6th Grade
NTI Day 1

Mrs. King	Reading	Non-Fiction Reading: *KoKo*
Mr. Simpson	Math	Integer Values
Mrs. Overbay	Social Studies	Map Reading: Southern States
Mrs. Mike	Science	Ecosystems:Food Chains/Webs

****Email availability from 9am to 4pm****

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NTI Day #1 - King

Name: _____

Nonfiction Reading Test

Koko

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

Did you know that humans aren't the only species that use language? Bees communicate by dancing. Whales talk to each other by singing. And some apes talk to humans by using American Sign Language.

Meet Koko: a female gorilla born at the San Francisco Zoo on July 4th, 1971. Koko learned sign language from her trainer, Dr. Penny Patterson. Patterson began teaching sign language to Koko in 1972, when Koko was one year old. Koko must have been a good student, because two years later she moved onto the Stanford University campus with Dr. Patterson. Koko continued to learn on the campus until 1976. That's when she began living full-time with Patterson's group, the Gorilla Foundation. Patterson and Koko's relationship has blossomed ever since.

Dr. Patterson says that Koko has mastered sign language. She says that Koko knows over 1,000 words, and that Koko makes up new words. For example, Koko didn't know the sign for *ring*, so she signed the words *finger* and *bracelet*. Dr. Patterson thinks that this shows meaningful and constructive use of language.

Not everyone agrees with Dr. Patterson. Some argue that apes like Koko do not understand the meaning of what they are doing. Skeptics say that these apes are just performing complex tricks. For example, if Koko points to an apple and signs *red* or *apple*, Dr. Patterson will give her an apple. They argue that Koko does not really know *what* the sign apple means. She only knows that that if she makes the right motion, one which Dr. Patterson has shown her, then she gets an apple. The debate is unresolved, but one thing is for certain: Koko is an extraordinary ape.

Sign language isn't the only unusual thing about Koko. She's also been a pet-owner. In 1983, at the age of 12, researchers said that Koko asked for a cat for Christmas. They gave Koko a stuffed cat. Koko was not happy. She did not play with it, and she continued to sign *sad*. So for her birthday in 1984, they let her pick a cat out of an abandoned liter. Koko picked a gray cat and named him "All Ball." Dr. Patterson said that Koko loved and nurtured All Ball as though he were a baby gorilla. Sadly, All Ball got out of Koko's cage and was hit by a car. Patterson reported that Koko signed "Bad, sad, bad" and "Frown, cry, frown, sad" when she broke the news to her.

It seems like Patterson and Koko have a good relationship, but not everyone agrees with it. Some critics believe that Patterson is *humanizing* the ape. They believe that apes should be left in the most natural state possible. Even Dr. Patterson struggles with these feelings. When asked if her findings could be *duplicated* by another group of scientists, she said, "We don't think that it would be ethical to do again." She went on to argue that animals should not be kept in such unnatural circumstances. Nonetheless, Koko lives in her foundation today.

As for the future, Dr. Patterson and the Gorilla Foundation would love to get Koko to an ape preserve in Maui, but they are having trouble securing the land. So unless you have a few million dollars to spare, Koko's going to be spending her time in Woodland, California with Dr. Patterson. Koko probably doesn't mind that. If she moved to Hawaii, she'd have to give up her Facebook page and Twitter feed, and she's got like 50 thousand "likes." Some may deny that she knows sign language, but nobody says that she doesn't know social networking.

NTI Day #1 - King

1. Which best expresses the main idea of this article?

a. Bees, whales, and apes like Koko all use language to communicate.

b. Koko uses sign language but some think it's just a trick.

c. It is natural for gorillas and house cats to live together.

d. If you want a lot of "likes" on Facebook, get a talking gorilla.

2. Which best describes how the second paragraph is organized?

a. Chronological order

b. Cause and effect

c. Compare and contrast

d. Problem and solution

3. Which best expresses the author's purpose in writing the second paragraph?

a. The author is describing the environment in which Koko lives.

b. The author is informing readers how Dr. Patterson developed her skills.

c. The author is persuading readers that Koko should be freed.

d. The author is telling readers about Koko and Dr. Patterson's background.

4. Which happened **last**?

a. Koko got a stuffed cat for Christmas.

b. Koko lost All Ball.

c. Koko began living with the Gorilla Foundation.

d. Dr. Patterson began teaching Koko to sign.

5. Which statement would the author most likely **agree** with?

a. Koko has mastered sign language without a doubt.

b. Everybody likes how Dr. Patterson has raised Koko.

c. Koko doesn't really know sign language.

d. Some people are troubled by how Koko was raised.

6. Which best defines the word *duplicated* as it is used in the sixth paragraph?

a. To dispute a fact or disagree with someone

b. To lie to someone or to fool them

c. To copy or recreate something

d. To be disproven through debate

7. Which event happened **first**?

a. Koko moved onto the Stanford University campus.

b. Koko picked All Ball out for her birthday.

c. Koko began living with the Gorilla Foundation.

d. Koko got a stuffed cat for Christmas.

8. Which best describes the main idea of the **sixth** paragraph?

a. Dr. Patterson has treated Koko very cruelly.

b. Dr. Patterson and Koko have a beautiful, pure, and unconflicted relationship.

c. Some people think that Koko should not have been treated like a human.

d. Some people are working very hard to prove that Dr. Patterson is wrong.

NTI Day #1 - King

9. Which statement would the author most likely **disagree** with?

a. Dr. Patterson has worked hard to teach Koko sign language.

b. Some people think that Koko only signs to get food.

c. The Gorilla Foundation would like to move Koko to an ape preserve.

d. Dr. Patterson has no regrets about working with Koko.

10. If a book were being written about Koko and All Ball, which title would best summarize their story?

a. *Long Wanted, Short Lived: A Tale of Strong Loves Lost*

b. *Happy Ending: The Gorilla Who Got What She Wanted*

c. *A Tale of Two Kitties: A Stuffed Cat Versus a Real One*

d. *Plushy Love: How A Gorilla Fell in Love with a Stuffed Cat*

Long-Response Questions

1. Does Koko really understand sign language? Support your position with quotes from the text. Explain your quotes clearly. Argue your point thoroughly.

Day 1 Mr. Simpson NAME _____

Lesson 4.2 Integer Values in Real Life

Integers can be used to describe real-life situations.

A driver is going 15 miles per hour below the speed limit. The integer −15 can describe this situation. The negative sign shows that the speed is less than the speed limit.

Use integers to represent each real-life situation.

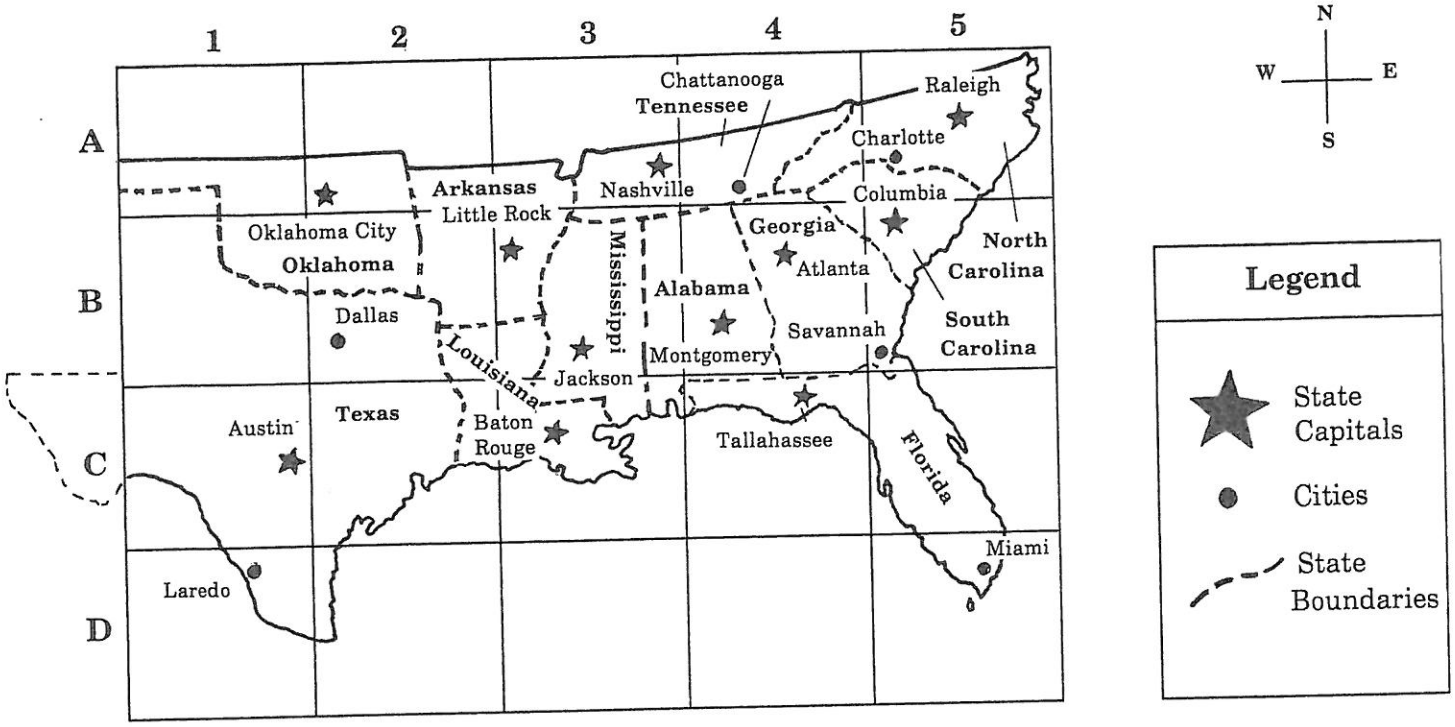
	a	b
1.	45 feet below sea level _____	a gain of 8 yards on a play _____
2.	$528 deposit into a checking account _____	62° above zero _____
3.	stock market increases of 345 points _____	an 8-pound weight loss _____
4.	7,500 feet above sea level _____	withdrawal of $80 from an ATM _____
5.	a 10-pound weight gain _____	stock market decrease of 250 points _____
6.	3 units to the right on a number line _____	8 units to the left on a number line _____
7.	10 units to the left on a number line _____	7 units to the right on a number line _____
8.	$60 deposit into a savings account _____	withdrawal of $95 from an ATM _____
9.	stock market decrease of 97 points _____	34° below zero _____
10.	100 feet below sea level _____	a gain of 15 yards on a play _____
11.	a 25-pound weight loss _____	stock market increase of 390 points _____
12.	95° above zero _____	6,000 feet above sea level _____

Overbay Day 1

The Southern States

Name _____

Use the grid to help you locate places on this map of the southern United States.



1. Draw a symbol for a state capital. _____
2. What do these lines - - - - - stand for? _____
3. Name the Florida city located in "D 5." _____
4. Name the state capital located in "A 3." _____
5. Give the location of Laredo, Texas. _____
6. Which state capital is located in "A 5"? _____
7. What is the location of Atlanta, Georgia? _____
8. Name the state capital located in "C 3." _____
9. Give the location of Jackson, Mississippi. _____
10. What state capital is located in "A 2"? _____
11. Give the location of Austin, Texas. _____
12. Name the city located in "B 2." _____
13. Name the cities located in "B 4." _____
14. Name the state located in "A 4" and "A 5." _____
15. On this map, which three states border Texas? _____
16. Name the state east of Georgia. _____
17. Alabama and Georgia are bordered on the south by what state? _____
18. Name the Tennessee city found in "A 4". _____
19. Name the two North Carolina cities located in "A 5." _____

Warm-Up 14

NTI Day 1

What Are Food Chains and Food Webs?

Name: _____

Did you realize that animals and plants depend upon each other in order to survive in an ecosystem? They are also killed and eaten within the ecosytem. One species of animal eats some of the plants within the system and is, in turn, eaten by other animals. Some of these animals are then eaten by different animals. These levels of consumption are called *trophic levels*, and they create a food chain. A group of interrelated food chains is called a *food web*.

The trophic levels designate specific types of producers and consumers. Plants are always the producers and the basic level of a food chain. They use the light and energy from the Sun to produce food. Plants are eaten by animals called *primary consumers*. These primary consumers, those who eat the plants, are eaten by other animals called *secondary consumers*. The secondary consumers, the meat-eaters, are eaten by *tertiary consumers*, which eat these meat-eating animals.

However, things are not always quite as clear as the names suggest. Some animals, like bears, may eat plants such as berries, small meat-eating animals, and larger secondary consumers, as well. Decomposers are another set of organisms. They decompose dead plants and animals and return the nutrients to the soil.

Most food chains are interlinked with each other because very few animals feed on just one thing. Birds may eat both plant food and insects and sometimes even smaller birds or eggs. Some rats and mice may eat a wide variety of plant food, insects, and some smaller rodents or eggs. Animals with a wide variety of food choices often have a greater opportunity for survival than those who are able to eat only one type of food.

What Did You Learn ?

1. Which of the following is the highest level in a food chain described above?
   - Ⓐ producers
   - Ⓑ tertiary consumers
   - Ⓒ primary consumers
   - Ⓓ secondary consumers
2. Which of the following is the lowest level in a food chain?
   - Ⓐ producers
   - Ⓑ tertiary consumers
   - Ⓒ primary consumers
   - Ⓓ secondary consumers
3. What trophic level returns nutrients to soil from dead plants and animals?
   - Ⓐ producers
   - Ⓑ secondary consumers
   - Ⓒ decomposers
   - Ⓓ tertiary consumers
4. Which level of consumers would a horse belong to?
   - Ⓐ decomposers
   - Ⓑ tertiary consumers
   - Ⓒ primary consumers
   - Ⓓ secondary consumers

What Am I ?

I am a group of animals that eat only plants.

6th Grade
NTI Day 2

Mrs. King	Reading	Non-Fiction Reading: *Google*
Mr. Simpson	Math	Absolute Value
Mrs. Overbay	Social Studies	1917 Constitution of Mexico
Mrs. Mike	Science	Population Density: *White Out (Bats)*

****Email availability from 9am to 4pm****

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NTI Day #2 - King

Name: _____

Nonfiction Reading Test

Google

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

You know that you're doing something big when your company name becomes a verb. Ask Xerox. In 1959 they created the first plain paper copy machine. It was one of the most successful products ever. The company name Xerox grew into a verb that means "to copy," as in "Bob, can you Xerox this for me?" Around 50 years later, the same thing happened to Google. Their company name grew into a verb that means "to do an internet search." Now everyone and their grandma knows what it means to Google it.

Unlike Xerox, Google wasn't the first company to invent their product, not by a long shot. Lycos released their search engine in 1993. Yahoo! came out in 1994. AltaVista began serving results in 1995. Google did not come out until years later, in 1998. Though a few years difference may not seem like much, this is a major head start in the fast moving world of tech. So how did Google do it? How did they overtake their competitors who had such huge leads in time and money? Maybe one good idea made all the difference.

There are millions and millions of sites on the internet. How does a search engine know which ones are relevant to your search? This is a question that great minds have been working on for decades. To understand how Google changed the game, you need to know how search engines worked in 1998. Back then most websites looked at the words in your query. They counted how many times those words appeared on each page. Then they might return pages where the words in your query appeared the most. This system did not work well and people often had to click through pages and pages of results to find what they wanted.

Google was the first search engine that began considering links. Links are those blue underlined words that take you to other pages when you click on them. Larry Page, cofounder of Google, believed that meaningful data could be drawn from how those links connect. Page figured that websites with many links pointing at them were more important than those that had few. He was right. Google's search results were much better than their rivals. They would soon become the world's most used search engine.

It wasn't just the great search results that led to Google becoming so well liked. It also had to do with the way that they presented their product. Most of the other search engines were cluttered. Their home pages were filled with everything from news stories to stock quotes. But Google's homepage was, and still is, clean. There's nothing on it but the logo, the search box, and a few links. It almost appears empty. In fact, when they were first testing it, users would wait at the home page and not do anything. When asked why, they said that they were, "waiting for the rest of the page to load." People couldn't imagine such a clean and open page as being complete. But the fresh design grew on people once they got used to it.

These days Google has its hands in everything from self-driving cars to helping humans live longer. Though they have many other popular products, they will always be best known for their search engine. The Google search engine has changed our lives and our language. Not only is it a fantastic product, it is a standing example that one good idea (and a lot of hard work) can change the world.

NTI Day #2 - King

1. Which event happened last?

a. Lycos released their search engine.

b. Yahoo! released their search engine.

c. Google released their search engine.

d. Xerox released their copy machine.

2. Which statement would the author of this text most likely **disagree** with?

a. Part of Google's success is due to the design of their homepage.

b. Google succeeded by following examples of others in their field.

c. Google wasn't the first search engine, but it was the best.

d. Google's success may not have been possible without Larry Page.

3. Which best expresses the main idea of the third paragraph?

a. There are lots and lots of websites connected to the internet.

b. Google created a better way to organize search results.

c. Many smart people have worked on search engines over the years.

d. Older search engines used unreliable methods to order results.

4. What is the author's main purpose in writing this article?

a. To explain how Google overtook its rivals

b. To compare and contrast Google and Xerox

c. To persuade readers to use Google for internet searches

d. To discuss how companies can influence language over time

5. Which statement would the author most likely **agree** with?

a. Google became successful because its founders were well-connected.

b. Google was the world's first and best search engine.

c. Google changed the world by solving an old problem in a new way.

d. Google's other products are now more important to its success than search.

6. Which best expresses the main idea of the fourth paragraph?

a. Links allow people to surf from one website to the next.

b. Larry Page's ideas about links helped Google get to the top.

c. Larry Page contributed to the internet by inventing the link.

d. Google is a website that serves important links to users.

7. Which best explains why the author discusses Xerox in this text?

a. He is discussing big companies that came before Google.

b. He is explaining how companies must change with the times.

c. He is showing how companies can affect our language.

d. He is comparing and contrasting Google and Xerox.

NTI Day #3 - King

8. How did Google improve search quality in 1998?

a. They counted how many times queries appeared on each page.

b. They looked more closely at the words in search queries.

c. They linked to more pages.

d. They studied the relationships of links.

9. Which was cited as a reason why Google became so popular?

a. Google's homepage was clean.

b. Google provided catchy news stories on their homepage.

c. Google homepage loaded quickly.

d. Google provided useful stock quotes on their homepage.

10. Which title best expresses the author's main purpose in writing this text?

a. *Xerox Vs. Google: Battle of the Titans*

b. *Search Engines: How They Work and Why They're Important*

c. *A Better Way: How Google Rose to the Top*

d. *Search Engines: A Short History of Important Tools*

Long Response

1. What can readers learn about Google's approach to doing business based on reading this article? Use information from the text to support your response.

Day 2 MR. Simpson NAME _____

Lesson 4.3 Absolute Value

The **absolute value** of a number is its distance from zero.

Absolute value is represented by vertical lines on either side of an integer.

What is the absolute value of 8? $|8| = 8$

What is the absolute value of −8? $|-8| = 8$

Find the absolute value of each integer.

	a	b	c
1.	$\|4\| =$ _____	$\|-13\| =$ _____	$-\|10\| =$ _____
2.	$-\|-7\| =$ _____	$\|11\| =$ _____	$\|-2\| =$ _____
3.	$-\|12\| =$ _____	$-\|5\| =$ _____	$\|1\| =$ _____
4.	$\|-14\| =$ _____	$-\|8\| =$ _____	$-\|-13\| =$ _____
5.	$\|3\| =$ _____	$\|-7\| =$ _____	$-\|4\| =$ _____
6.	$-\|-15\| =$ _____	$\|9\| =$ _____	$\|-12\| =$ _____
7.	$\|16\| =$ _____	$\|-6\| =$ _____	$-\|20\| =$ _____
8.	$-\|40\| =$ _____	$-\|-24\| =$ _____	$\|17\| =$ _____
9.	$\|33\| =$ _____	$-\|-41\| =$ _____	$\|-19\| =$ _____
10.	$\|26\| =$ _____	$\|-18\| =$ _____	$-\|35\| =$ _____
11.	$-\|53\| =$ _____	$\|-21\| =$ _____	$\|30\| =$ _____
12.	$\|25\| =$ _____	$-\|-21\| =$ _____	$\|-47\| =$ _____

Overbaugh Day 2

Name _____ Class _____ Date _____

1917 Constitution of Mexico

ABOUT THE READING Mexico's constitution informs Mexican people of their rights and explains how the government should work. Articles in the first chapter outline individual rights.

As you read *think about how Mexico's history influenced the formation of its constitution.*

VOCABULARY

solidarity unity
remuneration payment
infringes violates
inviolable unbreakable
censorship restriction or control

Article 1. Every person in the United Mexican States shall enjoy the guarantees granted by this Constitution, which cannot be restricted or suspended except in such cases and under such conditions as are herein provided.

The individual rights in Mexico's constitution are guaranteed to all Mexican citizens as explained in its articles.

Article 2. Slavery is forbidden in the United Mexican States . . .

Article 3. The education imparted by the Federal State shall be designed to develop harmoniously all the faculties of the human being and shall foster in him at the same time a love of country and a consciousness of international **solidarity**, in independence and justice . . .

Article 4. No person can be prevented from engaging in the profession . . . or occupation of his choice, provided it is lawful . . .

All Mexican people have the right to choose their work. They can't be forced to do a job against their wishes.

Article 5. No one can be compelled to render personal services without due **remuneration** and without his full consent, excepting labor imposed as a penalty by the judiciary . . .

Article 6. The expression of ideas shall not be subject to any judicial or administrative investigation, unless it offends good morals, **infringes** the rights of others, incites to crime, or disturbs the public order.

Source: 1917 Constitution of Mexico (as amended)

Article 7. Freedom of writing and publishing writings on any subject is **inviolable.** No law or authority may establish **censorship,** require bonds from authors or printers, or restrict the freedom of printing, which shall be limited only by the respect due to private life, morals, and public peace . . .

The people of Mexico have the right to receive true and accurate information from the media.

Article 8. Public officials and employees shall respect the exercise of the right of petition, provided it is made in writing and in a peaceful and respectful manner . . .

Article 9. The right to assemble or associate peaceably for any lawful purpose cannot be restricted . . .

Article 10. The inhabitants of the United Mexican States are entitled to have arms of any kind in their possession for their protection and legitimate defense, except such as are expressly forbidden by law . . .

All people in Mexico are considered equal. Article 2 outlaws slavery. Article 12 explains that there are no nobles or royal people.

Article 12. No titles of nobility, or hereditary or prerogatives or honors shall be granted in the United Mexican States, nor shall any effect be given to those granted by other countries.

Article 13. No one may be tried by private laws or special tribunals . . .

Article 22. Punishment by mutilation . . . and any other unusual or extreme penalties are prohibited . . .

Mexican people are free to worship as they choose. Religious activities are separate from governmental ones.

Article 24. Everyone is free to embrace the religion of his choice and to practice all ceremonies, devotions, or observances of his respective faith, either in places of public worship or at home, provided they do not constitute an offense punishable by law . . .

WHAT DID YOU LEARN?

1. Name five individual rights guaranteed by the Mexican Constitution.

_____

_____

NTI DAy 2

White Out

by Kirsten Weir

A strange fungus continues to attack the country's bat population.

Recently, bats with fuzzy white noses have popped up in Indiana, Ohio, Maine, North Carolina, and Kentucky. It's an ominous development. *White-nose syndrome* (*WNS*), a disease that kills hibernating bats, has officially spread into five more states.

The mysterious syndrome was first discovered in the state of New York in 2007. From there, it spread across the United States and Canada. Infected bats can now be found in 16 states and four Canadian provinces.

Courtesy Ryan von Linden/NY Department of Environmental Conservation

Scientists have learned a great deal about the disease since its discovery. There's much they don't understand, though, including how to stop it. "There's a lot of work still being done," says Tom Kunz, a bat expert at Boston University.

Time is of the essence. More than a million and perhaps as many as 2 million bats have died already, Kunz says. "We've got a disease that is causing one of the most precipitous declines of bats in American history," he says.

Skin and Bone

White-nose syndrome is named for the white fungus that typically appears on the muzzles and other body parts of infected bats. Initially, scientists weren't sure whether the fungus caused the disease. Many suspected it was an *opportunistic* infection-a secondary infection that gains a foothold in an animal already weakened by another illness.

Researchers haven't found any other infectious agents in the sickened bats. So most now agree that the fungus is the likely cause of WNS. The fungus is new to science, and researchers have named it *Geomyces destructans*.

"We still haven't determined how the bats are actually dying from the fungal infection," says Jeremy Coleman, the national WNS coordinator for the U.S. Fish and Wildlife Service. One clue: Infected bats seem to run out of fat in the middle of winter. Bats need that fat to nourish themselves until spring. Without it, they die.

Carol Uphoff Meteyer/USGS

This little brown bat is infected with white-nose syndrome. The arrows point to small patches where its wings have lost their elasticity, coloration, and surface sheen.

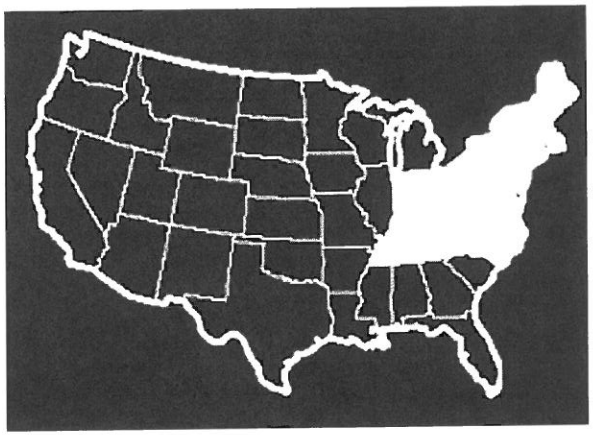
Normally, hibernating bats wake briefly once or twice a month, Kunz says. Infected bats arouse from hibernation every four or five days. They then expend valuable calories flying around. That activity probably explains why the bats are so skinny. "Every arousal burns up body fat," he says.

What makes infected bats wake up so often? Some scientists have proposed an "itch-and-scratch hypothesis." Just as people scratch their toes like crazy when they have *athlete's foot,* a common fungal infection, bats might feel a similar itch when the fungus invades their skin. The uncomfortable sensation could be rousing them from their winter naps.

Then again, the bats might just be thirsty. One of skin's many jobs is preventing water loss. In bats, healthy wing membranes help maintain a water balance in the body. The fungus damages bat wings, causing small holes and scar tissue to appear in the membranes. Bats could be losing excess water through their injured wings, some scientists propose. The animals might be waking up to find a drink and avoid *dehydration* (an excessive loss of fluid).

Fungus Among Us

The fungus *G. destructans* is itself puzzling. Hundreds of other species of *Geomyces* fungi live in U.S. caves but don't bother bats at all, says Coleman. And though *G. destructans* has been found in caves in Europe, bats there appear unaffected by it. Do European bats possess a gene that makes them resistant to infection? Is European *G. destructans* somehow different from the strain found in the U.S.? "We're trying to figure out why this fungus is so devastating for [North American] bats," Coleman says.



Joe LeMonnier

Discovered in New York state in 2007, white-nose syndrome has since spread to 15 other states and killed more than a million bats.

Meantime, the best hope for North America's bats seems to be preventing any further spread of WNS. The disease is thought to spread from bat to bat, says Coleman, but researchers haven't ruled out the possibility that people are spreading it too. The Fish and Wildlife Service has played it safe and closed a number of caves to human visitors. "We're trying to prevent people from moving the fungus faster than the bats can," Coleman says.

So far, WNS has been found in nine bat species, including two endangered ones: the Indiana bat and the gray bat. As more states and more species are affected, the impact of WNS could snowball. Bats play an important role in their ecosystems. A bat can eat half its weight in insects every night. A female bat that's *lactating* (feeding her pups with milk) can gulp down twice that amount. Insect-eating bats in the U.S. save farmers at least $3 billion a year by swallowing bugs that would otherwise damage crops, according to an analysis in the journal *Science*. WNS is just beginning to move into the Midwest, the nation's agricultural heartland. "As it continues to spread, we could see an agricultural impact," Coleman says.

AP Images

Scientist Britta Wood enters an abandoned limestone mine in Rosendale, N.Y., to collect bats infected with white-nose syndrome.

Scientists across the country are hard at work studying the bats, the fungus, and potential ways to manage the disease. "Bats provide a real value," Kunz says. "This is a massive loss."

Name: _____ **Date:** _____

1. What is white-nose syndrome?

A. a disease that kills hibernating bats

B. a disease that affects European bats

C. a disease that weakens small birds

D. a disease that kills one type of fungus

2. The fungus damages bat wings, causing small holes and scar tissue to appear in the membranes. What is a possible effect of this damage to bat wings?

A. The bats have to wake up to eat more food and avoid starving during the winter.

B. The bats have to wake up to find a drink and avoid dehydration.

C. The bats have to practice flying more often to become stronger.

D. The bats are no longer able to fly or hunt for food during the winter.

3. Read these sentences from the text:

"Infected bats seem to run out of fat in the middle of winter. Bats need that fat to nourish themselves until spring. Without it, they die. [...] Normally, hibernating bats wake briefly once or twice a month, Kunz says. Infected bats arouse from hibernation every four or five days. They then expend valuable calories flying around."

Based on this evidence, what conclusion can be drawn about the infection?

A. The infection is most likely an effect of bats flying around in the middle of winter.

B. The infection most likely causes bats to wake up during hibernation.

C. The infection is most likely found in bats with a lot of fat.

D. The infection is most likely found in bats that are already sick.

4. If more and more bats in the U.S. die of white-nose syndrome, how might the ecosystem be affected?

A. Crops and plantlife might grow more healthily.

B. The amount of water in the ecosystem might decrease.

C. The number of different kinds of fungus might increase.

D. The number of insects in the ecosystem might increase.

ReadWorks White Out - Comprehension Questions

5. What is the main idea of this text?

A. A strange fungal disease is affecting the bat populations in the United States and Europe differently.

B. Scientists are studying a strange fungal disease that is killing the bat population in the United States.

C. White-nose syndrome is named for the white fungus that appears on the muzzles and other body parts of infected bats.

D. Fungus can damage bat wings, causing small holes and scar tissue to appear in the membranes.

6. Read these sentences from the text:

"As more states and more species are affected, the impact of WNS could snowball. Bats play an important role in their ecosystems. [...] Insect-eating bats in the U.S. save farmers at least $3 billion a year by swallowing bugs that would otherwise damage crops, according to an analysis in the journal Science. WNS is just beginning to move into the Midwest, the nation's agricultural heartland. 'As it continues to spread, we could see an agricultural impact,' Coleman says."

What does the word "snowball" in the first sentence mean here?

A. grow or increase

B. shrink or decrease

C. stay the same

D. stop completely

7. Choose the answer that best completes the sentence.

Bats with WNS could be losing excess water through their wings _____ the fungus damages bat wings.

A. before

B. therefore

C. because

D. however

8. According to the text, how do insect-eating bats in the U.S. save farmers money?

9. How does WNS negatively affect bats?

Support your answer with evidence from the text and images.

10. Why it is important to stop the spread of WNS?

Support your answer with evidence from the text and images.

6th Grade
NTI Day 3

Mrs. King	Reading	Non-Fiction Reading: *Mongooses*
Mr. Simpson	Math	Integers as Opposite Numbers
Mrs. Overbay	Social Studies	Reading Maps: Legends
Mrs. Mike	Science	Cycles in Nature

****Email availability from 9am to 4pm****

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NTI Day #3 - King

Name: _____

Nonfiction Reading Test

Mongooses

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

If you plan on going to Hawaii, don't bring any pets. Hawaiians are wary of letting in foreign animals. Your beloved Rex or Fi-fi could spend up to 120 days in quarantine. They have strict rules for importing animals. They carefully screen all incoming pets. Who could blame them? They've had problems with new animals in the past.

The black rat was introduced to Hawaii in the 1780s. These ugly suckers *originated* in Asia, but they migrated to Europe in the 1st century. Since then they've snuck on European ships and voyaged the world with them. These rats carry many diseases including the plague. They are also good at surviving and tend to displace native species. That means that after they infest an area, there will be fewer birds and more black rats. Most people prefer living around birds.

Since their arrival in Hawaii, black rats have been pests. They've feasted on sea turtle eggs. They've eaten tree saplings, preventing trees from being reforested. And they've been a leading cause in the extinction of more than 70 species of Hawaiian birds. They love to climb trees to eat bird eggs. They also compete with forest birds for food, such as snails, insects, and seeds.

Perhaps more troubling, black rats threaten humans. They spread germs and incubate disease. They are a vector for more than 40 deadly illnesses. Some think that rat-borne diseases have killed more people than war in the last 1,000 years. Rats also eat our food. They eat more than 20% of the world's farmed food. And that's why the mongoose was brought to Hawaii.

During the mid 1800s, the Hawaiian sugar industry was thriving. Americans were just realizing that they loved sugar. Hawaii was pretty much the only place in America where one could grow sugarcane. But those filthy vermin were tearing up the fields. Black rats were destroying entire crops. What's a plantation owner to do? The answer is simple. Import an animal known to kill rats. What could go wrong with that? In 1883 plantation owners imported 72 mongooses and began breeding them.

People *revere* the mongoose in its homeland of India. They are often kept tame in Indian households. Mongooses feed on snakes, rats, and lizards, creatures that most people dislike. They are also cute and furry. And they kill deadly cobras. What's not to love? Sadly, India is a much different place than Hawaii.

When the mongooses got to Hawaii, they did not wipe out the rats as plantation owners hoped. Instead, they joined them in ravaging the birds, lizards, and small plants that were native to Hawaii. It's not that the mongooses became friends with the rats. They still ate a bunch of them. But mongooses are not too different from most other animals: they go for the easy meal. In Hawaii they had a choice. Pursue the elusive black rat or munch on turtle eggs while tanning on the beach. Most took the easy route.

Now Hawaii has two unwanted guests defacing the natural beauty. The Hawaiians have learned their lesson. Talks of bringing in mongoose-eating gorillas have been tabled. So don't get uptight when they don't welcome your cat Mittens with open arms. They're trying to maintain a delicate ecosystem here.

NTI Day #3 – King

1. Based on the text, which best explains how black rats were introduced to Hawaii?

a. The native Hawaiians imported them to solve a problem with their crops.

b. The Asians brought them to Hawaii when they first arrived.

c. The Europeans brought them on their ships.

d. The rats were able to swim to Hawaii from Asia.

2. Which best defines the word *originate* as it was used in the **second** paragraph?

a. To come from a place

b. To go to a place

c. To become independent

d. To wander the world

3. Which event happened **first**?

a. The mongoose was introduced to Hawaii

b. The black rat was introduced to Hawaii

c. The black rat migrated to Europe

d. Plantation owners bred mongooses

4. Which statement would the author most likely **disagree** with?

a. Black rats threaten many creatures native to Hawaii.

b. Mongooses threaten many creatures native to Hawaii.

c. Mongooses were brought to Hawaii intentionally.

d. The only reason people dislike rats is because they are ugly.

5. Which best express the author's main purpose in writing this text?

a. To persuade readers to protect the endangered mongoose

b. To describe the habits and hazards of the black rat

c. To inform readers about species that have invaded Hawaii

d. To entertain readers with tales of a mongoose's adventures

6. Which best expresses the main idea of the **sixth** paragraph?

a. This paragraph is about Indian culture and wildlife.

b. This paragraph is about the mongoose's role in Indian society.

c. This paragraph is about the lifecycle of the mongoose.

d. This paragraph is about how mongooses migrated to India.

7. Which statement is **false** according to information in the text?

a. Rats eat lots of vegetation and crops.

b. Mongooses eat sea turtle eggs.

c. Rats climb trees and eat bird eggs.

d. Mongooses have spread more than 40 diseases.

NTI Day #3 - King

8. Which best explains why plantation owners imported mongooses to Hawaii?

a. Mongooses eat rats.
b. Mongooses are fuzzy and adorable.
c. Mongooses make great household pets.
d. Mongooses kill deadly cobras.

9. Which best defines the word *revere* as it is used in the sixth paragraph?

a. To dislike someone or something
b. To respect someone or something
c. To hunt someone or something
d. To get rid of someone or something

10. Which title best expresses the main idea of this text?

a. *Travel Procedures: Getting in and out of Hawaii with Pets*
b. *Unwanted: The Journey of the Black Rat to Hawaii*
c. *Uncovered: What the Real Rikki-Tikki-Tavi is Like*
d. *Backfired: Solving Problems with Problems in Hawaii*

Long Response

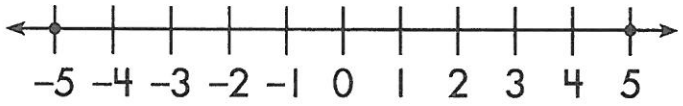
1. The mongoose is praised in Indian culture and hated in Hawaiian culture. Why is this animal perceived differently in these environments? Cite information from the text to support your response. Explain your evidence thoroughly.

Day 3 Mr. Simpson

NAME _____

Lesson 4.1 Integers as Opposite Numbers

Every positive number has an opposite, negative number. A negative number is less than 0.



Draw a number line to show the opposite of each number.

	a	b
1.	What is the opposite of 8?	What is the opposite of 25?
2.	What is the opposite of −10?	What is the opposite of −7?
3.	What is the opposite of 12?	What is the opposite of −9?
4.	What is the opposite of −6?	What is the opposite of 2?
5.	What is the opposite of 11?	What is the opposite of −14?
6.	What is the opposite of −20?	What is the opposite of 16?

Name the opposite of each number.

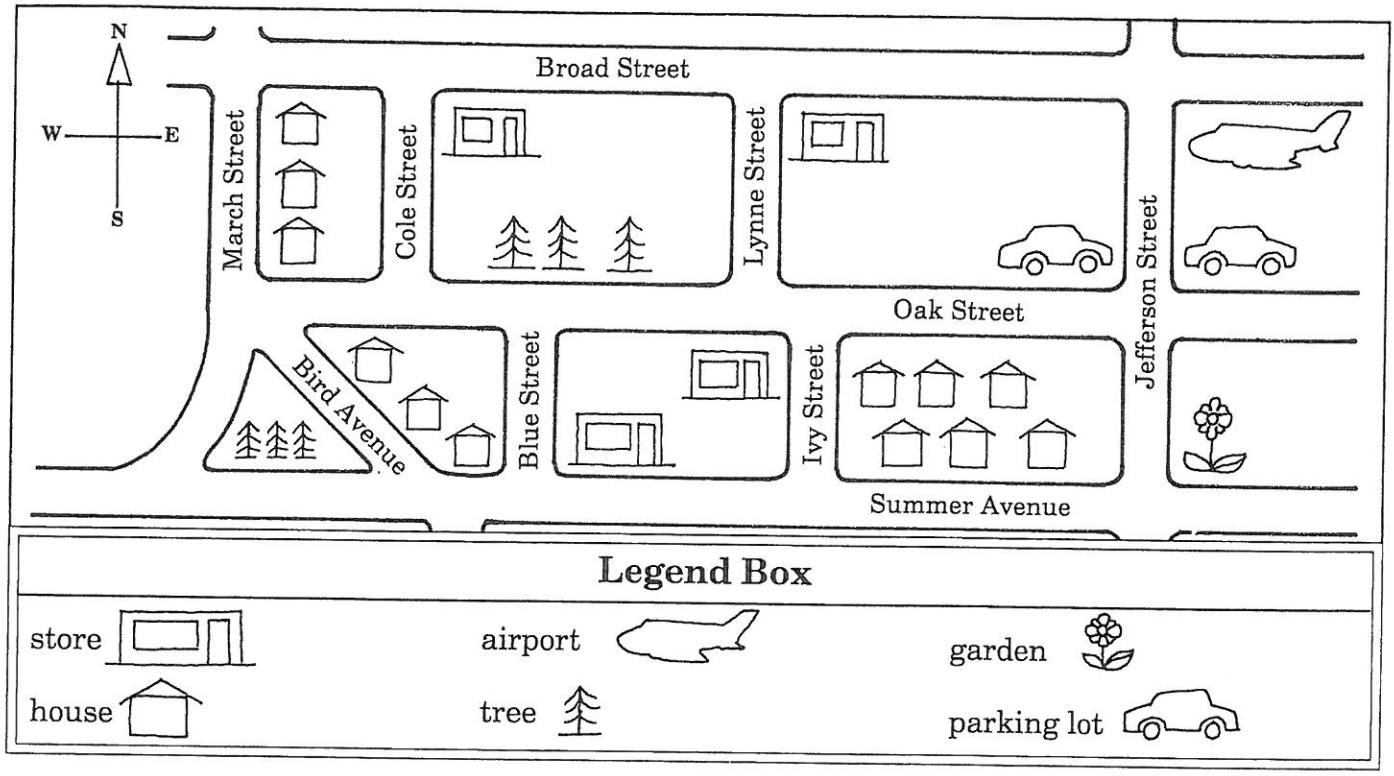
7.	The opposite of 10 is _____.	The opposite of 1 is _____.
8.	The opposite of −3 is _____.	The opposite of 7 is _____.
9.	The opposite of −4 is _____.	The opposite of −8 is _____.
10.	The opposite of 13 is _____.	The opposite of −15 is _____.
11.	The opposite of −32 is _____.	The opposite of 27 is _____.
12.	The opposite of 17 is _____.	The opposite of −20 is _____.

Overday Day 3

Legends Help You Read Maps

Name _____

Use the legend box to answer the questions.



1. Does Star City have an airport? _____
2. How many houses are on Bird Avenue? _____
3. What is on the corner of Oak Street and Jefferson Street? _____
4. The garden is on the corner of Jefferson Street and _____ .
5. How many stores are in Star City? _____
6. What direction is Summer Avenue from Oak Street? _____
7. Which street is directly west of Ivy Street? _____
8. How many trees are north of Oak Street? _____
9. How many houses are between Ivy Street and Jefferson Street? _____
10. How many stores are north of Summer Avenue? _____
11. How many parking lots are east of Lynne Street? _____
12. What street is south of the garden? _____
13. What two items are found in the block between Lynne Street and Jefferson Street? _____
14. How many houses are there in all on this map? _____

Cycles in Nature

NTI DAY 3
Warm-Up 31

Name: _____

Directions: Study the facts below and then respond to the questions.

Nature Cycle Facts

- Three elements are essential to both plants and animals. They are oxygen, carbon, and nitrogen.
- Two elements are present in carbon dioxide. They are carbon and oxygen.
- Oxygen is an element that is produced by plants during photosynthesis.
- Carbon is basic to the bodies of all living things.
- Animals and plants both give off carbon dioxide at night.
- Nitrogen is needed by all living things to make proteins.
- Decomposers eat dead plant and animal matter and give off carbon dioxide.
- Nitrites and nitrates are compounds of nitrogen.
- Animals get such essential elements as carbon and nitrogen by eating plants.
- Bacteria in the soil eat dead plants and animals. They give off nitrogen, which returns to the air.
- Carbon dioxide produced by bacteria contains both oxygen and carbon.
- Carbon, oxygen, and nitrogen are present in humans, as well as all other living creatures.

What Do You Know ?

1. Which three elements are absolutely essential to life for plants and animals?

   _____

2. How do people get their nitrogen?

   _____

3. Why are tiny bacteria so important in these cycles?

   _____

4. Where do people get the essential element of carbon?

   _____

5. What compound do you breathe out, and what element do you breathe in?

   _____

6th Grade
NTI Day 4

Mrs. King	Reading	Non-Fiction Reading: *Honey Badgers*
Mr. Simpson	Math	Comparing and Ordering Integers
Mrs. Overbay	Social Studies	*Julie of the Wolves*
Mrs. Mike	Science	Weather: *Water from the Air/Cloud Forests*

****Email availability from 9am to 4pm****

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Mary.Overbay@mboro.kyschools.us
Nicole.Mike@mboro.kyschools.us

NTI Day #4 - King

Name: _____

Nonfiction Reading Test

Honey Badgers

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

What's fiercer than a lion but smaller than a beagle? The honey badger, one of the toughest mammals in Africa and western Asia. Honey badgers stand less than a foot high. They are only a couple feet long. They weigh just over 20 pounds. Yet they have a reputation for toughness that is far greater than their size. Some honey badgers will chase away lions and take their kills. I guess that goes to show you that size isn't the only thing that matters in a fight.

So what makes the honey badger so tough? They have speed, stamina, and agility, but so do many animals. They aren't stronger than lions, so how do they stop them? The thing that sets the honey badger apart is their skin. Their skin is thick and tough. Arrows, spears, and bites from other animals can rarely pierce it. Small bullets can't even penetrate it. Not only is their skin thick and tough, it is also loose. This allows them to twist and turn to attack while another animal is gripping them. The only safe grip one can get on a honey badger is on the back of their necks.

Honey badgers have long, sharp claws. These claws are good for attacking and even better for digging. Honey badgers are some of nature's most skilled diggers. They can dig a nine-foot tunnel into hard ground in about 10 minutes. They love to catch a meal by digging up the **burrows** of frogs, rodents, and cobras. They also use their digging skills to create their homes. They live in small chambers in the ground and defend them fiercely. They will attack horses, cows, and even water buffalo if they are foolish enough to poke around a honey badger's den.

You don't get a reputation like the honey badger by running from danger. The honey badger is fearless and a tireless fighter. They will attack any creature that threatens them, man included. Because of the honey badger's reputation, most predators avoid them. Some animals use the honey badger's rep to their advantage. Adult cheetahs have spotted coats, but their kittens have silver manes and look like honey badgers. Some scientists believe that their coloring tricks predators into avoiding them. Wouldn't you walk the other way if you saw a honey badger?

You might be wondering: "If honey badgers are so tough, how did they get a name that makes them sound like a piece of candy?" The answer makes sense. Since honey badgers have such thick skin, bee stings rarely harm them. So honey badgers love to raid beehives. I can't blame them. Who doesn't like free honey? Honey badgers chase after honey aggressively. So much so that beekeepers in Africa have to use electric fencing to hold them back. There's nothing sweet about that.

Beekeepers aren't the only people who have grown to hate honey badgers. Honey badgers may be fun to read about, but they are nasty neighbors. They attack chickens, livestock, and some say children, though they usually leave people alone. But if a honey badger moves in your backyard, there's not a whole lot that you can do about it. I mean, are you going to go and tangle with an animal that eats the bones of its prey? An animal with teeth strong enough to crunch through turtle shells? An animal that never tires, gives up, or backs down? Yeah, I wouldn't either...

NTI Day #4 - King

1. Which best expresses the main idea of the third paragraph?
a. Honey badgers have sharp claws that they use for fighting.
b. Honey badgers digging skills assist them in many ways.
c. Honey badgers use their claws to defend their homes.
d. Honey badgers will defend their homes to the death against any animal.

2. Which statement would the author most likely **agree** with?
a. What makes the honey badger so tough is their speed and strength.
b. Honey badgers are large in size and tireless in fighting spirit.
c. What makes honey badgers so tough is their thick, loose skin.
d. Honey badgers got their name from the sweet taste of their meat.

3. Which best defines the meaning of the word *burrows* as it is used in the third paragraph?
a. Lily pads or other seaweeds in which animals hide
b. Holes or tunnels in which animals live
c. A nest or animal dwelling in a tree or bush
d. A water supply where small animals come to drink

4. Which best expresses the main idea of the last paragraph?
a. Honey badgers are a nuisance to the neighborhood.
b. Beekeepers and honey badgers do not get along well.
c. Honey badgers have very strong jaws and teeth.
d. Honey badgers eat chicken and livestock.

5. Which best describes one of the author's main purposes in writing this text?
a. To persuade readers to join the efforts to protect honey badgers
b. To compare and contrast honey badgers with beagles and lions
c. To describe how honey badgers select their partners
d. To explain why honey badgers are so tough

6. Which statement would the author most likely **disagree** with?
a. Honey badgers like to raid beehives to eat honey.
b. Honey badgers are not the biggest animals, but they may be the toughest.
c. Honey badgers disguise their young to look like cheetah kittens.
d. Honey badgers are not afraid to fight with humans.

7. Which person is **most likely** to be disturbed by a honey badger moving in next door?
a. A beekeeper
b. A biologist
c. A bus driver
d. A salesman

8. Which animal is the honey badger afraid to attack?
a. Lion
b. Water buffalo
c. Poisonous snake
d. None of these

9. Which is **not** one of the honey badger's strengths?
a. Thick skin
b. Powerful jaws and strong teeth
c. Poisonous claws
d. Tireless fighting spirit

10. Which title best expresses the main idea of this text?
a. *Battle on the Savannah: Honey Badgers Vs. Lions*
b. *Little Badger, Big Fight: One of Nature's Toughest Scrappers*
c. *Ace in the Hole: How Honey Badgers Build and Protect Their Homes*
d. *Little Game: Interesting Animals That Live in Africa*

NTI Day #4 - King

1. How do cheetah kittens' silver manes help them to survive? Quote evidence from the text to support your response and explain your answer completely.

2. What would be the safest thing to do if you encountered a honey badger? Cite evidence from the text to support your argument.

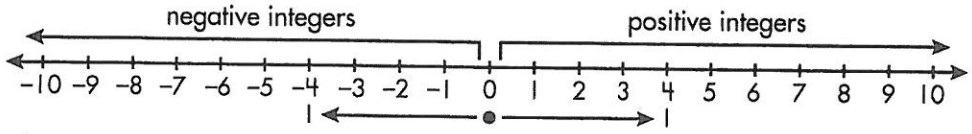
3. What is the honey badger's greatest asset or quality? Quote evidence from the text to support your response and explain what the text that you are quoting shows.

Day 4 Mr. Simpson NAME _____

Lesson 4.4 Comparing and Ordering Integers

Integers are the set of whole numbers and their opposites.

Positive integers are greater than zero. **Negative integers** are less than zero. Zero is neither positive nor negative. A negative integer is less than a positive integer. On a number line, an integer and its opposite are the same distance from zero. The smaller of two integers is always the one to the left on a number line.

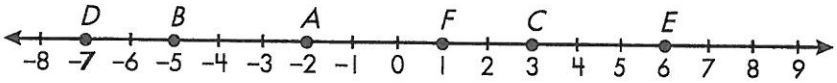


The opposite of 4 is −4. They are both 4 spaces from 0.

$-7 < -2$
−7 is to the left of −2.

$-4 > -9$
−4 is to the right of −9.

Use integers to name each point on the number line.



	a	b	c
1.	A _____	D _____	F _____
2.	E _____	C _____	B _____

Use > or < to compare each pair of numbers.

3.	2 ☐ 7	−1 ☐ −4	5 ☐ 0
4.	−4 ☐ 1	0 ☐ −8	−8 ☐ −10
5.	7 ☐ −7	−2 ☐ 0	4 ☐ 6
6.	1 ☐ −1	6 ☐ 3	−6 ☐ −3
7.	4 ☐ −2	−6 ☐ −4	3 ☐ −3

Order from least to greatest.

	a	b
8.	−3, −5, 0 _____	8, −8, 2 _____
9.	0, 5, −3, −7 _____	4, −1, 2, −2 _____
10.	−6, 5, −2, −3, 2 _____	5, −8, −2, −3, 0 _____

Overbay
Day 4

Name _____ Class _____ Date _____

Julie of the Wolves

by Jean Craighead George

ABOUT THE READING Miyax, a 13-year-old Inuit whose English name is Julie, lives in northern Alaska. She runs away from an unhappy home, planning to take a ship called the *North Star* to San Francisco. Instead, she becomes lost in the Arctic wilderness. As she begins living with a wolf pack, she also loses track of time. In this excerpt, when the wolves kill a caribou (a North American reindeer), she skins it and smokes its meat.

VOCABULARY

hide the skin of an animal

sedges grasslike plants

As you read the passage below, *pay attention to the position of the sun as it appears to Miyax in the high latitude of the Arctic.*

Exposing meat to wood smoke for many days can preserve it for future use. It also makes it lighter to carry on a journey.

Unnumbered evenings later, when most of the meat was smoked, Miyax decided she had time to make herself a new mitten. She cut off a piece of the new caribou **hide** and was scraping it clean of fur when a snowstorm of cotton-grass seeds blew past her face. "Autumn," she whispered and scraped faster. She saw several birds on the **sedges**. They were twisting and turning and pointing their beaks toward the sun as they took their readings and plotted their courses south.

With a start, Miyax noticed the sun. It was halfway below the horizon. Shading her eyes, she watched it disappear completely. The sky turned navy blue, the clouds turned bright yellow, and twilight was upon the land. The sun had set. In a few weeks the land would be white with snow and in three months the long Arctic night that lasted

for sixty-six days would darken the top of the world. She tore a fiber from the skin, threaded her needle, and began to stitch the mitten.

About an hour later, the sun rose and marked the date for Miyax. It was August twenty-fourth, the day the *North Star* reached Barrow. Of this she was sure, for on that day the sun lingered below the horizon for about one hour. After that, the nights lengthened rapidly until November twenty-first, when the sun disappeared for the winter.

Barrow, a seaport, is also the most northern town in Alaska.

In bed that evening, Miyax's spirit was stirred by the seeding grass and the restless birds and she could not sleep. She got up, stored some of the smoked meat in her pack, spread the rest in the sun to pack later, and hurried out to the caribou hide. She scraped all the fat from it and stuffed it in the bladder she had saved. The fat was excellent fuel, and gave light when burned . . .

Miyax uses the caribou's bladder as a storage container.

ANALYZING LITERATURE

1. **Main Idea** In what ways does the sun tell Miyax that fall and winter are approaching?

_____

_____

2. **Critical Thinking: Making Inferences** Why does Miyax scrape the hide for her new mitten more quickly after she notices the position of the sun?

_____

_____

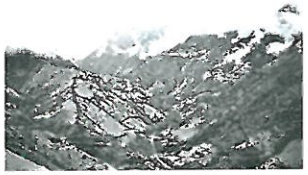
ACTIVITY

Using an atlas, look up Barrow, Alaska, and San Francisco, California. On a separate sheet of paper, write the latitude closest to each city. Which city is at the higher latitude? Write a paragraph explaining in general terms how winter would be different for Miyax in San Francisco.

NTI DAY 4

Water from the Air: Cloud Forests

by Alden Wicker



Mindo Cloud Forest

In the Americas, Asia, and Africa, there's a special kind of forest. It's rare, beautiful, and incredibly important to the animals and plants living there, and the humans who live nearby.

It's called the cloud forest. Cloud forests, like the name implies, can be found in the clouds on the slopes of mountains. Because they are often shrouded in warm mist, cloud forests are very humid and wet places. But that's what makes these forests so valuable.

Like rainforests, cloud forests experience rainfall, but they also capture water straight from the air. Water condenses on the leaves of the plants (sort of like dew on the grass in the morning) and drips through the canopy to the floor. If you stand in a cloud forest, you'll hear the constant drip of water, even if it's not raining. The water captured is pure and unpolluted, and flows through the ground into streams and then rivers.

Some people call cloud forests "water towers," because they are so important for providing water to nearby villages and cities. In the capital of Honduras, Tegucigalpa, four out of 10 people get their water from La Tigre National Park. That's about 340,000 people drinking cloud forest water! And there are a lot of other big cities that get some of their water from cloud forests, like Quito, Ecuador; Mexico City, Mexico; and Dar es Salaam, Tanzania.

In Guatemala, most of the water comes from the Sierra de las Minas Biosphere Reserve. More than 60 permanent streams flow from the reserve downhill to settlements, villages, and cities. People drink the water, use it for cooking, and irrigate their farm fields with it. In Kenya, people rely on the water from cloud forests to provide electricity by harnessing the energy of rivers that flow from Mount Kenya.

But it's not just humans who rely on cloud forests. While they only make up 2.5 percent of the world's forests, they are home to a stunning array of animals and plants. There are more species of hummingbirds in cloud forests than anywhere else in the world. Colorful birds, lizards, moss, and ferns live here; plus plants that grow on trees, called bromeliads. There's even a bear called the spectacled bear, named for the markings on its face. It's the only bear that lives in South America, and there are only a few thousand remaining because of habitat destruction and hunting.

We don't even know all of the plants, animals, and insects that live in cloud forests, yet we keep discovering new ones. In the 1990s, scientists discovered two bird species that only live in cloud forests. One is the Jocotoco Antpitta, or *Grallaria ridgelyi*, which lives in Ecuador in a small patch of cloud forest. Another is the Scarlet-banded Barbet, or *Capito wallacei* which was discovered in Peru living on just one mountain. Scientists also discovered a new type of cow and barking deer in the cloud forests of Laos and Vietnam.

As you can see, cloud forests are extremely special places. But they are also very fragile and face a wide array of threats. Local poor people clear the forest so that they can grow subsistence crops. They also hunt endangered and threatened animals for meat, and cut down trees to heat their homes and cook. Commercial farmers convert the land so that they can grow fruits, vegetables, and coffee beans. Cloud forests are cleared and turned into pasture for cattle. Building roads and gem mines also severely damages the cloud forests.

Once cloud forests are cleared, the damage can be irreversible. The cloud cover, which is so essential to the growth of these forests, disperses. The soil degrades and erodes, washing down the mountain slopes. Many species vital to the ecosystem die off. What is left behind is a barren, dusty slope unsuitable for farming and unable to support animals, plants, or even people.

You can think of cloud forests sort of like little habitat islands, bounded by other types of forests and habitats on all sides. Many species are unable to leave one patch to travel to another. Once one patch is completely cleared, many species of plants and animals can go extinct, without ever being seen or studied by people like us. Some of the plant species lost could have been a new medicine or edible crop.

Scientists estimate that each year, 1.1 percent of the world's total cloud forest land is cleared for logging and timber falling. But even more worrying is the threat of climate change. Cloud forests form at very specific altitudes and rely on certain temperatures to thrive. If world temperatures rise, cloud forests would have to move up to a higher altitude where the temperatures are cooler in order to adjust. Some cloud forests are on mountain peaks with nowhere to climb and would die out. Climate change could also lessen cloud cover, which cloud forests rely on to grow. Because of this, the rate of loss could double.

As you can see, cloud forests are essential, providing water, food, and medicine to the people living in, around, and near them. So why would local people destroy them? To understand why, you have to put yourself in the shoes of a poor local farmer.

Imagine that you have no electricity or gas to heat your home or cook your meals. You do not have an oven or stove, so you get wood from the forest to build a fire. You also need food, and you cannot find a job that pays enough to buy any. There might not be a grocery store anywhere nearby, either. Therefore, you clear some forest next to your home so that you can plant fruits, vegetables, and grains. You also hunt local animals to eat. You would probably be excited to have a road built through the forest to your village, so you can easily go to a nearby city, or reach a hospital if you or someone in your family has an emergency.

If only a few people did these things, it might not be a problem. But the population is growing fast, and when thousands of people clear the forest and hunt animals, it becomes a crisis. Scientists fear we might lose cloud forests altogether, along with the water and other services they provide.

To combat the problem, some governments have designated certain stretches of cloud forest as protected, and it's illegal to clear or log them. This can help preserve cloud forests against mining companies and large commercial farmers. But it can be hard to enforce these rules against local populations. To work with local populations of people is more effective, providing them with other ways to get food and energy so that they can leave the cloud forests intact.

It is also effective to educate the local population on how cloud forests provide fresh water and what happens when they are cleared. For example, in the indigenous community of Loma Alta in Ecuador, once the people understood that the cloud forest is necessary to provide water for farms at lower altitudes, they worked together successfully to protect it.

Cloud forests are too valuable of a natural resource to lose. With laws to protect them, education, and economic support for local people, we might be able to save them-plus the animals and plants they support -before it's too late.

Name: _____ **Date:** _____

1. What are cloud forests?

A. forests that are made out of clouds and float through the earth's atmosphere

B. forests of oak and maple trees found in the northeastern United States

C. pine forests that live in cold climates without much animal life

D. humid forests that live among clouds on mountain slopes

2. What does this article try to persuade the reader of?

A. Governments should not interfere with businesses.

B. It is too late to save cloud forests.

C. Protecting cloud forests is important.

D. Commercial farming is more important than cloud forests.

3. The loss of cloud forests is harmful to the surrounding ecosystem.

What evidence from the passage supports this statement?

A. When cloud forests are cleared away, the soil degrades and erodes. What is left behind is a dusty slope that is unable to support animals, plants, and people.

B. Cloud forests live among the clouds on the slopes of mountains. They are often surrounded by warm mist, which makes them very humid and wet places.

C. The Jocotoco Antpitta, or*Grallaria ridgelyi*, lives in Ecuador. The Scarlet-banded Barbet, or *Capito wallacei*, lives in Peru. Barking deer live in Laos and Vietnam.

D. Commercial farmers sometimes clear cloud forests so that the land can be used as pasture for cattle. Other times, cloud forests are cleared to build roads.

4. Why might providing economic support to people living near cloud forests help save the forests?

A. People living near cloud forests would be less likely to care about protecting animals like the Jocotoco Antpitta and the Scarlet-banded Barbet.

B. People living near cloud forests would be less likely to clear away parts of the forest to try to support themselves.

C. People living near cloud forests would be more likely to buy cars and build roads through the forest to drive on.

D. People living near cloud forests would be more likely to buy gems dug from the ground by mining companies.

ReadWorks Water from the Air: Cloud Forests - Comprehension Questions

5. What is this passage mainly about?

A. how people in Tegucigalpa, Quito, Mexico City, and Dar es Salaam get their water

B. the history of the Sierra de las Minas Biosphere Reserve in Guatemala

C. the mining companies and commercial farms that threaten cloud forests around the world

D. cloud forests, the threats they face, and what can be done to save them

6. Read the following sentences: "It is also effective to educate the **local** population on how cloud forests provide fresh water and what happens when they are cleared. For example, in the indigenous community of Loma Alta in Ecuador, once the people understood that the cloud forest is necessary to provide water for farms at lower altitudes, they worked together successfully to protect it."

What does the word "**local**" mean?

A. shrinking slowly over a long period of time

B. turning out differently from what was expected

C. having to do with a particular place or area

D. causing people to feel extremely happy

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

Cloud forests are home to unusual animals, _____ spectacled bears and barking deer.

A. previously

B. such as

C. as a result

D. third

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8. Name an animal that is found only in cloud forests.

9. How are cloud forests valuable to human beings? Support your answer with evidence from the passage.

10. Are cloud forests too valuable of a natural resource to lose, as the author claims? Explain why or why not, using evidence from the passage.

6th Grade
NTI Day 5

Mrs. King	Reading	Non-Fiction Reading: *Trampolines*
Mr. Simpson	Math	Using Integers in the Coordinate Plane
Mrs. Overbay	Social Studies	Map Skills: *Locating Cities*
Mrs. Mike	Science	Astronomy: *Space Junk*

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NTI Day #5 - King

Name: _____

Nonfiction Reading Test

Trampolines

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

What's more fun than standing still? Jumping up and down on a springy piece of fabric! This activity is known as trampolining and it's sweeping the nation.

The idea of trampolining is ancient. Eskimos have been tossing each other in the air using walrus skin for thousands of years. Firemen began using a life net to catch people jumping from buildings in 1887. And in the early 1900s, circus performers began bouncing off of netting to amuse audiences. These weren't the same as today's trampolines, but they show that the idea has been bouncing around for a long time.

A tumbler named George Nissan and his coach Larry Griswold made the first modern trampoline in 1936. They got the idea by watching trapeze artists bouncing off of a tight net at the circus. The two men experimented with different fabrics and designs. They found a winner when they stretched a piece of canvas across a steel frame and held it in place with springs. They named their device after the Spanish word *trampolín*, which means diving board.

At first Nissan and Griswold used their device to train tumblers. The piece of training equipment was a lot of fun. They realized that everyone could enjoy their trampoline, not just tumblers. The men wanted to share their idea with the whole world. In 1942 they began making trampolines to sell to the public.

Trampolines may be fun, but they can also be dangerous. Experts estimate that more than 100,000 people hurt themselves while using one each year. Clubs and gyms use large safety nets and rubber padding to make it safer. Most trampoline injuries happen at home. Since trampolines are more affordable than ever, injuries are even more common.

These injuries happen for many reasons. People may bounce too high and land off of the trampoline or onto the springs. From the peak of the bounce, this can be a fall of 13 feet or more. Ouch. Injuries also happen when many people are jumping at the same time. Jumpers may collide and cause one another to land in strange ways. Lots of people have broken bones in this way. Perhaps the worst injuries happen when untrained people try to do flips. Landing on your neck or head can paralyze or even kill you.

But don't let all that bad news keep you down. There are many things that you can do to practice safe trampolining. You can cover the springs with special pads so that people's limbs are less likely to get stuck in them. You can surround your trampoline with a net so that people don't fall off of it. You can limit bouncers to one at a time. This will prevent collision injuries. Perhaps most importantly, you should never flip on a trampoline without professional guidance. You are much less likely to get hurt on a trampoline if you do these things.

Trampolines have been around for a while now. They have brought a lot of joy to many people. There is no feeling quite like soaring up in the air and then free-falling. Trampolines can also be a good source of exercise and activity. They can help people improve their balance and aerial moves. But they can also be deadly. Be sure that you are practicing safety while having a good time. Happy bouncing!

NTI Day #5 - King

1. Which statement would the author most likely **disagree** with?

a. The basic idea of a trampoline has been around for a long time.

b. Nissan and Griswold owe much of their success to circus performers.

c. Most club and gym trampolines are safer than most home trampolines.

d. Trampolines are dangerous and not much can be done to make them safer.

2. Which best describes the main idea in the second paragraph?

a. It explains how Eskimo have used walrus skins like trampolines for a long time.

b. It describes activities similar to trampolining that came first.

c. It compares and contrasts how different groups have used trampolines.

d. It discusses how trampolining is ancient.

3. Which of the following events happened **first**?

a. Firemen begin using life nets to catch people jumping from buildings.

b. Nissan and Griswold begin selling trampolines to the public.

c. Circus performers begin using netting to perform tricks.

d. Nissan and Griswold invent the modern trampoline.

4. Which is **not** cited as a cause of trampoline related injuries?

a. Colliding with other bouncers

b. Bouncing into low hanging objects

c. Jumping off of the trampoline

d. Landing a flip incorrectly

5. Which best explains why trampoline injuries are more likely to happen at home?

a. Home trampolines get rained on and become very slippery.

b. Home trampolines are cheaply made and fall apart during use.

c. Home trampolines often lack proper safety equipment.

d. Most people are on their best behavior when they leave the home.

6. Which best describes the structure of the text in the sixth paragraph?

a. Cause and effect

b. Compare and contrast

c. Chronological order

d. Descriptive writing

7. How does the purpose of the text switch after the fourth paragraph?

a. It goes from describing the uses of a trampoline to the dangers.

b. It shifts from explaining the history of the trampoline to health benefits.

c. It moves from Nissan and Griswold's life story to how trampolines are used today.

d. It changes from discussing the origins of the trampoline to the risks.

8. Which statement would the author most likely **agree** with?

a. Trampolines are extremely dangerous and should be banned.

b. Nissan and Griswold stole the idea for the trampoline from the eskimos.

c. You should take turns when jumping on a trampoline with friends.

d. You'll never learn to flip if you don't start practicing by yourself.

NTI Day #5 - King

9. Which best expresses the author's purpose in writing the seventh paragraph?

a. He is persuading readers to stay off of trampolines.

b. He is telling readers how to prevent trampoline injuries.

c. He is describing what a modern trampoline looks like.

d. He is informing readers about the risks of trampolining.

10. Which of the following is **not** a main idea in this text?

a. Trampoline-like activities have been around for a long time.

b. Trampolining can be dangerous if practiced unsafely.

c. Trampolining is a great way to reduce stress and anxiety.

d. Modern trampolines were invented by Nissan and Griswold.

Long Response

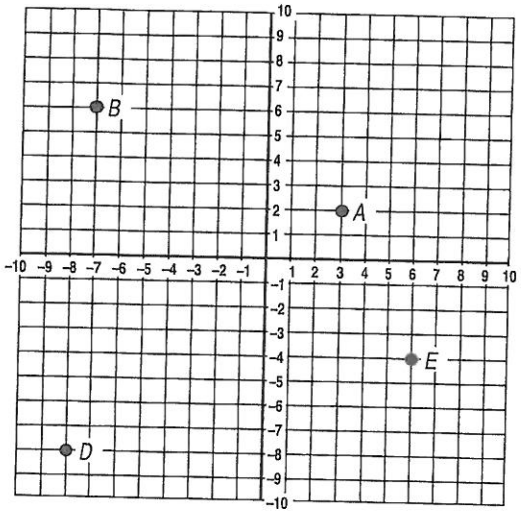
1. If you were buying a new trampoline, what advice do you believe that the author would give you? Refer to the text to support your response.

Day 5 Mr. Simpson NAME _____

Lesson 4.5 Using Integers in the Coordinate Plane

Positive and negative coordinates can be graphed using the coordinate plane system.

The first number in an ordered pair represents its point on the *x*-axis. The second number represents the point on the *y*-axis.



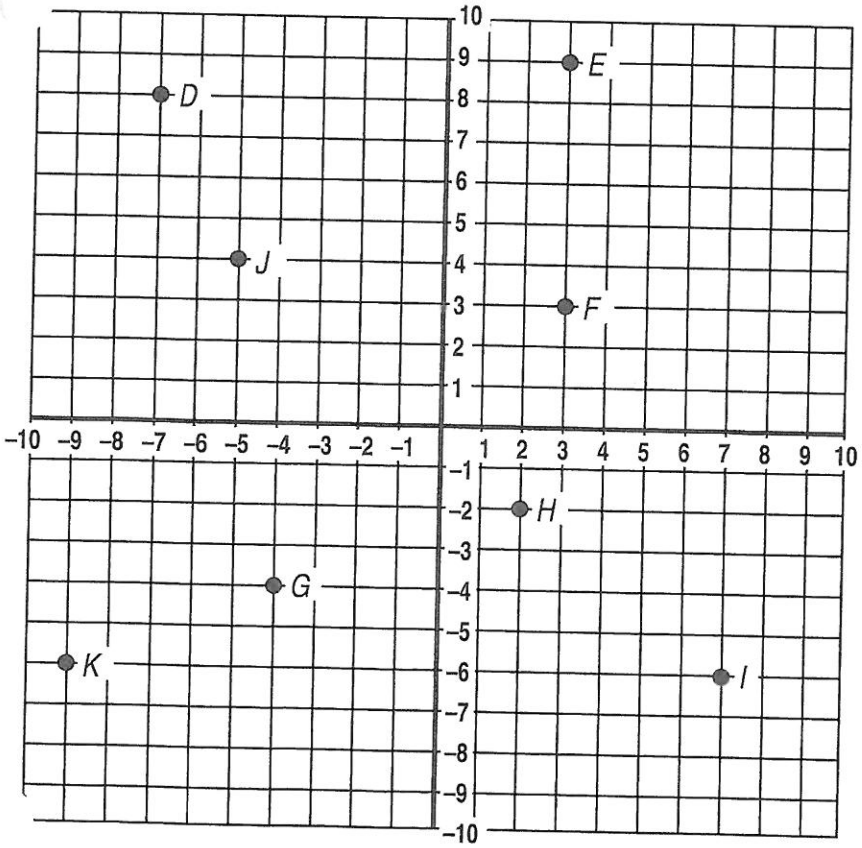
Point *A*: (3, 2)

Point *B*: (–7, 6)

Point *C*: (6, –4)

Point *D*: (–8, –8)

Use the coordinate grid to answer the questions.



Write the ordered pair for each coordinate.

1. *D* _____
2. *E* _____
3. *G* _____
4. *H* _____
5. *K* _____

Name the point located at each ordered pair.

6. (–5, 4) _____
7. (7, –6) _____
8. (–9, –6) _____
9. (3, 3) _____
10. (–7, 8) _____

Overbay Day 5

Locating Cities

Name _____

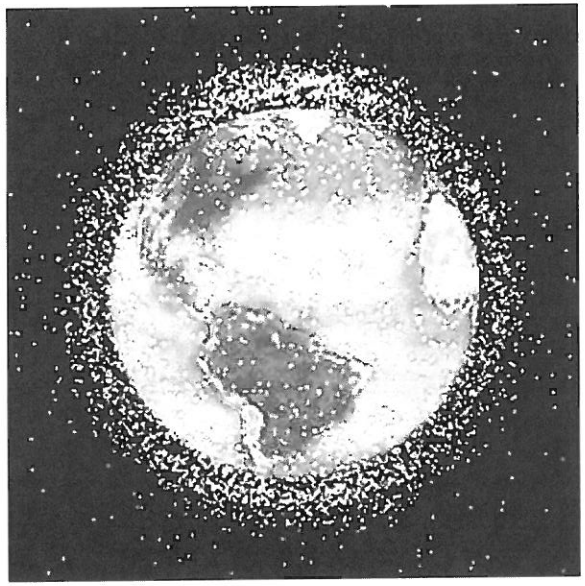
Use the compass rose to help you fill in each blank below with the correct direction.

1. El Paso, Texas, is _____ of Dallas, Texas.
2. Tulsa, Oklahoma, is _____ of Oklahoma City, Oklahoma.
3. Mobile, Alabama, is _____ of Baton Rouge, Louisiana.
4. Little Rock, Arkansas, is _____ of Nashville, Tennessee.
5. Houston, Texas, is _____ of New Orleans, Louisiana.
6. Jackson, Mississippi, is _____ of Memphis, Tennessee.
7. Dallas, Texas, is _____ of Austin, Texas.
8. The state of Louisiana is _____ of Arkansas.
9. The state of Alabama is _____ of Texas.
10. The state of Oklahoma is _____ of Tennessee.
11. The state of Georgia is _____ of Texas.
12. Atlanta, Georgia, is _____ of Savannah, Georgia.
13. The state of Tennessee is _____ of Arkansas.
14. Dallas, Texas, is _____ of Little Rock, Arkansas.
15. Mobile, Alabama, is _____ of Atlanta, Georgia.

NTI DAY 5

Space Junk

by Josh Adler



Many people know that trash is a big problem on planet Earth. What many people don't know is that trash has become a problem in outer space too. Years of space exploration have left tons of "space junk" in orbit around the planet.

According to *BBC News*, there are more than 22,000 pieces of junk in space around the earth. And these are just the items that we can see from the surface of the earth by telescopes or radars. There are also millions of smaller pieces of junk that we can't see.

Objects, like bits of old space rockets or satellites, move around the planet at very high speeds, so fast that even a very small piece can break important satellites or become dangerous to people, particularly astronauts. If the tiniest piece of junk crashed into a spacecraft, it could damage the vehicle. That's because the faster an object moves, the greater the impact if the object collides with something else.

To make things worse, when two objects in space collide, the two objects break into many smaller pieces. This happened in 2009 when a working United States satellite collided with a Russian satellite that was no longer functioning. The collision caused the satellites to break into more than 2,000

pieces, increasing the items of space junk.

To help minimize additional space junk, countries around the world have agreed to limit the time their space tools stay in orbit to 25 years. Each tool must be built to fall safely into the earth's atmosphere, or the mass of gases that surround the earth, after that. In the upper parts of the atmosphere, it will burn up.

Many scientists are also proposing different ways to clean up space junk. In England a metal harpoon is being tested that can be fired into space trash, grip the trash, and then pull the space junk into the earth's atmosphere where it would burn up.

The Germans have been planning a space mission with robots that would collect pieces of space trash and bring them back to Earth so that they can be safely destroyed.

In 2007 the Chinese tried to blow up one of its older satellites with a missile. Unfortunately, the explosion only created thousands of smaller pieces, adding junk in space!

"In our opinion the problem is very challenging, and it's quite urgent as well," said Marco Castronuovo, an Italian Space Agency researcher who is working to solve the problem. One reason that it's urgent is that countries are sending more and more objects into space. Many of these objects are tools that help people use their cell phones or computers.

"The time to act is now; as we go farther in time we will need to remove more and more fragments," he says.

Name: _____ Date: _____

1. What has left tons of "space junk" in orbit around the earth?

A. robots sent on space missions

B. years of space exploration

C. lack of recycling

D. missiles in outer space

2. Countries around the world have agreed to limit the time their space tools stay in orbit to 25 years. As explained in the passage, what problem does this solution address?

A. the increasing amount of space junk in orbit around the earth

B. space agencies exploring space

C. Chinese efforts to blow up a satellite

D. objects moving around the planet at very high speeds

3. Trash has become a problem in outer space too.

What evidence from the text best supports this statement?

A. The Chinese tried to blow up one of its satellites with a missile in 2007.

B. In England, a metal harpoon is being tested that can be fired into space, gripping space trash and pulling it back into the earth's atmosphere to burn up.

C. The Germans have been planning a space mission with robots to collect some space trash and bring it back to Earth.

D. According to *BBC News*, there are more than 22,000 pieces of junk in space around the earth.

4. Why have countries agreed to build space tools that must fall safely into the earth's atmosphere?

A. so that the tools can remove pollution from the atmosphere after returning from space

B. so that the tools burn up in the atmosphere and don't become space junk

C. so that the tools pollute the atmosphere instead of outer space

D. so that the tools can analyze the different gases that make up the atmosphere after returning from space

5. What was the passage mostly about?

A. different missions scientists are trying in space

B. the effects that tiny pieces of space junk could have on the earth

C. the problem of space junk and scientists' attempts to solve this problem

D. the problem of trash on planet Earth

6. Read the following sentences: "'In our opinion the problem is very challenging and it's quite urgent as well,' said Marco Castronuovo, an Italian Space Agency researcher who is working to solve the problem. One reason that it's **urgent** is that countries are sending more and more objects into space. Many of these objects are tools that help people use their cell phones or computers."

What does the word **urgent** most nearly mean?

A. easy to solve

B. unnecessary

C. needs immediate attention

D. minor

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

Years of space exploration have left tons of "space junk," _____ many scientists are trying to find a way to clean up outer space.

A. so

B. instead

C. because

D. similarly

8. What did the 2009 collision of a United States satellite and a Russian satellite cause?

9. What have the Germans done to help clean up space junk?

10. Different countries have explored or are exploring different methods to clean up space junk. Explain why some methods may be more effective than others. Use evidence from the text to support your answer.

6th Grade
NTI Day 6

Mrs. King	Reading	Non-Fiction Reading: *The Pony Express*
Mr. Simpson	Math	Multiplying and Dividing Fractions
Mrs. Overbay	Social Studies	Protection of Game in Yellowstone National Park
Mrs. Mike	Science	Chemistry: *The Elements of Jewelry*

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MTI Day # 6 - King

Name: _____

Nonfiction Reading Test

The Pony Express

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

In this age of texts and tweets, it is easy to send messages. You just press a few buttons, and boom! Your message is sent. The person to whom you sent it will get it in just a few seconds. Distance is no longer an issue. But things weren't always so easy.

In 1848 gold was found in California. Thousands of people rushed there to get some. Many people liked living there and decided to stay. But there wasn't a whole lot between California and Missouri, where the nearest trains ran. The train line to California wasn't finished until 1869. It took a long time to ride a horse to Missouri.

Imagine that it is the year 1860. You have moved to California to open a shop. Most of your family stayed back East. Your shop is doing well and now you want to your family to join you. How do you get news to them? There's no phone, no train, and you can't leave your shop for too long. What do you do? Well, you could use the Pony Express.

In 1860 and 1861, the Pony Express was the fastest way to get news to and from the West. The trail that they rode was around 2000 miles long. It took most people weeks or months to ride that far. The Pony Express could make the trip in just ten days. Those speeds were unheard of at the time. So how did they do it? Well, they had a good system.

The Pony Express had 184 stations along the trail. The stations were around ten miles apart. This is about how far a horse could run at a gallop before tiring. The rider would switch to a new horse at each station. He would only take his mail pouch with him. Every 75-100 miles, the rider would get to a home station. At each home station, riders would rest. Before resting, he would give his mail pouch to a new rider. The mail never stopped moving, even while the horses and riders rested.

It was tough to ride for the Pony Express. Each rider had to weigh less than 125 pounds. Speed was the key. Most of the riders were teenage boys. They rode at a fast pace for up to 100 miles a day. If there were an emergency, one might have to ride 200 miles in a day. The ride could be rough and dangerous. Attacks by Native Americans were common. But in its time running, the Pony Express only lost one mail pouch.

The Pony Express filled an important role for a time, but it did not last. The Civil War started in April of 1861. This was bad news for the owners. The worst for them was yet to come. On October 24th, 1861, the first telegraph line to California was finished. This linked them to the rest of the country. People could send messages in an instant. Two days later the Pony Express closed. But the lore of the brave riders lives on even today.

NTI Day #6 - King

1. Which happened first?
a. Settlers rushed to California to find gold.
b. The Pony Express was started.
c. The train line to California was finished.
d. The first telegraph line to California was finished.

2. Which best explains why Pony Express riders had to weigh less than 125 pounds?
a. Heavier men were more expensive.
b. Horses were scared of heavier men.
c. Heavier men scared customers.
d. Horses could move quicker with lighter men.

3. How fast could the Pony Express take a letter from California to Missouri?
a. 24 hours
b. ten days
c. twenty days
d. one month

4. Why were the Pony Express stations about ten miles apart?
a. This was about as far as a man could walk in a single day.
b. This was as far as a man could ride on a horse in a day.
c. This was so the riders wouldn't get so lonely at night.
d. This was as far as a horse could run without getting tired.

5. Which was probably **not** a requirement to be a rider for the Pony Express?
a. You had to be light.
b. You had to be an expert horse rider.
c. You had to be able to read and write.
d. You had to be brave in the face of danger.

6. Which best describes that main idea of the fifth paragraph?
a. It is about how many Pony Express stations there were.
b. It is about how the Pony Express carried mail so quickly.
c. It is about how the Pony Express riders slept in the stations.
d. It is about how far the Pony Express riders would go in a day.

7. Which of these ended the Pony Express?
a. The telegraph
b. The Civil War
c. Wars with Native Americans
d. The train line

8. About how far did Pony Express riders travel on a usual day?
a. 10 miles
b. 200 miles
c. 100 miles
d. 2000 miles

9. How many mail pouches did the Pony Express lose?
a. The Pony Express never lost a mail pouch.
b. One
c. Two
d. Too many to keep track

10. Which title best describes the author's purpose in writing this?
a. *Out of Touch: Why Phones are Faster Than Horses*
b. *The Pony Express: Stories of Their Bravery in Battle*
c. *Back in Touch: Why We Should Use Horses to Deliver the Mail*
d. *The Pony Express: About the 1860's Fastest Mail Service*

NTI Day #6 - King

1. How was the Pony Express able to move letters across the country so quickly? Refer to the text in your answer.

2. How did the California Gold Rush help to create a need for the Pony Express? Use the text to support your response.

3. Why was the Pony Express no longer needed? Refer to the text in your answer.

Day 6 Mr. Simpson

NAME _____

Check What You Learned

Multiplying and Dividing Fractions

Multiply. Write answers in simplest form.

	a	b	c	d
1.	$\frac{2}{3} \times \frac{3}{4}$	$\frac{1}{2} \times \frac{3}{8}$	$\frac{7}{8} \times \frac{3}{5}$	$\frac{2}{7} \times \frac{5}{8}$
2.	$\frac{2}{3} \times 5$	$4 \times \frac{7}{8}$	$\frac{3}{5} \times 12$	$8 \times \frac{4}{7}$
3.	$3\frac{1}{8} \times 4$	$5 \times 7\frac{1}{2}$	$3\frac{2}{3} \times 6$	$10 \times 1\frac{2}{3}$
4.	$2\frac{1}{2} \times 3\frac{1}{3}$	$1\frac{1}{5} \times 3\frac{3}{4}$	$2\frac{1}{2} \times 2\frac{1}{2}$	$4\frac{1}{3} \times 2\frac{3}{5}$

Write the reciprocal.

5.	$\frac{3}{8}$ _____	5 _____	$\frac{12}{5}$ _____	$\frac{4}{7}$ _____

Divide. Write answers in simplest form.

6.	$5 \div \frac{2}{3}$	$\frac{4}{5} \div 5$	$7 \div \frac{3}{8}$	$\frac{7}{8} \div 2$
7.	$\frac{2}{3} \div \frac{4}{5}$	$\frac{7}{8} \div \frac{2}{3}$	$\frac{4}{7} \div \frac{3}{8}$	$\frac{5}{12} \div \frac{3}{4}$
8.	$3\frac{1}{8} \div 2\frac{1}{2}$	$4\frac{2}{3} \div 3\frac{1}{2}$	$2\frac{3}{4} \div 2\frac{3}{4}$	$1\frac{1}{2} \div 3\frac{1}{8}$

CHAPTER 2 POSTTEST

Overbay Day 6.

Name _____ Class _____ Date _____

Protection of Game in Yellowstone National Park

ABOUT THE READING In 1894 the Committee on Public Lands made this report to the United States House of Representatives. The report explained the need for a new law, or bill, to protect animals in Yellowstone National Park.

As you read this excerpt *note the specific problems at the park and the recommendation made in the report.*

VOCABULARY

perpetrators criminals

preservation protection

wanton inhumane or unjust

poachers person who hunts illegally

There has been for some years a necessity for a law to punish crimes in the Yellowstone National Park. Various crimes have been committed and the **perpetrators** have escaped all punishment for want of the necessary legislation . . .

The U.S. Government has set apart this park as a pleasure ground for the people of the United States perpetually, and has directed the **preservation** of the wild beasts and birds in the park. But no laws to carry out the purpose of protecting the game and birds in the park are now in force, and **wanton** and cruel slaughter of the buffalo and other wild animals in the park have been reported, and the Secretary of the Interior has found himself powerless to prevent it.

Out of the vast herds of millions of buffaloes that a few years ago coursed the plains of America a few hundred only remain, and they are now all in the Yellowstone Park, and one of the purposes of setting aside this park has been to preserve this little herd. A few days ago **poachers** entered the park and commenced the slaughter of these animals.

Yellowstone National Park was created by an Act of Congress, and then signed into law by President Ulysses Grant on March 1, 1872. It was to be directly managed by the Federal government. Yellowstone National Park is considered the world's first national park.

Source: Library of Congress, A[illegible]emory, Evolution of the Conservation Movement, 1850-

Prompt action is necessary or this last remaining herd of buffalo will be destroyed.

The bill proposed will give full authority to protect all the birds, fish, and animals in the park. In case it becomes necessary to destroy any of the wild animals the Secretary of the Interior is empowered by the bill to authorize their destruction.

This will enable the Secretary to prevent the unnecessary increase of such animals as may become dangerous or a detriment to the uses of the park.

Your committee not only recommend the passage of the bill, but urge upon the House the importance of immediate action.

The bill would allow the Secretary of the Interior to have animals that are dangerous or causing trouble to the park killed. This might apply to animals who threaten people or to animals whose population gets too high.

WHAT DID YOU LEARN?

1. How would the bill help protect the animals of Yellowstone National Park?

_____

_____

_____

2. Why would the preservation of animals also be important for protecting the ecosystem of the park?

_____

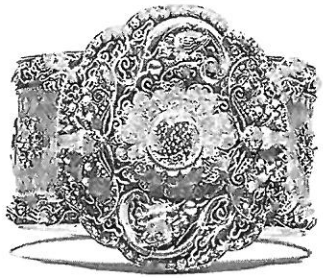
_____

_____

NTI DAY 6

The Elements of Jewelry

by ReadWorks



Stroll by a jewelry store on any day, and you'll see cases full of shiny items. Light glints off of gold rings, and silver necklaces sparkle against velvet backgrounds. The jeweler who owns the shop and makes the jewelry has to consider both beauty and science. Someone who earns their living by making beautiful things has to know a lot more than you might think. A jeweler makes beautiful rings, bracelets, and necklaces, but he or she also must know about many different stones and metals. Before a ring ever slips onto a finger, before a necklace ever drapes a neck, a series of decisions must be made about everything regarding the jewelry.

Jewelry is made of metals and stones with different characteristics. Every material in the world has its own properties, and a jeweler must know the characteristics of the materials he or she works with inside and out. By understanding the properties of metals and stones, the jeweler knows how they react, mix, melt, and hold up to everyday use. Jewelers sometimes blend metals themselves, but they often purchase metals blended by goldsmiths and forgers. As these workers shape and form the metal combinations, they begin to create the jewelry people wear.

Gold and silver are two of the most common metals used for jewelry, but they are very different if you compare them. Scientists know gold by its chemical symbol *Au*. Gold is a soft but dense metal. It is malleable, which means it can be shaped. It can be hammered out into thin sheets, it can be ground into a thin powder, and it becomes liquid when heated. It can also conduct electricity. Gold has a bright yellow color and luster that does not tarnish in air or water. A jeweler knows all of the properties of gold and can identify it based on these characteristics.

Because gold is soft, it needs other metals to support it so that it can stand up to the normal wear-and-tear

of life when worn as jewelry. It must be able to endure hand-washing, sweating, and being worn while working. So if pure gold is used in a ring, it will be very soft and might wear away, scratch, or dull over time. For this reason, pure gold is combined with other metals to form alloys used in jewelry.

Silver is less valuable than gold. It is also slightly harder. Scientists refer to silver with the symbol *Ag*. Silver has the best ability to conduct electricity of any element. It can exist in pure form, or combined with other metals as an alloy. Silver shines brightly when polished. Since ancient times, it has been used as a precious metal to make coins, ornaments, and silverware. A buyer might choose silver instead of gold because of its price and durability.

Although gold and silver have captivated the minds of adventurers and conquerors, there is another metal that is actually even more valuable: platinum. Scientists use the symbol *Pt* to represent it. It is silver-white in color, lustrous, and malleable, although not as malleable as gold. Its strength makes it resistant to wear and tarnish, and it does not easily corrode or wear away. Platinum makes strong and lasting jewelry, and jewelers prize it for that.

In addition, platinum is not very likely to create a skin reaction. Sometimes, jewelry can react to sweat on the skin. A green band can appear on the skin underneath a ring or bracelet where the metal rubs it. This happens when metals mixed with gold react to the acidity in sweat on the skin. That reaction makes the metal corrode, which forms a salt compound that gets absorbed into the skin and turns it green in patches. The higher the percentage of gold in jewelry, the higher the quality, and the less likely it is to create the green-skin effect.

Before jewelers and other workers transform metals into liquid and shape them, they understand what temperatures the metals must be subjected to in order to melt. Because metals are chemical elements, their melting points are predictable. Silver turns to liquid at 1763.2 degrees Fahrenheit. Gold will always melt at 1947.5 degrees Fahrenheit, and platinum always melts at a much higher temperature of 3214.9 degrees Fahrenheit. If jewelers or scientists aren't sure what type of metal something is, they can subject it to high temperatures and determine its identity based on the minimum temperature needed to melt it.

What happens when a metal is melted? When a metal goes from solid to liquid, the change of state means the molecules change their behavior. Imagine that a solid piece of gold has molecules that are closely spaced and vibrate in position, but don't change their position in relation to other molecules. As temperatures rise and the state of gold changes to liquid, the molecules begin to move to other positions. They are in constant contact with one other.

Jewelers and goldsmiths are not the only people who make decisions about jewelry. The jewelry business employs many people who work with and assess precious metals and stones. Gemologists analyze the characteristics of gemstones and then certify their quality. They use microscopes and other tools to examine gemstones to check for purity and strength. Then, they write reports and documents that certify the quality of these items. There are also jewelry appraisers who carefully examine jewels and assess their value for pawnbrokers, jewelry stores, and insurance companies. Like jewelers, both appraisers and gemologists must understand the properties of the stones and metals they see every day.

Name: _____ Date: _____

1. According to the passage, what two things do jewelers have to consider when making jewelry?

A. beauty and value
B. science and elements
C. beauty and science
D. gold and platinum

2. How does the author compare gold and silver?

A. Silver is less valuable than gold.
B. Gold is more durable than silver.
C. Silver is more malleable than gold.
D. Gold conducts electricity better than silver.

3. Pure gold is too soft to be worn as jewelry. What evidence from the passage best supports this conclusion?

A. Gold has a bright yellow color and luster that does not tarnish in air or water.
B. Gold can be hammered into thin sheets and ground into a powder.
C. Gold is a soft but dense metal that can be shaped into different forms.
D. Gold is mixed with other metals to form alloys used in jewelry.

4. Based on the information in the passage, what is the most likely reason why platinum is more valuable than gold?

A. because it is less rare and easier to acquire than gold
B. because it is harder than gold and more resistant to wear
C. because it is a newer metal than gold and was recently discovered
D. because it is silver-white in color instead of bright yellow like gold

5. What is this passage mostly about?

A. why pure gold is not commonly used to make jewelry
B. the different melting points of gold, silver, and platinum
C. how jewelry is made using an understanding of metal properties
D. how goldsmiths melt and blend metals to create metal alloys

6. Read the following sentences: "Because gold is soft, it needs other metals to support it so that it can stand up to the normal wear-and-tear of life when worn as jewelry. It must be able to **endure** hand-washing, sweating, and being worn while working. So if pure gold is used in a ring, it will be very soft and might wear away, scratch, or dull over time."

As used in this sentence, what does the word "**endure**" most nearly mean?

A. continue to exist without loss in quality
B. give in to a difficult or challenging situation
C. increase in quality and value over time
D. become lower in quality and strength

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

_____ gold is softer than silver and needs to be blended with other metals for use in jewelry, gold is more valuable than silver.

A. Thus
B. Such as
C. Ultimately
D. Although

8. How can a jeweler determine what type of metal something is?

_____

_____

_____

9. What is an alloy? Why do jewelers use alloys in jewelry?

10. Explain why jewelers need to understand the properties of different materials in order to make jewelry. What might happen if a jeweler did not have this knowledge? Support your answer using information from the passage.

6th Grade
NTI Day 7

Mrs. King	Reading	Non-Fiction Reading: *The Coliseum*
Mr. Simpson	Math	Understanding Ratios
Mrs. Overbay	Social Studies	Social Study Skills: *Analyzing Bar Graphs*
Mrs. Mike	Science	Chemistry: *The Atom*

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MTI Day #7 - King

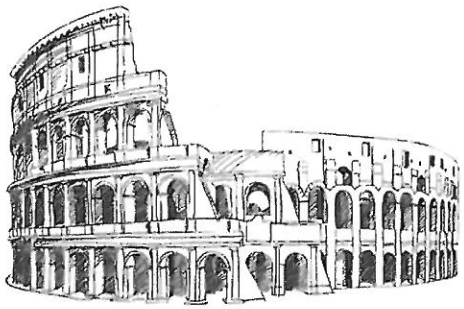
Name: _____

Nonfiction Reading Test

The Coliseum

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

The Coliseum is an ancient stadium in the center of Rome. It is the largest of its kind. It is very old. They started building it in the year 70. It took ten years to build. It is still around today.



A sketch of the Coliseum

The Coliseum has been used in many ways. In ancient Rome, men fought each other in it. They fought against lions, tigers, and bears. Oh my! It was dreadful. But most of the people loved it. As many as 80,000 Romans would pack inside to watch. These gruesome events went on until 523.

The Coliseum has been damaged many times over the years. It was struck by lightning in the year 217. This started a fire. Much of the Coliseum is made of stone. But the fire damaged the upper levels. They were made of wood. This damage took many years to repair. It was not finished until the year 240.

The worst damage happened in 1349. A mighty earthquake shook Rome and the Coliseum. The south side of the building collapsed. Pieces of the arena were all over the ground. Many people took the fallen stones. Others took stones from the seating areas. They used them to repair houses and churches.

The Romans of those days were not connected to the Coliseum. It had last been used as a castle. Before that it was a graveyard. It has been hundreds of years since the games. The damage to the Coliseum was never repaired. It's a good thing the outer wall of it still stands strong.

Today the Coliseum is one of Rome's most popular attractions. People from all over the world come to Italy to see it. The Pope leads a big march around it every Good Friday. It is a symbol that many know. It has even appeared on the back of a coin. I guess that makes it a symbol that many people want too.

MTI Day #7- King

1. Which happened first?
a. An earthquake damaged the Coliseum.
b. The Coliseum was struck by lightning.
c. The Coliseum appeared on the back of a coin.
d. The Coliseum was used as a castle.

2. When did the Romans finish building the Coliseum?
a. The year 70
b. The year 523
c. The year 80
d. The year 240

3. What caused the fire that damaged the upper levels of the Coliseum?
a. A bolt of lightning
b. Rowdy people who came to watch the events
c. An attacking army
d. An angry mob

4. For which purpose was the Coliseum **not** used?
a. People fought other people in it.
b. It was a private castle.
c. People fought animals in it.
d. It was a meeting place for the government.

5. Which caused the most damage to the Coliseum?
a. Fires
b. Earthquakes
c. Wars
d. Hurricanes

6. What did the people do with the stones that they took from the Coliseum?
a. They repaired buildings.
b. They sold them.
c. They used them as weapons.
d. They used them as tombstones.

A

7. Which best defines the word *gruesome* as it is used in the second paragraph?
a. Exciting
b. Funny
c. Horrifying
d. Boring

8. Which best describes the main idea in the last paragraph?
a. This is about all the things the Coliseum has been used for throughout history.
b. This is about how the Coliseum is a popular place to visit today.
c. This is about how the Coliseum is a symbol that many people know.
d. This is about how the Coliseum is used today.

9. Which was **not** a way in which the Coliseum was damaged over the years?
a. Earthquake
b. Tornado
c. Lightning
d. Fire

10. Which statement would the author most likely **agree** with?
a. The Coliseum should be replaced with a building that is not damaged.
b. The Coliseum has its place in history but it is not useful today.
c. The Coliseum should be used for fighting once again.
d. The Coliseum is very old and has been used for many purposes.

NTI Day # 7 - King

Why was the Coliseum repaired after the fire but not after the earthquake? Use the text in your answer.

Why did the fire only damage the upper levels of the Coliseum? Refer to the text in your answer.

Why is the Coliseum still important today? Use the text in your answer.

Day 7 Mr. Simpson NAME _____

Lesson 3.1 Understanding Ratios

A **ratio** compares 2 numbers. When written out, several phrases can show how the ratio should be written.

4 to 2	4:2	$\frac{4}{2}$ or $\frac{2}{1}$
6 out of 8	6:8	$\frac{6}{8}$ or $\frac{3}{4}$

Express each ratio as a fraction in simplest form.

	a	b
1.	15 feet out of 36 feet _____	5 pounds to 35 pounds _____
2.	48 rainy days out of 60 days _____	28 snow days out of 49 days _____
3.	10 pints to 20 pints _____	40 cups to 55 cups _____
4.	10 miles out of 12 miles _____	28 red bikes out of 40 bikes _____
5.	18 beetles out of 72 insects _____	63 gallons to 84 gallons _____
6.	49 dimes out of 77 coins _____	12 cakes out of 36 cakes _____
7.	15 students out of 30 students _____	3 floors out of 18 floors _____
8.	36 meters out of 100 meters _____	14 hats out of 20 accessories _____
9.	80 scores out of 90 scores _____	2 sports out of 19 sports _____
10.	42 cars out of 124 cars _____	7 messages out of 84 messages _____

Overbay Day 7

Name _____ Class _____ Date _____

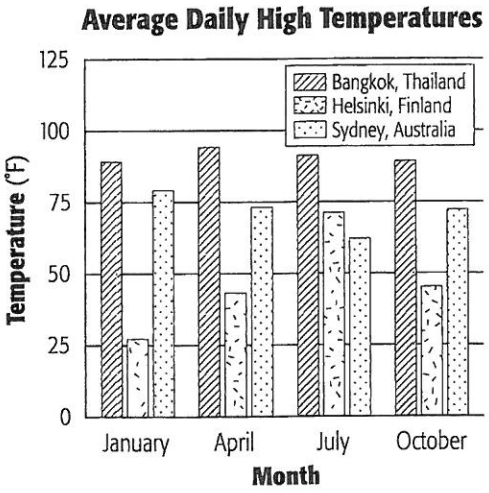
Analyzing a Bar Graph

LEARN THE SKILL

Analyzing bar graphs helps you to compare data, or information. Read the title to know the bar graph's subject and purpose. Use the labels on the bottom and side to tell what is being measured. Note if a scale, or unit of measurement, is given. Use the key, if included, to learn what the different colors or patterns mean. Finally, analyze and compare the data. Note any increases or decreases, or changes over time.

PRACTICE AND APPLY THE SKILL

The bar graph below contains data about average temperatures in three cities. Analyze the bar graph and answer the questions that follow.



1. What is the average daily high temperature in Sydney in July? In January?

_____

2. What is the average daily high temperature in Bangkok in April? In October?

_____

3. What is the approximate difference in daily average high temperature in Helsinki in January and July?

_____

4. Which city has the greatest difference in daily average high temperature over the course of a year?

_____

What Are Atoms?

NTI Day 7
Warm-Up 101

Name: _____

What are atoms, and why are they important? Atoms are tiny particles that together make any substance. They are is the tiniest bits of any substance or element. They are very small. You could fit two billion atoms on this period. It is estimated that the number of atoms in the universe is equal to 10 followed by 80 zeros. That is 10 to the 80th power. Within atoms are even tinier subatomic particles. Two kinds of particles make up the center or *nucleus* of an atom. Those particles are *protons* and *neutrons*. Protons possess a positive electric charge. Neutrons have no charge at all. Incredibly, protons and neutrons are made up of even smaller particles called *quarks*.

Particles called *electrons* whirl around the nucleus of each atom. They have a negative electric charge. Most atoms have the same number of electrons as protons.

Electrons are extremely small packages of energy. They are almost 2,000 times smaller than protons. They travel as waves, but they arrive as particles. Electrons are somewhat like clouds of energy in a shell circling the nucleus of an atom where the protons and neutrons are located. They travel around the nucleus so fast that they do not fall into the nucleus. They are stacked around the nucleus in shells like the layers of a super thin cake. They do not fly off the atom because their negative electric charge is balanced by the positive proton charge. The atomic number of an atom is the number of protons in the atom. Keep in mind that these particles are much too small to see with any microscope. Scientists know of their existence because of their behavior.

What Did You Learn ?

1. Which of these is the largest particle?
   - Ⓐ atom
   - Ⓑ proton
   - Ⓒ neutron
   - Ⓓ electron
2. Which of the following are subatomic particles?
   - Ⓐ electrons
   - Ⓑ neutrons
   - Ⓒ protons
   - Ⓓ all of the above
3. Which particle in an atom circles the nucleus of the atom?
   - Ⓐ proton
   - Ⓑ neutron
   - Ⓒ electron
   - Ⓓ all of the above
4. Which particle of an atom has a negative charge?
   - Ⓐ proton
   - Ⓑ nucleus
   - Ⓒ electron
   - Ⓓ neutron

What Am I ?

I am a word that means "smaller than or occuring within an atom."

_____ _____ _____ _____ _____ _____ _____ _____ _____

6th Grade
NTI Day 8

Mrs. King	Reading	Non-Fiction Reading: *Carnivorous Plants*
Mr. Simpson	Math	Solving Ratios
Mrs. Overbay	Social Studies	Numbers and Letters on a Map
Mrs. Mike	Science	Space Science: *The Moon in Motion*

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NTI Day #8 - King

Name: _____

Nonfiction Reading Test
Carnivorous Plants

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

Imagine that you're a fly. You're just zipping around the sky, looking for a place to rest, when you see nice pink leaf. *That looks like a nice place to land.* You think to yourself in your fly head. As you rest your feet on the leaf, you notice something strange. This leaf is hairy. You begin to make your move, but you trigger the plant's reflex. *Snap!* In one-tenth of a second, you are caught in the Venus flytrap. You will be digested in five to twelve days. Welcome to the world of carnivorous plants!

There are over a quarter of a millions plant species. Only 600 or so are carnivorous. We call them this because they attract, trap, and eat bugs. Like other plants, they get energy from the sun. But unlike other plants, they get their nutrients from their prey. Carnivorous plants live in bogs and places where the soil lacks nutrients. Most plants get nutrients from the soil. Carnivorous plants have turned to other sources.

The snap of the Venus flytrap is not the only way that plants eat bugs. Pitcher plants trick their prey into landing on them. They offer nectar bribes to the foolish insects that would take them. True to their name, pitcher plants have deep chambers. Their landing surface is slippery. They have inward pointing hairs, making it hard to escape. The fly lands on the pitcher plant to eat, but slips into a pit filled with digestive fluids and is eaten.

Then there're sundews. We call them sundews because they sparkle in the sun as if covered in morning dew. Of course, that sparkle is from something much more *treacherous*. It is a sweet goo called mucilage that bugs can't resist. Sundews create mucilage to attract bugs. As they fly in to eat, bugs become trapped in the very object of their desire. They soon exhaust themselves by trying to escape the mucilage. Or the sundew's tentacles, which respond to prey by curling around them, smother them. Bugs usually die in about 15 minutes. Then the plant dissolves its prey in enzymes and absorbs the nutrients.

Have you ever walked into trouble and found that you couldn't get out? So has every insect that has ever wandered into a corkscrew plant. Bugs love to investigate plants for nectar and food. Corkscrew plants have inviting stems. Curved hairs line the inside of these stems. These hairs allow insects to go up the stems, but not back. Going forward leads a chamber filled with digestive fluid, the plant's stomach. Bugs who wander into the corkscrew plant find that they are unable to escape. They must march to their own demise.

And then there are the bladderworts. They're about as nice as they sound. They live in water and float near the surface. Their traps are like small bladders hidden beneath the water. Only their flowers are visible from the surface. When bugs swim into the trigger hairs, the plant reacts. A trapdoor in the bladder opens up. The bladder sucks up the prey and the water surrounding it. A tenth of a second later, the bladder shuts again. The plant has trapped the prey. It releases digestive fluids. The prey will be digested within hours.

Carnivorous plants might sound tough, but they are difficult to keep at home. They are built to survive in places that other plants cannot. This specialization comes at a cost. They have a hard time adapting to other environments. Their strengths become weaknesses in rich soil. They depend on the harsh yet delicate environments in which they thrive. They are not so hardy after all. Still, there's something to be said about the power of life when one finds a plant that can survive in barren soil.

NTI Day # 8- King

1. Which statement would the author most likely **agree** with?

a. There are too many species of carnivorous plants.

b. There are too few plant species in the world.

c. Only a small number of plants are carnivorous.

d. A majority of plants are carnivorous.

2. Which plant traps bugs in its stem and forces them to walk forward?

a. Corkscrew plants

b. Sundews

c. Bladderworts

d. Pitcher plants

3. Which of the following statements is **false**?

a. Carnivorous plants get their energy from eating bugs.

b. Carnivorous plants do not get nutrients from the soil.

c. Carnivorous plants get their energy from the sun.

d. Carnivorous plants get their nutrients from eating bugs.

4. Which event happens **last** when a sundew eats a meal?

a. The sundew creates mucilage.

b. The sundew's tentacles curl in response to the prey.

c. The bug is attracted to the mucilage.

d. The sundew releases enzymes.

5. Which best expresses the main idea of the **third** paragraph?

a. There are more types of carnivorous plants than the Venus fly trap.

b. The pitcher plant tricks bugs into falling into its stomach.

c. The Venus flytrap kills its prey in a various ways.

d. Some plants attract bugs by offering them nectar.

6. Which best defines the word *treacherous* as it is used in the **fourth** paragraph?

a. Something that provides nutrients.

b. Something that is very bright.

c. Something that tastes delicious.

d. Something that has a hidden danger.

7. Which best describes the overall text structure of the second paragraph?

a. Chronological order

b. Compare and contrast

c. Sequential order

d. Spatial

8. Which statement would the author most likely **disagree** with?

a. Carnivorous plants cannot thrive in rich soil.

b. Bladderworts react quickly when their trigger hairs are bumped.

c. Carnivorous plants are tough and can live in any environment.

d. Bladderworts hide their traps just below the surface of the water.

MTI Day #8 - King

9. Which best expresses the main idea of the **last** paragraph?

a. Carnivorous plants are not hard to take care of because they feed themselves.

b. Carnivorous plants are delicate because they need certain conditions to survive.

c. Carnivorous plants are difficult to keep at home, but you should keep trying.

d. Carnivorous plants are inspirational and they are interesting to watch and own.

10. Which title best expresses the author's main purpose in writing this text?

a. *Watch Out! How To Avoid Being Eaten by Carnivorous Plants*

b. *At Risk: How You Can Help to Preserve Carnivorous Plants*

c. *Venus Flytrap: Nature's Most Beautiful and Dangerous Plant*

d. *Fatal Flowers: Plants That Kill Insects*

Long Response

1. In what ways are carnivorous plants stronger and more resilient than other plants? In what ways are they weaker? Answer both parts of the question and support your answer with quotes from the text. Explain what your quotes show.

Day 8 Mr. Simpson

NAME _____

Lesson 3.2 Solving Ratios

The missing number can appear any place in a proportion.
Solve the same way.

$\frac{2}{3} = \frac{6}{n}$	$\frac{3}{5} = \frac{n}{10}$	$\frac{3}{n} = \frac{6}{8}$	$\frac{n}{4} = \frac{3}{6}$
$3 \times 6 = 2 \times n$	$3 \times 10 = 5 \times n$	$3 \times 8 = 6 \times n$	$4 \times 3 = 6 \times n$
$\frac{18}{2} = n$	$\frac{30}{5} = n$	$\frac{24}{6} = n$	$\frac{12}{6} = n$
$9 = n$	$6 = n$	$4 = n$	$2 = n$

Solve.

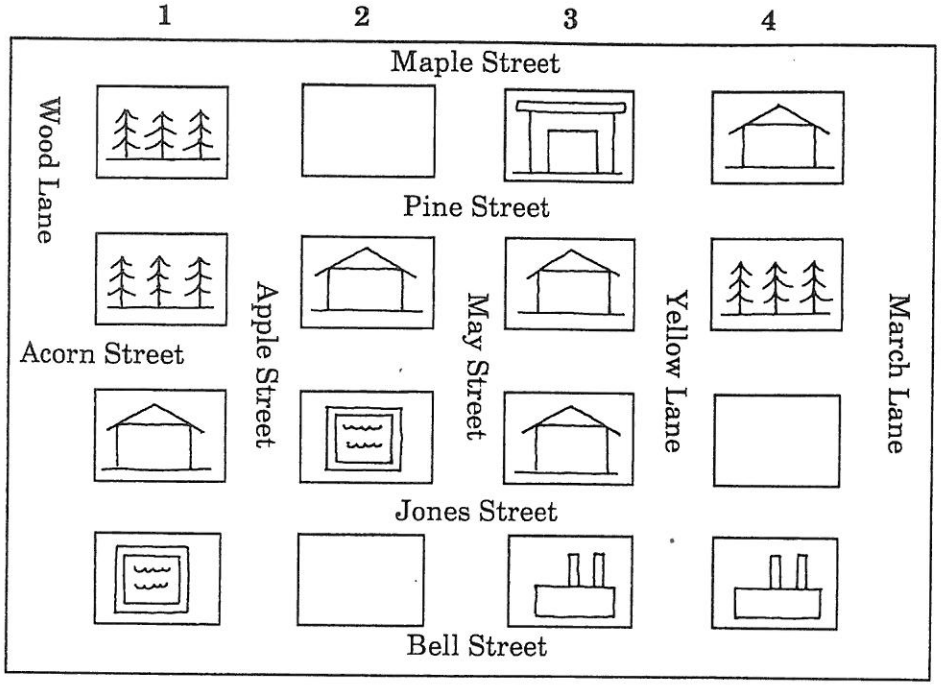
	a	b	c
1.	$\frac{n}{3} = \frac{3}{9}$ _____	$\frac{5}{3} = \frac{15}{n}$ _____	$\frac{2}{n} = \frac{1}{4}$ _____
2.	$\frac{15}{30} = \frac{2}{n}$ _____	$\frac{4}{6} = \frac{n}{24}$ _____	$\frac{n}{7} = \frac{15}{21}$ _____
3.	$\frac{6}{n} = \frac{15}{20}$ _____	$\frac{n}{12} = \frac{9}{18}$ _____	$\frac{9}{2} = \frac{27}{n}$ _____
4.	$\frac{7}{9} = \frac{n}{63}$ _____	$\frac{15}{n} = \frac{12}{4}$ _____	$\frac{40}{100} = \frac{n}{25}$ _____
5.	$\frac{35}{n} = \frac{4}{8}$ _____	$\frac{16}{4} = \frac{36}{n}$ _____	$\frac{n}{12} = \frac{25}{30}$ _____

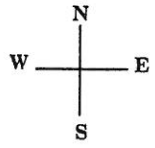
Week 8 Day 3

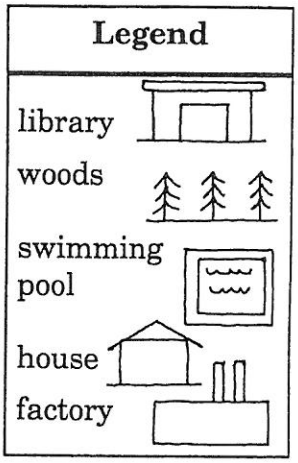
Numbers and Letters on a Map

Name _____

This is a map of Red Falls. Use the numbers and letters to help you answer the questions.







1. Locate these blocks. Write down what you see in each block.
   "A 1" _____ "C 1" _____
   "D 4" _____ "D 1" _____
   "B 2" _____ "A 3" _____
2. Name the blocks with swimming pools. _____
3. Name the blocks with houses. _____
4. Name the blocks with woods. _____
5. Tell what is located in the first block south of "A 3." _____
6. What is in the block south of "C 1"? _____
7. How many houses are in "B 2"? _____
8. How many houses altogether are in the "C" blocks? _____
9. What is in the block east of "B 3"? _____
10. What is in the block west of "D 4"? _____
11. Draw a swimming pool in "A 2."
12. Draw a house in "D 2."
13. Draw a factory in "C 4."

NTI DAY 8

The Moon in Motion

Name:_____

As the moon orbits around Earth, half of its surface is lit by the Sun. The rest of the moon's surface remains in darkness. The moon appears to change shape as different sections of the moon are lit by sunlight. When the moon is positioned between Earth and the Sun, the lit side faces away from Earth. In this "new moon" phase, the side facing Earth is dark.

However, as the moon continues its orbit around Earth, more of the lit part of the moon's surface becomes visible. First, there is a small crescent, or sliver, of light visible. It is shaped like a curved sword. As the sliver of light gets larger every night, the crescent gets larger. As the lit portion "waxes," or grows, each night, more of the surface seems to swell into view. This "gibbous," or humped or swollen, area grows until a full moon is visible about two weeks after the new moon.

The lit portion of the moon then appears to gradually shrink or "wane" through a gibbous stage and a crescent stage. Then, another new moon appears when no light is visible. Despite the changes in the amount of observable light, the same side of the moon is always facing Earth. The moon's schedule is the basis for the concept of a month. Some years there are 12 full moons. In others there are 13 full moons. It takes almost 30 days for the moon to go through all of its stages.

What Did You Learn ?

1. In what phase of the moon is the side facing Earth dark?
   - Ⓐ crescent
   - Ⓑ new moon
   - Ⓒ gibbous
   - Ⓓ both A and C
2. Which word means "humped" or "swollen"?
   - Ⓐ crescent
   - Ⓑ gibbous
   - Ⓒ new
   - Ⓓ moon
3. Which phase comes after the new moon?
   - Ⓐ waxing crescent
   - Ⓑ waning crescent
   - Ⓒ waxing gibbous
   - Ⓓ waning gibbous
4. Which phase comes directly before a new moon?
   - Ⓐ waning crescent
   - Ⓑ full moon
   - Ⓒ waning gibbous
   - Ⓓ waxing gibbous

What Am I ?

I look like a sliver of light in the night sky.

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____

6th Grade
NTI Day 9

Mrs. King	Reading	Non-Fiction Reading: *Black Friday*
Mr. Simpson	Math	Decimals in Addition and Subtraction
Mrs. Overbay	Social Studies	*Robert D. Ballard*
Mrs. Mike	Science	Geology: *Plate Tectonics*

****Email availability from 9am to 4pm****

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NTI Day # 9 - King

Name: _____

Nonfiction Reading Test
Black Friday

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

The day after Thanksgiving is the start of the holiday shopping season. Thanksgiving is always on a Thursday, so the day after is a Friday. This day has come to be known as Black Friday. It has been the busiest shopping day of the year since 2005.

Most stores offer great deals on Black Friday. They open their doors in the wee hours of the morning. They try to attract shoppers with big discounts. Some items like TVs are much cheaper than usual. Stores may even lose money on these items. They hope that shoppers will buy gifts for other people while they are in the store.

Black Friday is a great time to get good deals. The problem is that there are not enough low-priced items to go around. Each store may only have a few. These items are in high demand. People stand in long lines to get such great deals. They may line up hours before a store opens. They may be hoping to get a low price on a TV or laptop, but not everyone who wants one will get one. Some people leave disappointed.

The situation can be tense. Some Black Friday events have been violent. Large, eager crowds have trampled workers. Fights have broken out over toys or people cutting in line. People have shot one another over parking spots. But most Black Friday events are safe and fun. Still, if you plan on going, expect large crowds and a bit of shoving.

So where does the name "Black Friday" come from? It was first used in Philadelphia in the 1950s. The police called this day Black Friday because of the heavy traffic it drew. In the 1960s, stores tried to rename the day "Big Friday." It did not stick. The name "Black Friday" continued to spread across the country. It seems that it is here to stay.

Now people all over the country take part in the event known as Black Friday. It is even spreading to other parts of the world. Stores have held Black Friday events in the U.K., Australia, and Brazil since 2012. In Costa Rica Black Friday is known as "Viernes Negro." And in Mexico, stores offer an annual weekend of discounts. They call it "El Buen Fin," which means "the good weekend" in Spanish. I guess the language of savings is universal.

MTI Day #9- King

1. According to the text, why do stores set prices so low on some items that they lose money?
a. They want people to enjoy the holidays.
b. They hope people will buy other gifts while they are in the store.
c. They are in a giving mood because the holiday season is just beginning.
d. They are trying to get rid of old items from last year to make room for new items.

2. Which is **not** true about Black Friday?
a. Black Friday is always the day after Thanksgiving.
b. Black Friday is the busiest shopping day of the year.
c. Black Friday is a national holiday.
d. Black Friday is the start of the holiday shopping season.

3. Where does the name Black Friday come from?
a. The police called this day Black Friday because there is a lot of traffic.
b. The stores called this day Black Friday because it is a serious shopping day.
c. The police called this day Black Friday to remember the victims of violence.
d. The stores called this day Black Friday because they make a lot of money.

4. Which best explains the main idea of the third paragraph?
a. People stand in long lines on Black Friday.
b. Black Friday is the best time of the year to get good deals.
c. Black Friday is a really disappointing time of the year.
d. Black Friday deals are limited and not everyone will get one.

5. Which country does **not** participate in Black Friday?
a. France
b. Costa Rica
c. Brazil
d. United Kingdom

6. Which happened first?
a. Stores tried to rename the day after Thanksgiving "Big Friday."
b. Black Friday events began happening in Australia.
c. Police began calling the day after Thanksgiving "Black Friday."
d. Black Friday became the busiest shopping day of the year.

7. Which title best expresses the author's purpose in writing this text?
a. *Black Friday: Stories from the Parking Lot*
b. *Black Friday: Why You Should Go This Year*
c. *Black Friday: The Stuff That You Should Know*
d. *Black Friday: How to Save Money on the Big Day*

8. Which best describes the overall structure of the fifth paragraph?
a. chronological order
b. problem and solution
c. compare and contrast
d. order of importance

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9. Which was **not** cited as one of the downsides of Black Friday?
a. Stores run out of high demand items quickly.
b. Nobody really saves any money on Black Friday.
c. There are large crowds and lots of shoving.
d. Sometimes violence occurs at Black Friday events.

10. Which best explains why Costa Ricans call Black Friday "Viernes Negro"?
a. Costa Rican stores don't want the shopping day associated with American violence.
b. *Viernes Negro* sounds more exotic and exciting than *Black Friday*.
c. Costa Ricans want to establish their own shopping tradition.
d. This is how you say "Black Friday" in Spanish, the language of Costa Rica.

Long Response Questions

How do stores try to lure shoppers during Black Friday events? Use the text to support your response.

Why is Black Friday a frustrating experience for some people? Refer to the text in your answer.

Day 9 MR. Simpson

Practice

Directions: Use your decimal skills to answer these questions.

1. A big-bend gecko is 16.8 centimeters long. A yellow-headed gecko is 8.9 centimeters long. How much longer is the big-bend gecko? _____

2. A gray-banded kingsnake is 120.7 centimeters long. A common kingsnake is 208.3 centimeters long. How much longer is the common kingsnake? _____

3. A green water snake is 187.75 centimeters long. A plain-bellied water snake is 157.5 centimeters long. How much shorter is the plain-bellied water snake? _____

4. A tiger rattlesnake is 91.39 centimeters long. A Mojave rattlesnake is 129.5 centimeters long. What is their combined length? _____

5. One Western rattlesnake is 162.6 centimeters long. Another of the same species is 41.66 centimeters long. What is their combined length? _____

6. One brown water snake is 175.3 centimeters long, another is 71.23 centimeters long, and a third is 101.333 centimeters long. What is the total length of the three snakes? _____

7. An Eastern hognose snake is 114.49 centimeters long. A western hognose snake is 89.5 centimeters long. What is the difference in length? _____

8. A many-lined skunk is 19.399 centimeters long. A prairie skunk is 20.6 centimeters long. What is the difference in length? _____

9. A racerunner is 26.7 centimeters long. A New Mexican whiptail is 30.199 centimeters long. What is their combined length? _____

10. One Western fence lizard is 15.222 centimeters long. Another is 23.444 centimeters long. A third is 20.997 centimeters long. What is their total length? _____

11. A chuckwalla is 41.889 centimeters long. A short-horned lizard is 14.9 centimeters. How much longer is the chuckwalla? _____

12. A common iguana is 200 centimeters long. A Texas-horned lizard is 18.09 centimeters long. How much longer is the iguana? _____

Overbay
Day 9

Name _____ Class _____ Date _____

Robert D. Ballard

1942–

HOW HE AFFECTED THE WORLD In addition to discovering deep-sea creatures, undersea volcanoes, and famous lost ships, Robert Ballard has helped thousands of students become interested in science.

© Reuters

As you read the biography below, think about personal qualities such as perseverance that a successful explorer needs.

Oceans cover more than seventy percent of the Earth. As an explorer, naval officer, scientist, author, and educator, Robert Ballard has spent his life uncovering secrets that lie deep beneath the surface.

Ballard was born in Wichita, Kansas, but his family soon moved to San Diego, California. There he spent much of his time playing on the beach and exploring **tidal pools**. "The ocean was my friend—my best friend," Ballard remembers. He also remembers being fascinated by Jules Verne's science-fiction tale *20,000 Leagues Under the Sea.* He dreamed of sailing with the book's hero, Captain Nemo, in his fantastic submarine.

Ballard studied marine geology and **geophysics** in college. In 1967 he joined the U.S. Navy and helped make maps of the ocean floor. He also made his first dive in a submarine. Later he explored undersea mountains in a **submersible**. In 1977 Ballard used a submersible to explore an area near the Galápagos Islands. There he discovered giant worms and other creatures that live in places much deeper than people had thought possible. He later discovered underwater volcanoes off the coast of Baja California in Mexico.

VOCABULARY

tidal pools low, rocky areas that remain full of water at low tide

geophysics the study of the effects that physical forces (wind, earthquakes, tides, etc.) have on the earth

submersible an underwater vehicle that can travel deeper than a submarine

archaeology the study of life in past cultures and civilizations

Ballard worked to develop robotic vehicles that used cameras to explore deep beneath the sea. In 1985 one of these vehicles helped him make his most famous discovery—the wreck of the *R.M.S. Titanic,* which sank in 1912. Since then, Ballard has found other famous lost ships.

In 1989 Ballard established the JASON project—named after the Greek mythical hero Jason—to let students participate in underwater explorations. A robotic vehicle sends signals by two-way satellite to schools all over the world. Students can see underwater images, talk to scientists, and even take the controls.

Today Ballard specializes in underwater **archaeology**. He looks forward to "a great period of exploration in the next few decades as we find missing chapters of human history and rewrite the history books."

WHAT DID YOU LEARN?

1. **Recall** How did Robert Ballard make his childhood dream come true?

_____

_____

2. **Expressing and Supporting a Point of View** What do you think was Ballard's greatest accomplishment? Provide reasons that support your opinion.

_____

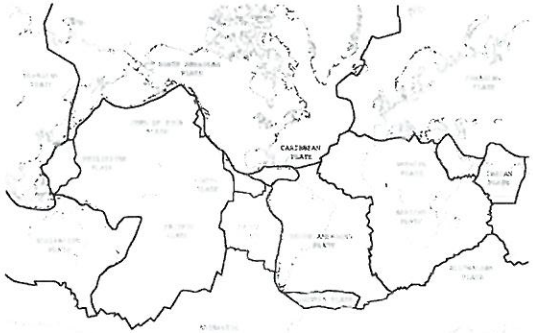
_____

ACTIVITY

Use your library or online sources to research one of Robert Ballard's expeditions to a sunken ship. Make a poster that contains details about the ship and about its discovery.

NTI Day 9

Plate Tectonics



As solid as the earth may seem, there are always parts of its crust that are moving at an incredibly slow rate. Since the 1940s and 1950s, steady advancement in technology has allowed geologists to better understand the movement of the earth's plates and how these plates work.

The surface of the earth is made up of several crustal plates. Think of a massive puzzle. Instead of little cardboard cutouts, the puzzle pieces are gigantic slabs of rock that cover the earth. This "puzzle" sits right on top of the mantle's fluid and extremely hot layer, which is made up of several elements, the most prevalent being oxygen, silicon, and magnesium. The crust is divided into two types: oceanic crust and continental crust. As you can guess, the oceanic crust is composed of the pieces that cover the ocean floor, and the continental crust forms our continents.

Oceanic Crust

You may think that the ocean floor is stationary, meaning it doesn't move. However, that's not the case at all. The ocean floor is always moving, though at a very slow rate. In the past, geologists have mapped the ocean floor. By doing so, they discovered a large mountain range that lies underwater in between continents. This mountain range is called the *mid-oceanic ridge*.

As we learned before, the mantle is found directly underneath crustal plates. Since the mantle is made of very hot material, we find "convection currents" within this layer of the earth. Hot material at the deepest part of the mantle rises, then cools once it reaches the surface, then sinks back into the mantle, only to be reheated and rise again, repeating the cycle. Convection currents in the mantle cause the oceanic ridges to rise and form mountains. This is where many scientists say new crust is being generated. The hot magma from the mantle rises up between tectonic plates and spreads outward. So, as this happens, the earth's crust moves very slowly, carrying the continents with it. How slowly? Scientists measure the "spreading rate" in units of millimeters per year, with the faster rates measuring about 80 to 120 millimeters per year.

Types of Boundaries

Convergent boundaries are points at which tectonic plates move into one another. This can result in the formation of mountain ranges (like the Himalayas) as continental plates push against one another. Or it can result in something called subduction, where one plate rises over another as they collide, and the other sinks underneath. This also can form a mountain range, just in a different process. The plate that slowly slips underneath the other plate then melts in the mantle.

Divergent boundaries, on the other hand, are boundaries at which plates are pushed away from one another. These occur both in the ocean and on land. In the ocean, hot magma from within the earth rises out from deep-sea trenches where the plates are pushed farther away from each other. On land, plates are pulled apart as part of a chain reaction beginning with the movements happening in the ocean. The Great Rift Valley in Africa is an example of this. If the plates continue to be pulled apart there, eastern Africa can split from the continent to form a new landmass. But that won't take place for millions of years since the process happens so slowly.

The last type is a transform boundary, one that involves plates sliding against each other. The San Andreas Fault in California is an example of this. The motion of tectonic plates sliding against one another can sometimes cause earthquakes, some quite large and devastating. Transform boundaries are also called strike-slip faults due to the motion they make. This type of relatively fast plate movement that causes earthquakes is the only one we can really feel. Since the other plate shifts are so slow and gradual, we don't feel them.

Pangaea

Scientists have discovered that our continents were not always the same shape or in the locations they are in now. Our continents have changed and drifted closer together or farther apart over the course of billions of years. The most recent time when all the continents were part of the same landmass happened about 300 million years ago. Scientists have named this huge landmass Pangaea, calling it a "super-continent." It existed when dinosaurs roamed our planet. Seventy million years later, Pangaea started to shift apart. When this happened, it broke into two pieces: Laurasia and Gondwana. Laurasia later broke up into Eurasia and North America, while Gondwana separated into Australia, South America, Africa, and Antarctica to make our earth look like it does today. And since our continents are still drifting, it is very possible that we will have another super-continent hundreds of millions of years from now.

What information supports all of this? If you look closely at a map of the earth, you can kind of see where the continents possibly used to fit together. South America looks like it could slide right into Africa and the two would fit together. So scientists began to speculate. But it wasn't enough to assume our continents were once a single landmass just because they look like they could fit together. Therefore, scientists began looking at fossils on different continents. They found similar fossils on Australia and southern Asia. They also found that there were very similar types of rock on the western coast of Africa and the eastern coast of South America. The support lay in the fossils of the animals and plants on the different continents. We can only wonder what the earth will look like in another hundred million years!

Name: _____ Date: _____

1. What are the two types of crust on the earth's surface?

A. continental and silicon

B. transform and oceanic

C. oceanic and continental

D. divergent and convergent

2. What does the author compare the earth's surface to?

A. dinner plates

B. a massive puzzle

C. the ocean

D. an earthquake

3. Crustal movements can be dangerous to humans.

What evidence from the text supports this conclusion?

A. Plate movement at transform boundaries can sometimes cause earthquakes, some quite large and devastating.

B. Plate movement at convergent boundaries can result in the formation of mountain ranges like the Himalayas.

C. The spreading rate of some continents can reach 120 millimeters per year.

D. As solid as the earth may seem, there are always parts of its crust moving at incredibly slow rates.

4. Crustal movements in one location can affect locations far away.

What evidence from the text supports this conclusion?

A. Steady advancement in technology has allowed geologists to better understand plate tectonics.

B. The mantle is made up of elements like oxygen, silicon, and magnesium.

C. Geologists mapped the ocean floor and discovered the mid-oceanic ridge.

D. Divergent boundaries in the ocean create a chain reaction that pulls plates apart on land.

5. What is the main idea of this text?

A. Pangaea was a "super-continent" that existed about 300 million years ago.

B. Plate tectonics cause the earth's surface to shift and change in various ways.

C. Scientists discovered similar fossil types and rock types on different continents.

D. Crustal movements create convergent, divergent, and transform boundaries.

6. Read this sentence from the text.

"As you can guess, the oceanic crust is composed of the pieces that cover the ocean floor, and the continental crust forms our continents."

As used in the text, what does the word "composed" mean?

A. studied

B. divided

C. made up

D. shifted

7. Choose the answer that best completes the sentence.

The continents are slowly but constantly changing in location. _____, the continents used to form a single landmass called Pangaea but gradually drifted apart.

A. For example

B. Currently

C. Including

D. Above all

8. What are convection currents?

_____

_____

_____

9. How do convection currents help form underwater mountains?

10. Explain two ways in which changes on the earth's surface are connected to changes below the earth's surface.

Support your answer with evidence from the text.

6th Grade
NTI Day 10

Mrs. King	Reading	Non-Fiction Reading: *Hummingbirds*
Mr. Simpson	Math	Single and Double Bar Graphs
Mrs. Overbay	Social Studies	*What Is a Political Map?*
Mrs. Mike	Science	Geology: *Meet Pangaea or "All Land"*

****Email availability from 9am to 4pm****

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NTI Day #10 - King

Name: _____

Nonfiction Reading Comprehension Test
Hummingbirds

Directions: Read the following passage and answer the questions that follow. Refer to the text to check your answers when appropriate.

Have you ever heard the sound of a hummingbird? They make a buzzing noise when they fly. They make this noise because they beat their wings so fast. They beat their wings up to 80 times a second. All that flapping makes a lot of noise. That's why we call them hummingbirds.

Hummingbirds fly in a unique way. They move their wings so fast that they can hover. This means that they can stay in one spot in the middle of the air, like a helicopter. Sometimes they fly or hover upside down. They are the only bird that flies backward.

Hummingbirds are small. One type called the bee hummingbird is the smallest bird in the world. Bee hummingbirds weigh less than a penny. They are just a little bit bigger than bees. I guess that's where they get their name.

Bee hummingbirds build tiny nests. They use cobwebs and bits of bark to make their homes. Their homes are only an inch around. This is big enough for their eggs though. Their eggs are smaller than peas. People have found these tiny nests on a clothespin.

Hummingbirds move fast. It takes lots of energy to move as fast as they do. This means that they need to eat a lot of food. Their favorite food is nectar, a sweet liquid inside of some flowers. They drink more than their own weight in nectar daily. They have to visit hundreds of flowers to get enough nectar to live. They can only store enough energy to survive through the night. They live on the edge.

Hummingbirds don't use their long beaks like straws. They have a tongue just like you. They use their tongues for eating. They flick their tongues in and out of their mouths while inside of flowers. They lap up nectar. Flowers give them the energy that they need.

Hummingbirds help flowers too. They get pollen on their heads and bills when they feed. Flowers use pollen to make seeds. Hummingbirds help pollen get from one flower to the next. This helps flowers make more seeds. More seeds means more flowers. More flowers means more food for hummingbirds. Isn't it nice how that works out?

NTI Day # 10 – King

1. Why are they called hummingbirds?
a. They are very light
b. They sing when they fly
c. Their wings make a humming sound
d. Their song sounds like humming

2. How do hummingbirds eat?
a. They drink nectar through their beaks like a straw.
b. They chew up flower petals with their beaks.
c. They use their heads and bills to eat pollen.
d. They lap up nectar with their tongues.

3. How do hummingbirds help flowers?
a. They drink nectar.
b. They eat pollen.
c. They bring pollen from one flower to the next.
d. They plant seeds.

4. According to the text, which does the bee hummingbird use to make nests?
a. straw
b. concrete
c. bark
d. sticks

5. Which best describes the main idea of the fifth paragraph?
a. Hummingbirds move fast.
b. Hummingbirds like to eat nectar.
c. Hummingbirds use lots of energy and eat often.
d. Hummingbirds drink their own weight in nectar every day.

6. Which statement about bee hummingbirds is **not** true?
a. Bee hummingbird eggs are smaller than peas.
b. Bee hummingbirds weigh less than a penny.
c. Bee hummingbirds have built nests on clothespins.
d. Bee hummingbirds do not grow larger than bees.

7. What is unique about the way that hummingbirds fly?
a. They can fly faster than any other bird.
b. They can fly longer than any other bird.
c. They can fly forward and backward.
d. They can only fly for a few seconds at a time.

8. Which best defines the word ***hover*** as used in paragraph two?
a. To stay in one spot in the air
b. To clean an area thoroughly
c. An animal that has hooves
d. To move your wings very fast

9. Why do flowers need pollen?
a. Flowers eat pollen.
b. Pollen attracts hummingbirds.
c. Hummingbirds eat pollen.
d. Flowers use pollen to make seeds.

10. Which title best describes the main idea of this text?
a. *Bee Hummingbirds: The World's Smallest Bird*
b. *Pollination: How Birds and Flowers Work Together*
c. *Hummingbirds: Unique and Uniquely Helpful*
d. *Interesting Facts About Birds*

MTI Day # 10 - King

1. **How do flowers and hummingbirds benefit each other?** Refer to the text to support your answer.

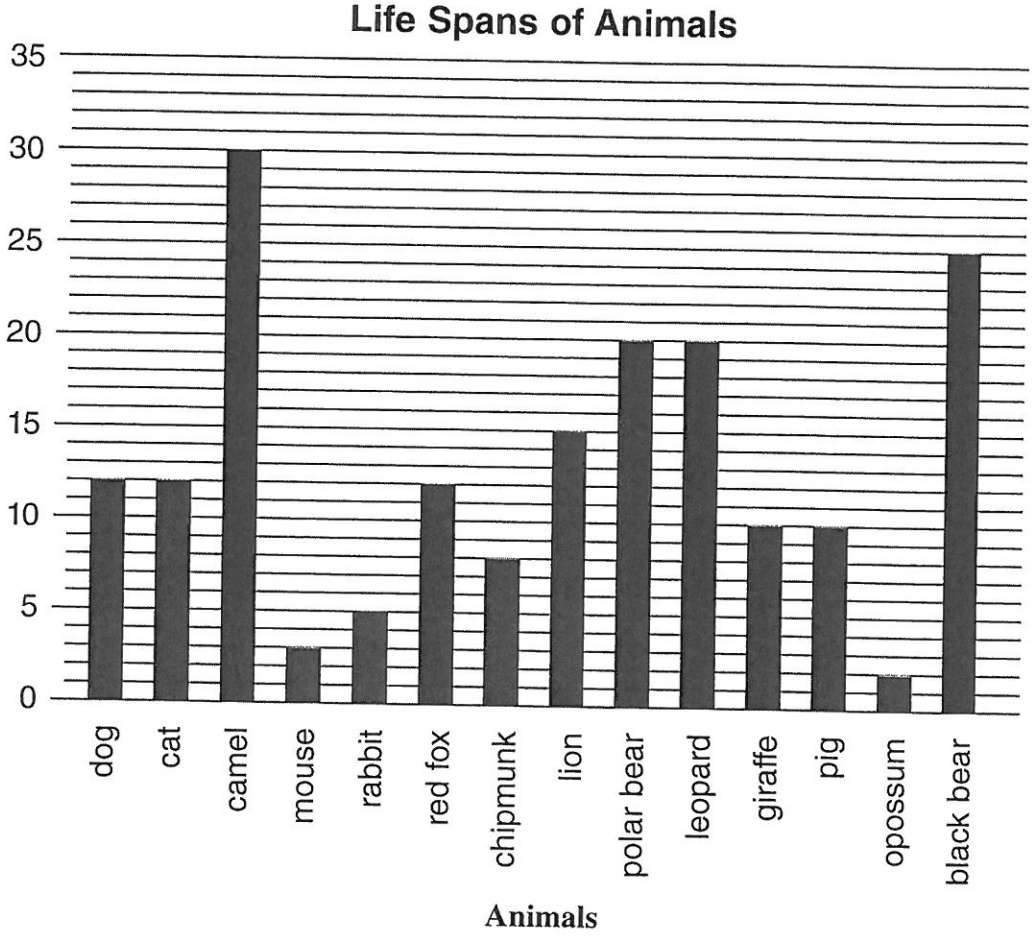
2. **Why does the hummingbird have to eat so often?** Refer to the text to support your answer.

3. **Why is the ability to hover useful to a hummingbird?** Refer to the text to support your answer.

Day 10 MR. Simpson

Practice 19

This single bar graph illustrates the life spans of various animals. Study the graph and use the information to answer the questions below.



1. Which animal on the graph has the longest life span? _____
2. Which three animals live about 12 years? _____
3. How many more years does a black bear live than a polar bear? _____
4. Which animal lives as long as a giraffe? _____
5. How much longer does a leopard live than a mouse? _____
6. How long does a lion live? _____
7. How much longer does a red fox live than a chipmunk? _____
8. How much longer does a cat live than a mouse? _____
9. The average life span of an American is about 75 years. How much longer does a person live than a polar bear? _____
10. How much longer does a person live than a rabbit? _____

What Is a Political Map?

Name _____

1. What do these three symbols stand for on this map?
   - A. ★ _____
   - B. ● _____
   - C. ---- _____
2. The _____ forms the boundary between Missouri and Illinois.
3. _____ forms the boundary between Wisconsin and Michigan.
4. The eastern boundary of North Dakota is formed by the _____.
5. Ohio's western boundary is formed by the state of _____.
6. The southern part of Iowa is bordered by the state of _____.
7. What are the capital cities of these states?
   - A. Kansas _____
   - B. Indiana _____
   - C. Wisconsin _____
   - D. North Dakota _____
   - E. Michigan _____
   - F. Illinois _____
8. The _____ River is north of Indianapolis.
9. Name the four lakes shown on this map. _____
10. Name the river which cuts South Dakota in half. _____
11. The northeastern border of Michigan is formed by Lake _____.
12. Chicago is on the coast of Lake _____.

Meet Pangaea or "All Land"

NTI Day 10

Warm-Up 149

Name: _____

About 250 million years ago, it is believed that there was only one landmass. There was only one giant continent. It contained the area occupied by all of the continents today. Today, geologists call that giant landmass *Pangaea*. It means "all land." They call the single ocean that surrounded that landmass Panthalassa. This translates to "all seas." Pangaea occurred long before the time of the dinosaurs or flowering plants. For about 50 million years, this massive landmass remained connected.

Then, about 200 million years ago, Pangaea began to pull apart. It formed two giant landmasses, or super continents. Modern geologists have named them Gondwana and Laurasia. About 135 million years ago, these two large landmasses began to separate into the seven continents we know today. Continents and oceans today sit on Earth's crust that is divided into about 15 pieces called *tectonic plates*. These plates are constantly moving and pushing against each other.

In 1912, polar researcher Alfred Wegener first seriously suggested the idea that the continents actually drifted apart. At first, the idea was regarded as ridiculous. However, there was already evidence that some rocks in Africa and South America were very similar. Fossil evidence also supported the idea. Tropical reptile fossils of an ancient 200-million-year-old creature called *Lystrosaurus* have been found on several continents, including Africa, Asia, India, and even Antarctica. Nearly identical fern fossils were found in Australia and India.

Today, satellites can measure the exact movement of the tectonic plates. For example, South America is moving about eight inches a year farther apart from Africa. New York City is moving farther from London at a rate of one inch a year.

What Did You Learn ?

1. What was the name of the giant landmass that existed 250 million years ago?
   - Ⓐ Laurasia
   - Ⓑ North America
   - Ⓒ Gondwanaland
   - Ⓓ Pangaea
2. What allows land masses to gradually move?
   - Ⓐ lava
   - Ⓑ wind
   - Ⓒ tectonic plates
   - Ⓓ the oceans
3. If you think about the continents, which two appear to fit together and support the theory of continental drift?
   - Ⓐ North and South America
   - Ⓑ Africa and South America
   - Ⓒ Asia and North America
   - Ⓓ Asia and Antarctica
4. How far from Africa does South America drift each year?
   - Ⓐ 8 feet
   - Ⓑ 8 miles
   - Ⓒ 100 miles
   - Ⓓ 8 inches

Who Am I ?

I developed the theory of continental drift.

___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___