.
  - an element.
  - a solvent.
  - a solute.
  
2. The two MOST abundant elements dissolved in ocean water are
  - magnesium and sulfur.
  - gold and silver.
  - sodium and chlorine.
  - carbon and bromine.
  
3. When water evaporates from the ocean what happens to the salt?
  - It is left behind.
  - It evaporates.
  - It becomes a mineral.
  - It causes algae to grow.
  
4. How can carbon dioxide affect rainwater?
  - It has no effect.
  - It becomes a dissolved mineral.
  - It makes the water slightly salty.
  - It makes the water slightly acidic.
  
5.  Predict Heavy rains wash lawn fertilizer into a nearby stream. What can happen to the stream and other bodies of water the stream flows to?

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# Skills: Compare Primary and Secondary Sources

**DIRECTIONS** Study the photographs below. Use the information to answer questions about primary and secondary sources.



1 How do you know that the image of the colonist is a secondary source?

\_\_\_\_\_

2 Is the hornbook shown a primary or a secondary source?

\_\_\_\_\_

\_\_\_\_\_

3 What do the two sources have in common?

\_\_\_\_\_

Name \_\_\_\_\_

Date DAY #5

**DIRECTIONS** Use the words from the box below to complete the sentences.

vote  
hunting

attending  
work

grazing

- ① Puritans were punished for not \_\_\_\_\_  
church on Sunday.
- ② The Puritans encouraged one another to  
\_\_\_\_\_ hard and to save.
- ③ In the New England Colonies, women were  
not allowed to \_\_\_\_\_.
- ④ Men and boys in New England spent their  
days farming and \_\_\_\_\_.
- ⑤ The parklike area in the middle of a  
New England town was used for  
\_\_\_\_\_ animals.



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

5th Grade  
Day 5

edHelper

## Ready, Set, Eat!

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Rumble, rumble. Growl, growl. Every morning I hear this same noise. It's not a monster. It's not my pet dog. It is my stomach! When I wake up each morning I am hungry! My body is telling me that it is time for breakfast. Breakfast is very important. Do you know why? After 8-12 hours without food, your body needs to be refueled. It needs new nutrients. It needs protein and fiber, too. Kids who eat breakfast each morning tend to do better in school. They have better math grades and higher reading scores. They also make better food choices during the day. This helps to keep their hearts healthy. It helps to keep the rest of their bodies healthy, too! Kids who don't eat breakfast can be cranky. They can also feel tired and restless. Kids who don't eat breakfast also miss a lot of school. They are absent more often than those who eat their morning meal. Kids who skip breakfast also tend to visit the school nurse a lot. They often have stomachaches. Maybe it's because they are so hungry! So make sure you eat a healthy breakfast each day. This morning meal really matters.



Ready, Set, Eat!

## Questions

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1. The author's opinion is that breakfast is very important. What information does she use to support this opinion?

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- \_\_\_\_\_ 2. The author probably wrote this article to \_\_\_\_\_.
- A. demonstrate how to make eggs for breakfast
  - B. persuade you to eat breakfast
  - C. describe how to butter toast
  - D. inform you about the school nurse
- \_\_\_\_\_ 3. Which of the following is true about kids who eat breakfast?
- A. They are tired and cranky.
  - B. They have higher reading scores.
  - C. They are not very good at math.
  - D. They are often absent from school.
- \_\_\_\_\_ 4. Choose the best title.
- A. The Very Important Morning Meal
  - B. Donuts are a Girl's Best Friend
  - C. Don't Eat, Just Sleep
  - D. Skip the Snacks



# McCreary County Schools



## Elementary NTI Packet

**DAY 6**

**Student:** \_\_\_\_\_

5th

Day 4

Adventures

Name \_\_\_\_\_

# Lifeboat Aquarius

Imagine driving along a country road in the middle of the night, miles from the nearest service station. Suddenly, you feel a great bump! Your car's body vibrates. Scary? Certainly! But your fright would be mild compared to the fear experienced by Fred Haise, James Lovell, and John Swigert on Monday, April 13, 1970. More than 200,000 nautical miles from home, hurtling at 18,000 miles per hour in space blacker than any night, the three astronauts felt a tremendous bump in their spaceship.

What caused it? Surely they had not run into anything out in the middle of space! Yet the ship was shaking from that bump, and the needles on the instrument panel were spinning out of control. The three men looked at one another. Something was seriously wrong with *Apollo 13*, now two days out in space.

After a thorough investigation, the astronauts determined that a fuel cell was not functioning properly. A mysterious explosion had blown off a solar panel and left the command ship, called *Odyssey*, unable to generate power or produce and pump oxygen. Frantically, NASA officials at Mission Control in Houston, Texas, tried to decide what to do. After considering the alternatives, they came up with the best possible solution: Haise, Lovell, and Swigert were ordered to forget about landing on the moon. Instead, they were to shut down all power in the command module and climb into *Aquarius*, the lunar module. The astronauts had intended to use *Aquarius* as a lunar lander. Now they would have to use it as a lifeboat.

The astronauts turned off all the fuel supplies in the command ship. They had to save the scant ten hours of operating life it had left so that it could return to earth. They had no heat, no light, no water, and no filters to clean the air of mildly poisonous gases. Without heat, the temperature in the command module dropped as low as 30 degrees. Haise, Lovell, and Swigert crawled into *Aquarius*. For more than three days, the men lived in this lifeboat much like three hermit crabs squeezed into one shell. When they reached the earth's reentry field, they abandoned *Aquarius* and returned to *Odyssey*. They knew that although the lunar module could not withstand the heat of reentry, the command module could.

Back inside the larger spacecraft, the astronauts jettisoned *Aquarius*, the spacecraft that had been their lifeboat for more than eighty hours. Then they brought their command ship down for the most accurate landing in the history of manned space flight. The astronauts were cold, hungry, and dirty, but thanks to their ingenuity, resourcefulness, and courage, they were safe!

Write the correct answers on the lines.

1. When did the events described in this story occur? \_\_\_\_\_  
\_\_\_\_\_
2. In one sentence, write the main idea of this story. \_\_\_\_\_  
\_\_\_\_\_



# Lifeboat Aquarius

(continued)

3. Write another possible title for this story. \_\_\_\_\_
4. What was the name and number of the space flight? \_\_\_\_\_
5. Write the last names of the three astronauts. \_\_\_\_\_  
\_\_\_\_\_
6. At what speed was the spacecraft traveling when the astronauts felt the bump? \_\_\_\_\_
7. What word in the fourth paragraph means "forsook; gave up forever; deserted"? \_\_\_\_\_
8. In the first paragraph, does **tremendous** mean "wonderful" or "enormous"? \_\_\_\_\_
9. There are three compound words in the fourth paragraph that are not hyphenated. Write them here.  
\_\_\_\_\_
10. The fourth paragraph contains a simile. Write it here. \_\_\_\_\_  
\_\_\_\_\_

From the words listed below, choose the correct ones to write on the lines.

affects	causes	fact	perfectly
before	effects	opinion	when

11. It is a \_\_\_\_\_ that *Aquarius* could not withstand the heat of reentry.
12. One of the \_\_\_\_\_ of turning off the power in the command ship was that the astronauts became cold, hungry, and dirty.
13. One of the \_\_\_\_\_ of the astronauts' moving into *Aquarius* was that a fuel cell on *Apollo 13* was not functioning properly.
14. The astronauts abandoned *Aquarius* and returned to *Odyssey* \_\_\_\_\_ they reached the earth's reentry field.
15. After reading this story, you could conclude that no machinery can be guaranteed to work  
\_\_\_\_\_

Name \_\_\_\_\_

Reteaching  
2-6

# Adding Decimals 5.NBT.7

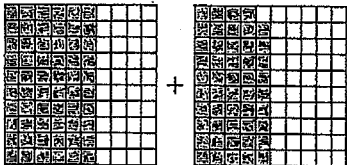
*NTE Day 6*  
*Math*

In February, Chantell ran a 5K race in 0.6 hour. She ran another 5K race in May in 0.49 hour. What was her combined time for the two races?

**Step 1:** Write the numbers, lining up the decimal points. Include the zeros to show place value.

$$\begin{array}{r} 0.60 \\ + 0.49 \\ \hline \end{array}$$

You can use decimal squares to represent this addition problem.



**Step 2:** Add the hundredths.

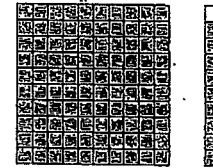
$$\begin{array}{r} 0.60 \\ + 0.49 \\ \hline 9 \end{array}$$



**Step 3:** Add the tenths.

Remember to write the decimal point in your answer.

$$\begin{array}{r} 1 \\ 0.60 \\ + 0.49 \\ \hline 1.09 \end{array}$$



Chantell's combined time for the two races was 1.09 hours.

Add.

- $2.97 + 0.35 =$  \_\_\_\_\_
- $13.88 + 7.694 =$  \_\_\_\_\_
- $39.488 + 26.7 =$  \_\_\_\_\_
- $88.8 + 4.277 + 78.95 =$  \_\_\_\_\_
- Is 16.7 a reasonable sum for  $7.5 + 9.2$ ? Explain.

- How much combined snowfall was there in Milwaukee and Oklahoma City?

City	Snowfall (inches) in 2000
Milwaukee, WI	87.8
Baltimore, MD	27.2
Oklahoma City, OK	17.3

Name \_\_\_\_\_

Practice

2-6

# Adding Decimals

Add.

1. 
$$\begin{array}{r} 58.0 \\ + 3.6 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 40.5 \\ + 22.3 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 34.587 \\ + 21.098 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 43.1000 \\ + 8.4388 \\ \hline \end{array}$$

5.  $16.036 + 7.009 =$  \_\_\_\_\_

6.  $92.30 + 0.32 =$  \_\_\_\_\_

7. Réilly adds 45.3 and 3.21. Should his sum be greater than or less than 48? Tell how you know.

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In science class, students weighed different amounts of tin. Carmen weighed 4.361 g, Kim weighed 2.704 g, Simon weighed 5.295 g, and Angelica weighed 8.537 g.

8. How many grams of tin did Carmen and Angelica have combined?

---

9. How many grams of tin did Kim and Simon have combined?

---

10. In December the snowfall was 0.03 in. and in January it was 2.1 in. Which was the total snowfall?

A 3.2 in.      B 2.40 in.      C 2.13 in.      D 0.03 in.

11. **Writing to Explain** Explain why it is important to line up decimal numbers by their place value when you add or subtract them.

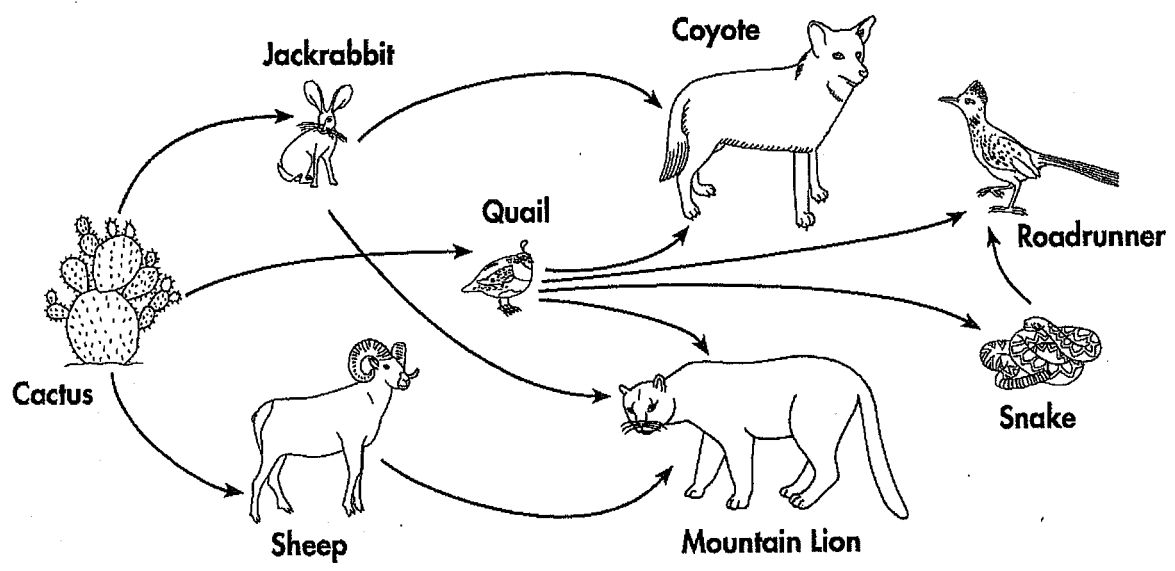
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Name \_\_\_\_\_

The food web shows organisms in an ecosystem.



**Part A** Identify TWO food chains in the food web. Label each organism as a producer or consumer. Also label each consumer as an herbivore or a carnivore.

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**Part B** How does the number of coyotes in the ecosystem depend on the number of plants?

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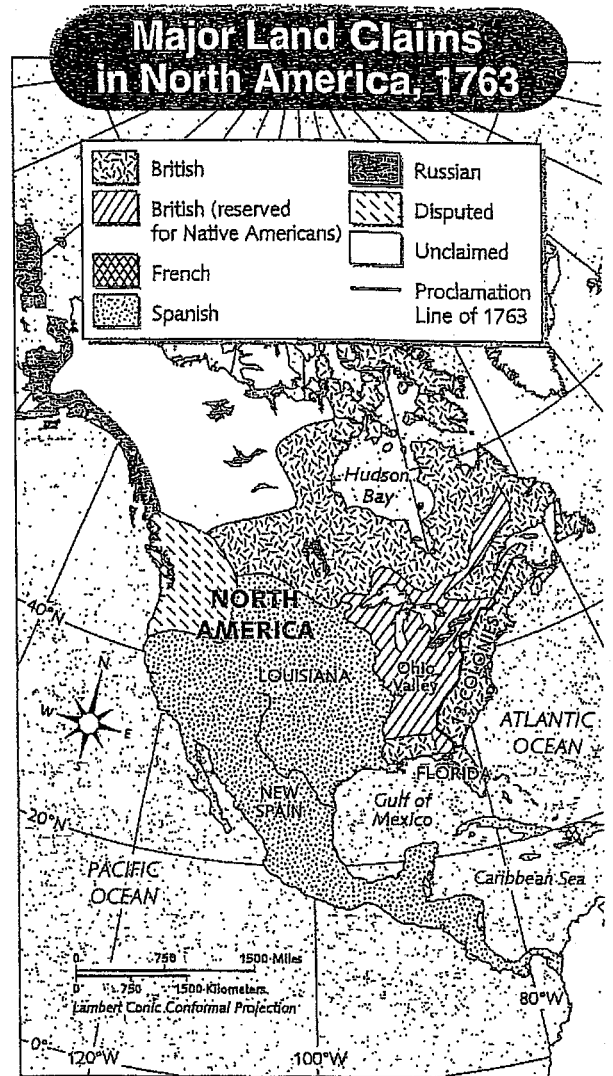
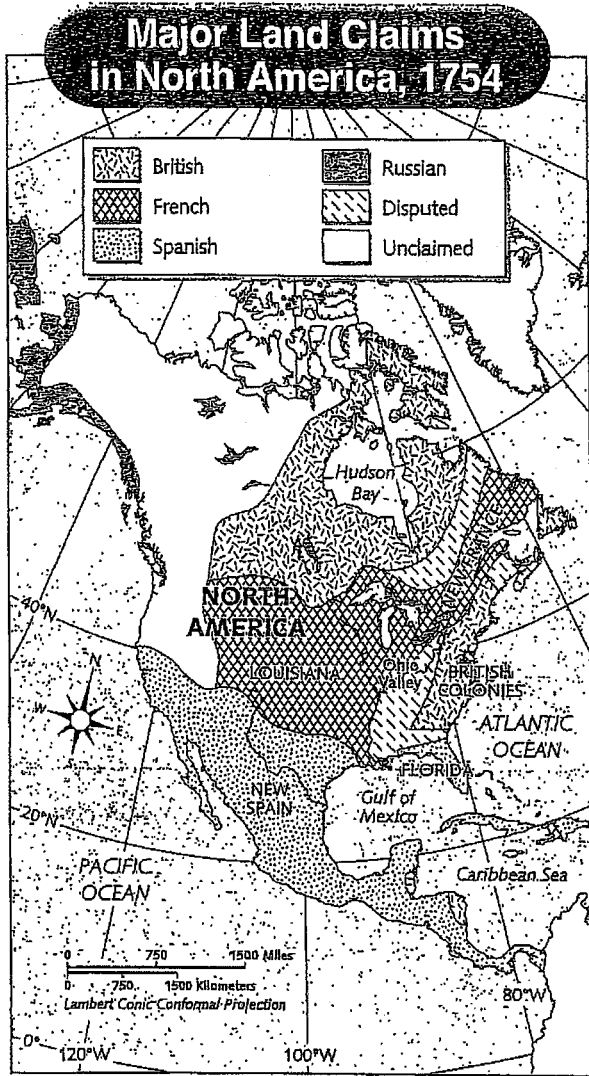
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# Skills: Compare Historical Maps

**DIRECTIONS** Use the maps below to help you answer the questions that follow.



1 Which country claimed Louisiana in 1754?

\_\_\_\_\_

2 Which countries gained land between 1754 and 1763?

\_\_\_\_\_

Name \_\_\_\_\_

Date DAY #6

3 Which country lost all its lands in North America between 1754 and 1763?

\_\_\_\_\_

4 Which event explains the differences between the two maps?

\_\_\_\_\_

5 Which regions did Britain claim both in 1754 and in 1763?

\_\_\_\_\_

6 What happened to Louisiana between 1754 and 1763?

\_\_\_\_\_

7 Which two countries probably claimed land that bordered the disputed area of the Pacific Northwest in 1763?

\_\_\_\_\_

8 For which group was the land in the Ohio Valley area reserved by King George III?

\_\_\_\_\_

9 Which area changed from Spanish control in 1754 to British control in 1763?

\_\_\_\_\_

10 Did any areas change from British control to Spanish control?

\_\_\_\_\_

DAY #10



# McCreary County Schools



## Elementary NTI Packet

**DAY 7**

**Student:** \_\_\_\_\_

5th

Day 7

Adventures

Name \_\_\_\_\_

## Frozen in Time

High in the Andes mountains in Argentina along the Chilean border, U.S. archaeologist Dr. Johan Reinhard and a team of Peruvian scientists struggled in frigid conditions to climb Mount Lullaillo, a volcano, 22,100 feet (6,700 meters) high. They battled whipping winds, drifting snow, and nearly unbearable conditions to hunt for mummies frozen in time — ice mummies.

This extraordinary expedition to one of the highest archaeological sites in the world took place in March of 1999. Reinhard, one of the world's foremost authorities of high-altitude archaeology, has been climbing the breathtaking Andes for twenty years. He said he decided to search this particular area because he had read that Incan ruins had been found on the volcano.

The work of excavating the site was back-breaking, and digging in frozen rock proved difficult. Then, the tension grew as one of the team members was lowered upside down by his ankles into a six foot (1.8 meter) deep, dark pit. Minutes later, they pulled out the scientist who was cradling a mummy in his arms. He was holding the frozen body of an Inca girl buried 500 years ago. Eventually, the team unearthed a total of three frozen bodies — two girls and a boy who died between the ages of 8 and 15 years old.

Ice mummies are bodies preserved in extreme cold. Freezing conditions almost totally halt the decay of a corpse's body tissues. Most bacteria and fungi that normally rot dead bodies can't survive in subfreezing climates. These three ice mummies were the best-preserved mummies ever discovered from South America's Inca civilization. Tests revealed blood still frozen in their hearts and lungs and their internal organs intact.

The ice mummies discovered by Reinhard may have been buried in the snow on purpose as an offering to the Sun God. The team of scientists also found offerings to the Inca gods, including gold, silver and sea-shell statues, and ornate woven and embroidered textiles, moccasins and pottery, some still containing food.

Scientists expect the Inca ice mummies to give them a glimpse into the past before the Spanish conquest in 1532. Techniques like DNA analysis (analysis of genetic material) and an x-ray procedure called computed tomography (CT) scanning can determine a mummy's diseases, its last meal, and perhaps even the cause of death. Scientists can even use genetic information to determine their ancestry by comparing blood samples and DNA from the mummies with blood and DNA of modern people.

**Write the correct answer for each question.**

1. How long ago is it believed that the ice mummies were buried? \_\_\_\_\_
2. What is the main idea of this story? \_\_\_\_\_  
\_\_\_\_\_
3. Write another possible title for this story. \_\_\_\_\_
4. What did the team of scientists find at the burial site in the Andes? \_\_\_\_\_  
\_\_\_\_\_

## Frozen in Time

(continued)

5. Where is Mt. Lulllaillaco located? \_\_\_\_\_  
\_\_\_\_\_
6. Who is the world's foremost authority of high-altitude archaeology? \_\_\_\_\_  
\_\_\_\_\_
7. **Archaeology** is the study of \_\_\_\_\_
8. What is meant by the term **offerings** in the fifth paragraph? \_\_\_\_\_  
\_\_\_\_\_
9. What are **bacteria**? \_\_\_\_\_  
\_\_\_\_\_
10. What does the description "battled whipping winds" mean? \_\_\_\_\_  
\_\_\_\_\_
11. Is it fact or opinion that the mummies were an offering to the Sun God? \_\_\_\_\_
12. What is the effect of freezing conditions on bacteria and fungi? \_\_\_\_\_  
\_\_\_\_\_
13. What caused Dr. Johan Reinhard to take an archaeological expedition to Mount Lulllaillaco? \_\_\_\_\_  
\_\_\_\_\_
14. Put these events in chronological order: a mummy of a child is found in the Andes; scientists climb Mt. Lulllaillaco; scientists use DNA to study the mummies; scientists dig through frozen rock. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
15. In your opinion, why does Dr. Reinhard practice archaeology in places like the Andes? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2

Name \_\_\_\_\_

Reteaching

2-7

# Subtracting Decimals *S. NBT. 7*

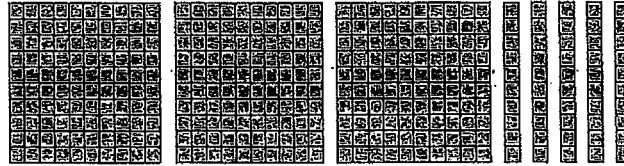
*NTI Day 7*

*Math*

Mr. Montoya bought 3.5 lb of ground beef. He used 2.38 lb to make hamburgers. How much ground beef does he have left?

**Step 1:** Write the numbers, lining up the decimal points. Include the zeros to show place value.

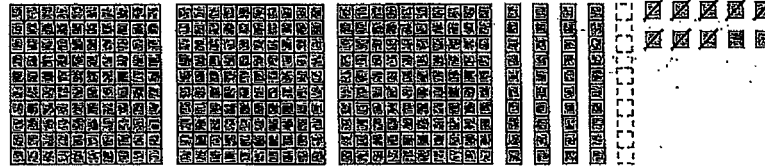
$$\begin{array}{r} 3.50 \\ -2.38 \\ \hline \end{array}$$



You can use decimal squares to represent this subtraction problem.

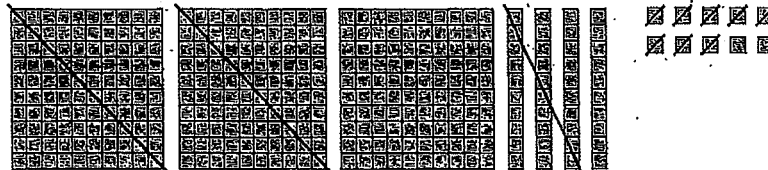
**Step 2:** Subtract the hundredths. Regroup if you need to.

$$\begin{array}{r} 4 \overset{10}{\cancel{50}} \\ , 3.50 \\ -2.38 \\ \hline 2 \end{array}$$



**Step 3:** Subtract the tenths and the ones. Remember to write the decimal point in your answer.

$$\begin{array}{r} 4 \overset{10}{\cancel{50}} \\ , 3.50 \\ -2.38 \\ \hline 1.12 \end{array}$$



Mr. Montoya has 1.12 lb of ground beef left over.

Subtract.

1. 
$$\begin{array}{r} 82.7 \\ -5.59 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 43.3 \\ -12.82 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 7.28 \\ -4.928 \\ \hline \end{array}$$

Name \_\_\_\_\_

Practice

**2-7**

# Subtracting Decimals

Subtract.

1. 
$$\begin{array}{r} 92.1 \\ - 32.6 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 52.7 \\ - 36.9 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 85.76 \\ - 12.986 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 32.7 \\ - 2.328 \\ \hline \end{array}$$

5.  $8.7 - 0.3 =$  \_\_\_\_\_

6.  $23.3 - 1.32 =$  \_\_\_\_\_

7. Kelly subtracted 2.3 from 20 and got 17.7. Explain why this answer is reasonable.

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At a local swim meet, the second-place swimmer of the 100-m freestyle had a time of 9.33 sec. The first-place swimmer's time was 1.32 sec faster than the second-place swimmer. The third-place time was 13.65 sec.

8. What was the time for the first-place swimmer? \_\_\_\_\_
9. What was the difference in time between the second- and third-place swimmers? \_\_\_\_\_
10. Miami's annual precipitation in 2000 was 61.05 in. Albany's was 46.92 in. How much greater was Miami's precipitation than Albany's?
- A 107.97 in.      B 54.31 in.      C 14.93 in.      D 14.13 in.
11. **Writing to Explain** Explain how to subtract 7.6 from 20.39.

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Name \_\_\_\_\_



## How does temperature affect a chemical reaction?

How does a light stick work? You know that all you have to do is bend the stick and suddenly it starts to glow. What causes the glow? The plastic tube is filled with a chemical compound. Another smaller glass tube inside contains another compound. When you bend the plastic tube, you break the small glass tube. The two compounds mix and chemically react.

You know a chemical change occurs in the light stick because the liquid begins to glow. The release of light energy is one sign that a chemical reaction is occurring. Eventually the light stick gets dimmer, and then it does not glow at all. Why does it stop? The chemical reaction stops because the two compounds are used up.

You can make your light stick glow brighter by heating it. The higher temperature causes the chemical reaction to happen faster. The light energy is released faster, causing the light stick to glow more brightly.


You can make a light stick last longer by keeping it cool. The chemical reaction that produces the light occurs more slowly at cooler temperatures. The slower reaction uses up the chemicals more slowly, and the light stick lasts longer. Since the light energy is given off at a slower rate, the light stick does not glow as brightly. If you want to save your light stick for another day, put it in the freezer. The freezer will not stop the reaction completely, but it will slow the reaction so much that it may last for several days!



Name \_\_\_\_\_



Please fill in the correct circle or write the correct answer.

1. Which is a sign that a chemical reaction is occurring in the light stick?
  - You see melting.
  - You see mixing.
  - You see bending.
  - You see light.
  
2. How does temperature affect the intensity of the light in a light stick?
  - As temperature increases, light intensity increases.
  - As temperature increases, light intensity decreases.
  - As temperature decreases, light intensity increases.
  - Temperature has no effect.
  
3. Which of these would make a light stick glow the brightest?
  - boiling water
  - warm water
  - cool water
  - ice water
  
4. Which of these would make a light stick glow the longest?
  - boiling water
  - warm water
  - cool water
  - ice water
  
5.  **Draw Conclusions** What happens to the length of time a light stick glows when you heat it? Why?

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Name \_\_\_\_\_

Date

DAY #7

## Effects of the War

**DIRECTIONS** Read each question, and choose the best answer. Then fill in the circle for the answer that you have chosen.

- 1 Which idea in the Declaration of Independence changed people's views of slavery?
- (A) the idea that people must obey the government
  - (B) the idea that all people have a right to life and liberty
  - (C) the idea that the colonies would no longer be ruled by Britain
  - (D) the idea that people should not be taxed without their consent
- 2 What argument did Elizabeth Freeman use to win her freedom in court?
- (A) She argued that all people are born equal.
  - (B) She argued that her owner was cruel.
  - (C) She argued that slavery had been abolished.
  - (D) She argued that she had a right to vote.
- 3 Who formed the nation's first abolitionist group?
- (A) enslaved workers
  - (B) Native Americans
  - (C) planters
  - (D) Quakers
- 4 Which state was the first to abolish slavery?
- (A) Georgia
  - (B) Maryland
  - (C) Massachusetts
  - (D) Virginia
- 5 What did the Northwest Ordinance say about slavery?
- (A) It allowed slavery in the Northwest Territory.
  - (B) It said slavery would not be allowed in states formed from the Northwest Territory.
  - (C) It said that each state in the Northwest Territory could decide whether to allow slavery.
  - (D) It did not mention slavery.

DAY #7

7

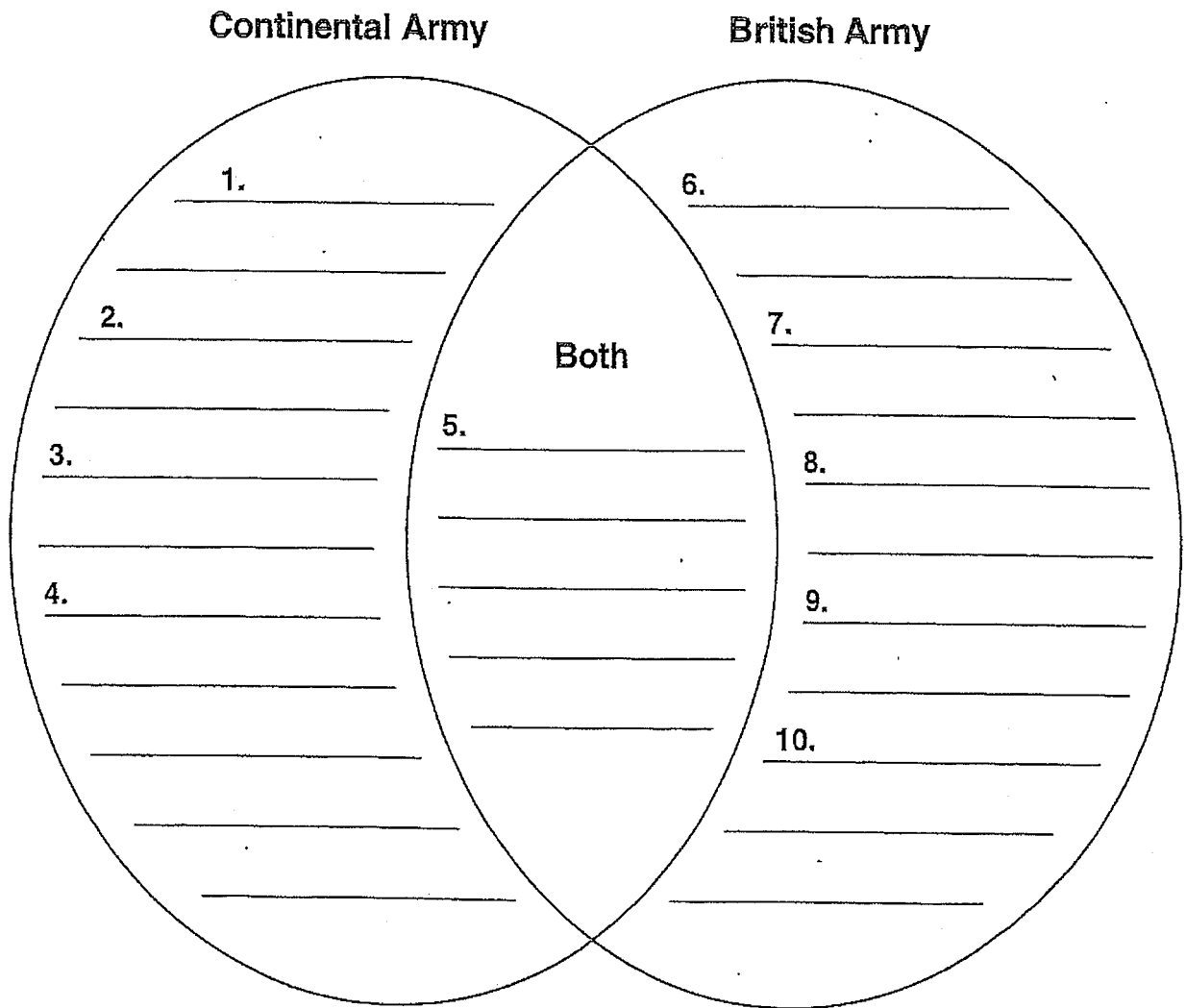


Name \_\_\_\_\_

Date DAY #7

**DIRECTIONS** Use phrases from the paragraph below to complete the Venn diagram. Write each phrase in the correct section of the diagram.

The soldiers in both the Continental Army and the British army carried muskets with bayonets into battle, but these armies were very different. The British army had 50,000 experienced soldiers in the colonies. They were also helped by mercenaries. The Continental Army was made up of fewer than 15,000 soldiers. Many of these soldiers were farmers who had just signed up for the army. The armies also looked different and carried different things with them. The Continental soldier often wore a tricorne hat and carried a cartridge bag with a sling. The British soldier wore a bright red coat and carried a haversack for food.



DAY #7

# McCreary County Schools



## Elementary NTI Packet

**DAY 8**

**Student:** \_\_\_\_\_

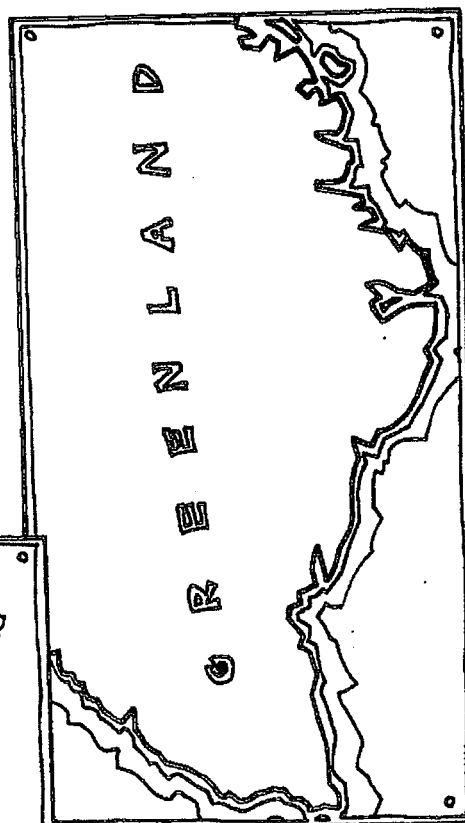
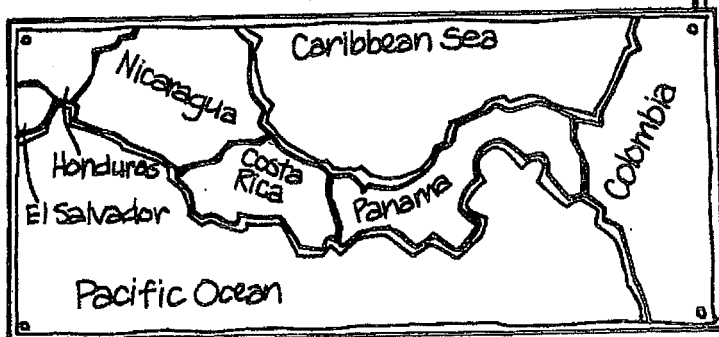
## Ninety North!

Young Robert Peary loved the outdoors of Maine, his native state. The only child of a widow, he sought to excel at whatever he did. Baseball, track, rowing — he was an accomplished athlete in all of these sports. Science, theory, poetry — he won scholarships and graduated second in his college class. Then he entered the U.S. Navy and became Lt. Robert Peary. Soon the young officer was sent into the jungles of Nicaragua to help survey the land for what might one day be a canal connecting the Atlantic and Pacific Oceans.

Robert Peary enjoyed his work, but he longed to do something extraordinary, to perform some deed or feat that would live long after he was gone. Suddenly, while on assignment in Greenland, it came to him: he, Robert Peary, would be the first man to stand at the North Pole! The Eskimos, who liked this man and called him "Pearyaksoah," ("Big Peary" in their language) thought he was crazy. What was the sense, they asked, in going to the North Pole, an icy, barren speck in the middle of the Arctic Ocean? It was, after all, no different from any other place in the middle of that frozen wilderness. But if Peary was crazy, it was with the dream of immortality. He knew that the first man to reach that spot would have eternal fame. "Ninety North!" became his motto.

By 1905, Peary had tried to reach Ninety North five times, and each time he had failed. The temperature usually hovered around 30 degrees below zero, the wind blew relentlessly, and frostbite was a constant danger. Peary had already suffered the amputation of eight toes because of frostbite. However, his five attempts had won him countless fans around the world.

In 1905, when he was fifty years old, Robert Peary tried again. Around his body he wore an American flag woven from silk; as he fought the ice and snow, he dreamed of unfurling that flag at the North Pole. But the closer he got to Ninety North, the colder it became — 40, 50, 60, 70 degrees below zero. At the same time, his men and dogs were starving. When only 170 miles south of the Pole, they all turned back. Disheartened, Peary felt that he had tried to reach the North Pole for the last time. Then four years later, he tried once again. On April 6, 1909, he reached his goal: Ninety North — and immortality!



# Ninety North!

(continued)

Write the correct answer for each question.

1. Approximately when was Robert Peary born? \_\_\_\_\_
2. What is the main idea of this story? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
3. How does the title of the story relate to the main idea? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
4. What did the Eskimos call Peary and what did it mean? \_\_\_\_\_  
 \_\_\_\_\_
5. How low had the temperature plunged when Peary turned back in 1905? \_\_\_\_\_
6. Where was Peary when he first decided to pursue his goal? \_\_\_\_\_
7. What does the word **native** mean in the first sentence of the story? \_\_\_\_\_  
 \_\_\_\_\_
8. What does the word **relentlessly** mean in the third paragraph? \_\_\_\_\_
9. The word **sought** is used in the first paragraph. It is the past tense of a verb. Write the present tense of that verb and a synonym for it. \_\_\_\_\_
10. Did Peary achieve immortality literally or figuratively? \_\_\_\_\_  
 Explain your answer. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
11. Peary had one opinion about the possibility of reaching the North Pole, and the Eskimos had another. How did their opinions differ? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Name \_\_\_\_\_

Reteaching

3-4

# Exponents 5.NBT.2

MTI Day 8

Math

You can use exponential notation to write a number that is being multiplied by itself.

There are two parts in exponential notation. The **base** tells you what factor is being multiplied. The **exponent** tells you how many of that factor should be multiplied together. The exponent is *not* a factor.

exponent



$8^2 = 8 \times 8$  The base is 8, so 8 is the factor to be multiplied.



The exponent is 2, so 2 factors of 8 should be multiplied together.

base

You can write  $8^2$  in two other forms.

In **expanded** form, you write out your factors. Since  $8^2$  means you multiply two factors of 8,  $8^2$  in expanded form is  $8 \times 8$ .

In **standard** form, you write down the product of the factors. Since  $8 \times 8 = 64$ , 64 is the standard form of  $8^2$ .

---

Write in exponential notation.

1.  $2 \times 2 \times 2$  \_\_\_\_\_

2.  $6 \times 6 \times 6 \times 6 \times 6$  \_\_\_\_\_

Write in expanded form.

3.  $1^4$  \_\_\_\_\_

4.  $5^3$  \_\_\_\_\_

Write in standard form.

5.  $2 \times 2 \times 2 \times 2$  \_\_\_\_\_

6.  $8^3$  \_\_\_\_\_

7. A used car lot has 9 lanes for cars and 9 rows for cars in each lane. What is the exponential notation for the number of spaces on the lot? Can the owner fit 79 cars on the lot?

Name \_\_\_\_\_

Practice

**3-4**

# Exponents

For questions 1–4, write in exponential notation.

1.  $13 \times 13 \times 13$  \_\_\_\_\_

2.  $8 \times 8 \times 8 \times 8 \times 8 \times 8$  \_\_\_\_\_

3.  $64 \times 64$  \_\_\_\_\_

4.  $4 \times 4 \times 4 \times 4$   
 $\times 4 \times 4 \times 4 \times 4$  \_\_\_\_\_

For questions 5–8, write in expanded form.

5.  $2^5$  \_\_\_\_\_

6. 20 squared \_\_\_\_\_

7.  $11^4$  \_\_\_\_\_

8. 9 cubed \_\_\_\_\_

For questions 9–12, write in standard form.

9.  $4 \times 4 \times 4$  \_\_\_\_\_

10. 14 squared \_\_\_\_\_

11.  $6^5$  \_\_\_\_\_

12.  $9 \times 9 \times 9 \times 9$  \_\_\_\_\_

13. Which of these numbers, written in expanded form, is equal to 625?

A  $5 \times 5 \times 5 \times 5$

B  $5 \times 5$

C  $5 \times 5 \times 5$

D  $5 \times 5 \times 5 \times 5 \times 5$

14. Find the number equal to 6 raised to the second power.

A 18

B 36

C 6

D 12

15. Explain what 4 raised to the fourth power means.

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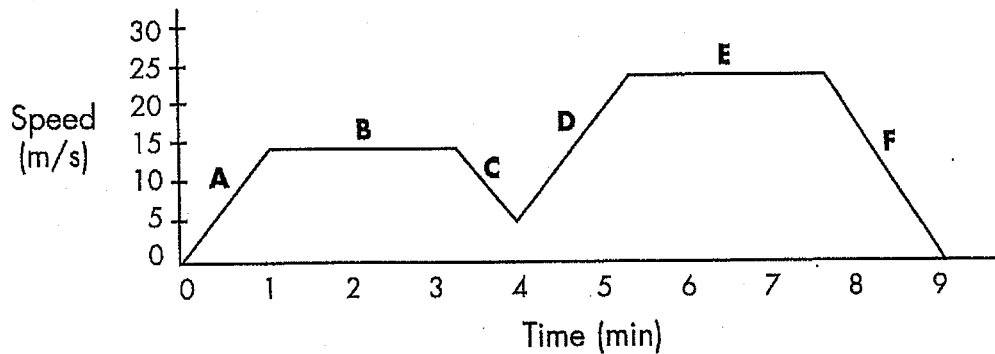
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Name \_\_\_\_\_

## How can you describe the motion of an object?

You can describe how an object's motion changes over time by using a motion graph. Let's look at a motion graph for a car entering a highway on a 9-minute trip. To help interpret the different kinds of motion shown, each segment of the graph has a letter.



Segment A shows that speed is increasing during the first minute of the trip. The car starts from rest (0,0) and reaches a speed of 15 meters per second (m/s) at 1 minute.

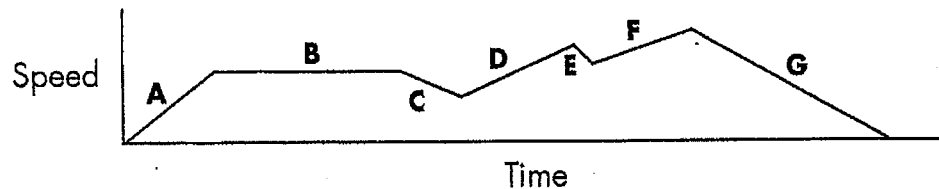
Segment B shows that the car is traveling at a constant speed. Notice that the line on the graph is parallel to the x-axis.

Segment C shows that the car is slowing down. The speed is decreasing. Notice that the car does not stop, it just slows down.

Segment D shows that the car is speeding up again. When it reaches the speed limit, it travels at that speed for the next 3 minutes, as Segment E shows.

At about 8 minutes into the trip, the car starts to slow down again. It is entering an exit ramp. After a minute, the car comes to a stop, as shown in Segment F.

The motion graph below shows a bicycle rider's trip. Use this graph to answer the questions on the next page.





Name \_\_\_\_\_

Please fill in the correct circle or write the correct answer.

1. Which segment of the graph shows the rider slowing the bicycle to a stop?

- A
- C
- E
- G


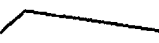


2. Which segment shows the bicycle moving at a constant speed?


- A
- B
- C
- D

3. During which segment of the graph did the rider slow down?

- A
- C
- D
- F

4. A bike moves uphill at a constant speed, picks up speed going downhill, then continues on at the faster speed. Which motion graph would best show this motion.

- 
- 
- 
- 

5.  Cause and Effect At one point, the rider slowed down suddenly and swerved to avoid hitting a squirrel. Which segment of the graph on page 109 shows this effect? How can you tell?

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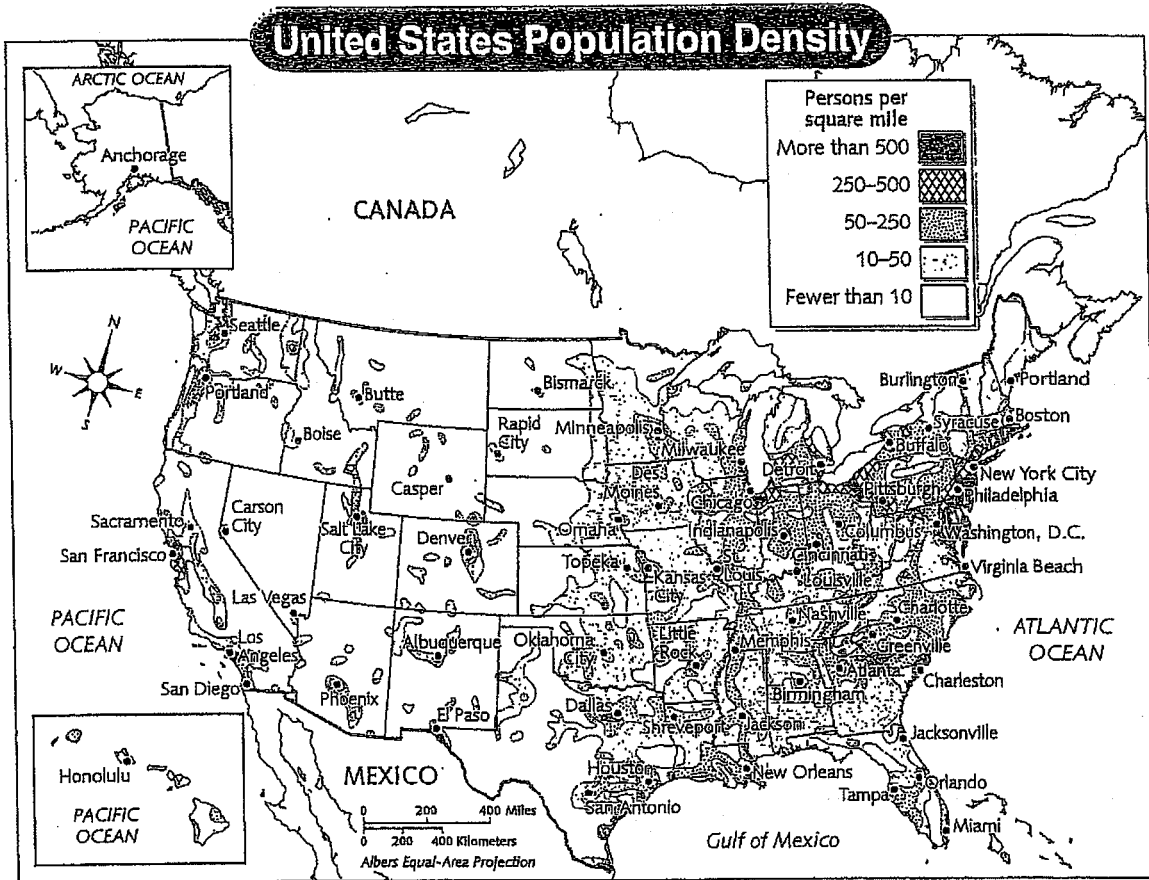


Name \_\_\_\_\_

Date DAY #8

# Skills: Read a Population Map

**DIRECTIONS** Use the map to help you answer the questions on page 78.



DAY #8

Name \_\_\_\_\_ Date DAY #8

① Which is more densely populated, the area around Burlington or the area around Charlotte? \_\_\_\_\_

② What is the population density of the Virginia Beach area?  
\_\_\_\_\_

③ What is the population density in the United States of most of the area bordering Mexico?  
\_\_\_\_\_

④ What are the most densely populated parts of California?  
\_\_\_\_\_  
\_\_\_\_\_

⑤ Which part of the country has the higher population density, the East or the West? \_\_\_\_\_

⑥ Which region of the country has the higher population density, the Great Lakes region or the Pacific Northwest region?  
\_\_\_\_\_

⑦ Which state has the lowest population density? \_\_\_\_\_

⑧ What is the population density where you live? \_\_\_\_\_  
Place an X on the map to mark the location.

⑨ What is the population density of the area surrounding where you live?  
\_\_\_\_\_ Place a circle around the X to mark this area.

DAY #8

8

# McCreary County Schools



## Elementary NTI Packet

**DAY 9**

**Student:** \_\_\_\_\_

## The Big Bang

It came out of the sky on June 30, 1908. Large, elongated, and glowing, it raced across the early morning horizon for twenty minutes, observed by only a few awestruck Siberian herdsmen, trappers, and farmers. Then it disappeared over the horizon. It was followed almost immediately by an incredibly violent bang and a column of fire. The bang was so loud that it registered on seismographs around the world. The fire was seen hundreds of miles away and was so intense that it burned land and seared people fifty miles away. The blast was so powerful that it knocked down trees for miles around and nearly derailed an express train four hundred miles to the south. Black rain fell on the country. People in the blast area developed painful sores and blisters.



When scientists arrived to investigate, they expected to see a meteor crater like the one in Arizona, which presumably had been caused by a meteor that had fallen fifty thousand years before. But there was no crater and no meteor, and there were no meteor particles. There was absolutely nothing.

What, then, had caused the big bang? For years afterward, Russian scientists theorized. Some said a meteor had exploded in the air, a theory which accounted for the absence of impact. Others said it was a comet, not a meteor, that collided with Earth.

In 1945, atomic bombs were dropped on Hiroshima and Nagasaki. Scientists noticed that the bombs' impact was similar to the effects of the mighty explosion in Siberia so many years before: a giant cloud, radiation burns, shock waves, and scorched trees were all part of the devastating reaction. New theories emerged. Perhaps the bang was caused by an alien spaceship on its way to Earth. Perhaps the friction of the earth's atmosphere triggered a chain reaction in the ship's atomic fuel, causing an atomic blast.

More recently, scientists have theorized that a tiny "black hole" hit Siberia. Black holes are extremely dense formations of antimatter. In theory, they could pass through the earth in a mere instant. While doing so, they could cause damage similar to that which occurred in Siberia. But this is all theory. Nobody knows what caused the giant bang, and, because no clues remain, it's possible that the truth will never be revealed.

## The Big Bang

(continued)

Write T if a statement is true. Write F if it is false.

- \_\_\_\_\_ 1. The main event in this story took place during World War II.
- \_\_\_\_\_ 2. The main idea of this story is that scientists have many theories.
- \_\_\_\_\_ 3. Another title for this story could be "What Was It?"
- \_\_\_\_\_ 4. The fire was so intense that it burned people four hundred miles away.
- \_\_\_\_\_ 5. The main event in this story occurred in Serbia.

Write the correct answers on the lines.

6. What kind of rain fell after the big bang? \_\_\_\_\_
7. What word in the third paragraph is a synonym for **crashed**? \_\_\_\_\_
8. What word in the fourth paragraph is a synonym for **charred**? \_\_\_\_\_
9. The word **theory** is a noun. Write a verb that means "to think up, create, or formulate theories." \_\_\_\_\_
10. Repetition is a literary device. What is repeated in the second sentence of the second paragraph? \_\_\_\_\_
11. Explain whether a theory is a fact or an opinion. \_\_\_\_\_  
\_\_\_\_\_
12. Describe two effects the big bang had on people in the area.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
13. Describe two effects the big bang had on the land.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
14. List these theories in the order in which they were formulated to account for the big bang: black hole, meteor, atomic explosion. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
15. What conclusion can you draw about the way scientists think? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Math Tools: Grid Paper

PEMDAS

Part A

Part B

Part C

Part D



Name \_\_\_\_\_

## How is energy transferred in a power plant to make electricity?

Every day many Kentuckians turn on lights using electricity from the Ghent Generating Station. This power plant is one of the most environmentally friendly coal-fired power plants in the country.

The Ghent power plant gets the energy to make electricity by burning coal. Coal contains a lot of potential energy stored in the form of chemical energy. The Ghent plant uses 14,000 tons of coal each day. How does burning coal make electricity?

At Ghent, coal is crushed into a fine powder so that it will burn better. Burning is a combustion reaction that changes chemical energy to heat energy. Burning coal produces a lot of heat energy. This heat energy is transferred to water, changing it into superheated, high-pressure steam. The superheated steam rises and turns a turbine. A turbine is like a fan with blades attached to a center axle. The pressure of the steam on the turbine's blades causes the turbine to spin very fast. In this process, the heat energy of the steam is converted to the mechanical energy of the moving turbine. The turbine is connected to a generator. When the turbine spins the generator, the mechanical energy changes to electrical energy.

Electricity travels from the power station to houses over transmission lines. The hot steam loses heat energy and changes back to liquid water in large cooling towers. This water is recycled back into the system.

In the home, the electricity can be converted to other forms of energy that people can use. For example, electricity is converted to heat energy in a hair dryer or light energy in a lamp. A CD player converts electrical energy to sound energy. As you can see, many energy changes take place to provide you with the electricity you use each day.








Name \_\_\_\_\_

Please fill in the correct circle or write the correct answer.

1. What kind of energy is converted when coal burns?
  - chemical energy to heat energy
  - radiant energy to chemical energy
  - electrical energy to heat energy
  - heat energy to chemical energy
  
2. The energy conversion that drives the turbine is
  - chemical energy in steam to mechanical energy.
  - thermal energy in steam to mechanical energy.
  - chemical energy in coal to mechanical energy.
  - thermal energy in coal to mechanical energy.
  
3. Which energy change takes place when a turbine turns a generator?
  - mechanical energy to electrical energy
  - mechanical energy to heat energy
  - heat energy to electrical energy
  - electrical energy to mechanical energy
  
4. When steam changes back to liquid water, it loses
  - chemical energy.
  - heat energy.
  - mechanical energy.
  - potential energy.

5.  **Cause and Effect** Explain what causes the blades of a turbine to spin in a power station.

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Name \_\_\_\_\_ Date DAY #9

**DIRECTIONS** Below is a fictional letter from a member of the Corps of Discovery to a friend back home. Use the words and phrases in the box to complete the letter.

Rocky Mountains	Meriwether Lewis	Missouri River
Sacagawea	Thomas Jefferson	St. Louis
Pacific Ocean	William Clark	horses
Fort Mandan		

Dear Elizabeth,

Wonderful news! We have begun our journey home, and we hope

to return to \_\_\_\_\_ before autumn.

After we left there, we spent the winter of 1804-1805 along

the \_\_\_\_\_. We built a camp and named

it \_\_\_\_\_. In this same place, we met a Shoshone Indian woman who helped us greatly. Her name was

\_\_\_\_\_, and she guided us safely through the lands

of her people. She helped us buy \_\_\_\_\_, which

we used to cross the \_\_\_\_\_. Then we built boats and rowed down several rivers, including the Columbia River. In

November 1805, we finally reached the \_\_\_\_\_.

Our expedition succeeded because of our skilled leaders,

\_\_\_\_\_ and \_\_\_\_\_. They made maps of our journey and also collected seeds, plants, and animals to

show President \_\_\_\_\_. I know he will be glad that he persuaded Congress to pay for our trip.

I am eager to see you and hear your news.

Yours truly,  
John

DAY #9

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Name \_\_\_\_\_

Date DAY #9

## New Ideas and Inventions

**DIRECTIONS** Read each statement and the names that appear in the box. On the line provided, write the name of the person or thing described.

canal	Industrial Revolution	mill
cotton gin	lock	reaper
Erie Canal	locomotive	steam engine
goods		

- 1 A \_\_\_\_\_ is a human-made waterway that connects bodies of water.
- 2 A \_\_\_\_\_ raises and lowers the boat to the level of the water in the next lock.
- 3 The \_\_\_\_\_ linked the Great Lakes to the Atlantic Ocean.
- 4 Robert Fulton used a \_\_\_\_\_ to power his boat, the *Clermont*.
- 5 The first American \_\_\_\_\_ was called the *Tom Thumb*.
- 6 The \_\_\_\_\_ is the name given to the new inventions and forms of transportation that changed the way people lived and worked.
- 7 During the 1800s, workers could make \_\_\_\_\_ more quickly and at a lower cost.
- 8 Francis Cabot Lowell built a \_\_\_\_\_ in Waltham, Massachusetts, that made raw cotton into finished cloth.
- 9 Eli Whitney invented the \_\_\_\_\_, a machine that could quickly remove seeds.
- 10 Cyrus McCormick invented a mechanical \_\_\_\_\_ for harvesting grain.

# McCreary County Schools



## Elementary NTI Packet

**DAY 10**

**Student:** \_\_\_\_\_

## PAUL REVERE'S MIDNIGHT RIDE

"Listen my children, and you shall hear  
Of the midnight ride of Paul Revere."  
—Henry Wadsworth Longfellow, 1860

**P**aul Revere does not get much space in history books. But without him, the colonists of Massachusetts might have not been ready for the first battle of the Revolutionary War.

Paul Revere lived in Boston. By day, he was a silversmith. He created silver items such as mugs, medical instruments, and frames for glasses. He also occasionally replaced teeth. But by night, Revere was the main rider for a group called the Massachusetts Committee for Safety. The Committee kept the towns and villages of Massachusetts informed about the activities of Patriots in other colonies. It also spread news about the workings of the Continental Congress. During the year before the Revolution began, Revere spied on the British troops in Boston.

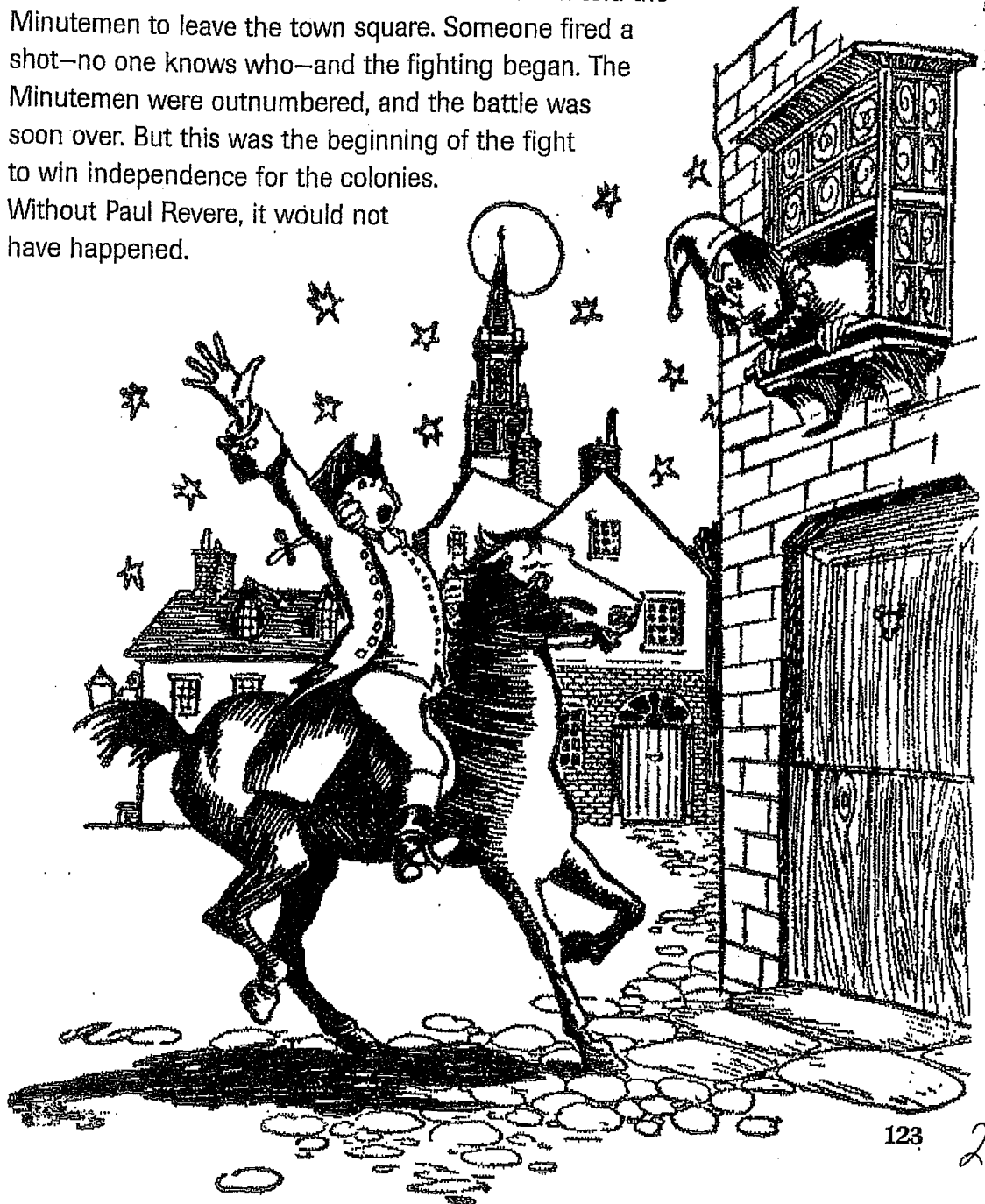
By April 16, 1775, it was clear that the British troops were preparing for action. That night, Revere placed two lanterns in the steeple of Boston's Old North Church. The lanterns would be a signal. If the British were marching out of Boston, then one lantern would be lit. If the British were going by boat, then both lanterns would be lit. Revere, like all the Patriots in Boston, knew where the soldiers would be going. They would be heading to Concord. There the Patriots had built up a large supply of rifles and ammunition.

On the night of April 18, 1775, the British prepared to move out of Boston. Revere was waiting for his friend to light the signal in Old North Church. There it was! One lantern was lit. The British were going across the Charles River and then marching to Concord.

By 10:00 p.m., Revere was on his way. Two friends rowed him across the Charles River to Charlestown. He borrowed a horse from his friend Deacon John Larkin. Revere rode through the countryside yelling to every farmhouse on the way, "The British are coming! The British are coming!" Most of the men belonged to the Lexington militia. Known as "Minutemen," they were ready to fight at a moment's notice.

Another rider, William Dawes, took a different route to spread the alarm. Revere and Dawes met in Lexington, where Samuel Prescott joined them. The three rode on. But before they could reach Concord, British troops stopped them. Dawes and Prescott got away, but Revere was captured. Revere told the major in charge that there were 500 colonists between his soldiers and Boston. These men were armed and ready to fight. This was not true, but the major did not know that. He let Revere go—after taking his horse—and retreated.

By the time Revere reached Concord, the Minutemen were ready and waiting on Lexington Green. The British marching out from Boston met the Minutemen there at 5:00 a.m. The British told the Minutemen to leave the town square. Someone fired a shot—no one knows who—and the fighting began. The Minutemen were outnumbered, and the battle was soon over. But this was the beginning of the fight to win independence for the colonies. Without Paul Revere, it would not have happened.



Reading

2. Summarize the selection in one paragraph. Use the important details from the article.

A large rectangular box with a black border, containing horizontal lines for writing. The box is currently empty, except for the handwritten text at the top.

Name \_\_\_\_\_

Reteaching

3-7

# Multiplying 2-Digit by 2-Digit Numbers

5.NBT.5

MTI Day 10  
Math

Find  $43 \times 26$ .

**Step 1:**

Multiply by the ones.  
Regroup if necessary.

**What You Think**

$6 \times 3$  ones = 18 ones  
Regroup 18 ones as 1 ten  
and 8 ones.

**What You Write**

$$\begin{array}{r}
 1 \\
 43 \\
 \times 26 \\
 \hline
 258
 \end{array}$$

$6 \times 4$  tens = 24 tens  
 $24$  tens + 1 ten = 25 tens  
Regroup 25 tens as 2 hundreds  
and 5 tens.

**Step 2:**

Multiply by the tens.  
Regroup if necessary.

**What You Think**

$20 \times 3$  ones = 60 ones  
Regroup 60 ones as 6 tens.

$$\begin{array}{r}
 1 \\
 43 \\
 \times 26 \\
 \hline
 258 \\
 860 \\
 \hline
 \end{array}$$

$20 \times 4$  tens = 80 tens  
Regroup 80 tens as 8 hundreds.

**Step 3:**

Add the partial products.

**What You Think**

$6 \times 43 = 258$   
 $20 \times 43 = 860$

$$\begin{array}{r}
 1 \\
 43 \\
 \times 26 \\
 \hline
 258 \\
 + 860 \\
 \hline
 1,118
 \end{array}$$

← partial products

Find the product.

1.  $\begin{array}{r} 38 \\ \times 12 \\ \hline \end{array}$

2.  $\begin{array}{r} 64 \\ \times 33 \\ \hline \end{array}$

3.  $\begin{array}{r} 49 \\ \times 27 \\ \hline \end{array}$

4.  $\begin{array}{r} 85 \\ \times 15 \\ \hline \end{array}$

5.  $\begin{array}{r} 26 \\ \times 21 \\ \hline \end{array}$

6.  $\begin{array}{r} 73 \\ \times 19 \\ \hline \end{array}$

7.  $\begin{array}{r} 57 \\ \times 28 \\ \hline \end{array}$

8.  $\begin{array}{r} 91 \\ \times 86 \\ \hline \end{array}$

9. In the problem  $62 \times 45$ , what are the partial products?

\_\_\_\_\_



Name \_\_\_\_\_

Practice

**3-7**

# Multiplying 2-Digit by 2-Digit Numbers

Find each product. Estimate to check that your answer is reasonable.

1. 
$$\begin{array}{r} 56 \\ \times 34 \\ \hline \end{array}$$

2. 
$$\begin{array}{r} 45 \\ \times 76 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 35 \\ \times 15 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 47 \\ \times 94 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 64 \\ \times 51 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 47 \\ \times 30 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 56 \\ \times 19 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 92 \\ \times 49 \\ \hline \end{array}$$

9. To pay for a sofa, Maddie made a payment of 64 dollars each month for one year. How much did the sofa cost ? \_\_\_\_\_
10. Katie is in charge of buying juice for the teachers' breakfast party. If one teacher will drink between 18 and 22 ounces of juice, and there are 32 teachers, which is the best estimate for the amount of juice Katie should buy?
- A about 200 ounces
  - B about 400 ounces
  - C about 600 ounces
  - D about 800 ounces
11. Is 7,849 a reasonable answer for  $49 \times 49$ ? Why or why not?

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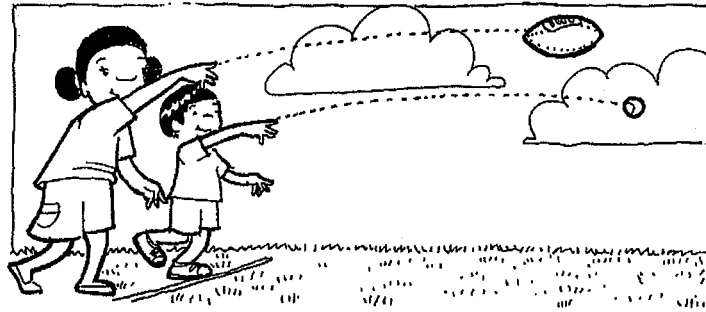
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Name \_\_\_\_\_



The picture shows forces being applied to a football and to a baseball.



**Part A** Describe what is happening to the football. Use the terms net force and motion.

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**Part B** What other forces affect the football and baseball after they leave the students' hands?

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Name \_\_\_\_\_

Date DAY #10

## The North and the South

**DIRECTIONS** Read the passage below. Then answer the questions in the space provided.

The North and the South could not agree about slavery. Most Northerners did not think that slavery should spread to the western territories. Most Southerners thought they had the right to take their enslaved workers west with them.

The Northern economy relied more on manufacturing and shipping. Agriculture was not as important to its economy as to the South's economy. Northern states did not need the same kinds of workers as the South did.

Many Northerners thought that slavery was wrong and should be abolished, or done away with. Those Northerners were called abolitionists. Even most Northerners who were not abolitionists did not want more slave states added to the country.

However, the economy of the South depended on enslaved workers. Plantation owners were able to harvest more cotton, indigo, and tobacco by using enslaved workers to work in the fields. Those Southerners believed that each state had the right to decide whether people could have enslaved workers.

- ① Compare the economies of the North and the South.  
\_\_\_\_\_  
\_\_\_\_\_
- ② How did many people in the North and the South view slavery differently?  
\_\_\_\_\_  
\_\_\_\_\_
- ③ How did the North and the South differ in their ideas about extending slavery?  
\_\_\_\_\_  
\_\_\_\_\_
- ④ What were Northerners who wanted to do away with slavery called?  
\_\_\_\_\_
- ⑤ Where did most Northerners believe slavery should not be allowed to spread?  
\_\_\_\_\_

DAY #10

Name \_\_\_\_\_

Date

DAY #10

## Skills: Distinguish Importance of Information

**DIRECTIONS** Read the passage below. Then read each statement that follows. If the statement is essential, write *E* in the blank. If it is incidental, write *I* in the blank.

General Robert E. Lee led the forces of the South in some of the most devastating Civil War battles. Lee was a man of such high esteem, however, that he remains loved by many Americans today. Born in Virginia in 1807, Lee was the son of a Revolutionary War hero. He ranked second in his graduating class at the United States Military Academy at West Point. Being a good soldier was important to him.

After the Civil War ended, Lee went to Richmond, Virginia. His family had lost their home and lands in Arlington, Virginia. The house had been left to Mary, Lee's wife, by her father. The Lee daughters were named Mary, Annie, Agnes, and Mildred. The oldest son was known as Custis.

Robert E. Lee later became President of Washington College in Lexington, Virginia. The school is now called Washington and Lee University. Lee died in 1870, and he is buried in Virginia. It was not until the 1970s that Lee's status as a citizen was restored. President Gerald Ford, who was born in Omaha, Nebraska, returned Lee to full citizenship.

- ① \_\_\_\_\_ Robert E. Lee was an educated man of high esteem.
- ② \_\_\_\_\_ Robert E. Lee's father had been a Revolutionary War hero.
- ③ \_\_\_\_\_ Custis was Robert and Mary Lee's oldest son.
- ④ \_\_\_\_\_ Washington College was renamed Washington and Lee University to honor him.
- ⑤ \_\_\_\_\_ President Gerald Ford was born in Nebraska.

DAY #10

# The Woodwind Family

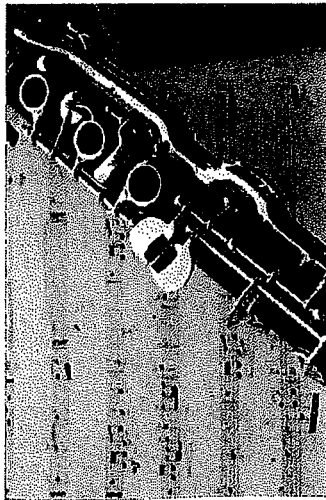
by ReadWorks

Name \_\_\_\_\_

There are multiple instruments in the woodwind family, including the clarinet, the oboe, and the flute. Can you guess why these instruments are considered to be a part of the woodwind family? The earliest versions of these instruments were composed of wood. In the modern era of mass production, however, there are cheaper versions that are metal or plastic.

Can you guess why the word “wind” is included in the name? The player must blow wind into the instrument in order to produce sound! Some woodwinds require the use of a reed, which is a small piece of wood placed on the instrument's mouthpiece. If the reed is properly prepared, then it will vibrate everytime the player blows into the instrument. Sometimes the reed's vibrations are so strong that they tickle the player's lips!

In order to play a note, the musician must place his or her fingers over the instrument's tone holes. The player determines the pitch of the note based on which holes are open or closed on the instrument. As you can see in the picture provided above, these holes are encircled by metal keys, which actually make it easier for the musician to play more notes.



## Open Response:

Write 5 sentences answering the following questions about string instruments: What instruments are included in the woodwind family? Why is the word “wind” included in the name? What is the purpose of a reed? How does someone play a note on a woodwind instrument? How is the pitch determined?

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Choose a woodwind instrument and describe in 4 sentences what it looks like and how a sound is produced. State what instrument you choose in the first sentence.

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