


Sixth Grade

Student Name _____

April 2020

Monday	Tuesday	Wednesday	Thursday	Friday
 Advancement via Individual Determination		1 ELA- pgs. 201, 113, 114, Reading- Speeding in Space Math- R89 Parent Initial _____	2 ELA- pgs. 203, 204, 205, 206 Math- R90 Parent Initial _____	3 ELA- pgs. 207, 208 Reading- Land of the Midnight Sun Math-R91 Parent Initial _____
6 ELA- pgs. 209, 210, 101, 102 Math-R92 Parent Initial _____	7 ELA- pgs. 103, 104, 105 Math-R93 Parent Initial _____	8 ELA- pgs. 211, 212 Reading- Science Math-R94 Parent Initial _____	9 ELA- pgs. 213, 214, 215 Math-R95 Parent Initial _____	10 Good Friday
13 Spring Break	14 Spring Break	15 Spring Break	16 Spring Break	17 Spring Break
20 ELA- pgs. 217, 218 Math-R96 Parent Initial _____	21 ELA- pgs. 219, 220 Math-R97 Parent Initial _____	22 ELA- pgs. 106, 107 Math-R98 Parent Initial _____	23 ELA- pgs. 108, 109 Math-R99 Parent Initial _____	24 ELA- pgs. 110, Math-R100 Parent Initial _____
27 ELA- pgs. 221, 222 Math-R101 Parent Initial _____	28 Reading- California's Water Shortage Math-R102 Parent Initial _____	29 ELA- pgs. 223, 224, 225, 226 Math-R103 Parent Initial _____	30 ELA- 227, 228, 229 Math-R104 Parent Initial _____	Extra sheets: 111, 112, 115

Important Information:

Please follow the calendar to ensure students are working at a reasonable pace. In addition to these resources, students should be login in to Lexia Core 5 for at least 20 minutes a day.

Name _____

audacity

deception

desolate

exploits

oblivious

somber

steadfast

valiant

Use each pair of vocabulary words in a single sentence.

1. audacity, deception

2. desolate, somber

3. valiant, steadfast

4. oblivious, exploits

Name _____

- Compound words can be written as one word (*homework*), as two words (*paper clip*), or with a hyphen (*all-American*).
- Hyphens are often used in compound numbers and fractions, with prefixes such as *ex-* or *self-* or the suffix *-elect*, and with prefixes before proper nouns and adjectives.
- A compound adjective that precedes the word it modifies should be hyphenated: *up-to-date maps*.

Read each sentence. Decide whether the words in parentheses () should be one word, two words, or a hyphenated word. Write the word correctly on the line. If the word is correct, write C on the line. Use a dictionary if necessary.

1. We are having (left overs) for dinner. _____
2. Roberto finished (twenty five) problems before recess. _____
3. My brother is a (self taught) tennis player. _____
4. We watch his tennis matches from the (fourth floor) window. _____
5. The (exState University) tennis coach came to his last match. _____
6. My brother will graduate from (high school) next year. _____
7. The actor stood in the (spot light) and read his script. _____
8. The (president elect) received a warm welcome from the theater club members.

9. Our band is playing in the (pregame) show Saturday. _____
10. Angelina will bring along her (seven year old) sister. _____

Name _____

- **Comparative adjectives** compare two people, places, or things.
- **Superlative adjectives** compare more than two people, places, or things.
- Compound words can be written as one word (*homework*), as two words (*paper clip*), or with a hyphen (*all-American*).

Proofread each sentence. Watch for errors in comparative and superlative adjectives and in compound words. Also correct errors in capitalization and the use of hyphens and other punctuation. Use a dictionary if necessary.

1. Florence Griffith Joyner made history in the 1980s when she became the world's faster woman

2. She won three-gold medals at the 1988 Olympic games?

3. Her colorful outfits and six inch finger nails made her a standout on the track,

4. last night? I stayed up latest than I will tonight.

5. Tonight will be the early bedtime of all for me this week.

6. The weather reports, say that Tonight will be the cold night of the year,"

Speeding in Space

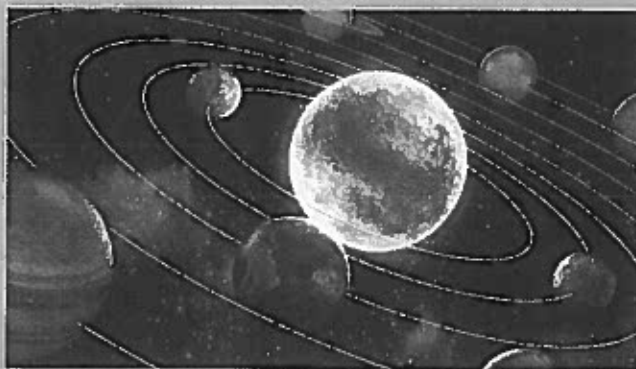
The solar system is composed of many things. It includes our star, the Sun, the planets and their moons, comets, and asteroids. All of these objects are in motion. Let's see how fast one type of object—the planets—move.

First, let's examine our planet, Earth. You know that Earth orbits around the Sun. Its revolution, or the time it takes Earth to travel around the Sun, is just over 365 days, or one year. But do you know how fast Earth moves? Earth moves at a speed of 107,206 kilometers (66,615 miles) per hour. To put this into perspective, think about a car traveling 97 kilometers (60 miles) per hour. Earth is moving around the Sun more than 1,100 times faster than that car!

Now, let's examine the three other inner planets. Mercury is the planet closest to the Sun, and Venus is just behind it. Mercury is the fastest-moving planet in our solar system. It travels around the Sun at a speed almost twice as fast as Earth—172,332 kilometers (107,082 miles) per hour. Because Mercury's orbital path is smaller than Earth's, at this speed, Mercury makes a trip around the Sun every 88 Earth days. Venus moves at a speed between that of Mercury and Earth at 126,071 kilometers (78,337 miles) per hour. In the time it takes Earth to complete one revolution, Venus has already completed one revolution and started a second! Mars is the inner planet farthest from the Sun. It takes almost two Earth years for Mars to complete one trip around its orbital path, even though it travels at 86,676 kilometers (53,858 miles) per hour.

Jupiter, Saturn, Uranus, and Neptune are the outer planets. They are the planets in

our solar system that are the farthest from the Sun. Jupiter travels at a speed of 47,051 kilometers (29,236 miles) per hour—about half the speed of Earth. It takes Jupiter almost 12 Earth years to make one trip around the Sun. Saturn is next, and it travels at a speed of 34,883 kilometers (21,675 miles) per hour, while Uranus moves at 24,515 kilometers (15,233 miles) per hour. That translates to about 29.5 Earth years for Saturn and 84 Earth years for Uranus to orbit the Sun. If you live to be 84 years old, Uranus will just be completing the revolution around the Sun it started when you were born. The slowest planet in our solar system is Neptune. This planet travels at a mere 19,547 kilometers (12,146 miles) per hour. At this pace, it takes Neptune almost 165 Earth-years to travel around the Sun.



Credit: cigdem/Shutterstock.com

Questions:

1. Describe the pattern of the speed of a planet's revolution as you get farther from the Sun.
2. Jaime says that Mercury travels at a speed that is five times faster than Neptune. Do you agree? Why?
3. What are two factors that cause the length of a planet's year to get longer the farther it is from the Sun?

Recognize Statistical Questions

A **statistical question** is a question about a set of **data** that can vary. To answer a statistical question, you need to collect or look at a set of data.

Identify the statistical questions about Jack's homework time.

- A. How many times did Jack spend longer than an hour on homework this week?

Statistical question. Jack is unlikely to do homework for the same amount of time each day, so the question asks about a set of data that can vary. You could answer it with data about Jack's homework time for a week.

- B. How long did Jack do homework today?

Not a statistical question. It asks about Jack's homework time on one day. It does not refer to a set of data that varies.

Write a statistical question about your school's cafeteria.

Think of what kind of data could vary in the situation. In this situation, it might be menu items, students, or activities.

These are both statistical questions:

- A. How many students were in the cafeteria during fourth period each day for the past two weeks?

- B. What was the greatest number of entrees served in one day in the cafeteria last month?

Identify the statistical question. Circle the letter of the question.

1. A. How many people flew from New York to San Francisco yesterday?
B. How many people flew from New York to San Francisco each day this month?
2. A. How many siblings does each of your classmates have?
B. How many siblings does your best friend have?

Write a statistical question you could ask in the situation.

3. Hannah recorded the temperature in her yard every day for a week.

4. Ian knows his scores for each time he has bowled this year.

Name _____

Read the passage. Use the make, confirm, and revise predictions strategy to check your understanding as you read.

Athena and Arachne

Long ago when Greek gods and goddesses roamed the Earth, there lived a young maiden by the name of Arachne who was known far and wide for her skillful weaving. She could pull beautiful threads from fluffy wool and twirl a spindle until it appeared to be dancing. The cloths she wove had such magnificent patterns and images that women came from all over to gaze upon them with wonder.

Those who saw her work said that surely she had been tutored by Athena, the goddess of weaving. When Arachne heard this, she scoffed and said she had taught herself. She even went so far as to claim that her skills were superior to those of Athena, disrespectfully mocking the goddess by declaring, "Let the goddess try to match her skills against mine."

Now, it is a foolish thing to both mock and challenge the gods, especially the Greek gods, but that did not stop Arachne, who was as vain as she was talented. "I have confidence I will best her, and if not, I will accept the penalty of losing."

Athena was greatly displeased when she heard of Arachne's claims, and she decided to pay the maiden a visit. To give Arachne a chance to apologize for her boasting, Athena disguised herself as an old lady. She wore her hair gray and thinning, lined her face with the wisdom of years, and used a stick to walk.

Athena approached Arachne and spoke to her. "Your skill as a weaver is renowned, and I can see that you do your craft well. However, it would serve you to be more humble and not set yourself above the gods and goddesses. You should yield the goddess Athena's place to her and take back your boastful words. I'm sure Athena would pardon you if you made amends to her."

Name _____

Arachne stared at the old woman and said disdainfully, "I don't need anyone's advice but my own. Athena is welcome to come here and try and match my skills, unless of course she is afraid of losing."

At those bold and foolish words, the old woman cast off her disguise and said, "It is I, Athena, and since it is a contest you want, it is a contest you shall get."

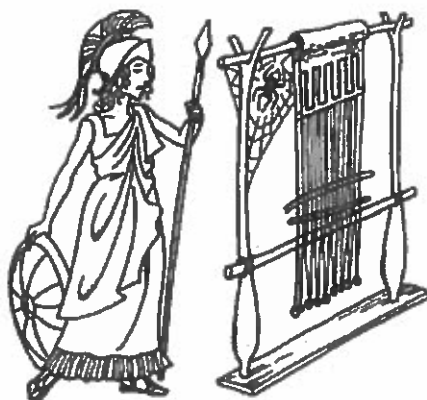
Arachne blushed when she realized to whom she was speaking, but she did not change her resolve. The contest began at once.

The goddess and mortal took their places at looms. They wove thread in and out at a furious pace, and it didn't take long for images to begin appearing on the cloth, such was the skill of the weavers.

Athena's images portrayed the power of the gods against various mortals who had displeased them. Her images were meant as a warning to Arachne that her pride was both unwise and dangerous.

Arachne ignored the warning, and the images she wove were scenes of the gods and goddesses doing foolish things. The gods were shown as feeble and reckless. Arachne's work was flawless and beautiful but full of scorn for the gods and goddesses.

Incensed at Arachne's disrespect, Athena ripped up Arachne's cloth. Arachne cried out at seeing her work destroyed. In response, Athena said to her, "You are foolish and vain, but I can see you love your craft, so I will take pity on you and not kill you. Instead, I will let you spin forever." With those words, she sprinkled a magic juice upon Arachne. Arachne's body shrank, her limbs changed, and her fingers turned into legs. Her belly grew round, and from it came a fine thread. Athena had turned Arachne into a spider to pursue her skill as a weaver by making and remaking spider webs.



Name _____

A. Reread the passage and answer the questions.

1. How does Arachne create a problem for herself?

2. How does Arachne try to prove that her weaving is better than Athena's?

3. Even though Athena is displeased with Arachne, she wants to give Arachne a chance to apologize. Does this solution work? Explain.

4. At the end of the story, Athena's problem is that she wants to punish Arachne for making fun of the gods. Yet she appreciates Arachne's love of weaving. How does Athena solve this problem?

B. Work with a partner. Read the passage aloud. Pay attention to intonation and phrasing. Stop after one minute. Fill out the chart.

	Words Read	-	Number of Errors	=	Words Correct Score
First Read		-		=	
Second Read		-		=	

Name _____

The Wings of Icarus

"What are you making, Dad?" Icarus asked his father, Daedalus. He was constructing something from wax and feathers. The two had been imprisoned in the labyrinth his father had created for King Minos—an irony that was getting the best of Daedalus's temper.

"You'll see, Icarus. We will show that crazy king who's smarter," Daedalus declared. "Here, Son, try these on." Daedalus handed him a pair of wings made from wax and feathers.

"You're kidding, right, Dad?" Icarus replied.

"Not at all. Use these wings to escape," Daedalus ordered, fastening the wings to his son's body. "Now go, but don't fly too close to the sun."

As he soared, Icarus felt invigorated and powerful. Forgetting his father's warning, he flew higher—almost touching the sun. Suddenly, Icarus felt his wings getting heavy, and before he knew it, he dropped to the sea below. Sadly, Icarus drowned. The Icarian Sea was named in his honor.

Answer the questions about the text.

1. What element found in most myths does the text contain?

2. In your opinion, what lesson does this text teach?

3. Describe the series of events that contribute to the text's larger-than-life quality.

Describe Data Collection

To describe a set of data, describe these features:

Attribute: the characteristic being recorded or measured

Unit: the unit of measurement, such as inches or grams

Means: the tool used for the observations or measurements

Observations: the number of observations or measurements

Describe the data set shown in the chart.

Step 1 What attribute is measured?

The attribute is *length of time* spent walking a dog.

Step 2 What unit of measurement is used?

The time is shown in *minutes*.

Step 3 What means was likely used to obtain the measurements?

To measure time, you use a *clock, timer, or stopwatch*.

Step 4 How many observations were made?

Count the number of observations: 8

Daily Dog Walks

Day	Time (min)	Day	Time (min)
1	35	5	60
2	40	6	25
3	25	7	90
4	55	8	20

Describe the data set by listing the attribute measured, the unit of measure, the likely means of measurement, and the number of observations.

1. Attribute: _____

Unit of measurement: _____

Means: _____

Number of observations: _____

Pet Weights (lb)

5.2	8	9.5	48.4	0.9
4.7	10.5	32	18	12

2. Attribute: _____

Unit of measurement: _____

Means: _____

Number of observations: _____

Serving Volume (cups)

Lettuce	2	Soup	1.5
Cheese	0.25	Ice Cream	0.75
Sauce	0.5		

Name _____

In your own words, write a definition of the word in bold in each sentence below. Use the context of the sentence and the information about the word's origin to help you.

1. The cloths she wove had such **magnificent** patterns and images that women came from all over to gaze upon them with wonder.

Origin: Latin *magnificus* meaning "noble in character"

Definition: _____

2. She even went so far as to claim that her skills were **superior** to those of Athena, disrespectfully mocking the goddess by declaring, "Let the goddess try to match her skills against mine."

Origin: Latin *superiorem* meaning "higher"

Definition: _____

3. At those bold and foolish words, the old woman cast off her **disguise** and said, "It is I, Athena, and since it is a contest you want, it is a contest you shall get."

Origin: Ancient French, *deguiser*, meaning "a change from the usual dress or appearance"

Definition: _____

4. Athena's images portrayed the power of the gods against various mortals who had displeased them.

Origin: Latin, *protrahere*, meaning "to reveal"

Definition: _____

Name _____

miner	naval	vane	pane	sheer
navel	pain	shear	minor	vein

A. Find the homophone pairs in the box. Write each pair on a line.

1. _____
2. _____
3. _____
4. _____
5. _____

B. Draw a line from each word in the left column to its homophone in the right column. Then choose one homophone pair and use both words in a sentence.

- | | |
|--------------|-----------|
| 6. principle | vain |
| 7. aisle | idle |
| 8. lesson | principal |
| 9. idol | isle |
| 10. vein | lessen |

11. _____
- _____
- _____
- _____

Dot Plots and Frequency Tables

A **dot plot** displays data by placing dots above a number line. Each dot represents one data value.

Paloma sells produce at the farmers' market. The chart shows the number of pounds she sells each day. What was the most common number of pounds that Paloma sold?

Step 1 Draw a number line with an appropriate scale. The chart contains numbers from 11 to 20, so use a scale from 10 to 20.

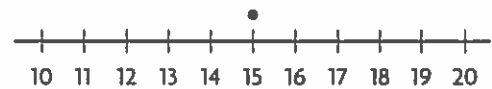
Step 2 For each data value in the chart, plot a dot above the number on the number line. The first data value in the chart is 15, so the dot is placed above 15 on the number line.

Complete the dot plot for the other values in the table. Since there are 16 data values, there should be 16 dots in all.

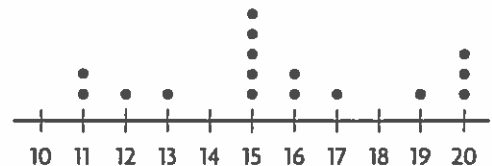
Step 3 The number of pounds Paloma sells most often is the value with the most dots. The stack with the most dots is at 15 pounds.

So, Paloma most often sells 15 pounds of produce.

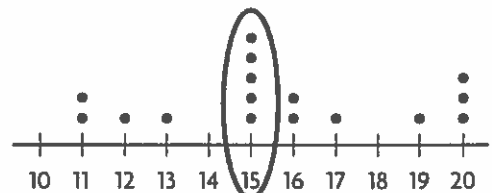
Produce Sold (pounds)			
15	19	15	16
20	16	17	20
11	12	15	20
15	13	11	15



Produce Sold (pounds)



Produce Sold (pounds)

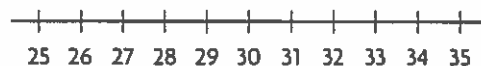


Produce Sold (pounds)

Use the data in the chart at right.

- Complete the dot plot.

Number of Cars Sold per Month					
26	32	35	29	30	26
25	29	28	31	29	26
35	26	26	28	26	30



Number of Cars Sold per Month

- What is the most common number of cars sold per month?

Land of the Midnight Sun

Have you ever heard of the midnight Sun? If you live near the Arctic Circle, it's an annual occurrence. The Arctic Circle is an imaginary line that circles the globe at about 66° N latitude and defines the Arctic region. Within the arctic are parts of Greenland, Canada, Russia, Norway, and the United States. Once a year, on the summer solstice, the Sun does not set, even at midnight—thus the name, midnight Sun. This happens each year on or around June 21.

Much of Alaska lies within the Arctic Circle. Barrow is the northernmost town in Alaska. In Barrow, from about May 10 until August 2, the Sun doesn't set. But winter is a different story for the people of Barrow. From November 18 to January 24, the Sun doesn't rise. Could you imagine going to school and coming home when it is dark? What about sleeping when the Sun is still shining? Places south of Barrow also experience extremely long summer days and extremely short winter ones. Take Anchorage, Alaska, for example. On July 1, the Sun rises at 4:28 in the morning. It doesn't set until 11:35 at night. That's 19 hours of daylight! In contrast, on January 1, the Sun rises at 10:10 the morning and sets at 3:54 p.m. That's less than six hours of daylight.

Why such differences in the number of daylight hours? It has to do with Alaska's location on Earth and Earth's tilt as it revolves around the Sun. Earth is tilted on its axis at approximately 23°. On the day of the summer solstice, the area inside the Arctic Circle is pointed most directly at the Sun. Everywhere inside the circle experiences 24 hours of sunlight. As summer changes to fall, Earth moves farther along in its orbit. The Arctic Circle points less and less directly at the Sun.

The hours of daylight decrease. Finally, on the winter solstice, the Sun no longer shines directly on the Arctic Circle. On this day, the Sun doesn't rise above the horizon anywhere above the Arctic Circle.

Questions:

1. Why doesn't a state such as Wyoming experience the midnight Sun?
2. How do Earth's revolution and the tilt of its axis affect how sunlight falls on the planet?
3. Does everyone on Earth see the Sun appear to move across the sky in the same way? Explain.



Credit: Senthil Raman/Shutterstock.com

Name _____

A. Read the draft model. Use the questions that follow the draft to help you think about what transitions you can add to indicate shifts in time or setting and to connect plot events.

Draft Model

Jacob heard Dragon was threatening the kingdom. He decided to visit Dragon. He left for the journey to Dragon's cave. Jacob arrived at the cave.

1. What transitional words and phrases would help show readers when it was that Jacob heard about Dragon threatening the kingdom? What transitions would show when Jacob decided to visit Dragon?
2. What transitions would help show the connections between the events in the first and second sentences?
3. What transitions would help indicate shifts in setting?

B. Now revise the draft by adding transitions to help clarify shifts in time and setting and to help connect plot events.

Name _____

The student who wrote the paragraphs below used details from two different sources to respond to the prompt: *Rewrite the story of Icarus's escape as a parody, as if it were included in "The A-MAZE-ing Tale of Theseus and the Minotaur."*

When Icarus saw Adriadne running toward the boat, he moaned. She was leaving without him—and with Theseus. "He thinks he is soooo great," Icarus muttered. "But I'll prove that I'm more worthy of Adriadne's breakfast sandwiches than Theseus ever could be," he told himself. But how? Icarus needed his dad's help.

"Uh, Dad?" he said that night in their musty cell tower.

"What is it, Son?" replied Daedalus.

"So there's this girl, and ..."

"Say no more," interrupted his dad. "I'm on it!"

Daedalus had been planning their escape. He built two amazing sets of human-size wings from feathers and wax. "One for you and one for me," he said. "But listen, Son. Don't fly too high, because the hot sun will melt the wax, and the wings will fall apart. And don't fly too low, because the sea will ruin the feathers."

"Got it," said Icarus. But he was already imagining soaring high above Adriadne and Theseus. Despite his dad's warnings, that's exactly what Icarus did. He flew too high to the sun.

"Nooooooo! Yo Adriadne!"

Reread the passage. Follow the directions below.

1. What did Daedalus warn Icarus not to do? Circle a sentence that shows descriptive details from the story.
2. Why did Icarus fly too close to the sun? Draw a box around a sentence that shows how Icarus's character is developed.
3. Underline a transition word that shows how one event led to another.
4. Write one of the adjectives on the line.

Name _____

- An **adjective** describes a person, place, thing, or idea. Adjectives modify nouns or pronouns.
- An adjective may tell what kind, which one, or how many.
- A **predicate adjective** follows a linking verb and tells about the subject of a sentence.
- A **proper adjective** is formed from a proper noun.

A. Write the adjectives in the following sentences. (Some sentences have more than one adjective.)

1. Anja and her mother visit the animal shelter every Saturday. _____
2. They bring pet supplies and dog treats when they visit. _____
3. Anja walks the small dogs, and her mom walks the big ones. _____
4. Anja likes to play with the cute cats. _____
5. She especially likes the Siamese kittens. _____

B. Write the predicate adjectives in the following sentences. (Some sentences have more than one predicate adjective.)

6. Most of the animals at the shelter are friendly, but some are shy.

7. The bulldog barks at visitors, but he is nice. _____
8. The terrier seems sweet and playful. _____
9. The kittens are frisky too. _____
10. All the animals seem happy to have visitors. _____

Name _____

- When more than one adjective is used to describe something, the adjectives follow a particular order.
- Opinion adjectives come before size adjectives.
- Size adjectives come before age adjectives.
- Age adjectives come before color adjectives.
- Color adjectives come before material adjectives.

Write a sentence using each group of adjectives. Make sure to put the adjectives in the proper order.

1. red, new

2. young, tiny

3. pretty, yellow

4. big, cardboard, brown

5. marble, interesting, white, old

Name _____

Histograms

A **histogram** looks like a bar graph without spaces between bars. When you have data to organize, it is helpful to group the data into intervals and let each bar show the frequency, or number of data, in that interval.

Complete the frequency table below, using the data to the right. Then make a histogram.

Step 1 Sort the data into each interval.

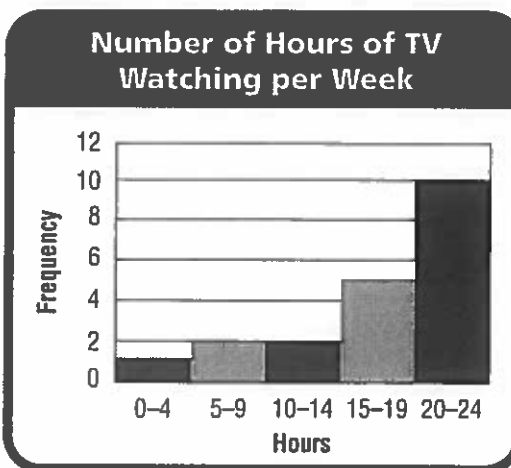
Only the 4 (1 item) is in the interval 1–4.
 8 and 5 (2 items) are in 5–9.
 10 and 14 (2 items) are in 10–14.
 17, 15, 19, 18, 19 (5 items) are in 15–19.
 24, 21, 21, 20, 23, 22, 24, 20, 22, 24
 (10 items) are in 20–24.

Hours of TV/week	1–4	5–9	10–14	15–19	20–24
Frequency	1	2	2	5	10

Step 2 Check that all 20 items in the table are in the frequency table by adding.
 $1 + 2 + 2 + 5 + 10 = 20$

Step 3 Make the histogram of the data.
 Use a vertical scale from 0 to 12.
 Title and label the histogram.
 Draw a bar for each interval.
 Draw bars the same width.
 Draw the bar as high as the frequency.

Number of Hours of TV Watching per Week				
4	14	24	17	10
21	21	15	20	23
5	22	19	18	8
24	19	20	22	24



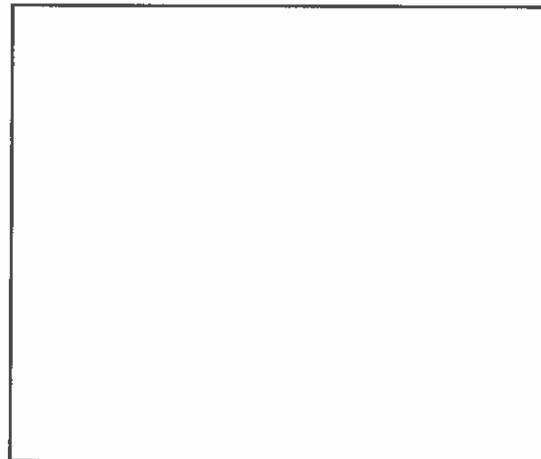
For 1–2, use the table shown.

Minutes on Treadmill Each Day				
28	28	24	52	35
43	29	34	55	21
38	60	71	59	62
19	64	39	70	55

1. Complete the frequency table of the data.

Number of Minutes	0–19	20–39	40–59	60–79
Frequency				

2. Make a histogram of the data.



Name _____

- A **proper noun** names a specific person, place, or thing, and it always should be capitalized.
- **Proper adjectives** always should be capitalized, too. Many proper adjectives describe where someone or something is from. They may refer to languages, races, or nationalities.
- Some proper adjectives describe a time period or holiday.

Rewrite each sentence, using capital letters for any proper nouns.

1. Many people in japan study the english language.

2. japanese students sometimes learn english from american teachers.

3. Cities like tokyo and osaka are modern and busy but still observe traditional customs.

4. many japanese traditions have been influenced by chinese and european cultures.

5. It might surprise you to know that beethoven's music is traditionally performed during the japanese new year celebration.

Name _____

- An **adjective** describes a person, place, thing, or idea. Adjectives modify nouns or pronouns and tell what kind, how many, or which one.
- A **predicate adjective** follows a linking verb and describes the subject.
- A **proper adjective** is formed from a proper noun.
- When more than one adjective is used to describe something, the adjectives follow a particular order: opinion, size, age, color, material.
- Proper nouns and proper adjectives always should be capitalized.

Proofread the paragraph. Then rewrite it, correcting any errors in the capitalization of proper nouns and proper adjectives. When more than one adjective is used to describe something, make sure the adjectives are in the correct order.

Hernando de Soto was a spanish explorer who led the first european expedition into the area that became the southern part of the united states. In 1539, he sailed from cuba to florida in search of gold and other riches. Two years later, the expedition crossed the mississippi river into what is now the state of arkansas. de soto and his army met many obstacles. It was a long hard winter, and many died. The army found none of the splendid riches they had imagined. De Soto became ill and died before the expedition returned to mexico in 1543.

Name _____

A. Underline the adjectives in each sentence.

1. Ginger is my favorite dog at the animal shelter.
2. She is a beautiful miniature dachshund.
3. Ginger has long red hair with black tips.
4. She has a loud bark and thinks she is a big dog.
5. Everyone loves Ginger because she is funny and playful.

B. Write the proper adjective in each sentence. Circle any two adjectives whose order needs to be switched.

6. The food festival offers a taste of many Asian dishes.

7. You should sample the Thai noodles with brown delicious sauce.

8. One booth features fresh Vietnamese spring rolls.

9. My brother always tries the steamed Chinese dumplings.

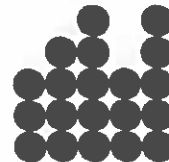
10. I like the spicy Korean dish called bibimbap.

Mean as Fair Share and Balance Point

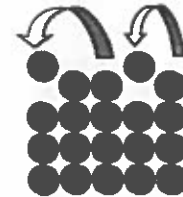
Five students brought 3, 4, 5, 3, and 5 cups of flour to the cooking club. They divided it evenly so that each student got the same amount for cooking. Use counters to show how many cups each student got.

Step 1 Make 5 stacks of counters: one stack for each student.

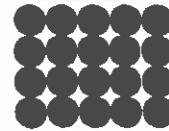
Use one counter for each cup of flour.



Step 2 Take counters from taller stacks and put them on shorter stacks. Move counters until all the stacks are the same height.



Step 3 Count the counters in each stack. There are 4 counters in each stack.



So, 4 is the mean of the data. When you divide the flour equally, each student gets 4 cups.

Use counters to find the mean of the data set.

1. 3, 5, 7, 5

Draw 4 stacks to show the data set.

Make the stacks the same height.

_____ counters in each stack.

Mean: _____

2. 5, 7, 4, 3, 4, 1

Draw 6 stacks to show the data set.

Make the stacks the same height.

_____ counters in each stack.

Mean: _____

Name _____

disposed

eavesdropping

fortitude

infinite

retaliation

rigors

stoop

undaunted

Finish each sentence using the vocabulary word provided.

1. (eavesdropping) The little boy learned _____

2. (disposed) If you enjoy volunteering at an animal shelter, _____

3. (fortitude) It takes a lot of _____

4. (retaliation) He thought his teammates were being unfair, _____

5. (rigors) The travelers were worried _____

6. (stoop) The sisters _____

7. (undaunted) The girl knew the class would be difficult, _____

8. (infinite) There seems to be _____

Comprehension: Cause and Effect Graphic Organizer

Name _____

Read the selection. Complete the cause and effect graphic organizer.

Setting	
Event	Character's Reaction
Event	Character's Reaction
Event	Character's Reaction

Measures of Center

A **measure of center** is a single value that describes the middle of a data set.

The **mean** is the sum of all items in a set of data divided by the number of items in the set.

The **median** is the middle number or the mean of the middle two numbers when the items in the data set are listed in order.

The **mode** is the data value that is repeated more than other values. A data set can have more than one mode, or no mode.

Find the mean, median, and mode for the set of data.

80, 74, 82, 77, 86, 75

Find the mean.

Step 1 Find the sum of the data.

$$80 + 74 + 82 + 77 + 86 + 75 = 474$$

Step 2 Count the number of data items.

There are 6 items.

Step 3 Divide.

$$\frac{\text{sum}}{\text{number of items}} = \frac{474}{6} = 79$$

So, the mean is 79.

Find the mode.

Use the ordered list and look for numbers that repeat.

No numbers repeat. So, there is no mode.

Find the median.

Step 1 Order the data.

74, 75, 77, 80, 82, 86

Step 2 Find the middle number.

There are two middle numbers:

77 and 80.

Step 3 Find their mean.

$$\frac{77 + 80}{2} = 78.5$$

So, the median is 78.5.

Find the mean, median, and mode.

1. 31, 3, 14, 31, 11

mean: _____ median: _____

mode: _____

2. 95, 18, 51, 1, 22, 5

mean: _____ median: _____

mode: _____

3. 14, 22, 15, 7, 14, 0, 12

mean: _____ median: _____

mode: _____

4. 67, 103, 94, 65, 18, 114, 94, 63, 94, 27

mean: _____ median: _____

mode: _____

Observing Patterns of Day and Night

Sky Watching

Location: Outside where you live.

Challenge: Gather data and record observations about sunrise, sunset, and Moon phases.

Who: You and other sky watchers in your household who will help

1. **What to look for:** Observe the sunrise, sunset, and Moon phase in the sky over your home every other day for 14 days.

2. **How to prepare:**

- Use a compass or an Internet resource such as Google Maps to determine which direction outside your home is which.

- Draw a simple sketch of the **east** horizon as you see it from your home. Include buildings, trees, and utility poles. (Note: Trees and buildings may make it difficult to see the actual horizon where Earth and sky meet. You should draw the landmarks that make up the skyline as you see it.) Trace the same horizon line in all the "Morning" boxes on the Sky Watching Recording Sheet that starts on the next page. Repeat for the **west** horizon and the "Evening" boxes.

- Every other day for 14 days, record where the Sun crosses each horizon. At sunrise, mark the point where the Sun first peaks above the horizon. At sunset, mark the point where the Sun is last visible when it dips out of sight. Record the date and time of each observation.

⚠ Do not look directly at the Sun.

NOTE: If it is already daylight by the time you typically wake up, arrange for an adult to wake you earlier on the days you will make observations.

3. **What to record:**

- The time, and where on your horizon, that the Sun first becomes visible in the morning.

- The time, and where on your horizon, that the Sun is last visible in the evening.

- Whether the Moon is visible during your morning and evening observations. If so, draw its phase.

4. **What to report:** Bring your completed recording sheet to class. Be ready to share your results and compare them with the observations of others.

Science Words

Horizon: The line at which Earth's surface and the sky seem to meet.

Moon phase: The apparent shape of the illuminated part of the Moon as it is observed from Earth.

Daytime: The period of time between sunrise and sunset.

Nighttime: The period of time between sunset and sunrise.

Take-Home Science

Name: _____ Date: _____

Sky Watching Recording Sheet

⚠ Do not look directly at the Sun.

Morning (East)	Evening (West)	Moon Phase
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____

Take-Home Science

Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____
Date: _____ Time: _____	Date: _____ Time: _____	Date: _____ Time: _____

Summarize the changes reflected by your data: _____

Name _____

Read the passage. Use the make, confirm, and revise predictions strategy to check your understanding as you read.

Following a Star

Henry walked carefully through the dark woods. He wished he could progress faster, but he recalled his mother's words, haste makes waste. It would be dangerous to draw attention to himself. The woods were not a safe place for a runaway slave. Nowhere was. His only hope was to travel safely on the Underground Railroad to Canada and freedom. Each home on the line would provide protection from those who would whip or imprison him—or worse—if they caught him.

Suddenly, a twig snapped nearby, and Henry jumped. "Oh, no!" he thought, his heart pounding within his chest. He squeezed his eyes shut tight and told himself, "A coward dies a thousand deaths; a brave man dies but once." He turned around, anticipating an angry slave catcher, but instead he saw the worried but friendly face of a boy not much older than himself. "I thought..."

"Shh!" the boy hushed Henry, then led him to a large oak.

Next to the tree was a woman who stood just a little taller than Henry. He didn't need to see her clearly to know that this figure was the renowned Harriet Tubman, the former slave who had guided so many other slaves to freedom. She was holding a folded sheet of paper in her hand.

"I was told that this letter is a warning to folks that you are an escaped slave," Harriet told Henry quietly. "I will tell you how to make your way along the Underground Railroad."

Then in a calm voice, Tubman explained how to get to the first station. "Look for a lit lantern hanging outside a home." She reminded Henry that along with those who would help him, there were also those who could destroy him—wild animals and people.

"Mrs. Tubman, please take me with you!" Henry blurted out.

Name _____

"Hush up! I'm sorry, Henry," Harriet Tubman said quietly, glancing at the letter in her hand. Harriet knew that escorting Henry along with the other boy, Timothy, would only put him—and them—in even more danger. "You've got to find it in you to be brave."

"But how will I know which direction to go in?" Henry asked.

"Follow the North Star, and always be remembering, stay alert, and understand that your very life depends on your actions. Didn't your mama ever tell you danger foreseen is half avoided?"

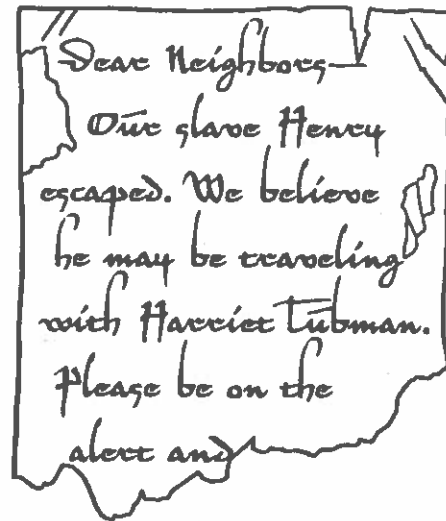
Henry thanked Harriet Tubman and began his journey. He knew he couldn't stay in the woods much longer. He needed a clear view of the sky so he could see the North Star.

As Henry moved closer to the edge of the woods, the moonlight came down on the trees. It created shadows that turned the trees into snarling dogs and men with sticks and ropes. The images filled Henry with a twisting fear. Thinking about the punishments he would face if he were captured terrified him. He began to wonder if he should turn back and return to the plantation. He might still receive a beating, but it would be nothing like what would happen if he were captured.

Still, life at the plantation was very hard. Although he was just a teenager, Henry worked six long days a week, picking cotton under the boiling sun. There he belonged to the master and could be sold at any time.

Unsure of what to do, Henry hung his head, and with a heavy sigh he thought of something else his mama used to say, nothing ventured, nothing gained. Henry had the experience of being a slave his whole life, and he knew that he just HAD to be free!

Henry looked up at the sky and searched until he found the North Star shining down on him like a ray of promise. Fortune favors the bold, thought Henry, and he took off to follow the North Star to freedom.



Name _____

A. Reread the passage and answer the questions.

1. Early in the story, what happens when Henry hears a twig snap? Why?

2. What causes Harriet Tubman to refuse to take Henry with her?

3. In the text in the middle of the second page, how do the shadows in the woods affect Henry after he leaves Harriet Tubman? What does he start to think he should do?

4. In the last two paragraphs, what does Henry remember? What effect do these memories have on him?

B. Work with a partner. Read the passage aloud. Pay attention to expression. Stop after one minute. Fill out the chart.

	Words Read	-	Number of Errors	=	Words Correct Score
First Read		-		=	
Second Read		-		=	

Name _____

The Strength to Speak Out

"Rebecca's been gone for what feels like ten years, Pa, but it is still 1838," Mrs. Miller told her husband.

Mr. Miller responded, "Be strong, dear. She has an important mission. Here, a letter came for you today. Read it aloud."

Mrs. Miller excitedly began reading: "My Dear Mama, I miss you and Papa so. Please, don't fret, for I am safe and well. I have listened to powerful speakers at the abolitionist meeting in Pennsylvania Hall. Angelina Grimké Weld spoke with fervor about the evils of slavery. She urged us all to join together against the shame of our nation. Mama, would you believe that even I took the stage and spoke to our fellow abolitionists? It is true, Mama. Mrs. Weld took my hands, looked in my eyes, and said, 'Rebecca Miller, stand up and speak your mind, for yours is a keen mind and your voice is one of courage.' Be proud of me, Mama. I have become the strong woman you had hoped me to be. With love and devotion to you and Papa, Rebecca."

Answer the questions about the text.

1. What text features of historical fiction does the text contain?
List two.

2. What important information about the main character and the plot does the letter reveal?

3. How does the use of dialect help you understand the time period?

Name _____

Effects of Outliers

Sometimes a data set contains a number that is much less or much greater than the rest. This number is called an **outlier**. Taking note of outliers can help you understand a data set.

Use a dot plot to find the outlier for the quiz scores. Then tell how the outlier affects the mean and median.

Step 1 Plot the data on the number line.



Scores on 20-question Quiz

15	16	17	13	18
12	5	14	14	16

Mean: 14 Median: 14.5

Step 2 Find the outlier.

Most of the points are between 12 and 18.
5 is much less than the rest, so it is an outlier.

Step 3 Find the median and mean without the outlier.

Median: Make an ordered list and find the middle value.

12, 13, 14, 14, 15, 16, 16, 17, 18
The new median is 15.

Mean: One value has been removed. Add the new list of values and divide by 9.

$$\frac{12 + 13 + 14 + 14 + 15 + 16 + 16 + 17 + 18}{9} = 15$$

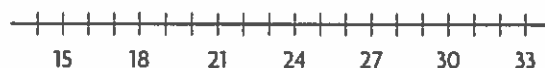
The new mean is 15.

Step 4 Describe the effect of the outlier.

Without the outlier, the mean went up from 14 to 15.
The median went up from 14.5 to 15.

Use the table for Problems 1–3.

1. Find the outlier by drawing a dot plot of the data.



Outlier: _____

Shirt Prices (\$)

29	33	24	14	29
31	31	33		

Mean: \$28 Median: \$30

2. Find the mean and median without the outlier.

Median: \$ _____ Mean: \$ _____

3. Without the outlier, the mean _____

The median _____

Name _____

Read each passage below. Using context clues to help you, write a definition of each adage or proverb in bold.

1. Henry walked carefully through the dark woods. He wished he could progress faster, but he recalled his mother's words, **haste makes waste**. It would be dangerous to draw attention to himself.
- _____

2. Suddenly, a twig snapped nearby, and Henry jumped. "Oh, no!" he thought, his heart pounding within his chest. He squeezed his eyes shut tight and told himself, "**A coward dies a thousand deaths; a brave man dies but once**." He turned around, anticipating an angry slave catcher, but instead he saw the worried but friendly face of a boy not much older than himself.
- _____
- _____

3. "Follow the North Star, and always be remembering, stay alert, and understand that your very life depends on your actions. Didn't your mama ever tell you **danger foreseen is half avoided**?"
- _____
- _____

4. Unsure of what to do, Henry hung his head, and with a heavy sigh he thought of something else his mama used to say, **nothing ventured, nothing gained**. Henry had the experience of being a slave his whole life, and he knew that he just HAD to be free!
- _____

5. Henry looked up at the sky and searched until he found the North Star shining down on him like a ray of promise. **Fortune favors the bold**, thought Henry, and he took off to follow the North Star to freedom.
- _____

Word Study: Words from Around the World

Name _____

bāzār in Persian means "market"

plat in French means "flat"

iglu in Inuit means "house"

pudelhund in German means "to splash about" plus "dog"

kruisen in Dutch means "to cross"

Read each sentence. The word in bold has an origin in a language other than English. Find the related word in the box and write the word and its meaning on the line.

1. The **igloo** kept the family warm even in extremely cold weather.

2. Our family took a **cruise** down the river during spring break.

3. We bought several gifts at the winter **bazaar**.

4. My **poodle** loves to play at the dog park.

5. After climbing the steep hills, we were glad to reach a **plateau** that extended for miles.

Name _____

Problem Solving • Data Displays

The table shows the highest state populations in 2007, rounded to the nearest million. What percent of the states had at least 15 million residents?

2007 State Populations (in millions)					
18	10	6	9	6	9
6	37	13	12	6	11
24	8	6	6	19	6
10	6				

Read the Problem

What do I need to find?

I need to find the _____

that had at least _____ million people.

What information do I need to use?

I will use the _____

How will I use the information?

I will pick _____ for the

data, find the _____ for each interval and use the frequencies to make a

_____. I will use the information from the histogram

to find a _____.

Solve the Problem

Make a frequency table.

Millions	5–9	10–14	15–19	20–24	25–29	30–34	35–40
Frequency			2			0	

Use the frequency table to make a _____

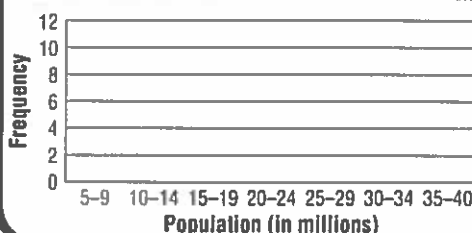
States with at least 15 million: $2 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Total states: 20

Percent with at least 15 million: $\frac{\boxed{\hspace{1cm}}}{20} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$

So, _____ of the states have populations over 15 million.

2007 Population of States



Use the data in the histogram above.

1. What percent of the states had between 5 million and 14 million residents?

States with 5–14 million: _____

Percent with 5–14 million: _____ %

2. What percent of the states had less than 10 million residents?

States with less than 10 million: _____

Percent with less than 10 million: _____ %

Name _____

A. Read the draft model. Use the questions that follow the draft to help you think about how you can add strong, vivid words to help readers visualize the setting and the characters.

Draft Model

Song desperately looked for her sister, but the forest hid her well. Song called out her sister's name. The only answer was the sound of an owl. Song walked carefully through the trees.

1. What strong verbs could you use to describe how Song looks and sounds as she searches and calls out?
2. What vivid words could you use to help readers visualize the forest and understand what Song feels?
3. How do you want the sound of the owl to affect readers? What specific words could help you describe the owl's sound to get that effect?

B. Now revise the draft by adding strong, vivid words that will help readers better visualize the setting and the action and to understand how Song is feeling.

Name _____

The student who wrote the paragraphs below used details from two different sources to respond to the prompt: *Imagine that the letter Elijah carried was from a slave to Mrs. Holton. In the letter, explain that Mrs. Holton's husband had been whipped badly but then flew to freedom as in the folktale.*

Dear Emeline,

I must tell you some bad news about John. He was whipped hard. So hard. And for what? Mr. Tillman thought he stole his gold, and everybody knows John didn't steal that gold. Your John is a good man. He wouldn't steal anything. But Tillman whipped him so hard he dropped straight to the ground like he was a puppet and his strings got cut. I went over to help him, but he was out cold—not breathing. I was worried he wasn't gonna make it.

But Emeline, I have good news, too. Because just when we all thought John wasn't gonna make it, up came a man. A magic man named Toby. And this Toby raised his arms above John and spoke magic words. He said, "Kum ...yali, kum buba tambe." Then John rose up and soared to freedom. To freedom, Emeline! So don't you worry about John. He is with the ones who fly. He is strong and free.

Hope his story finds you safe.

Esther

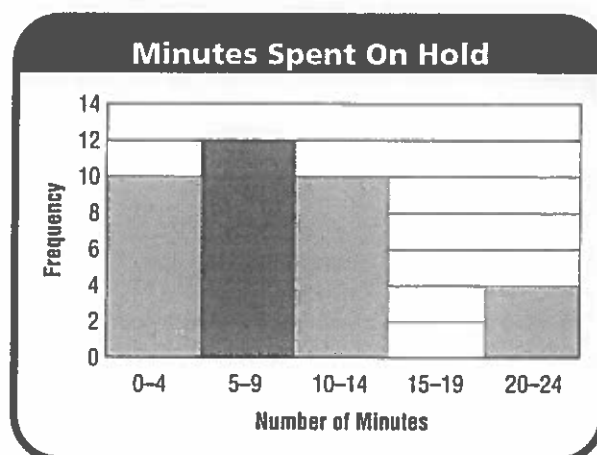
Reread the passage. Follow the directions below.

1. What happened to Mrs. Holton's husband? Circle a sentence that shows the development of events.
2. Draw a box around a sentence that shows an example of strong, descriptive word choice.
3. Underline a transitional phrase that shows how one event led to another.
4. Write an example of a demonstrative adjective and an article on the line.

Patterns in Data

The histogram shows the number of minutes a caller had to be placed on hold before talking to a representative.

According to the graph, there were 10 people who were on hold for 0 to 4 minutes.



Does the graph contain any clusters or gaps?
If so, where? Does the graph have symmetry?

Step 1 Look for a group of data points that lie within a small interval. These are clusters.

The bars for 0-4, 5-9, and 10-14 are in a group. This is a cluster of data.

Step 2 Look for an interval that contains no data. These are gaps.

There is no bar above the interval 15-19. This is a gap in the data. This means there were no people who were on hold for 15 to 19 minutes.

Step 3 Look for symmetry. If you draw a vertical line in the graph, the bars on the left and right sides will match if the graph has symmetry.

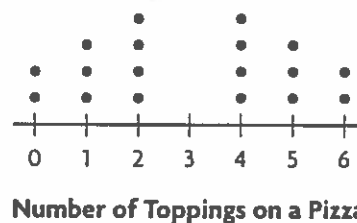
A line cannot be drawn anywhere on the graph and have the bars on either side match. There is no symmetry.

Use the dot plot to answer the questions.

1. Are there any clusters? If so, where?

2. Are there any gaps? If so, where?

3. Is there symmetry? If so, where can the line of symmetry be drawn?



Name _____

- An **article** is a kind of adjective. There are three articles: *a*, *an*, and *the*.
- *A* and *an* are **indefinite articles** because they refer to a noun in general. Use *a* before a noun that begins with a consonant. Use *an* before a noun that begins with a vowel.
- *The* is a definite article because it refers to a specific noun.

Read the sentences. Circle the article that correctly completes the sentence.

1. (The, A) sun is the center of our solar system.
2. (The, An) earth and seven other planets orbit the sun in circular paths.
3. Pluto also orbits the sun, but it is no longer called (a, an) planet.
4. Pluto is classified as (a, an) dwarf planet.
5. Pluto's orbit is shaped like (a, an) oval.
6. The solar system has other dwarf planets and (a, an) number of smaller bodies.
7. (A, An) asteroid is a small rocky body that travels through space.
8. Most asteroids are found in a region between Mars and Jupiter called (a, the) asteroid belt.
9. (A, An) comet is a small body made of ice, gas, and dust.
10. Comets orbit (an, the) sun in oval-shaped paths.

Name _____

- *That, this, these, and those* are **demonstrative adjectives**. They point out people, places, things, or ideas.
- Demonstrative adjectives can also take the place of nouns. When they do, they become **demonstrative pronouns**.

A. Choose the demonstrative adjective that correctly completes each sentence. Write it on the line provided.

1. The school principal keeps lost items in _____ box. (this, these)
2. _____ gloves might belong to Matthew. (That, Those)
3. Samantha lost a hat just like _____ one. (this, these)
4. Ask William if _____ sweater is his. (that, those)
5. _____ clothes have been in the box for a long time. (This, These)

B. Complete each sentence with an appropriate demonstrative pronoun in parentheses ().

6. _____ is Jessica's lunch bag, which I am bringing to the cafeteria for her. (This, That)
7. Lee said _____ are his baseball cards in the lost and found box in the office. (these, those)
8. A water bottle was left on the bus. _____ might be mine. (That, This)
9. I have a ball with me. Could _____ be the ball missing from the gym? (that, this)
10. The books on the table over there go back to the library. _____ on this table are for the students. (These, Those)

Box Plots

The weights in ounces of 12 kittens are 20, 18, 22, 15, 17, 25, 25, 23, 13, 18, 16, and 22.

A **box plot** for the data would show how the values are spread out.

Make a box plot for the data.

Step 1 Write the numbers in order from least to greatest. Find the median and the least and greatest values.

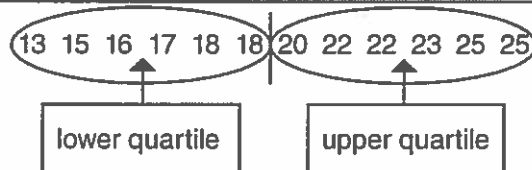
13 15 16 17 18 18 20 22 22 23 25 25

Since there is an even number of values, the median is the mean of the two middle values. The median is 19. The least value is 13, and the greatest value is 25.

Step 2 Find the lower and upper quartiles.

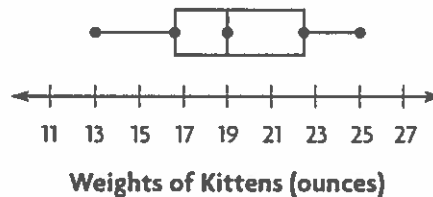
The **lower quartile** is the median of the lower half of the data.

The **upper quartile** is the median of the upper half of the data.



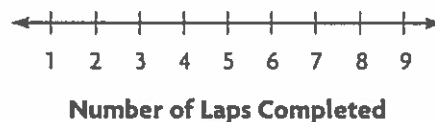
Draw a line where the median should be. Now the data set has been split into halves. (If there were an odd number of values in the data set, the median would be one of the data values, but you would not include it in the upper or lower half.) The lower quartile is 16.5, and the upper quartile is 22.5.

Step 3 Plot the five points on a number line, and construct the box and whiskers. Use an appropriate scale.



The numbers of laps completed on a track are 4, 5, 2, 7, 6, 8, 9, 8, and 6.
Use the data for 1–4.

1. What is the median? _____
2. What is the lower quartile? _____
3. What is the upper quartile? _____
4. Make a box plot for the data.



Name _____

- Use a **colon** after the salutation in a business letter.
- Use a **colon** to introduce a list of items.
- Use a **semicolon** to join together two independent clauses—that is, two clauses that could be sentences on their own. The semicolon takes the place of a comma and conjunction.

Read the letter. Correct errors with colons and semicolons.

3100 Olive Street
Pico Rivera, CA 90060
February 15, 2012

Dear Ms. Newman,

I am sending the additional information you need for the choir program. The event begins at 7:00 P.M. The girls' chorus will perform first the mixed choir will perform last. Please add the following names to the list of choir members Abby Stein, Hannah Wilbanks, Windom Merrill, and Paul Stanley.

If you need any other information, please let me know.

Sincerely yours,
Lachandra Newman

Name _____

- An **article** is a kind of adjective. There are three articles: *a*, *an*, and *the*. *A* and *an* are **indefinite articles**. *The* is a definite article.
- *That*, *this*, *these*, and *those* are **demonstrative adjectives**. They point out people, places, things, or ideas. When **demonstrative adjectives** take the place of nouns, they become demonstrative pronouns.
- Use a **colon** after the salutation in a business letter and to introduce a list of items.
- Use a **semicolon** to join together two independent clauses.

Proofread the announcement. Watch for errors in articles, in demonstrative adjectives and demonstrative pronouns, and in punctuation. Rewrite the passage correctly.

To all students

The school assembly will take place these afternoon at 2:00 P.M. in a school gymnasium. All students must be seated in a gym no later than 1:50.

Principal Davis will recognize the following students for their top achievements in an state science fair Cody Massenelli, Sheree Jones, and Nikki Tagupa. This students should sit with Mrs. Pringle by a stage.

A principal will also recognize students who won honorable mention at a fair. That students should remain with their class they should stand when their names are called.

Name _____

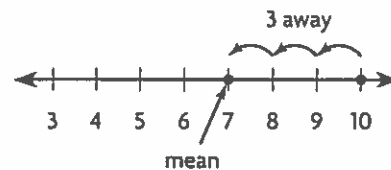
Mean Absolute Deviation

The **mean absolute deviation** tells how far away the data values are from the mean. A small mean absolute deviation means that most values are close to the mean. A large mean absolute deviation means that the data values are more spread out.

The prices of 8 lunches are \$10, \$8, \$3, \$5, \$9, \$6, \$7, and \$8.
The mean is \$7. Find the mean absolute deviation.

Step 1 Determine how far each data value is from the mean. You can use a number line.

Plot a value on the number line. Then count how many spaces you must move to reach the mean, 7.



Step 2 Make a list of all of the distances.

Data values: 10 8 3 5 9 6 7 8
Distance from mean: 3 1 4 2 2 1 0 1

Step 3 Find the mean of the distances by finding the sum and dividing by 8. The quotient is the mean absolute deviation.

$$\frac{3 + 1 + 4 + 2 + 2 + 1 + 0 + 1}{8} = \frac{14}{8} = 1.75$$

So, on average, each data value is 1.75 away from the mean.

Use counters or a number line to find the mean absolute deviation.

1. ages of people on a team in years:
9, 12, 10, 8, 11
mean = 10 years

2. Sam's test scores:
86, 71, 92, 84, 76, 95
mean = 84

distances from mean = _____

mean absolute deviation = _____

mean absolute deviation = _____

3. prices of dinner menu items:
\$15, \$10, \$13, \$19, \$20, \$12, \$9, \$14
mean = \$14

4. daily low temperatures, °F, in a city:
45, 39, 40, 52, 44
mean = 44°F

mean absolute deviation = _____

mean absolute deviation = _____

Name _____

A. Rewrite each sentence on the line, changing the article in parentheses so that it correctly completes the sentence.

1. Meteorologists are scientists who study and predict (a) weather.

2. They use (an) variety of tools to help them give accurate forecasts.

3. (An) thermometer is (a) instrument that measures air temperature.

4. (An) barometer measures (a) air pressure.

5. Meteorologists use (a) anemometer to measure wind speed.

B. Read each sentence. Underline the demonstrative adjective that correctly completes the sentence.

6. (This, These) wind vane shows the wind is blowing in an easterly direction.

7. Judging by (this, these) weather maps, a storm is on the way.

8. Heavy rains should move through our area (this, these) afternoon.

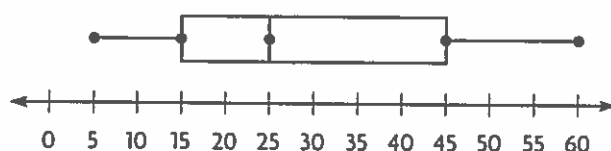
9. We can measure the amount of rain with (that, those) rain gauge.

10. (That, Those) weather predictions were very accurate.

Measures of Variability

A **measure of variability** is a single number that describes how far apart the numbers are in a data set. **Range, interquartile range,** and mean absolute deviation are all measures of variability.

The box plot shows the cost of various concert tickets. Find the range and interquartile range of the data in the box plot.



Step 1 To find the range, subtract the least value from the greatest value.

$$\begin{array}{ccccccc} 60 & - & 5 & = & 55 \\ \uparrow & & \uparrow & & \uparrow \\ \text{greatest} & & \text{least} & & \text{range} \end{array}$$

Step 2 To find the interquartile range, subtract the lower quartile from the upper quartile.

$$\begin{array}{ccccccc} 45 & - & 15 & = & 30 \\ \uparrow & & \uparrow & & \uparrow \\ \text{upper} & & \text{lower} & & \text{interquartile} \\ \text{quartile} & & \text{quartile} & & \text{range} \end{array}$$

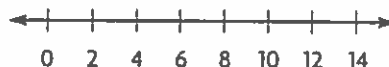
Make a box plot for the data. Then find the range and interquartile range.

1. number of free throws made:

8, 13, 9, 4, 1, 6, 2, 2, 14, 6, 9, 11

range = _____

interquartile range = _____

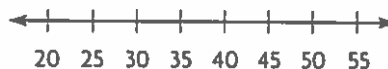


2. minutes spent cooking dinner:

45, 38, 52, 29, 28, 31, 44, 40, 25

range = _____

interquartile range = _____



Name _____

inefficient
modificationnutrients
mutatedindustrial
sparsemanipulation
surplus

Write a complete sentence to answer each question below.
In your answer, use the vocabulary word in bold.

1. What might be **sparse** on a dark winter day?

2. Why do living creatures need **nutrients**?

3. What is an **inefficient** way to clear a lawn of fallen leaves?

4. What might be different about a flower that has **mutated** genes?

5. What is something that is made by using **industrial** technology?

6. In which of your school subjects do you use **manipulation** of numbers?

7. What would you do if you had a **surplus** of money?

8. Why might you make a **modification** to a jacket?

Comprehension: Cause and Effect Graphic Organizer

Name _____

Read the selection. Complete the cause and effect graphic organizer.

Cause	Effect

Choose Appropriate Measures of Center and Variability

Sometimes one measure of center or variability represents the data better than another measure of variability. For example, the median might be a better representation than the mean.

Cheeseburger prices at several different restaurants are \$5, \$3, \$2, \$6, \$4, and \$14. Should the mean, median, or mode be used to describe the data? Should the range or interquartile range be used?

Measure of Center	Measure of Variability
Step 1 Find the mean, median, and mode. Mean: $\frac{5 + 3 + 2 + 6 + 4 + 14}{6} \approx \5.67 Median: 2 3 4 5 6 14 $\frac{4 + 5}{2} = \$4.50$ Mode = none	Step 1 Find the range and interquartile range. Range: $14 - 2 = \$12$ Interquartile range: $6 - 3 = \$3$ 2 (3) 4 5 (6) 14
Step 2 Compare. There are six data values, and the mean is greater than four of them. The outlier of \$14 is causing this. So, the median is a better measure of center.	Step 2 Compare. All of the data values except one are between \$2 and \$6. The interquartile range is a better measure.

- The times, in minutes, spent cleaning a room are 60, 50, 33, 28, and 44. Decide which measure(s) of center best describes the data set. Explain your reasoning.
- The amounts of snowfall, in inches, are 4, 3, 20, 6, 8, and 2. Decide which measure(s) of variability best describes the data set. Explain your reasoning.

California's Water Shortage

Did you know that Earth is sometimes called the water planet? Water doesn't stay in just one place, though. The water cycle is the constant movement of water among the land, ocean, and atmosphere. The key processes in the water cycle are evaporation, condensation, and precipitation. The ocean is the greatest source of water for evaporation. When ocean water evaporates, the salts in the water are left behind. As water vapor in the air cools, it condenses into liquid water. The water drops grow and form clouds. When the drops become large enough, they fall as precipitation, and the cycle continues.

Although water is continually cycling, not all areas of the planet receive the same amount of precipitation. Parts of California sometimes are at risk of experiencing water shortages. For some communities, that means mandatory water restrictions. These restrictions limit the consumption of water to certain days, times, and uses.

What causes water shortages? Like much of the western U.S., California greatly depends on melting snow to resupply rivers, lakes, and streams. Recently, winter storms have not dropped the usual amount of snow. Record temperatures have increased evaporation. The combination of these factors leaves the land parched. With surface resources low, some areas, especially those that are heavily farmed, have drilled for groundwater. This water is used for growing crops or watering livestock. Groundwater resources take many years to recharge. The shortage of water could have negative impacts on the agriculture industry.

Scientists and engineers are looking at ways to help California and other places on Earth that experience droughts. Some of the technology they are investigating includes turning salt water into freshwater, harvesting water with fog catchers, and recycling wastewater.

Questions:

1. You drop your water bottle on the sidewalk. Describe how the water cycle will change the spilled water.
2. Northern California has many forests. How might droughts affect these environments?
3. California produces almost half of all the fruits, nuts, and vegetables grown in the United States. How might a long-term drought in California affect all parts of the country?



Credit: muratart/Shutterstock.com

Apply Measures of Center and Variability

You can use measures of center and variability to compare sets of data.

Two math groups were given the same test.

Test Scores		
	Mean	Interquartile range
Group A	76.9	30
Group B	81.1	8

Compare the data.

Step 1 Compare the means.

Group B's scores are higher on average than Group A's scores because it has a greater mean.

Step 2 Compare the interquartile ranges.

Group B has a smaller interquartile range, which means their scores do not vary as much as Group A's scores.

Compare the data.

1.

Bowling Scores		
	Median	Range
Team X	66	11
Team Y	70	19

2.

Cantaloupe Weights in Pounds		
	Mean	Range
Farm 1	4	1.5
Farm 2	7	3

Name _____

Read the passage. Use the reread strategy to check your understanding as you read.

Something to Write On, Please

16 Paper is so common today that it is hard to think of living without it. Yet
29 for thousands of years before paper was invented, that is just what people
42 did. In spite of this hardship, people managed over the centuries to come
up with a great variety of materials upon which to record their ideas.

55 The earliest writing material used by humans was the wall of a cave.
68 While not much is known about prehistoric writing, one thing is sure.
80 Writing on the wall of a cave could not be moved. To read it, a person
96 would have had to come to it. In a time when the only way to get from one
114 place to another was to walk, cave writers did not have a wide audience.

128 Stone and Papyrus

131 Much of the early writing of the Egyptians was hieroglyphics, which
142 means picture symbols. The ancient Egyptians carved their writing into the
153 stone of temples or monuments. Because of where the writing was done,
165 the words were made to be as permanent as the buildings themselves.

177 Later the Egyptians made an early paper-like material called *papyrus*.
187 This is the word from which *paper* gets its name. Papyrus was named after
201 a kind of marsh grass growing around the Nile River called papyrus. To
214 make papyrus paper, the Egyptians cut thin strips of grass and soaked them
227 in water. Soaking the strips softened them. To make a flat surface, they
240 laid the strips at right angles to each other and pounded them into a thin
255 sheet. The heat of the sun dried and stiffened the sheets. Dried papyrus
268 was a much lighter substance than stone. It could easily be carried from
281 place to place in rolled sheets called scrolls.

Name _____

Clay Tablets

Near Egypt and about the same time, the ancient Mesopotamians made a form of writing called *cuneiform*, or wedge-shaped writing. Like the Egyptians, the Mesopotamians used materials from their rivers to make writing materials. The end of a reed made a wedge-shaped impression in the wet clay. The drying of the clay made the writing harden and become permanent. But it could still be carried from one place to another.



In fact, some historians think that one of the earliest uses of writing in Mesopotamia was to note lists of goods. These lists were sent along with the goods when they were shipped. Because the writing on the dry clay could not be changed, if something was missing from the shipment, the person receiving it would know!

Ts'ai Lun's Secret Formula

The first person we know of to make something like the paper we use today was a person named Ts'ai Lun. He worked in the Chinese Imperial Court and lived over 1,900 years ago. At that time, books in China were made of bamboo, tortoise shell, and other things that were quite heavy. Silk was also used to make books, but it made them costly. Unhappy with these materials, Lun set out to find something more convenient to write on.

He started by soaking pieces of bark and other plant parts in water. Once the water helped to soften the fibers, Lun pounded them with a wooden tool. After the soaking and pounding, the fibers became thin and threadlike. Using a sieve, Lun carefully separated the threads from the mixture. When the threads were pressed and dried together, they formed thin sheets that one could write on.

Going Paperless?

The amount of paper we use today adds up to a lot of chopped down trees. One paper innovation in recent years has been the use of renewable plant fibers such as bamboo. Bamboo grows fast, while trees take a long time to grow. Now that we use computers to write with, one day, we may not require paper at all!

Name _____

A. Reread the passage and answer the questions.

1. What did Egyptians do to cause papyrus to become a flat surface that could be used for writing?

2. What was an effect of the Egyptians carving their writing into the stone of temples and monuments?

3. Look at paragraph 2 on the second page of the passage. What was the effect of having lists of goods that were permanently written on dry clay? What signal word helps you understand this cause and effect relationship?

4. What caused the plant fibers that Ts'ai Lun worked with to become thin and threadlike?

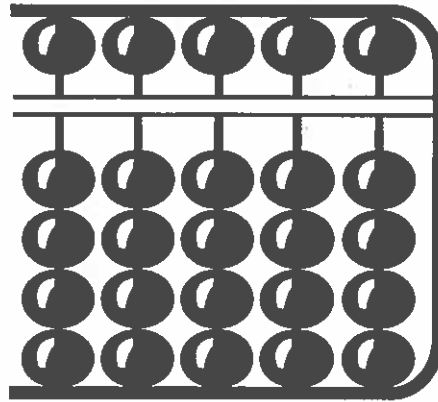
B. Work with a partner. Read the passage aloud. Pay attention to rate and accuracy. Stop after one minute. Fill out the chart.

	Words Read	-	Number of Errors	=	Words Correct Score
First Read		-		=	
Second Read		-		=	

Name _____

The Abacus: Oldest Counting Machine

For thousands of years, the abacus has been used as a counting machine. In many cultures, merchants who traded goods used the wooden beads of the abacus to count goods they bought and sold. They also used the abacus to figure out how much the multiples of their goods would cost. Historians believe that the simplest abacuses probably involved drawing lines in the sand to represent units, such as 100s and 1000s. Small pebbles were used to represent numbers within those units. With the development of number notation, the abacus lost popularity in Europe. However, people in many parts of the world use it to this day.



Wooden beads on an abacus were used to count units. Their value depended on the column and position (up or down).

Answer the questions about the text.

1. List two features of expository text that this text contains.

2. Besides providing the topic, what does the heading tell you?

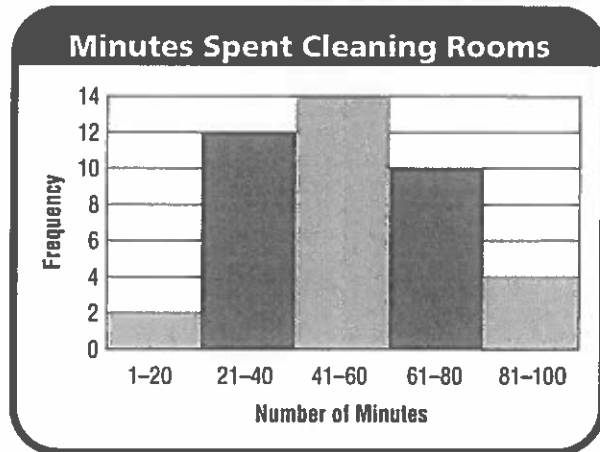
3. What information in the text is supported by the diagram and caption?

Name _____

Describe Distributions

When interpreting data, it helps to make a graph and then analyze the distribution of data.

Mr. Chen asked all of his students how long it takes them to clean their rooms. He displayed the information in a histogram. Describe the data distribution.



Step 1
Look for clusters.

There are no groups of data that are separated from the rest, so there are no clusters of data.

Step 2
Look for gaps.

There are no intervals that contain no data, so there are no gaps in the data.

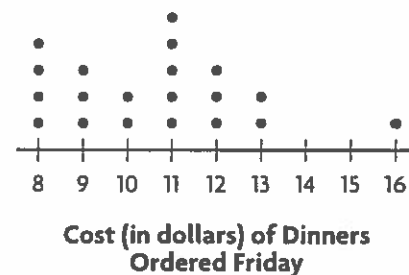
Step 3
Look for peaks.

There is one peak, at the interval 41–60.

Step 4
Look for symmetry.

Imagine folding the graph in half vertically, along the interval 41–60. The halves are not identical, but they are close. The graph has symmetry.

- Sally has a restaurant. She recorded the cost of each person's dinner on Friday. Describe the distribution.



Name _____

Read each passage below. Determine the cause-and-effect relationship described in each. Write the missing cause or effect on the line provided. Then, thinking about the cause and effect, define the word in bold in each passage.

1. To make papyrus paper, the Egyptians cut thin strips of grass and soaked them in water. Soaking the strips softened them. To make a flat surface, they laid the strips at right angles to each other and **pounded** them into a thin sheet.

cause: _____

effect: making papyrus paper with a flat surface

definition of **pounded**: _____

2. The end of a reed made a wedge-shaped **impression** in the wet clay.

cause: end of reed pushed into clay

effect: _____

definition of **impression**: _____

3. The drying of the clay made the writing harden and become **permanent**.

cause: drying of the clay

effect: _____

definition of **permanent**: _____

4. Silk was also used to make books, but it made them **costly**.

cause: using silk, an expensive material, to make books

effect: _____

definition of **costly**: _____

Name _____

benefit	transport	structure	factory
audience	manufacture	reflection	beneficial
exported	reflex	destruction	audio

A. Read the words in the box above. Sort them based on their Latin roots. Write each word in the correct column.

<i>aud</i>	<i>bene</i>	<i>flect/flex</i>	<i>port</i>	<i>struct</i>	<i>fac/fact</i>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Latin Roots and their Meanings

- *aud* means "hear"
- *flect* and *flex* mean "bend"
- *struct* means "build"
- *bene* and *bon* mean "good"
- *port* means "carry"
- *fac* and *fact* mean "make" or "do"

B. Circle the word with the Latin root in each sentence. Use the root meanings above and your knowledge of word parts to determine the meaning of the word. Then write the meaning on the line.

- Cars were sent around the construction site. _____
- People filled the auditorium before the show. _____
- At the meet, the gymnasts showed how flexible they are. _____
- This rug was imported from India. _____

Name _____

A. Read the draft model. Use the questions that follow the draft to help you think about how to best organize the text so that ideas are logically connected.

Draft Model

The washing machine was a very important invention. It made life easier for many people. Before, clothes were washed by hand. This took hours. Now washing machines could do most of the work.

1. What signal words can you insert to highlight cause-and-effect relationships?
2. How could sentences be revised or rearranged to clearly link causes and effects?
3. What words or phrases can you use to signal the order of events?

B. Now revise the draft by adding signal words that will help the reader understand the order of events and the relationships between ideas.

Name _____

The student who wrote the paragraphs below used details from two different sources to answer the question: *What innovations have people made in working with plants to meet their needs?*

For thousands of years, people have come up with innovative ways to work with plants to meet their needs. For example, the Indians of Mesoamerica began growing food crops when the animals they hunted grew scarce. First, they planted squash, gourds, and peppers. Then they created a nutritious new food source called maize. To grow maize, they created a better farming system in which different crops are planted in a field at the same time. Not only was the variety of plants good for the soil, it was good for a person's diet.

People have also used plants to treat illnesses. For example, honey could be put on cuts, and the spice coriander could ease upset stomachs. In fact, many medicines today come from plants. But when the plant sources became too rare or expensive, researchers had to get creative. They modified the natural compounds in plants to make a synthetic version. For example, aspirin comes from compounds in the bark of a willow tree.

Innovations that Mesoamericans and medical researchers made have affected people all over the world.

Reread the passage. Follow the directions below.

1. What is the topic of this writing sample? Circle a sentence that shows the thesis statement.
2. In what innovative ways did researchers work with plants? Draw a box around a sentence that shows details to support the topic.
3. When did Mesoamericans create maize? Underline words that show the order in which the details and facts happened.
4. Write a comparative adjective on the line.

Problem Solving • Misleading Statistics

Zaire wants to move to a town where the annual snowfall is no more than 5 inches. A real estate agent tells her that the mean annual snowfall in a certain town is 4.5 inches. Other statistics about the town are given in the table. Does this location match what Zaire wants? Why or why not?

Town Statistics for Annual Snowfall (in.)	
Minimum	0.5
Maximum	12
Median	8
Mean	4.5

Read the Problem		
What do I need to find? I need to decide if the annual snowfall in the town is _____ _____ _____	What information do I need to use? I need the _____ in the table.	How will I use the information? I will work backward from the statistics to draw conclusions about the _____ _____
Solve the Problem		
The minimum annual snowfall is _____ The maximum annual snowfall is _____ The median annual snowfall is _____ The mean annual snowfall is _____	Think: The median is _____, which means that half of the data is equal to or greater than _____.	
So, the annual snowfall is usually _____ than 5 inches because at least half of the annual snowfall values are _____ than 5 inches. This location does not match what Zaire wants.		

1. Mack says he typically spends 4 hours per week practicing his piano. For the past 6 weeks, he has practiced for 1, 1, 1, 2, 10, and 9 hours. Do you agree with Mack? Explain.

Name _____

- **Comparative adjectives** compare two people, places, or things.
- Form comparative adjectives by adding **-er** to most one-syllable and some two-syllable words.
- If an adjective ends in **-e**, drop the **e** before adding **-er**. If it ends in a consonant preceded by a single vowel, double the consonant. If it ends in **-y**, change the **y** to **i**.

Read each sentence. On the lines provided, write the correct comparative form of the adjective in parentheses ().

1. Anthony's house is close to mine, and David's house is even _____. (close)
2. Jackson Street is busy, but Jefferson Street is _____. (busy)
3. Julie's scooter is fast, but her bike is _____. (fast)
4. The weather is hot today, but it will be even _____ tomorrow. (hot)
5. That is a nice spot for a picnic, but this spot is _____. (nice)

B. Rewrite the sentence using the correct comparative form of the adjective in parentheses ().

6. We took the (long) route through the park.

7. My dog was (big) than Jung's dog.

8. The leaves are (pretty) today than they were last week.

Name _____

- **Superlative adjectives** compare more than two people, places, or things.
- Form superlative adjectives by adding **-est** to most one-syllable and some two-syllable adjectives.
- If an adjective ends in **-e**, drop the **e** before adding **-est**. If it ends in a consonant preceded by a single vowel, double the consonant. If it ends in **-y**, change the **y** to **i**.

Complete each sentence with the correct superlative form of the adjective in parentheses (). Write the correct form on the line.

1. John is the (young) _____ member of our large family.
2. Brianna is the (old) _____ girl.
3. Even though James is only twelve, he is the (tall) _____ boy.
4. I am the (short) _____ girl in the family.
5. Mom says John was the (large) _____ baby of all.
6. Now that John is talking, he is the (noisy) _____ member of the family.
7. James is the (big) _____ child.
8. Brianna and James are the (close) _____ in age.
9. The mornings at our house are (busy) _____ around 8:00.
10. That is the (lively) _____ time of our day.

Name _____

A Choose the correct replacement for the adjective in parentheses (). Circle the letter of your answer.

1. This trail is (steep) than the one we climbed yesterday.
 - a. steeper
 - b. steepest
 - c. steeper
 - d. steepest

2. However, that trail was (rocky) than this one.
 - a. rockiest
 - b. rockier
 - c. rockyer
 - d. rockiest

3. Which is the (fast) route of the three ways back to camp?
 - a. faster
 - b. fastest
 - c. faster
 - d. fastest

4. We should have (nice) weather tomorrow than we had today.
 - a. nicer
 - b. nicer
 - c. nicest
 - d. nicest

5. This has been the (great) camping trip of all.
 - a. greater
 - b. greatier
 - c. greatest
 - d. greatiest