

M.S.E.S. 4th Grade

NTI Packet

Days 6-10

Directions:

Read the instructions on each page. Then, answer all the questions in complete sentences. Underline and number where you find your answers in the articles. Be sure to show your work on every math problem.

****Make sure you are only completing the assignments labeled for that day. Ex: Reading: NTI Day 1, Math: NTI Day 1, Science: NTI Day 1**

****If you need help, please contact me through Remind between the hours of 8:00 AM to 3:30 PM.**

****The completed lessons are to be returned to me the day we return to school.**

Achoo!

by Cynthia Sherwood

Achoo! We all sneeze sometimes. Sneezing is a reflex that your body does automatically. That means you cannot make yourself sneeze or stop one once it has started. When you sneeze, your body is trying to get rid of bad things in your nose, such as bacteria. You have extra germs when you have a cold, so you sneeze a lot more. You might also sneeze when you smell pepper!



Inside your nose, there are hundreds of tiny hairs. These hairs filter the air you breathe. Sometimes dust and pollen find their way through these hairs and bother your nasal passages. The nerves in the lining of your nose tell your brain that something is invading your body.

Your brain, lungs, nose, mouth, and the muscles of your upper body work together to blow away the invaders with a sneeze. When you sneeze, germs from your nose get blown into the air. Using a tissue or "sneezing into your sleeve" captures most of these germs. It is very important to wash your hands after you sneeze into them, especially during cold and flu season.

Do you ever sneeze when you walk into bright sunlight? About 25% of people experience this phenomenon. Scientists believe that the brain gets confused when signals from the optic nerve trigger the sneezing reflex in direct sunlight. This usually runs in families.

If someone nearby sneezes, remember to tell them "Gesundheit!" That is a funny-looking word which is pronounced "gezz-oont-hite." It is the German word that wishes someone good health after sneezing.

Name: _____

Achoo!

by Cynthia Sherwood



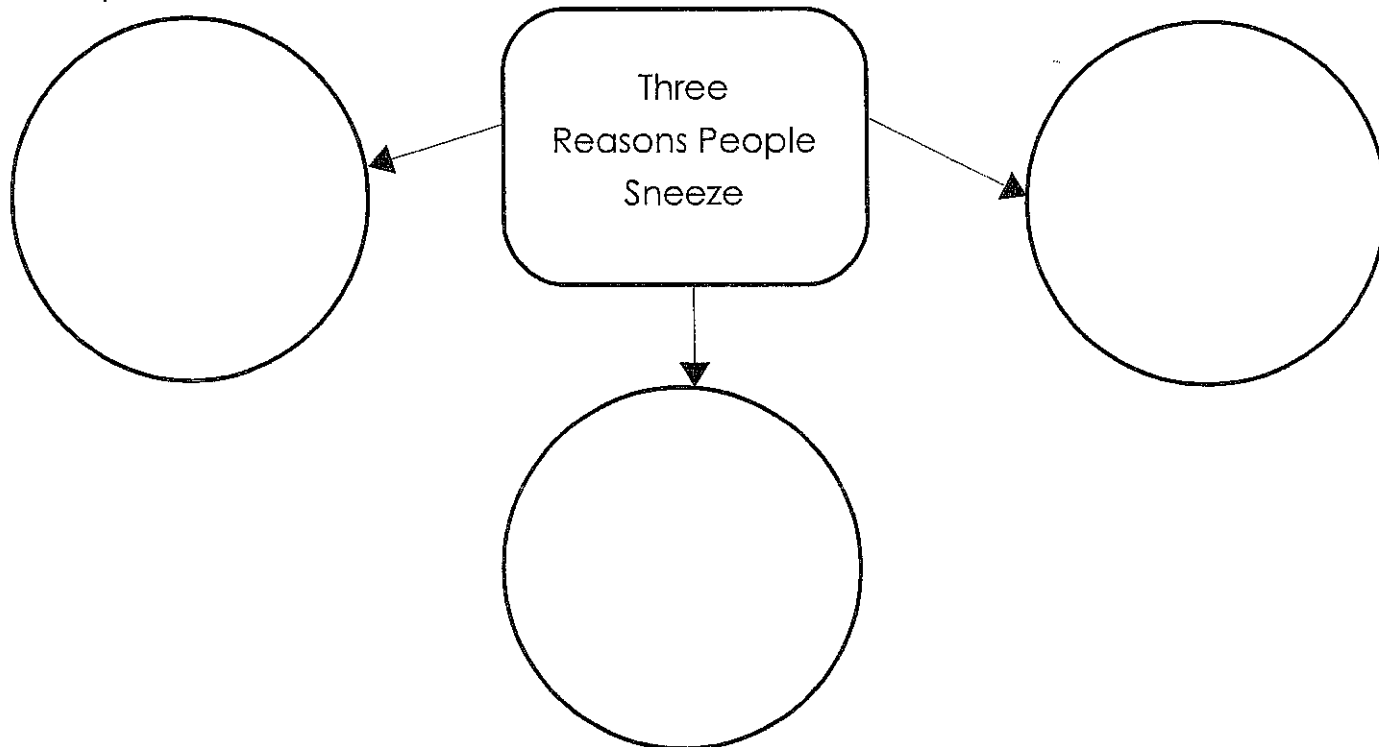
1. Which parts of your body work together when you sneeze?

2. What does the German word *gesundheit* mean?

- a. I wish you good health.
- b. I wish you God's blessings.
- c. I wish you a good day.
- d. I wish you would stop sneezing.

3. Why do some people sneeze when they walk into bright sunlight?

4. Complete the web with information from the article.



Name: _____

Achoo!

by Cynthia Sherwood



Match each vocabulary word from the reading passage with the correct definition.

- | | |
|------------------------|--|
| _____ 1. filter | a. done unconsciously or spontaneously |
| _____ 2. invaders | b. relating to the nose |
| _____ 3. phenomenon | c. a nerve that sense messages between the eye and the brain |
| _____ 4. automatically | d. prevent unwanted material or debris from passing through |
| _____ 5. pollen | e. cause something to happen |
| _____ 6. optic nerve | f. an action that occurs as a response to a stimulus or outside influence |
| _____ 7. trigger | g. unwanted or harmful things that come into a place where they don't belong |
| _____ 8. nasal | h. unsure of how to respond |
| _____ 9. reflex | i. a powdery substance from a flower that can cause some people to sneeze |
| _____ 10. confused | j. an event or occurrence |

Name: _____

Achoo!

by Cynthia Sherwood



In the article, "Achoo!" by Cindy Sherwood, you learned that a sneeze is an automatic reflex in the body that you cannot stop once it has started. You also learned that even though you cannot stop a sneeze, you can help stop the germs that may be exiting your nasal passages to stop from spreading to other people.

On the lines below, discuss some ways that you can prevent the spread of germs when you sneeze. Use the information from the article as well as your own knowledge to answer the question.

Math: Day 6

Find the sum for each problem.

1 $4,237 + 462$

	thousands	hundreds	tens	ones
	4,	2	3	7
+		9	6	2

2 $25,083 + 15,241$

	ten thousands	thousands	hundreds	tens	ones
	2	5,	0	8	3
+	1	5,	2	4	1

3 $3,460 + 2,375$

$$\begin{array}{r} 3,460 \\ + 2,375 \\ \hline \end{array}$$

4 $5,249 + 1,652$

$$\begin{array}{r} 5,249 \\ + 1,652 \\ \hline \end{array}$$

5 $2,089 + 2,509$

$$\begin{array}{r} 2,089 \\ + 2,509 \\ \hline \end{array}$$

6 $634 + 2,648$

$$\begin{array}{r} 634 \\ + 2,648 \\ \hline \end{array}$$

7 $6,708 + 2,375$

$$\begin{array}{r} 6,708 \\ + 2,375 \\ \hline \end{array}$$

8 $820 + 7,361$

$$\begin{array}{r} 820 \\ + 7,361 \\ \hline \end{array}$$

9 $3,566 + 143$

$$\begin{array}{r} 3,566 \\ + 143 \\ \hline \end{array}$$

10 $30,354 + 2,743$

$$\begin{array}{r} 30,354 \\ + 2,743 \\ \hline \end{array}$$

11 $1,278 + 2,245$

$$\begin{array}{r} 1,278 \\ + 2,245 \\ \hline \end{array}$$

12 $19,578 + 45,008$

$$\begin{array}{r} 19,578 \\ + 45,008 \\ \hline \end{array}$$



Tell how you know your answer is reasonable.

Math: Day 1

1

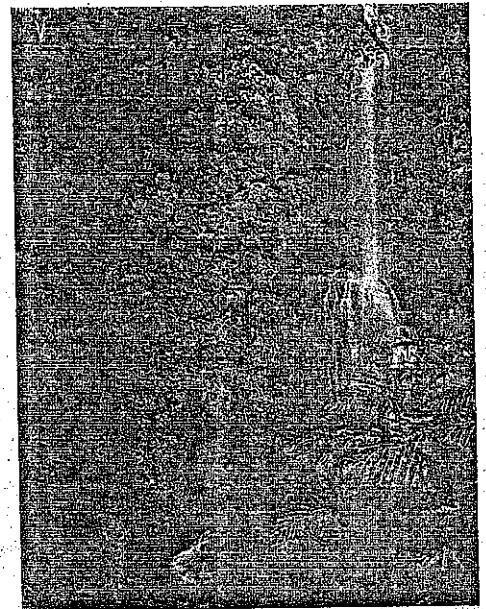
What Is Weather?

Look outside the window. Is it hot or cold? Is it raining? Is it snowing? Is the wind blowing? You are watching the weather, or what the air is like outside. And the weather changes all the time.

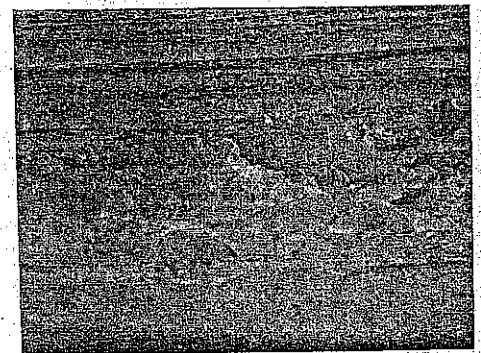
People like to know the weather where they live. They use what they know about weather to dress for school and work. They use what they know about weather to plan picnics, baseball games, and vacations. Why is the weather important to you?

People who study weather learn about air, wind, rain, and clouds. They use tools to measure. Tools measure how cool or warm the air is. They also measure how much rain falls and how fast winds blow. People watch changes in the weather. They use what they see and measure to tell you what the weather will be in the future.

People who study weather also use what they know to tell about the **climate** in a place. The climate in a place is what the weather is like over many years. A forest, for example, can have a wet, cold climate. A jungle can have a wet, warm climate. And a desert can have a dry, hot climate. If you could visit one of these places, which climate would you like to visit?



The jungle has a wet, warm climate.



The climate near the North Pole is cold all year long.

A. Write the word or words that best complete each sentence.

air and clouds climate dry weather wet

1. What the air is like outside is the _____.
2. People who study weather need to learn about _____.
3. The weather in a place over many years is the _____.
4. A forest can have a _____, cold climate.
5. A desert can have a _____, hot climate.

B. Write True if the sentence is true. Write False if the sentence is false.

- _____ 1. Weather can change from day to day.
- _____ 2. Knowing about the weather cannot help you.
- _____ 3. People who study weather use tools to measure how much rain falls.
- _____ 4. People who study weather can tell what the weather will be like tomorrow.
- _____ 5. A jungle can have a wet, warm climate.

C. Write one or more sentences to answer the question.

It rains in a place on one day. Then, it snows in the same place the next day. Has the climate in the place changed? Why or why not?

Name: _____

What's the Deal with Sleep?

By Lydia Lukidis

You go to bed at night, close your eyes, and drift off to sleep. Have you ever wondered how exactly sleep works? Plus, where do dreams come from?

Let's start with the basics. When you fall asleep, you go through the four stages of the sleep cycle. We'll explore what happens during each of these stages.

First up is Stage 1. This is when you feel yourself becoming drowsy. Your muscles begin to relax and your brain activity slows down. Your eye movements are slow during Stage 1. It lasts several minutes and you can be woken up easily.

Next is Stage 2, when your sleep becomes a bit deeper. You won't wake up as easily. The slow eye movements continue and your brain waves slow down even more. Your body temperature goes down and your heart rate slows down.

Stage 3 is known as deep sleep. It's more difficult for you to be woken up. And although you are sleeping deeply, this is when sleepwalking or sleep talking occurs. So all those sleepwalkers out there may not actually remember doing anything strange in their sleep the next day.

Then finally, you move into REM. That stands for rapid eye movement. During the REM stage, your eyes move quickly beneath your closed eyelids. This is caused by certain brain activity. You may have vivid dreams during this stage. Your brain waves are more active than in Stages 2 and 3. They're similar to when you're awake. It's easier for someone to wake you up, but you may feel groggy or sleepy.

Once your REM phase is over, the cycle starts all over again with Stage 1.



A complete sleep cycle lasts between 90 and 110 minutes. Stages 1 and 2 are considered light sleep, while Stage 3 is deep sleep. You'll go through about four or five of these cycles each night, depending on how long you sleep.

Now, what's the deal with dreams? The scientific study of dreams is called *oneirology*. Nobody knows exactly why we dream. It is believed that dreaming helps us process emotions. Things that happen during the day often enter our dreams. We spend about 2 hours a night dreaming. Every single one of us dreams. Some of us dream in color, while others dream in black and white. Although we can dream during each stage of sleep, the most vivid dreams occur during REM sleep.

Sleep is very important. In fact, you spend about a third of your time doing it! That's a good thing. Quality sleep is as important as food and water. Without it, we wouldn't be able to function properly. We wouldn't be able to learn or create new memories. It would also be harder to concentrate and respond quickly. School-age children and teenagers need about 9 ½ hours of sleep each night. Most adults need between 7 and 9 hours of sleep each night.

Another funny habit we have is that we often forget our dreams. So the next time you fall asleep, keep a notebook and pen beside your bed. If you have any memories of your dreams when you wake up, write them down right away. Some might make funny stories!

About the Author



Lydia Lukidis is a children's author with a multi-disciplinary background that spans the fields of literature, science, and theater. So far, she has over 40 books and eBooks published, as well as a dozen educational books. Her latest STEM books include [A Real Live Pet!](#) and [The Space Rock Mystery](#).

Name: _____

What's the Deal with Sleep?

By Lydia Lukidis

1. Write the label **1**, **2**, **3**, or **REM** next to the correct description of **Stage 1**, **Stage 2**, **Stage 3**, and **REM** in the sleep cycle.



- _____ Your brain activity slows down, and you aren't woken up as easily. Your body temperature and heart rate fall.
- _____ Your eyes move quickly beneath your eyelids. You may have vivid dreams. Your brain waves are more active.
- _____ You begin to feel drowsy. Your muscles relax. You can still be woken up easily.
- _____ You enter deep sleep, and it's more difficult for you to be woken up. Some people may sleep walk or sleep talk.

2. Nobody knows exactly why we dream. According to the article, what is one reason scientists think we dream?

3. Which of the following is **not** true about dreams?

- a. Some of us dream in color, while others dream in black and white.
- b. The average person spends about two hours per night dreaming.
- c. Dreams only occur during the REM stage of the sleep cycle.
- d. The most vivid dreams occur during REM sleep.

4. Based on the information in the article, identify **three benefits** of getting enough sleep.

Name: _____

What's the Deal with Sleep?

By Lydia Lukidis



Match each vocabulary word from the reading passage with the correct definition.

- | | |
|----------------------|--|
| _____ 1. drowsy | a. producing realistic or clear images in your mind |
| _____ 2. heart rate | b. the worth, value, or excellence of something |
| _____ 3. rapid | c. sleepy; tired |
| _____ 4. vivid | d. a routine pattern of behavior |
| _____ 5. oneirology | e. focus your attention on a task or activity |
| _____ 6. emotions | f. a course of events that is repeated over and over again |
| _____ 7. quality | g. the number of times your heart beats per minute |
| _____ 8. concentrate | h. the scientific study of dreams |
| _____ 9. habit | i. happening at a quick pace |
| _____ 10. cycle | j. feelings |

Math: Day 7

Find the difference for each problem.

① $3,175 - 934$

	thousands	hundreds	tens	ones
	3,	1	7	5
-		9	3	4

② $20,656 - 6,746$

	ten thousands	thousands	hundreds	tens	ones
	2	0,	6	5	6
-		6,	7	4	6

③ $7,823 - 912$

$$\begin{array}{r} 7,823 \\ - 912 \\ \hline \end{array}$$

④ $4,048 - 1,205$

$$\begin{array}{r} 4,048 \\ - 1,205 \\ \hline \end{array}$$

⑤ $5,249 - 1,652$

$$\begin{array}{r} 5,249 \\ - 1,652 \\ \hline \end{array}$$

⑥ $2,089 - 1,309$

$$\begin{array}{r} 2,089 \\ - 1,309 \\ \hline \end{array}$$

⑦ $4,460 - 2,775$

$$\begin{array}{r} 4,460 \\ - 2,775 \\ \hline \end{array}$$

⑧ $18,467 - 3,510$

$$\begin{array}{r} 18,467 \\ - 3,510 \\ \hline \end{array}$$

⑨ $20,743 - 3,740$

$$\begin{array}{r} 20,743 \\ - 3,740 \\ \hline \end{array}$$

⑩ $56,495 - 40,325$

$$\begin{array}{r} 56,495 \\ - 40,325 \\ \hline \end{array}$$

⑪ $38,937 - 7,750$

$$\begin{array}{r} 38,937 \\ - 7,750 \\ \hline \end{array}$$

⑫ $63,190 - 22,580$

$$\begin{array}{r} 63,190 \\ - 22,580 \\ \hline \end{array}$$



Tell how you know your answer is reasonable.



Math: Day 7

2

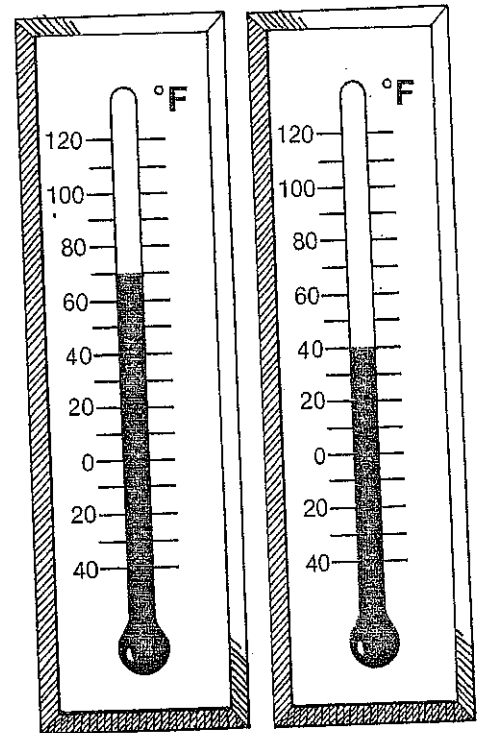
What Is Temperature?

Rain, snow, oceans, air, and clouds in the sky are all examples of **matter**. Anything that takes up space is matter. We can't see some kinds of matter, like gases. But all gases still take up space. The gas we call air is a good example. When you blow into a balloon, the balloon gets bigger. This is because it fills with air, and air takes up space. When you let air out of a balloon, the balloon gets smaller. The air leaves the balloon and goes into the room.

Energy comes in different forms. **Heat energy** is one kind of energy. Energy from the sun heats everything on Earth. It heats the air in the sky and the water in the ocean.

All matter has heat energy. Some matter has more heat energy than other matter. We use the word **temperature** to tell how hot matter is. When we measure the temperature of air, we learn how hot the air is. Remember, air is matter, and matter has heat energy.

You need a **thermometer** to measure the temperature of air. Some thermometers have a special liquid inside them. When heat energy is added to the liquid, the liquid grows bigger. It uses more space inside the thermometer. We read the numbers on the outside of the thermometer to know how much heat energy is in the air.



The liquid in the thermometer on the left is warmer and takes up more space inside the thermometer.

A. Write True if the sentence is true. Write False if the sentence is false.

- _____ 1. All matter takes up space.
- _____ 2. Air is a kind of matter.
- _____ 3. Heat energy is one kind of energy.
- _____ 4. Adding heat energy to matter does not change the matter's temperature.

B. Write the missing word or words in each sentence.

1. Air, clouds, oceans, and snow all take up space and are examples of _____ .
(energy, matter, heat energy)
2. All matter has heat _____ .
(temperature, energy, space)
3. Energy from _____ heats everything on Earth.
(matter, the sun, weather)
4. The more heat energy matter has, the higher its _____ is.
(thermometer, temperature, energy)
5. Temperature can be measured using a _____ .
(gas, balloon, thermometer)

C. Write one or more sentences to answer the question.

Could you add heat energy to water in a cup just by taking the cup outside? Explain.

Name: _____

Bear and Hare Warm Up

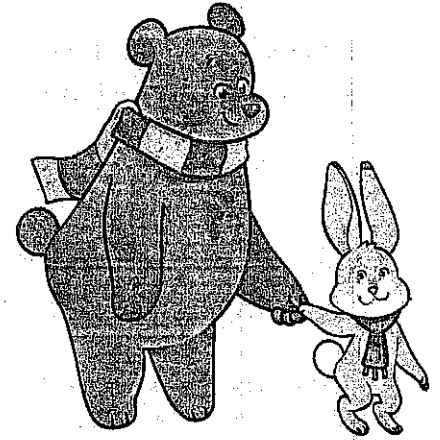
by Neal Levin

One cold frosty morning, Bear woke up from the middle of his long winter sleep. He wandered outside his den and noticed that the lake had frozen over.

"Good thing I'm not made of water," he said, "or I'd turn to ice."

"But you are made of water," said Hare, who was tumbling around in a snow bank beside him. "Over half your body is water."

"You must be fooling," said Bear. He looked at his body. His arms didn't look like water. His legs didn't look like water. His paws didn't look like water.



"Think of all your blood," said Hare. "Your blood's made of water. In fact, all your parts are made of cells, and cells are made of water."

Bear rubbed his paws together and blew on them to keep them warm. "I don't want to freeze like the lake," he said.

"Don't worry," Hare giggled. "We're warm-blooded animals. That means our body temperature stays the same, even when it's cold outside. Besides, our body water isn't pure water. It contains organic molecules like sodium and potassium that make its freezing point lower than regular water. We can only freeze in very extreme conditions."

"Brrrrr." Bear shivered.

"See, when you shake like that, your body's using energy to make more heat and warm you up."

"I know a better way to warm up," said Bear. "Let's go inside."

They stomped into Hare's house. Bear relaxed by the fireplace. A few minutes later, the snow on his fur melted and dripped into puddles on the floor.

A teapot whistled on the stove. Bear looked at the teapot and saw a thick stream of steam shooting into the air.

"How are you feeling now?" Hare asked as he brought Bear a cup of chamomile tea.

"I'm still afraid," Bear said as he cuddled the steaming teacup in his paws.

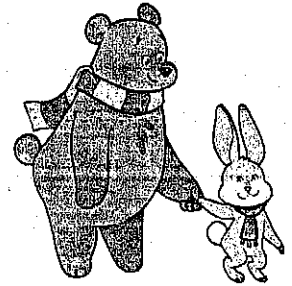
"Don't be silly," Hare told him. "Even though you're made of water, you know you aren't going to turn to ice."

"I know," Bear said. "But now I'm afraid I'll evaporate."

Name: _____

Bear and Hare Warm Up

by Neal Levin



1. In the story, "Bear and Hare Warm Up," why does Bear have a hard time believing his body is made up of mostly water?
 - a. Bear doesn't hear any water sloshing around inside of him.
 - b. Bear looks at himself and doesn't see any water.
 - c. Bear hasn't had any water to drink recently.
 - d. Bear hasn't gone swimming in the lake since the beginning of winter.

2. According to Bear and Hare's conversation in the story, how is the water in the animals' blood different from the frozen water of the lake?
 - a. The water in their blood is thinner than the water in the lake.
 - b. The water in their blood is less salty than the water in the lake.
 - c. The water in their blood has organic molecules in it that make it more difficult to freeze.
 - d. The water in their blood is pure water, whereas the water in the lake is not.

3. Even though Hare explains to Bear why he won't freeze over like the lake, why is Bear still afraid at the end of the story? What did Bear see that may have given him this thought?

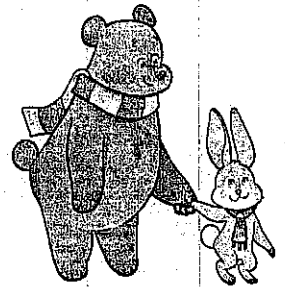
4. Hare points out one way Bear's body helps him stay warm automatically. What is it?
 - a. Bear sneezes.
 - b. Bear coughs.
 - c. Bear shivers.
 - d. Bear tumbles through the snow.

5. Which word best describes Bear's personality, based on what you read in the story?
 - a. fretful
 - b. easy-going
 - c. grumpy
 - d. whimsical

Name: _____

Bear and Hare Warm Up

by Neal Levin



The words below are scrambled words from "Bear and Hare Warm Up," by Neal Levin. Unscramble each word and write it on the line. Check back in the story to make sure each word is spelled correctly.

1.

e	n	e	a
d	d	w	r

Clue: walked or moved casually or leisurely

2.

n	o	g	c
a	i	r	

Clue: relating to living matter

3.

o	c	e	a	m
i	l	h	m	

Clue: a type of plant used to make herbal tea

4.

s	e	r	d
v	i	h	e

Clue: shook because of cold or fear

5.

p	e	t	a	e
r	v	a	o	

Clue: turn from liquid to gas

6.

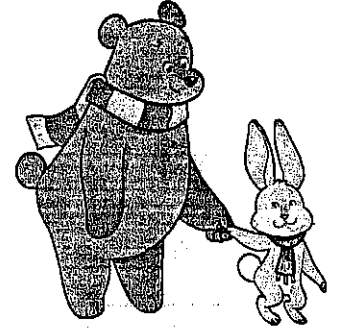
b	n	i	m
l	t	u	g

Clue: toppling over

Name: _____

Bear and Hare Warm Up

by Neal Levin



In the story, "Bear and Hare Warm Up," Bear is afraid of freezing because he doesn't understand how an animal's body is different from a body of water. Once Hare explains to him that an animal's body creates heat to warm up, Bear is no longer afraid of freezing.

Think of something in your life that you used to be afraid of but aren't anymore. Describe it on the lines below. What helped you overcome your fear of that thing? Did learning more information about it help? Explain in detail.

Math: Day 8

Find the product for each problem.

1 3×125

$$\begin{array}{r} 125 \\ \times 3 \\ \hline \end{array}$$

$$15$$

← (multiply ones)

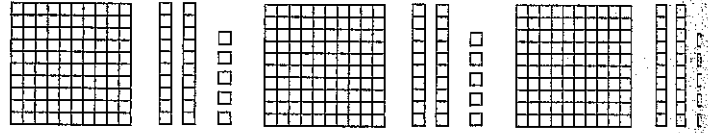
$$60$$

← (multiply tens)

$$300$$

← (multiply hundreds)

← (product)



2 4×308

$$\begin{array}{r} 308 \\ \times 4 \\ \hline \end{array}$$

$$32$$

← (multiply ones)

$$0$$

← (multiply tens)

$$\text{---}$$

← (multiply hundreds)

← (product)

3 6×431

$$\begin{array}{r} 431 \\ \times 6 \\ \hline \end{array}$$

$$6$$

← (multiply ones)

← (multiply tens)

$$\text{---}$$

← (multiply hundreds)

← (product)

4 5×47

$$\begin{array}{r} 47 \\ \times 5 \\ \hline \end{array}$$

$$\text{---}$$

5 86×2

$$\begin{array}{r} 86 \\ \times 2 \\ \hline \end{array}$$

$$\text{---}$$

6 6×26

$$\begin{array}{r} 26 \\ \times 6 \\ \hline \end{array}$$

$$\text{---}$$

7 9×24

$$\begin{array}{r} 24 \\ \times 9 \\ \hline \end{array}$$

$$\text{---}$$

8 6×17

$$\begin{array}{r} 17 \\ \times 6 \\ \hline \end{array}$$

$$\text{---}$$

9 4×34

$$\begin{array}{r} 34 \\ \times 4 \\ \hline \end{array}$$

$$\text{---}$$

10 7×68

$$\begin{array}{r} 68 \\ \times 7 \\ \hline \end{array}$$

$$\text{---}$$

11 9×53

$$\begin{array}{r} 53 \\ \times 9 \\ \hline \end{array}$$

$$\text{---}$$



Tell how place value helps you multiply.



Math: Day 8

Name: _____

Big City Fun

by Kelly Hashway

As Emily stepped off the train into Penn Station, she looked around at all the people rushing here, there, and everywhere. Emily clutched her older sister's hand and wished she was back home in Pennsylvania.



"This way, Em," Diana said, ushering Emily through the crowd and onto the streets of New York City.

Emily closed her eyes, trying to block out the city noise and picture her peaceful backyard at home filled with giant trees and the field of lush, green grass.

"Open your eyes, silly. You don't want to miss this," Diana said.

"Keep up girls," Dad said, taking Mom's hand and leading them down the avenue.

Emily peeked out one eye. People were everywhere, and the buildings were huge. "Aren't there any trees around here?"

Diana laughed. "I know you like it back home, but look around. The city is awesome. Look at all the stores and the displays."

Emily looked up. She was used to billboards back home, but these were colorful and animated. Before she knew it, she was smiling. "Where are we going?" she asked her mom. Her parents had kept the reason for the trip a secret, saying it was a surprise.

"You'll see." Her mom smiled back at her.

They kept walking, and Emily took in all the sights. Everything seemed bigger here. Taller buildings, more people, brighter signs. Finally, they reached a store and walked inside.

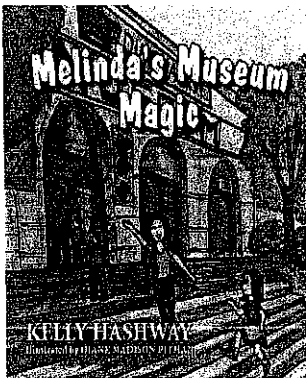
"Whoa!" Emily said. She looked around the toy store in amazement. There were rides in the store. And not little ones either. "This is like a toy store and a carnival in one!"

Emily and Diana went on every ride, and they even played a giant keyboard on the floor by jumping on the keys. Emily had never had so much fun. By the time they left, it was getting dark.

"Let's find a nice place to eat dinner," Dad said.

But Emily just stared at the city all lit up like a Christmas tree. "This is incredible." She was still happy she lived in the country, but she knew she wanted to visit the city again very soon.

About the Author



Kelly Hashway's picture book, *Melinda's Museum Magic*, is now available!

Melinda is taking her first trip to the museum, and her mother promises it will be magical. But when the exhibits start coming to life in ways that only Melinda can see, she'll learn the real magic of the museum.

Hashway, Kelly. *Melinda's Museum Magic* ISBN: 978-0615814216

Name: _____

Big City Fun

by Kelly Hashway



1. What is Penn Station?
 - a. a train station in Pennsylvania
 - b. a train station in New York
 - c. a toy store in New York
 - d. the town where Emily lives

2. Based on the information in the story, which sentence is most likely to be true?
 - a. Emily had never been to a toy store.
 - b. Emily had never visited New York City before.
 - c. Emily doesn't get to spend much time with her family.
 - d. Emily is older than her sister, Diana.

Tell why you chose the answer above.

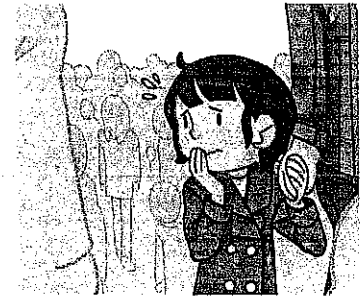
3. How do Emily's feelings about the city change in this story?

4. This story is mostly about...
 - a. A girl who persuades her parents to take her to the city.
 - b. A girl who reads many interesting facts about the city.
 - c. A girl who compares and contrasts the city to her home in the country.
 - d. A girl who gets into trouble while visiting the city.

Name: _____

Big City Fun

by Kelly Hashway



The words below are scrambled words from the story. Unscramble each word and write it on the line. Check back in the story to make sure each word is spelled correctly.

1.

u	s	r	g
e	n	h	i

Clue: showing or guiding someone

2.

i	m	n	d
a	e	a	t

Clue: made with moving pictures

3.

h	t	c	u
l	d	c	e

Clue: grasped

4.

s	u
l	h

Clue: thick, rich, and abundant

5.

a	l	a	r
v	c	n	i

Clue: fair

6.

a	d	e	b
r	o	y	k

Clue: piano-like musical instrument

Name _____

Science
Day 8

How Are Organisms Adapted to Survive?

Different plants and animals live in different environments. The place where a plant or animal lives is called its habitat. The habitat of a dolphin is the ocean. The habitat of a cactus is the desert.

Plants and animals have adaptations. An adaptation can be a physical feature or a behavior that helps a plant or animal survive. The webbed feet of a duck are an adaptation that is a physical feature. Hunting at night is an adaptation that is a behavior.

The role a plant or animal plays in its environment is called its niche. A niche includes the kind of food a living thing uses. An opossum's niche includes eating berries at night. Many living things can share a habitat. However, each has its own niche.

Camouflage

Some animals hide by looking like what is around them. These animals have an adaptation called camouflage. Camouflage is the coloring or marking of an animal that helps it look like what is around them. Camouflage can help both predators and prey.

The color and spots of a young deer's fur help the deer look like its forest habitat. Predators have a hard time seeing it.

An arctic fox is a predator that uses camouflage. Its fur looks like what is around it. Its prey does not see the fox.



Color and Mimicry

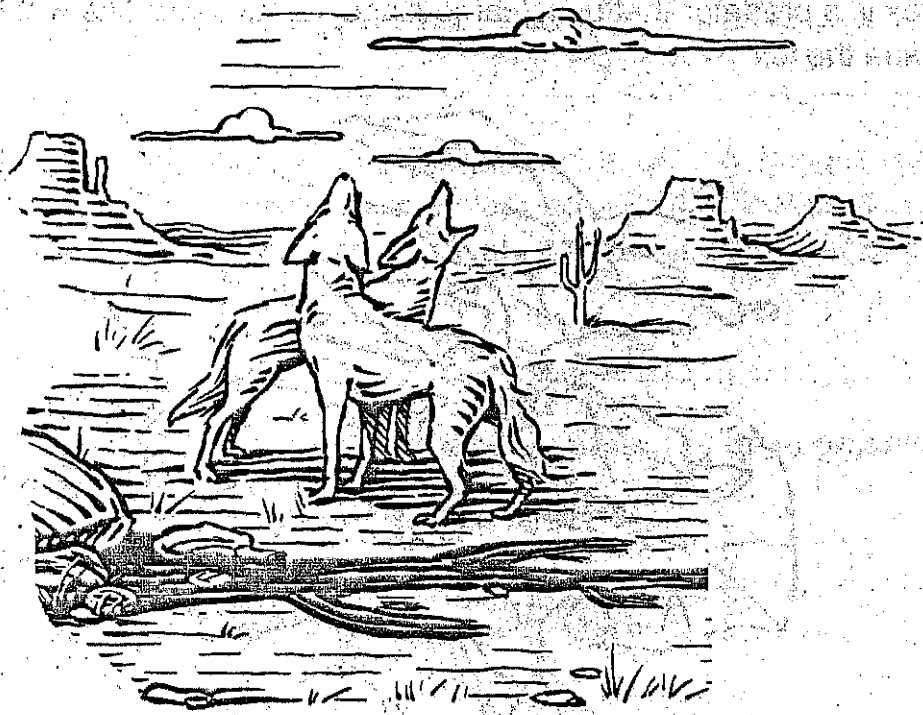
Some animals have bright colors. Other animals can see them easily. This adaptation is called warning coloration. The blue poison dart frog stands out. Its bright color warns predators that it is poisonous.

Some animals protect themselves by using mimicry. Mimicry is an adaptation where an animal looks like another animal or a plant. Many insects use mimicry. The South American owl butterfly has large spots on its wings. The spots look like the eyes of an owl. These spots scare away birds that might eat the butterfly.

Behavior

Behavior can help a predator as it hunts. Wolves and other animals hunt in groups. The group surrounds the prey so it cannot escape. Behavior also helps prey survive. Rabbits run in a zig-zag pattern. This behavior can help them escape from predators.

Some animals such as bats, frogs, and chipmunks have an adaptation that helps them survive winter. They hibernate, or go into a deep sleep, during which they use very little energy. This behavior helps the animals get through long, cold winters.



Wolves hunt in groups.

How Are Organisms Adapted To Survive?

Fill in the blanks using the terms *mimicry*, *camouflage*, and *behavior*.

1. _____ A kangaroo rat stays in its burrow to avoid the heat.
2. _____ An arctic fox has fur that turns white in winter.
3. _____ A South American owl butterfly has spots that look like an owl's eyes.
4. _____ A rabbit runs in a zig-zag to escape a predator.
5. _____ The color and spots of a young deer help it look like its habitat.
6. _____ An archer fish shoots a jet of water at insects to knock them into the water.
7. _____ Wolves hunt in groups so they can surround their prey.





Math : Day 9

Extend the pattern. Write the rule for each pattern.

1

Input	Output
2	12
5	15
7	17
13	23

rule: _____

2

Input	Output
3	12
6	24
9	36
12	48

rule: _____

3

Input	Output
4	12
6	18
8	24
10	

rule: _____

4

Input	Output
1	12
3	14
5	16
7	18

rule: _____

5

Input	Output
45	37
40	32
35	27

rule: _____

6

Input	Output
48	4
36	3
24	2

rule: _____

7

Input	Output
37	74
40	80
43	86
	92

rule: _____

8

Input	Output
68	34
58	29
48	24
	19

rule: _____

9

Input	Output
90	30
81	27
72	24
	21

rule: _____

10

Input	Output
13	31
14	33
15	35
16	

rule: _____



Create your own pattern and define the rule.



Math: Day 9

4

What Is the Water Cycle?

When a puddle dries, the water is not lost forever. The water has become part of a big circle called the water cycle. Water changes its form in the water cycle, but it never disappears.

One part of the water cycle that you can see is rain. After it rains, everything is wet—the grass, the sidewalks, and the streets. Some of this rain sinks deep into the ground. And some of the rain spills into ponds, streams, and rivers.

Soon, the sun shines again. Heat from the sun evaporates, or dries, the rain. When rain evaporates, the liquid water changes form. It becomes a gas you cannot see. This gas is called water vapor. The sun is always evaporating water from puddles, ponds, lakes, streams, rivers, and oceans.

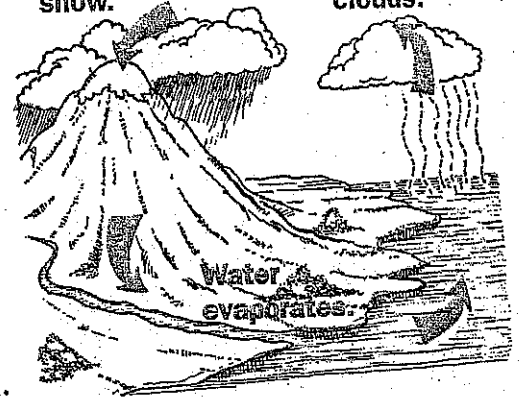
Water vapor is light, not heavy. It rises into the sky. When there is enough water vapor in the sky, the water vapor condenses, or gathers together. Water vapor that condenses isn't a gas anymore. It is liquid water again. We see the liquid water as a cloud.

Liquid water is heavy. When it falls, we call it rain. If the air is cold, the water may fall as snow or ice. The rain, snow, or ice falls to the ground. The sun melts the snow and ice. The liquid water evaporates again, returning to the water cycle.

The Water Cycle

Water falls as rain, ice, or snow.

Water vapor becomes clouds.



Water keeps moving through the water cycle.

A.

Write the word or words that best complete each sentence.

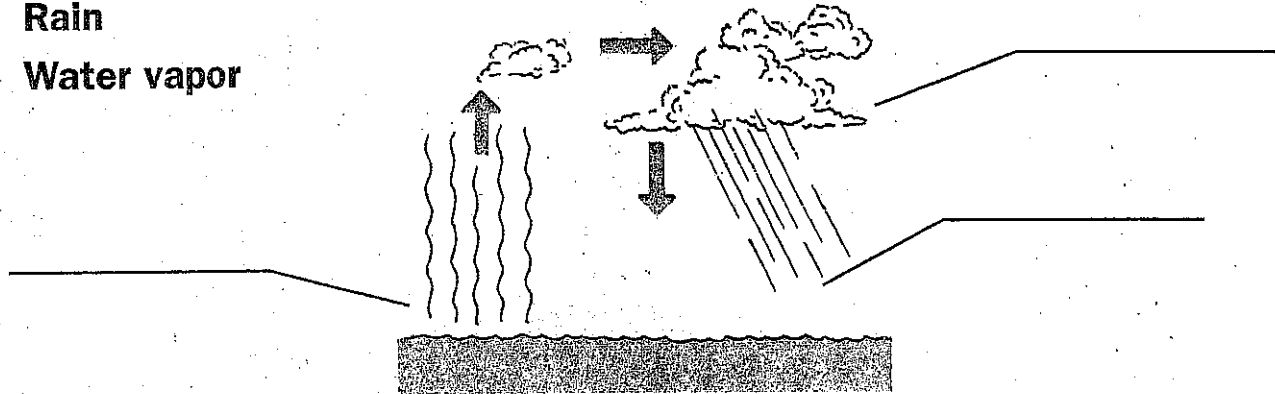
clouds rain water cycle water vapor

1. Water changes to vapor and back to water again as part of the _____.
2. When the sun evaporates water, the water turns into _____.
3. Water vapor condenses into _____ in the sky.
4. Water may fall from clouds as _____, snow, or ice.

B.

Write the correct name for each part of the water cycle.

Clouds
Rain
Water vapor

**C.**

Write one or more sentences to answer the question.

Are the black clouds you see before a thunderstorm heavy or light? Explain your answer.

Road Trip

by Kelly Hashway

Daniel was so excited he was almost bouncing in the backseat of the car. It was his first trip to Disney World, and he couldn't wait to get there. Only that's exactly what he would have to do. Wait. For countless hours.

At first it wasn't too bad. He played all the silly car games he could think of with his brother Emmet and his parents. They found all the letters of the alphabet in different signs along the highway. They guessed numbers between one and a hundred and played twenty questions. They even counted all the license plates from different states. After that, Daniel took a nap out of sheer boredom. But he couldn't sleep any longer, and they were still hours from Disney World.

"Are we—"

"No, Daniel," his father said. "Please try to be patient. You were the one who picked the vacation spot this year. We told you it would be a long drive."

"Yeah, but this is so boring!" Daniel whined.

"It's more than boring," Emmet said. "It's torture."

"You want to hear about torture?" Dad asked. "When I was about your age, Daniel, Grandma and Grandpa took your aunt Jan and me to Disney World. About halfway there, Grandpa ran over a nail and we got a flat tire. Luckily we had a spare, but it took forever to change the tire because Grandpa dropped the lug nuts and they rolled into the highway. We had to flag down a police car to close the right lane so we could get the lug nuts."



Daniel laughed, picturing Grandpa running across the road looking for the lug nuts. "Grandpa must have been really mad!"

"Oh, he wasn't happy, but it gets worse," Dad said.

"About fifty miles later, the engine died. Grandpa had to walk three miles to get to a pay phone and call for a tow truck."

"Why didn't he use his cell phone?" Daniel asked.

Dad laughed. "We didn't have cell phones back then."

"What happened next?" Daniel asked.

"We had to pay for a cheap motel room for the night while the car was in the shop being fixed. The hotel was filthy and the shower only had cold water. Even the diner next door was terrible. They served cold, runny eggs."

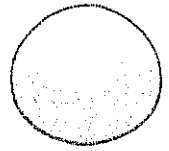
"You must have been happy to get back on the road," Daniel said.

"Yes, we were," Dad said.

Daniel looked at his mom. "Do you have any road trip stories from when you were growing up?"

"As a matter of fact, I have four or five funny stories," Mom said. "Do you want to hear them?"

Daniel nodded and glanced at the clock on the dashboard. He hoped they'd have enough time to hear them all.



About the Author



Kelly Hashway's picture book, *May the Best Dog Win*, is now available!

Dash has the perfect life until the Super Sweeper 5000 shows up. Sweeper runs all over the house sucking up the leftover food scraps, and he even gets his own room! But Dash won't give up his place as the favorite dog without a fight.

Hashway, Kelly. *May the Best Dog Win*. ISBN: 9780984589081

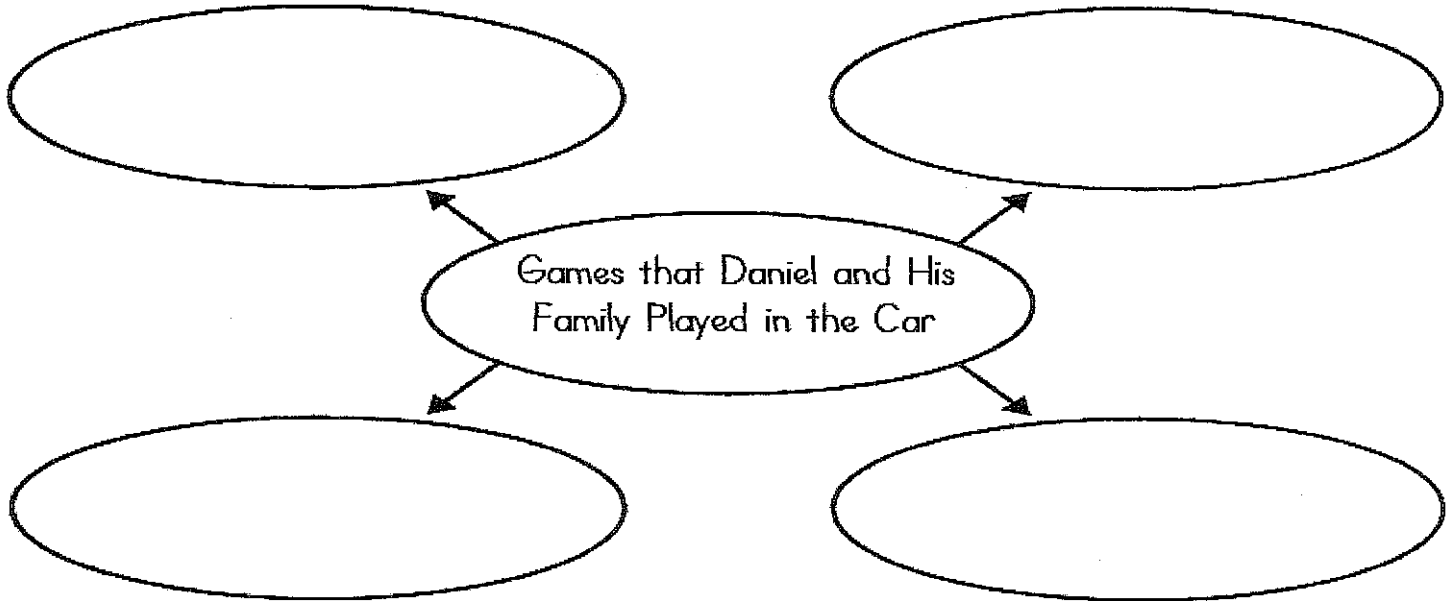
Name: _____



Road Trip

by Kelly Hashway

1. Complete the graphic organizer.



2. When Daniel became bored in the car, what did his father do to help pass time?

3. Where was the family traveling?

- a. to New York
- b. to Florida
- c. to Texas
- d. to Georgia

4. Who was Aunt Jan?

- a. Daniel's mother's sister
- b. Daniel's grandfather's sister
- c. Daniel's father's sister
- d. Daniel's sister

5. In the story, grandpa dropped lug nuts which rolled into the highway. What do lug nuts do?

- a. hold wheels onto a car
- b. fill tires with air
- c. remove nails from a tires
- d. help a car's wheels turn

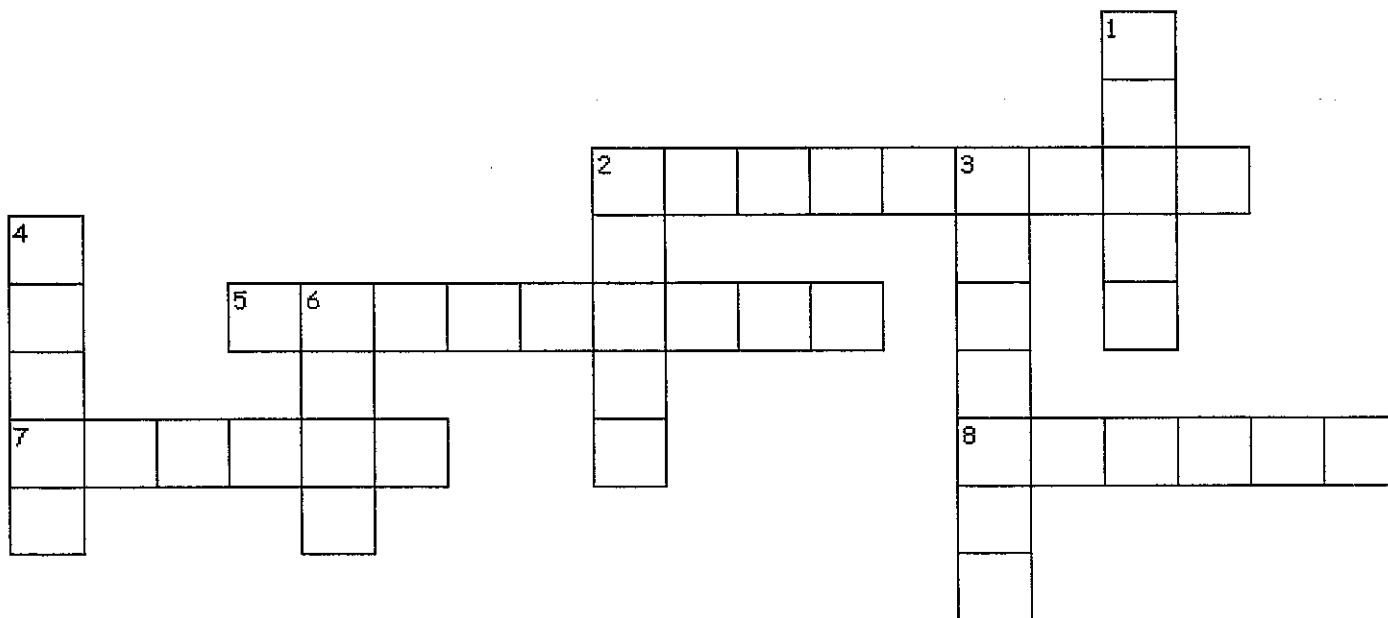
Challenge: On a separate sheet on paper, make a list of 8 things Daniel and his brother could do to amuse themselves in the car. List activities that are not mentioned in this story.

Name: _____



Road Trip

Vocabulary Crossword Puzzle



Use words from the story, "Road Trip" to complete the crossword.

Across

- 2. portable phone without wires
- 5. panel in a car with gauges and instruments to help the driver
- 7. machine that powers a car
- 8. complained in a high-pitched voice

Down

- 1. humorous
- 2. time-telling device
- 3. a busy road with many cars
- 4. place with rooms for travelers to stay overnight
- 6. mother or father's sister

Name _____

Time _____

Number Correct _____ /100

Multiplication • All The Facts**Math: Day 10**

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Math: Day 10

5

What Are Clouds?

Imagine looking out your window. It is the middle of the day, but the sky looks dark. Lightning zips through the air. A loud crash follows. You hear thunder. The sky is filled with huge, dark clouds. Rain pours down. It is another summer storm.

You know that the clouds you see are part of the water cycle. But not all clouds look the same. Some are so thin you can see through them. Others look like big, white pillows. Each kind of cloud has its own name. **Cirrus clouds** form high in the sky. They are thin and look like feathers. The drops of water that make cirrus clouds freeze into tiny pieces of ice.

Cumulus clouds are another kind of cloud. They look like heaps of white cotton balls. The huge, dark clouds that bring storms are **cumulonimbus clouds**. These clouds can be very tall or thick. Rain, lightning, and thunder can come from these clouds.

Stratus clouds look like flat, white sheets. They float near the ground. Sometimes, stratus clouds hide the tops of mountains or very tall buildings. **Fog** is a kind of stratus cloud. Fog begins close to the ground. Then, it rises into the air. What do you feel when you walk through fog? You feel wet. That is because all clouds are made of drops of water.

Clouds

