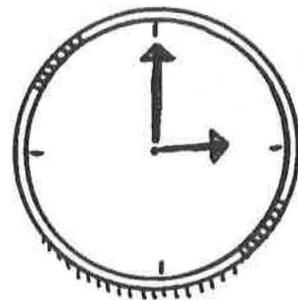


MINUTE 11

Math
6-8
Day 11

NAME _____

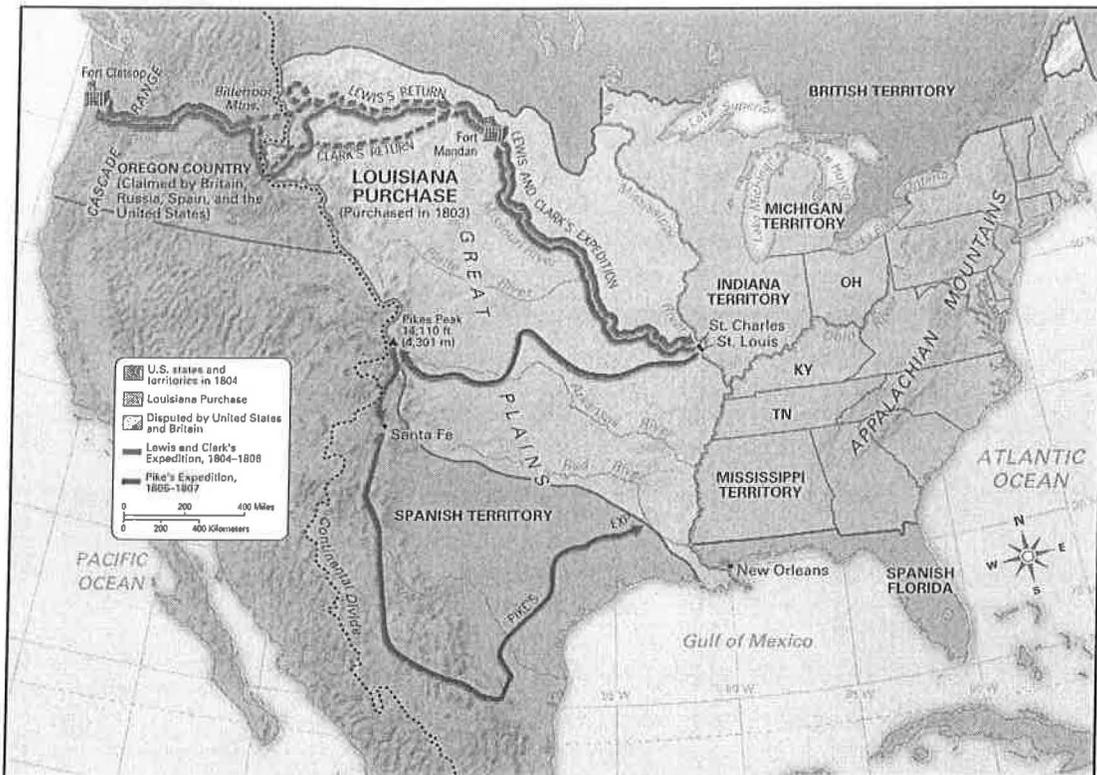
1. If $a + 15 = 19$, then $a =$
2. If $b = 2$, then $b^3 =$
3. $8(4 + 3) =$
4. $10 + 4 \times 2 =$
5. Five cars have how many wheels altogether? _____
6. If $3n = 18$, then $n =$
7. $50 \times 50 =$
8. Eight squared is _____.
9. If $y - 4 = 11$, then $y =$
10. What time is shown on the clock? _____



Pike Explores the Southwest

6-8
Day 11

Zebulon Pike set out in July 1806 to explore the Arkansas and Red rivers. He was near the upper Rio Grande when Spanish officials arrested him for spying. The Spanish eventually took him to Natchitoches, Louisiana, where they released him.



MAP ACTIVITY

1. On the map, label the Louisiana Territory and use a light color to shade the area.
2. Use a bright color to trace the route of the Lewis and Clark expedition.
3. Use a second color to trace the route of Pike's expedition. Then circle the name of the city where Pike began his trip and the name of the mountain he tried to climb.
4. Update the map legend to reflect the colors you added to the map.

ANALYZING MAPS

1. Movement How many miles did Pike travel from St. Louis to Pikes Peak?

2. Location What rivers did Pike cross during his journey?

3. Compare and Contrast How was Pike's expedition similar to Lewis and Clark's expedition? How did the two expeditions differ?

4. Human/Environment Interaction Based on the map, what were some of the challenges that Pike faced during his expedition?

EXTENSION ACTIVITY

You are a newspaper reporter at the time that Zebulon Pike returns from his expedition. Write a short newspaper article describing his expedition and return. Make your article exciting while keeping it historically accurate. Make certain you describe the places where Pike went during his expedition.

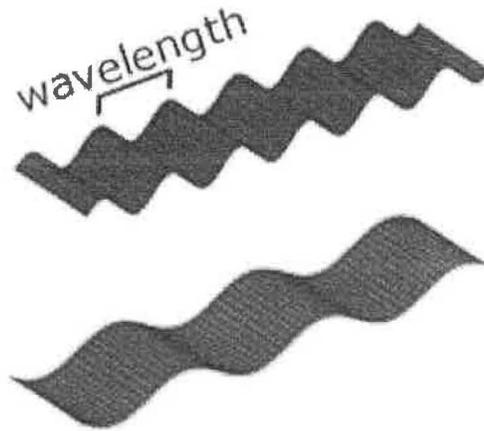
Why Is the Sky Blue?

by Dr. Hany Farid

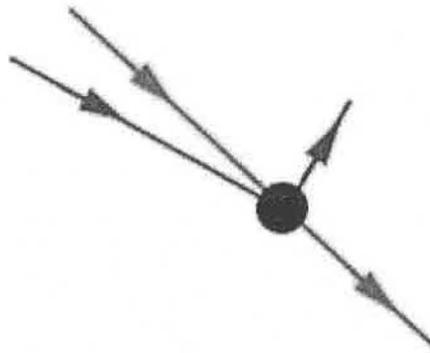
6-8 Science
Day 11

Gas molecules in the atmosphere scatter, in all directions, the short wavelength light that appears blue to us. Longer wavelength light is largely unaffected as it passes through the atmosphere. As a result, when you look at the sky, you see blue everywhere. Read on for a more detailed explanation.

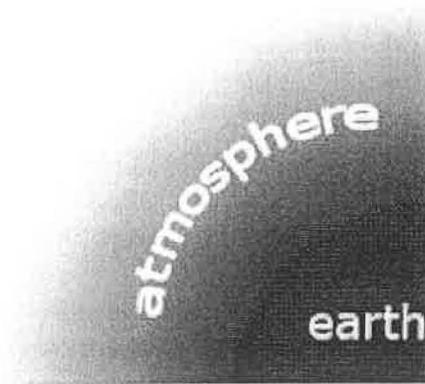
Fact 1. Light travels in waves. The light's wavelength determines its color. Short wavelength light, for example, appears blue, and long wavelength light appears red.



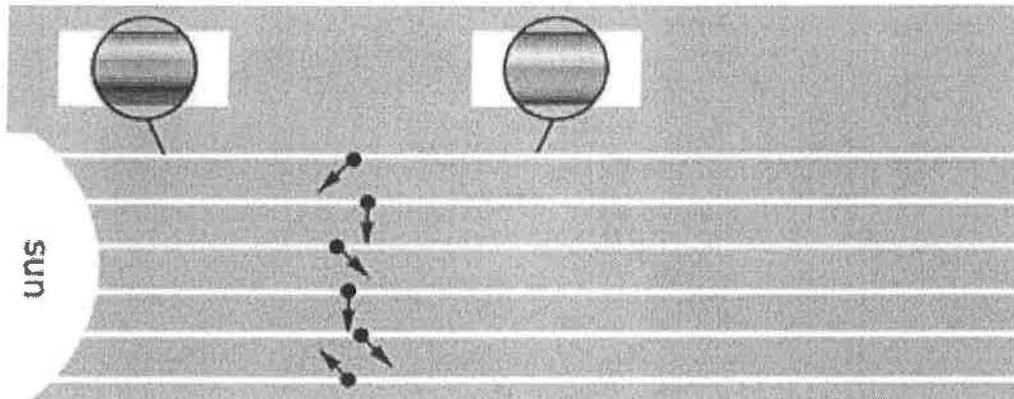
Fact 2. When light strikes particles that are larger than its wavelength, the light's path may be altered. When light strikes particles that are smaller than its wavelength, the light continues to travel unaffected.



Fact 3. The atmosphere contains many particles and gases, mainly nitrogen and oxygen.



Sunlight is composed of light of many different wavelengths. Longer wavelength light appears red, orange, and yellow, while shorter wavelength light appears blue, indigo and violet. The gas molecules in the atmosphere scatter, in all directions, shorter wavelength light (e.g., blue). The longer wavelength light (e.g., red) is largely unaffected by the atmosphere. As a result, when you look at the sky, you see the blue portion of the sun's light being scattered by the atmosphere. If you were to look at the sky while standing on the moon, you would see a very bright star surrounded by complete darkness. This is because the moon has no atmosphere and so sunlight is not scattered.



You might wonder why the sky is not the color of the even shorter wavelength violet. The primary reason for this is that our eyes are better at detecting blue light than they are at detecting violet light.

Name: _____ Date: _____

1. What color might short wavelength light appear to us?

- A. green
- B. blue
- C. red
- D. orange

2. This text describes what happens when light hits particles of different sizes. Why might the text include this description?

- A. to persuade the reader to agree with the author about how light and particles interact
- B. to present evidence for different views about how light and particles interact
- C. to inform the reader about how light and particles interact
- D. to compare and contrast two ideas about how light and particles interact

3. When light strikes particles that are larger than its wavelength, the light's path may be altered. The gas molecules in Earth's atmosphere affect the path of light with a shorter wavelength (blue light). Based on this evidence, what conclusion can be drawn about the size of the gas molecules in Earth's atmosphere?

- A. The gas particles are smaller than the wavelength of blue light.
- B. The gas particles are larger than the wavelength of blue light.
- C. The gas particles are larger than the wavelength of red light.
- D. The gas particles are smaller than the wavelength of violet light.

4. If Earth had no atmosphere at all, what would the sky mostly look like?

- A. It would look mostly red, with a very bright star.
- B. It would look mostly violet, with a very bright star.
- C. It would look mostly blue, with a very bright star.
- D. It would look mostly dark, with a very bright star.

5. What is the main idea of this text?

- A. Long wavelength light appears to us as red, while short wavelength light appears to us as blue.
- B. The main reason why the sky looks blue is that our eyes are better at detecting blue light than light of other colors.
- C. The sky appears blue because gas molecules in the atmosphere scatter the wavelength of light that appears blue to us.
- D. The atmosphere contains many particles and gases, mainly nitrogen and oxygen.

6. Why might the author have chosen to include diagrams in this text?

- A. to provide interesting information that does not have to do with the main idea of the text
- B. to distract readers from the discussion of some of the technical concepts in the text
- C. to suggest that the information in the text can be interpreted in different ways
- D. to highlight and clarify concepts that are important to understanding the main idea of the text

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

The gas molecules in the atmosphere scatter shorter wavelength light, _____ the longer wavelength light is largely unaffected by the atmosphere.

- A. but
- B. similarly
- C. then
- D. therefore

8. What happens to light's path when it strikes particles that are larger than its wavelength?

9. Why might the path of longer wavelength light (red light) be mostly unaffected by Earth's atmosphere? Support your answer with evidence from the text.

10. Imagine that you are standing on another planet looking at the sky in the daytime. The planet has an atmosphere, but the sky looks dark. What about the particles in that planet's atmosphere might cause the sky to look dark, instead of blue like Earth's sky? Support your answer with evidence from the text.

Der Blitz Bugs

English
6-8
Day 12

1 It was a cool summer evening at the family lake house in northern New York. We were all exhausted from the day-long boat trip and sat immobile on the front porch chairs. My body felt like the tiredness went deep down inside—into every muscle, into every joint, into every bone. I was a stone statue on a wooden rocking chair.

2 I watched the moonbeams dance on the ripples of the calm lake in front of the porch. Everything else was black, except for the candles that lit up the porch and my family's happy tired faces.

3 I looked out to the lake again and noticed a small blink of light by the tree. I continued to watch because I wasn't sure if I really saw it or not. Then, sure enough, the small light blinked again. Then two more blinked in unison after that.

4 "Schau," my grandmother said.
"Der blitz bugs."

5 My grandparents moved to America from Germany when my mother was two years old. They know how to speak enough English to get around town, but they always speak in a German-English mixture among family members. We understand what they're saying...most of the time.

6 "Yeah, I see them Oma.
They're lightning bugs."

7 "Ja," she answered. "Would you like to der blitz bugs catch? It ist very fun."

8 She looked very excited, like the little blinks of light brought back a distant happy memory from the past.



9 "Sure Oma, let's bring Sam and John too."

10 Sam and John were my younger twin brothers. They were always finding new ways to get into trouble. At that moment, they were playing with marbles on the floor.

11 It was hard to get out of my chair, but the tiredness went away when I finally pushed myself out and walked over to get my brothers.

12 Sam and John bolted into the yard and headed for the tree where all the twinkling lights seemed to stay. My Oma and I followed.

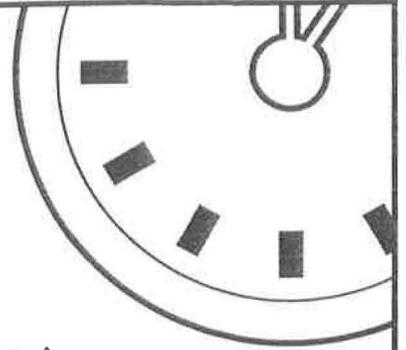
13 Sam and John ran around the tree as if they were Native Americans dancing around a wild campfire. They would catch one bug, then another bug would light up nearby, so they would let the first bug go and stalk their new target.

14 I looked around when Oma and I got within a few feet of the tree. The lightning bugs surrounded us on every side. Between the darkness of the night and the tiny flickers of lights, I felt like I had slipped into the star-covered night sky.

15 My grandma smiled.

16 "Der wonderful blitz bugs," she simply said.

21. How are the candles and the lightning bugs similar in the story?
- A. Their lights are both described as “flickering.”
 - B. Both of their lights shine on family members’ faces.
 - C. The lights are as bright as the moonbeams on the water.
 - D. They both are the only forms of light surrounded by darkness.
22. Which sentence from the story is an example of a metaphor?
- A. “Sam and John ran around the tree as if they were Native Americans dancing around a wild campfire.”
 - B. “I was a stone statue on a wooden rocking chair.”
 - C. “It was a cool summer evening at the family lake house in northern New York.”
 - D. “I watched the moonbeams dance on the ripples of the calm lake in front of the porch.”
23. Why is the narrator so exhausted?
- A. because he has been running around trying to catch lightning bugs
 - B. because he didn’t sleep well the night before
 - C. because he spent the day outside on a boat trip
 - D. because he had played outside with his twin brothers
24. Why does grandma call the lightning bugs “der blitz bugs”?
- A. She has memory loss and cannot remember the correct name of the bug.
 - B. She is originally from Germany and speaks in a German-English mixture among family members.
 - C. She creates her own language and makes up a new name for lightning bugs.
 - D. She is originally from Switzerland and speaks in a German-English mixture among family members.



MINUTE 12

Math
6-8
Day 12

NAME _____

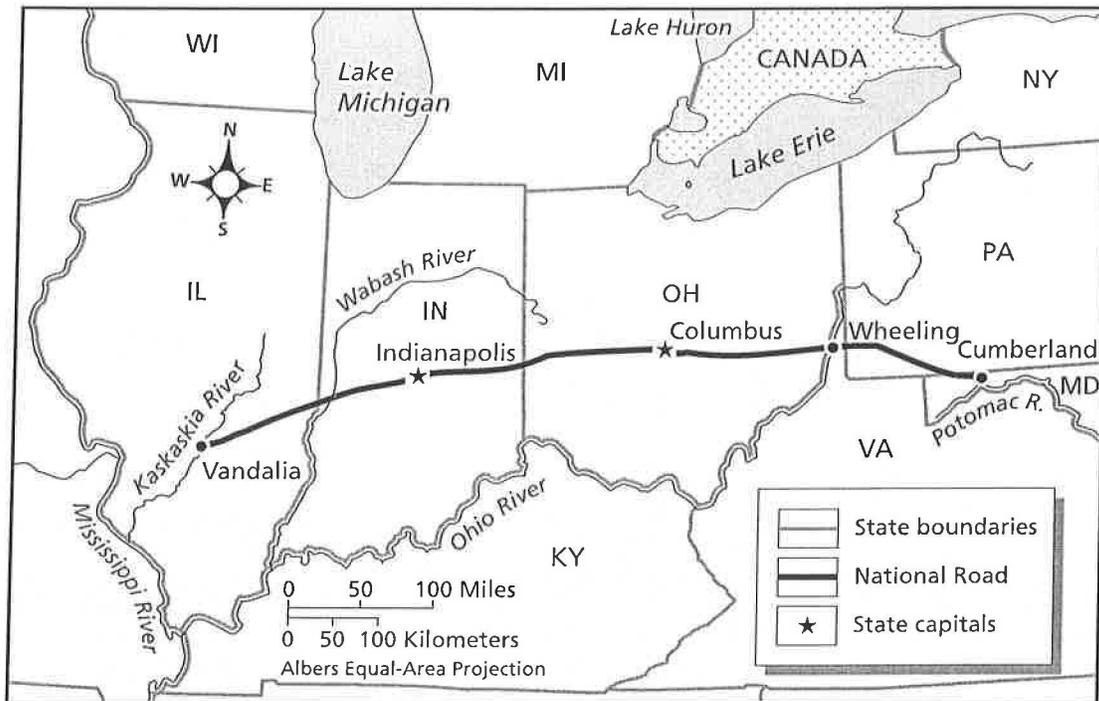
1. The sum of four and twelve is _____.
2. Six ducks have how many feet in all? _____
3. $(8 - 3)^2 =$
4. $\frac{1}{2} \times 16 =$
5. Three squared is _____.
6. $8 \cdot 1 + 4 \cdot 2 =$
7. $8 - 3 \cdot 2 =$
8. Five dollars equal how many pennies? _____
9. If $a = 5$, then $a^2 =$
10. Four weeks is _____ days.

The National Road

6-8
Day 12

Recognizing the need to tie East and West together, Congress passed a law in 1806 that provided money to build a road between Baltimore, Maryland, and the Mississippi River. Construction on the Cumberland Road began in 1815 in Cumberland, Maryland. By 1818 the road reached Wheeling, a town on the Ohio River in what is now West Virginia. In the 1820s, construction began to extend the road. By 1833 the National Road, as the extension became known, ran to Columbus, Ohio, and by 1850 it reached Vandalia, Illinois. The final stretch of road to the Mississippi River was never built, however. The map below shows the route of the National Road. Study the map. Then complete the activity and answer the questions that follow.

The National Road



MAP ACTIVITY

1. On the map, place an *X* on each end of the National Road.
2. Use a bright color to trace the Cumberland Road.
3. Use a second bright color to trace the part of the National Road that extended beyond the Cumberland Road.
4. Circle the state capitals through which the National Road passed.
5. Update the map legend to reflect the colors you added to the map.

ANALYZING MAPS

1. **Movement** Approximately how many miles long was the Cumberland Road?
Approximately how long was the entire National Road?

2. **Location** What rivers did the National Road cross, and what states did it pass through?

3. **Region** Why do you think that construction on the Cumberland Road was begun in Cumberland, Maryland, and not at the Mississippi River?

4. **Draw Conclusions** Why might settlements and towns along the National Road have grown faster than settlements and towns located away from the road?

Why Is It Colder in the Winter Than in the Summer?

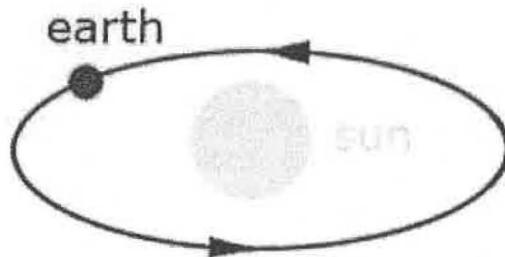
by Dr. Hany Farid

6-8 Science
Day 12

The earth's axis of rotation is tilted relative to the earth's path around the sun. As a result we are tilted towards the sun in the summer and away from the sun in the winter. Read on for a more detailed explanation.



Fact 1. The earth rotates about its axis once every 24 hours. In the morning we are facing towards the sun, and at night we are facing away from the sun.

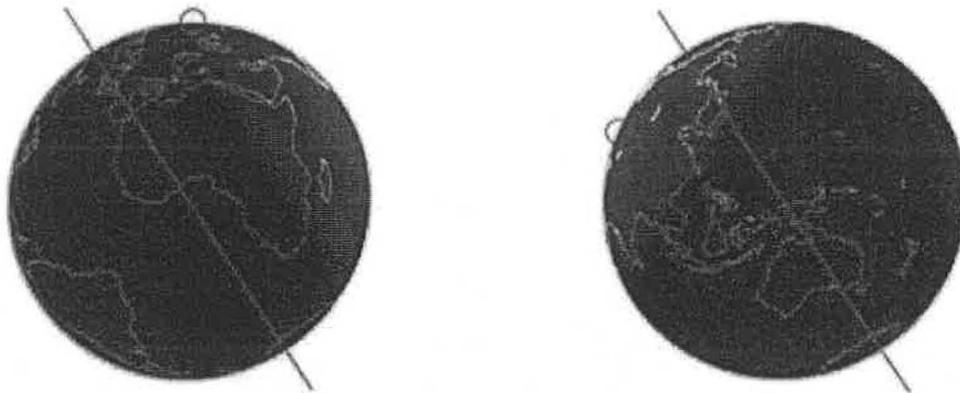


Fact 2. The earth orbits the sun, and one full revolution takes (approximately) 365 earth days, or one earth year.



Fact 3. The axis about which the earth rotates is tilted (by 23.5 degrees) relative to the earth's path around the sun.

Shown below are two diagrams of the earth at the same time of day. On the left it is winter and on the right it is summer (in the northern hemisphere). Notice that the same spot (red circle) in the winter receives much less light than in the summer. As a result, it is colder in the winter than in the summer. (Note: in this diagram, the earth's axis is 33 degrees, instead of 23.5, so as to better illustrate the effect.)



Name: _____ Date: _____

1. What is tilted relative to the earth's path around the sun, according to the article?

- A. the sun's position in space
- B. Mars's axis of rotation
- C. the sun's axis of rotation
- D. the earth's axis of rotation

2. How does the earth's tilt in the summer contrast with its tilt in the winter?

- A. The earth is tilted away from the sun in the summer but towards the sun in the winter.
- B. The earth is tilted slightly towards the sun in the summer and much farther towards the sun in the winter.
- C. The earth is tilted towards the sun in the summer but away from the sun in the winter.
- D. The earth is tilted slightly away from the sun in the summer and much farther away from the sun in the winter.

3. Read Fact 1 and look at the image next to it.

"The earth rotates about its axis once every 24 hours. In the morning we are facing towards the sun, and at night we are facing away from the sun."

Based on this information, what can you conclude about the curved arrow in the diagram?

- A. The arrow represents the earth's rotation.
- B. The arrow represents the earth's axis.
- C. The arrow represents the earth's tilt.
- D. The arrow represents the earth's equator.

4. Look at the two diagrams of the earth at the end of the article. What might the red line in each diagram represent?

- A. a place on the earth that receives less light in winter than in summer
- B. the earth's rotation
- C. the earth's axis
- D. the earth's path around the sun

5. What is the main idea of this text?

- A. The earth rotates around the sun approximately every 365 days.
- B. The earth rotates around its axis once every 24 hours.
- C. The axis around which the earth rotates is tilted by 23.5 degrees relative to the earth's path around the sun.
- D. Winter is colder than summer because earth's axis of rotation is tilted.

6. Read these sentences from the text.

"The earth rotates about its axis once every 24 hours. In the morning we are facing towards the sun, and at night we are facing away from the sun."

What is the meaning of "rotates" as it is used here?

- A. rises
- B. falls
- C. shrinks
- D. turns

7. Read these sentences from the text.

"The earth's axis of rotation is tilted relative to the earth's path around the sun. As a result we are tilted towards the sun in the summer and away from the sun in the winter."

Which word or phrase could replace "as a result" without changing the meaning of these sentences?

- A. consequently
- B. primarily
- C. for example
- D. however

8. Look at the two diagrams of the earth at the end of the article. They show the same spot (red circle) in the winter and in the summer. What is the difference between the amount of light the same spot receives in the winter and in the summer?

9. What is an effect of the difference between the amount of light the same spot (red circle) receives in the winter and in the summer?
10. Imagine that the earth's axis of rotation changed so that the same spot (red circle) received the same amount of light in the winter and in the summer. What effect might that change have on the temperature in that spot? Support your answer with evidence from the text.

English
6-8
Day 13

Make Your Own

The box on the left contains a number of prepositions, while the box on the right contains nouns and pronouns. Match any noun or pronoun with an appropriate preposition to create a prepositional phrase. Then put the prepositional phrase into a sentence of your own design. Write your sentences on the lines provided. Put some snap, zing, vim and vigor into your sentences.

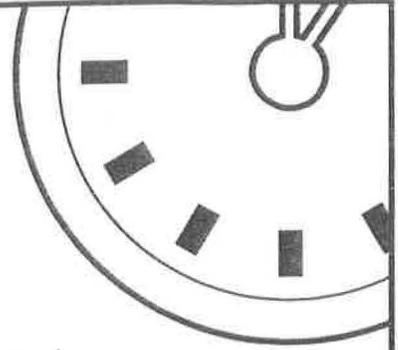
- above
- from
- to
- by
- for
- about
- with
- without
- in
- of
- against
- at
- after
- on
- during
- near
- before ✓

- him
- winter ✓
- her
- us
- Wednesday
- Christmas
- trouble
- class
- dreams
- vacation
- Grandma
- tomorrow
- lunch
- books
- them
- homework
- friends

Example:

Dad said he must wrap our water pipes before winter.

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



MINUTE 13

NAME _____

Math
6-8
Day 13

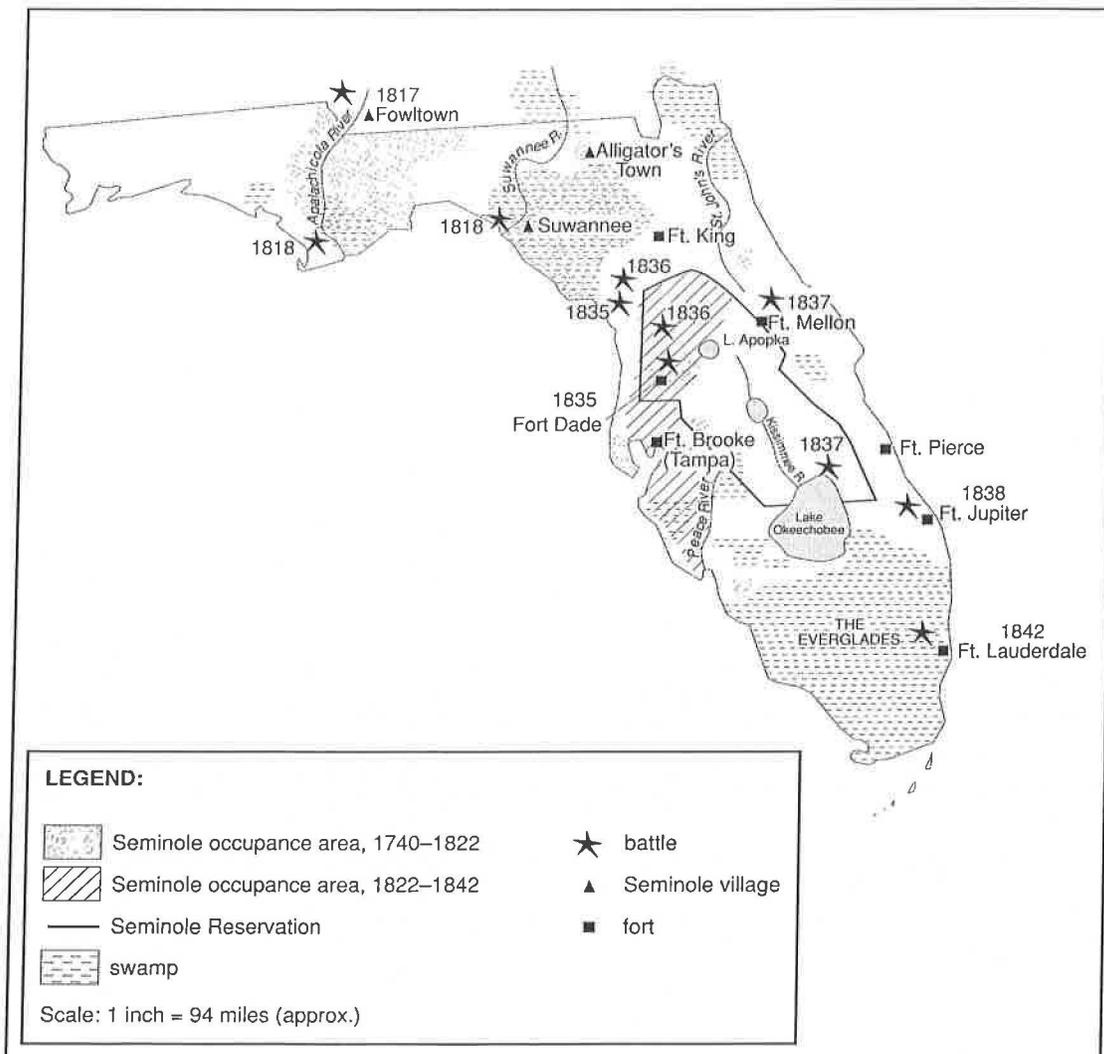
1. $3(4 + 2 + 1) =$
2. If 6 pennies are in each pile, how many pennies are in nine piles? _____
3. $9 - \underline{\hspace{2cm}} = 3$
4. $7 \times 4 =$
5. $12 - 3 \cdot 4 =$
6. $8(10) =$
7. If $65 + a = 71$, then $a =$
8. Twenty-four divided by eight is _____.
9. If $a = 9$, then $5a =$
10. Twelve quarters equal _____ dollars.

The Seminole Wars

6-8
Day 13

Between 1817 and 1842, the United States fought two wars with the Seminole Indians of Florida. By the end of these wars, most of the Seminole had been removed to Indian Territory in what is now the state of Oklahoma. The map below shows the locations of the Seminole in Florida from 1740 to 1842 as well as the sites of major battles during the Seminole Wars. Study the map. Then complete the activity and answer the questions that follow.

The Seminole Indians in Florida, 1740-1842



MAP ACTIVITY

1. Use a bright color to outline the area the Seminole occupied from 1740 to 1822.
2. Use a second bright color to outline the area the Seminole occupied from 1822 to 1842.
3. Use a light color to shade the swamps shown on the map.
4. Update the map legend to reflect the colors that you added to the map.

ANALYZING MAPS

- 1. Location** What large swamp is located in southern Florida? What lake is located just to the north of this swamp?

- 2. Movement** How did the location of where the Seminole lived in Florida change after 1822? How did it change after 1842?

- 3. Location** Near what Seminole villages did battles take place? In what years were those battles fought?

- 4. Region** How much overlap did the Seminole Reservation have with areas where the Seminole had previously lived?

- 5. Elaborate** Consider the information shown on the map and suggest why U.S. forces had trouble defeating the Seminole.

Water from the Air: Cloud Forests

by Alden Wicker



6-8 Science
Day 13

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.

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

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.

In this poem, a song takes the poet to a new place. Can you tell where that is? Read the poem below. Use the information from the poem to answer the questions that follow.

I Ask My Mother to Sing

She begins, and my grandmother joins her.
Mother and daughter sing like young girls.
If my father were alive, he would play
his accordion and sway like a boat.

- 5 I've never been in Peking, or the Summer Palace,
nor stood on the great Stone Boat to watch
the rain begin on Kuen Ming Lake, the picnickers
running away in the grass.

- 10 But I love to hear it sung;
how the waterlilies fill with rain until
they overturn, spilling water into water,
then rock back, and fill with more.

Both women have begun to cry.
But neither stops her song.

— Li-Young Lee

1. In line 1, the pronoun "she" refers to the
- A. poet.
 - B. grandmother.
 - C. young girl.
 - D. mother in the title.

4. In line 11, the phrase "spilling water into water" describes
- A. the mirroring effect of water in a lake.
 - B. raindrops falling into waterlilies.
 - C. water pouring from a waterlily into a lake.
 - D. raindrops falling into a lake.

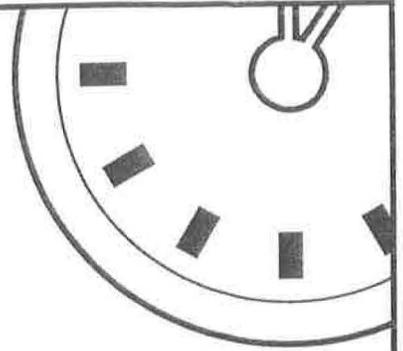
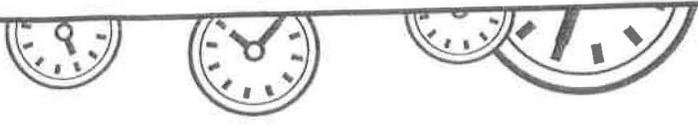
5. Why might the father "play his accordion and sway like a boat?"
- A. the song gives him hope for the future
 - B. the song reminds him of tragic events in the past
 - C. he misses his family
 - D. the song reminds him of fond memories

6. What is the purpose of lines 10-13?

- A. to introduce a new character
- B. to emphasize the importance of water to his family
- C. to describe an image from the song

8. What is most likely the reason why the speaker asks his mother to sing?
- A. because he likes his mother's voice
 - B. because he can't sing himself
 - C. because he likes to hear about Kuen Ming lake
 - D. because his father isn't alive anymore

9. The most likely reason that the women begin to cry as they sing their song is that
- A. they are touched by their memories of Kuen Ming lake.
 - B. they are scared by what might happen next.
 - C. they remember a terrifying event in Peking.
 - D. they don't want the song to end.



MINUTE 14

NAME _____

Math
6-8
Day 14

1. $15 - 3 \cdot 2 =$

2. $25 \div 5 =$

3. $3^3 =$

4. A centipede has _____ legs.

5. $(5 + 4)^2 =$

6. _____ $- 4 = 4$

7. Forty nickels equal _____ dollars.

Use $<$, $>$, or $=$ to complete questions 8–10.

8. 3^2 _____ 24

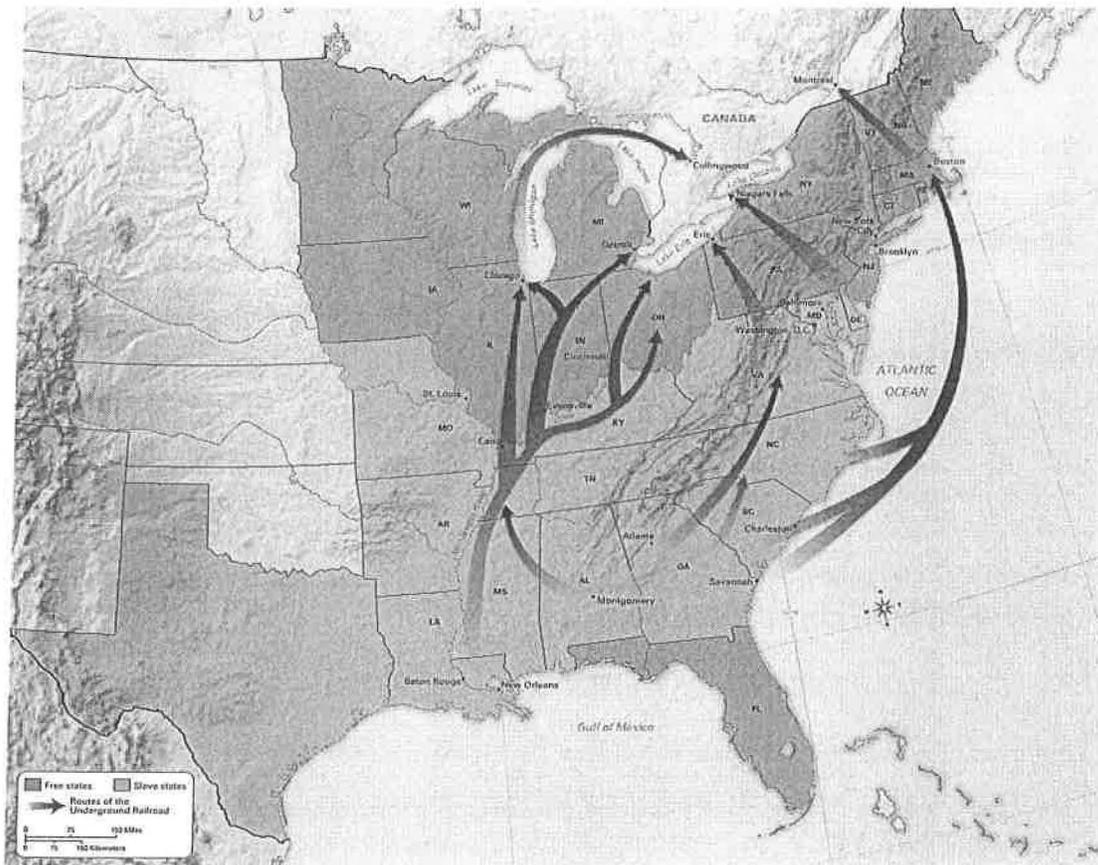
9. 1 meter _____ 100 millimeters

10. $9(8)$ _____ $8(5 + 4)$

The Underground Railroad

6-8
Day 14

Beginning in the 1830s, the Underground Railroad carried many slaves to freedom. It was not a real railroad, but a network of people who were opposed to slavery. Those who were part of this network provided shelter and transportation to escaped slaves who were traveling on various routes that led to the northern free states or to Canada. Study the map below and use it to answer the questions that follow.



MAP ACTIVITY

1. Circle the Underground Railroad route that began farthest south.
2. Use a bright color to trace the Underground Railroad routes that crossed an ocean.
3. Use another bright color to trace the Underground Railroad route that crossed two of the Great Lakes.
4. Trace the two Underground Railroad routes that ended in Canada.

5. Underline the city that was the arrival point of two different Underground Railroad routes.
6. Update the map legend to reflect the colors you added to the map.

ANALYZING MAPS

1. Location Which Underground Railroad destination was located farthest north?

2. Place What do most of the cities that were Underground Railroad destinations have in common?

3. Movement About how far did escaped slaves have to travel on the route from Kentucky to Detroit?

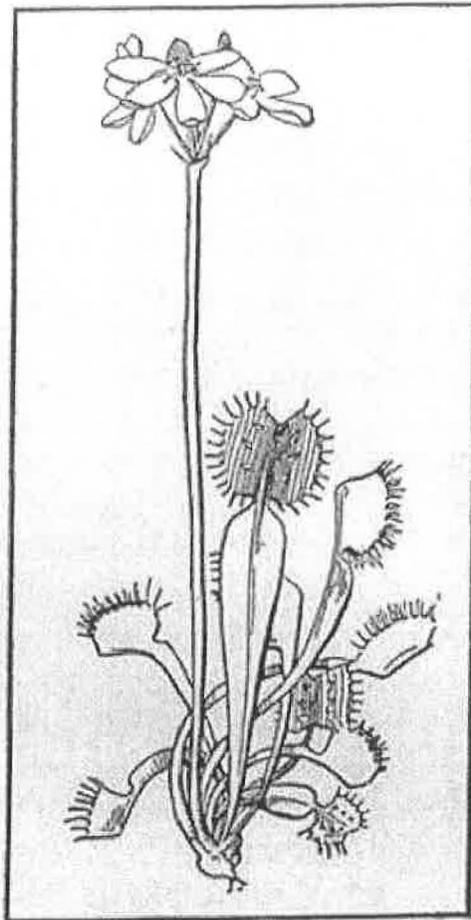
4. Making Inferences Find the Underground Railroad route from Charleston to Boston. What can you infer about how escaped slaves traveled this route?

5. Drawing Conclusions Why did many of the Underground Railroad routes start close to the borders of northern states?

The Venus Flytrap

by ReadWorks

6-8 Science
Day 14



VENUS'S FLYTRAP

The Venus flytrap is an insect-eating plant that lives mostly on the East Coast. Found primarily in swampy parts of the United States, like North and South Carolina, the Venus flytrap has colorful pink and green hues. Like most other plants, Venus flytraps get some nutrients from the soil, but since swampy areas tend to have soil that is nutrient-poor, it is hard for the plant to get nutrients from there. As a result, the flytrap has evolved to not only rely on the soil to survive. The Venus flytrap is a carnivorous plant because it catches insects and eats them to get the nutrients that it can't get from the soil.

The Venus flytrap has leaves that open to catch prey and then snap shut once it's ready to eat. On the inside of each leaf there are short, stiff hairs called trigger hairs. When an insect touches one of the three trigger hairs on either side of the leaf twice in a row, it signals to the flytrap that dinner is here. The leaves then snap shut, trapping the insect inside. Of course, some insects are able to escape, but many don't. And if they try and struggle to get out, the trap closes even tighter! The trap doesn't close all the way, though. It stays open for a few seconds, so smaller insects that might be trapped inside with the main meal can crawl out. Venus flytraps don't like to eat small insects because

they don't provide a lot of nutritional value. If it's not an insect that is trapped, rather a nut or a stone, the trap will open after about 12 hours and spit it out. The inside of a flytrap has fingerlike tentacles that help keep the insect from escaping. If you fold your hands together and lace your fingers on the inside, you'll get an idea of what the trap looks like.

In order to digest or eat the insect, the flytrap must squeeze its prey very tightly, as digestive juices dissolve the inside of the insect. At the end of this process, which takes anywhere from 5 to 12 days, the trap opens up again, and either rain or wind will carry the insect's remaining exoskeleton away. If the flytrap has caught an insect that is too big, and, say, the legs of the bug are sticking out of the trap, the digestion process might not happen the way it should. The trap will grow mold and once that happens, it will continue to get sicker and sicker, with the trap eventually turning black and falling off.

The exact amount of time it takes for the trap to open back up again depends on a variety of factors. These factors include the size of the insect, temperature, how old the trap is, and how many times the plant has gone through this process. In fact, the trap can only catch about three of its prey before it turns black, dies, and falls off. The trap can only open and close about seven times; that is why it is important to not go around touching the trap in order to get them to close. So if you ever see one, don't tease it!

Name: _____ Date: _____

1. What is the Venus flytrap?

- A. a plant-eating insect
- B. an insect-eating plant
- C. swampy, nutrient-poor soil
- D. a plant that grows on Venus

2. What does the author describe in the passage?

- A. the species of insects the Venus flytrap eats
- B. plants that are similar to the Venus flytrap
- C. the swampy regions of North and South Carolina
- D. how the Venus flytrap catches and eats its prey

3. The trap of the Venus flytrap may not last long. What evidence from the passage supports this conclusion?

- A. The trap opens up again 5-12 days after catching and eating an insect.
- B. The trap stays open for a few seconds so that smaller insects can crawl out.
- C. The trap must squeeze the prey very tightly in order to digest or eat the insect.
- D. The trap can only catch about three of its prey before it dies and falls off.

4. What was the Venus flytrap forced to adapt to?

- A. an environment without any other plants
- B. an environment with nutrient-rich soil
- C. an environment without nutrient-rich soil
- D. an environment without any large animals

5. What is the passage mainly about?

- A. different types of carnivorous plants that live in swamps
- B. the Venus flytrap and how it catches its prey
- C. the swampy areas where the Venus flytrap lives
- D. why the trap of the Venus flytrap turns black and fall off

6. Read the following sentence: "The inside of a flytrap has fingerlike **tentacles** that help keep the insect from escaping."

The author compares **tentacles** to what?

- A. insects
- B. flytraps
- C. insects
- D. fingers

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

The Venus flytrap cannot get enough nutrients from the soil in which it grows.
_____, the Venus flytrap evolved to get nutrients from an additional source.

- A. Finally
- B. Moreover
- C. Although
- D. Consequently

8. Where does the Venus flytrap get its nutrients?

9. Describe the process by which the Venus flytrap catches and digests its prey.

10. How has the trap of the Venus flytrap helped this plant to survive?

Name: _____ Date: _____

English
6-8
Day 15

Who's vs. Whose

The words **who's** and **whose** are often confused and misused. Here's what you need to know to use them correctly:

Who's is a contraction of *who is* or *who has*. Despite the apostrophe, **who's** does NOT show ownership.

Examples:

"**Who's** the winner of the race?" asked Ned.

Lisa, **who's** friends with Ed, just arrived.

Who's heard Taylor Swift's new song?

Whose is the possessive form of *who*. It shows ownership.

Examples:

"**Whose** glass is that on the table?" asked Ana.

Grandpa, **whose** advice I often seek, is very wise.

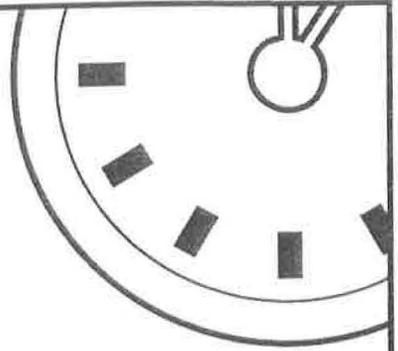
Whose idea was it to take the bus?

Directions: Underline the correct boldface word in each sentence.

1. Jennifer Lawrence, **who's/whose** starred in several films recently, is one of Stevie's favorite actresses.
2. Arianna is the girl I was telling you about—the one **who's/whose** lived in Hawaii for several years.
3. Antonio does not know **who's/whose** number that is.
4. My cousin Samir, **who's/whose** one of the smartest people I know, is coming to visit next week.
5. I don't know **who's/whose** lasagna recipe this is, but it sure is delicious!
6. Mom asked, "**Who's/Whose** dirty shoes are on the kitchen floor?"
7. Regina, **who's/whose** finally recovered from her cold, invited Amy to sleep over on Friday.

Directions: For each sentence below, fill in the blank with either **who's** or **whose**.

8. Ryan, _____ plan was to go to the beach, groaned when it began to rain.
9. _____ eaten the last slice of pizza? I was saving that!
10. The gardener, _____ name is Jared, always has a smile on his face.
11. Fred, _____ sick with the flu, has stayed home from school three days in a row.
12. " _____ that?" asked Kim, pointing at the photo.



MINUTE 15

NAME _____

Math
6-8
Day 15

1. $4 \times 4 =$
2. Five boxes of pencils with ten pencils per box equal _____ pencils.
3. If $18 \div 3 = n$, then $n =$
4. $70 \times 70 =$
5. The product of 6 and 3 is _____.
6. $2^2 + \underline{\hspace{2cm}} = 9$
7. 1, 4, 9, 16, _____, _____, _____
8. $\frac{15}{3} =$
9. Five tricycles have _____ wheels.
10. Five squared plus ten is equal to _____.

6-8

Day 15

Free and Slave States

Following the Missouri Compromise in 1820, states were admitted to the Union as either free states or slave-holding states. As new states joined the union, there was a national debate over whether these states should be free states or slave states. The Compromise of 1850 was passed to determine how the issue of slavery would apply to land gained following the Mexican War.



MAP ACTIVITY

1. On the map, label the state of Texas.
2. Label the state of California.
3. Use a light color to shade the areas where the issue of slavery was decided by popular sovereignty.
4. Use a bright color to shade the slave territories south of the Missouri Compromise line.

ANALYZING MAPS

1. **Place** Which territory is directly north of Texas?

2. Location On what side of the Missouri Compromise line were most of the slave states located?

3. Region Use the map to explain how the Compromise of 1850 settled the debate over slavery in the land that the United States gained after the Mexican War.

4. Making Inferences Why do you think Texas became a slave state after the Compromise of 1850?

5. Contrasting How did the land north of the Missouri Compromise change?

The Wolf Within



6-8
Science
Day 15

We love dogs, all types of dogs: small dogs, big dogs, yappy dogs, lap dogs. Each year we spend billions of dollars on our canine pals, making sure our lovable mutts have enough to eat and lots of toys to play with.

For their part, dogs love us. They lick our faces, protect our homes, and come when we call them (sometimes).

But where did our favorite four-legged companions come from? How and when did dogs get to be our best friends? Some scientists believe they have found some of the answers.

From Wolf to Woof

Scientists have long known that dogs evolved from wolves. Just when the transformation from wolf to

dog actually took place, however, remained a mystery.

Some said dogs evolved as a separate species 135,000 years ago in two parts of the world. One group of dogs developed in Europe and Asia from Asian wolves. Another group evolved in North, Central, and South America from American wolves.

Now, researchers say, those theories are wrong. New studies suggest that *domesticated*, or tamed, dogs first appeared 15,000 years ago in eastern Asia. They also say that every modern dog, from the Taco Bell Chihuahua to Frank, the adorable pug in the movie *Men in Black II*, descended from approximately five female Asian wolves, the mothers of all modern dogs.

Old Bones

How did scientists come to those conclusions? Scientist Jennifer Leonard and a team of researchers began investigating the origins of dogs by collecting the bones of canines that once lived in North, Central, and South America before Christopher Columbus arrived in 1492.

Researchers then extracted a bit of DNA from the cells in those bones. DNA is the substance that makes up the genes of living things. Genes determine a dog's inherited characteristics, such as eye and fur color.

The scientists then compared the DNA samples to the DNA of modern dogs and wolves not only in North and South America, but also in Europe and Asia. Scientists found that the genes of the ancient American dogs were similar to the genes of dogs born in Europe and Asia. Scientists also concluded that every breed of dog, from English setters to Labrador retrievers, descended from wolves that lived in Europe and Asia and migrated to North and South America.

Land Bridge

Scientists suspect dogs first set paw in North America by following settlers across a land bridge that once linked northern Asia and North America.

"We can't say in detail how [the dogs got to America]; that's something for the future," said Peter Savolainen, a scientist in Sweden. "But what's certain is that by 9,000 years ago, [dogs] were in America and all over Europe and Asia."

Good Friends

No one knows exactly how dogs became domesticated. Some researchers believe that they accomplished that task themselves over a number of generations by hanging around human campsites sniffing for scraps of food. Those that were not afraid of people ate well, survived, and multiplied.

Other researchers say that humans manipulated every aspect of canine behavior by breeding dogs for certain traits.

Either way, dogs developed an uncanny ability to pick up human signals, endearing the pups to humans, scientists say. As the years passed, humans and dogs became fast friends, a relationship that has lasted thousands of years.

Today, there are 78.2 million owned dogs in the United States. In a recent survey of U.S. dog owners, 94 percent said they own dogs for companionship.

"He's really a good friend," 11-year-old Kerry Knott said about her family's Weimaraner. "I try to look out for him."

Name: _____ Date: _____

1. According to new studies, what did every modern dog descend from?

- A. the Taco Bell Chihuahua
- B. English setters and Labrador retrievers
- C. American wolves in North, Central, and South America
- D. approximately five female Asian wolves

2. What does the author describe in the section "From Wolf to Woof"?

- A. The author describes how dogs that were not afraid of people ate well, survived, and multiplied.
- B. The author describes how researchers say some theories about the way in which dogs evolved from wolves are wrong.
- C. The author describes how researchers extracted DNA from the cells in the bones of dogs.
- D. The author describes how genes determine a dog's inherited characteristics, such as eye and fur colors.

3. Read these sentences from the text.

"Some [scientists] said dogs evolved as two separate species 135,000 years ago in two parts of the world. Now, researchers say, those theories are wrong."

What evidence in the text supports the conclusion that those theories are wrong?

- A. Each year we spend billions of dollars on our canine pals.
- B. Asian wolves came to the Americas with Christopher Columbus in 1492.
- C. Scientists found that the genes of the ancient American dogs were similar to the genes of dogs born in Europe and Asia.
- D. Five female Asian wolves developed an uncanny ability to pick up human signals.

4. Scientists have long known that dogs evolved from wolves. But no one knows exactly how dogs became domesticated.

Based on these sentences, what can you infer about wolves?

- A. Wolves are not domesticated.
- B. Wolves became extinct.
- C. Wolves come when people call them.
- D. Wolves were raised by scientists.

5. What is the main idea of this text?

- A. Christopher Columbus arrived in the Americas in 1492.
- B. Researchers say every modern dog, including American dogs, descended from Asian wolves.
- C. A land bridge once linked northern Asia and North America.
- D. Dogs are the most popular type of pet in the United States.

6. Read these sentences from the text.

"Scientists have long known that dogs evolved from wolves. Just when the transformation from wolf to dog actually took place, however, remained a mystery."

Based on these sentences, what does the word "evolve" most likely mean?

- A. to develop and change
- B. to die off completely
- C. to outlive
- D. to tame

7. Read this sentence from the text.

"Scientists suspect dogs first set paw in North America by following settlers across a land bridge that once linked northern Asia and North America."

What word or phrase could replace "once linked" without changing the meaning of the sentence?

- A. later linked
- B. always linked
- C. still links
- D. used to link

8. Scientists used to think dogs evolved in two different groups in which two parts of the world?

9. According to new studies by scientists, how do the genes of ancient American dogs compare to the genes of dogs born in Europe and Asia?

10. Read these sentences from the text:

Some [scientists] said dogs evolved as a separate species 135,000 years ago in two parts of the world. One group of dogs developed in Europe and Asia from Asian wolves. Another group evolved in North, Central, and South America from American wolves. Now, researchers say, those theories are wrong.

Explain how what scientists learned about the genes of ancient American dogs and the genes of dogs born in Europe and Asia affected their theories about how dogs evolved.

Support your answer with evidence from the text.