

# **Gary Community School Corporation**

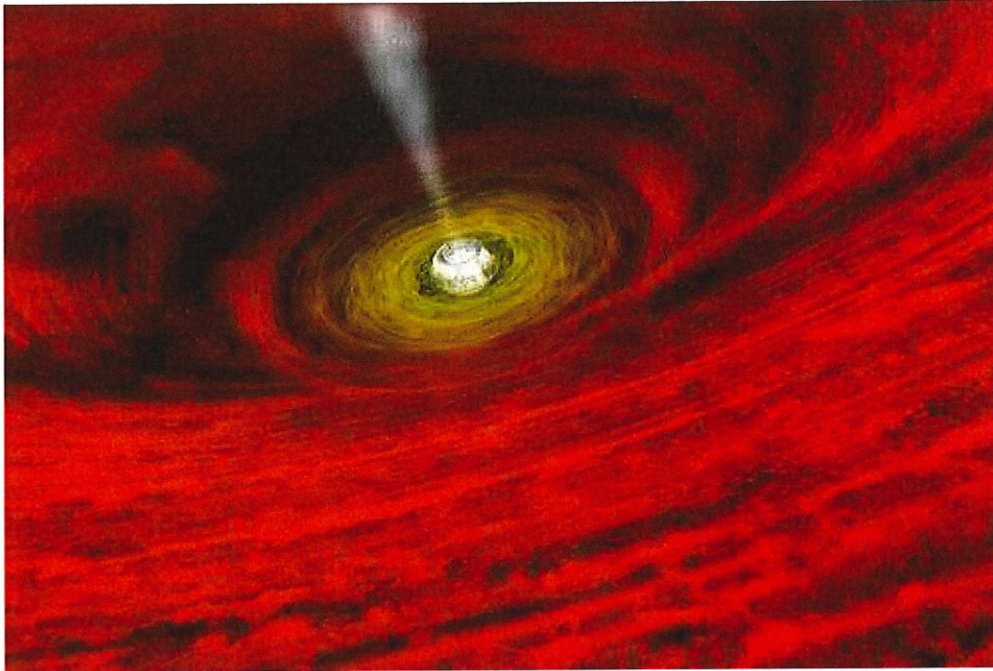


**4<sup>th</sup> Grade**

# Black Hole Rescue

This text is from NASA Space Place.

## What are black holes anyway?



NASA

*Artist's idea of a black hole, with gas and dust swirling rapidly around it before being pulled in by its powerful gravitational field. You can't really see the black hole itself.*

Black holes are not really holes at all. They are the opposite of empty! Black holes have the most matter stuffed into the least space of any objects in the universe. Because they are so compact, they have very strong gravity.

Here on Earth, gravity is what makes things fall down, rather than just float away, when you let go of them. Gravity is what you are measuring when you step on a scale to weigh yourself. Your weight is the amount of force that Earth's gravity exerts on you. The more matter your body contains, the more you weigh. Likewise, the more matter an object has, the stronger its gravity.

The gravity of a black hole is so strong that not even light can escape. Even if a bright star is shining right next to a black hole, you cannot see the black hole. Instead of reflecting the light as other objects do, the black hole just swallows the starlight forever. Any matter that gets too close to a black hole gets swallowed up as well.



## There are at least two kinds of black holes.

One kind is called a stellar-mass black hole. You can think of it as a "one-big-star" black hole. This type of black hole forms when a big star burns up all its fuel and explodes (called a supernova). Then what's left collapses into a super-compact object—a black hole. Stars must contain quite a bit more matter than our Sun for this to happen. So our Sun, and most stars, will never become black holes.

Stellar-mass black holes are only a few tens of kilometers across—maybe about 40 miles. Just imagine. Our Sun is so huge that about one million Earths would fit inside it. A star with enough matter to become a black hole contains maybe 10 times as much matter as the Sun. Now imagine a star with that much matter, shrinking into a space no farther across than the distance you can drive a car in less than one hour!

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*A black hole with all the  
mass of Earth would be  
about the size of a  
fingernail!*

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NASA

Another kind of black hole is called a supermassive black hole. You can think of this type as a "million-big-star" black hole, because it contains as much matter as one million to 100 million Suns! Astronomers think that supermassive black holes are lurking at the centers of galaxies, including our own Milky Way galaxy. They don't know yet how these humongous black holes are formed.

## Learning More About Black Holes

Scientists really want to learn more about black holes and other strange and massive objects in the Universe.

One space mission that is helping them do just that is a space telescope called XMM-Newton. It was launched into Earth orbit in 1999 by NASA and the European Space Agency. It

observes the universe in high-energy x-rays, a type of light that we can't see with our eyes. Matter, such as gas and dust particles, near black holes puts out x-rays as it swirls around at light speed just before the black hole swallows it up. By observing these x-rays, XMM can help scientists understand the black hole.



Image courtesy of D. Ducros and the European Space Agency (ESA)

*Artist's idea of XMM Newton Space Telescope*



# The Election of Representatives

by Ben's Guide to the U.S. Government



*United States House of Representatives chamber*

When the first Congress met in 1789, there were 59 representatives in the House of Representatives. As the number of states increased and as the population grew, the number of representatives increased significantly. A law passed in 1911 fixed the size of the House of Representatives at 435 members. Members of the House are up for reelection every two years. The number of persons representing each state depends upon its population as reported in the Nation's decennial census counts. Each state is divided into congressional districts accordingly. There is a representative for every congressional district and every state has at least one congressional district.

In order to be elected to the House of Representatives one must be at least 25 years old by the time one takes the oath of office, a citizen of the U.S. for at least seven years, and a resident of the state from which one is elected. These qualifications were established in Article I, Section 2 of the Constitution.

Most states have primary elections to decide which candidates will be on the November general election ballot. Some state parties hold conventions in conjunction with the primary. If a candidate is unopposed, there may not be a primary election. Those who represent a major political party are automatically placed on a state's primary ballot. Minor party candidates are chosen by their party's rules while independent candidates nominate themselves. Independent candidates and those representing minor parties must meet various state requirements to be placed on the general election ballot. An example of this would be to

submit a petition with signatures from a certain number of registered voters.

Senate and House of Representative elections differ in who votes for the candidates. All eligible voters within a state may vote for Senator. A representative is elected by only those eligible voters residing in the congressional district that the candidate will represent. Election winners are decided by the plurality rule. That is, the person who receives the highest number of votes wins. This may not necessarily be a majority of the votes.



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

1. According to the text, what is each state divided into?

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2. Read this sentence from the text:

"There is a representative for every congressional district and every state has at least one congressional district."

Explain the process for United States citizens to become representatives for their congressional districts. Support your answer with evidence from the text.

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3. What is the main idea of this text?

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4. Compared to a state with a small population, does a state with a large population have a greater amount, fewer amount, or the same amount of members in the House of Representatives?

Support your answer with evidence from the text.

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# Alexa Canady, Breaking Barriers in Medicine

by Caitlyn Meagher



*Alexa Canady, the first African American woman neurosurgeon in the United States*

Have you ever wanted to become a doctor? If so, you may want to follow Alexa Canady's path. Alexa Canady was the first female African American neurosurgeon in the United States!

Canady was born on November 7, 1950. At a young age, her parents taught her the importance of hard work and perseverance. This life lesson stayed with her throughout her schooling and career.

Canady went to the University of Michigan and studied zoology. During her junior year of college, she did a summer program that inspired her to become a doctor of some kind. After college, she went to medical school. After graduating from medical school, Canady had some trouble getting an internship. But eventually, she ended up as a surgery intern at Yale-New Haven Hospital. After her internship, she went on to do her residency in Minnesota. Residency is a part of a doctor's training, where the doctors-in-training learn on the job. Canady quickly became one of the top residents of her class! Then, she moved on to be a proper neurosurgeon, with a focus on helping sick kids.

Neurosurgery is a kind of surgery that is performed on the nervous system, which includes the brain and the spinal cord. Neurosurgeons must be extremely skilled and talented to succeed in this difficult profession. Alexa Canady rose to every challenge. Many of her patients were under the age of 10. They had serious brain injuries or diseases. Throughout her over 20-year career, Canady saved thousands of young lives.

Canady's approach to medicine was to focus on the patients. She wanted to create a strong relationship with her patients so they felt that they could speak freely about their pain and other concerns. She built trust with her patients. This skill of hers did not go unnoticed. In 1987, she became the director of neurosurgery at the Children's Hospital of Michigan. With her guidance, people viewed her department as one of the best in the country. Although she did experience discrimination during her time as a neurosurgeon, she continued to push past the barriers in the medical profession. She has said, "The greatest challenge I faced in becoming a neurosurgeon was believing it was possible." Her hard work and dedication paid off.

Alexa Canady received many awards for her work in neurology. She was inducted into the Michigan Women's Hall of Fame in 1989. And in 1993, she received the American Medical Women's Association President's Award. Even in retirement, Canady works part-time at a hospital, helping other children in need.



# A Surprise Visit

by ReadWorks



Karina woke up with the sun blasting through her shades. She groggily rolled over and looked at her clock, which read 6:30 a.m. She yawned and crawled out of bed, sticky and sweaty from the humid night. After lazily getting into her bathing suit and grabbing a ripe banana, she swung her backpack on her back and left the quiet house.

The walk to the beach took her half an hour, but it passed by quickly. Tropical birds kept her company, chirping hello from the lush green trees, while neighbors stretching on their front porches waved as Karina passed by. However, once she left her neighborhood and reached the entrance to the tourist resort, the atmosphere completely changed. She began to hear the faint clinking of silverware as the servers set up for breakfast. Early risers from the hotel strolled along the beach, taking pictures of the unforgettable sunrise. The resort was full all year, as Bali is a famous tourist destination—one island of many in the country of Indonesia, in Southeast Asia. Indonesia is located just below the Philippines and above Australia.

Many tourists come to Bali to surf, as the Indian Ocean provides the perfect waves for the sport. But Karina lived near Lovina Beach, famous for its dolphins. As she walked along the resort's beach, she smiled to people she passed by. Just as the sun was rising above the horizon, she reached a small shack located to the right of the resort, where visitors could come and sign up for water sports, such as surfing or parasailing, where one dangles from a flying parachute connected to a boat as it drives over the water.

Karina dropped off her things, then ran back to the beach to her lifeguard chair. She climbed up and took her position for the day, where she would watch the resort's guests frolic in the water and look out for any potential danger. Some days she would grow bored, watching the same people do the same things over and over again. The job was quite repetitive, but she received steady pay, something that allowed her to continue living on the beautiful island.

The sun climbed in the sky, and the temperature rapidly increased. Just as Karina turned on a small portable fan to cool herself, someone began yelling in the water. Karina immediately jumped off her chair and ran toward the shore. She soon realized the person was yelling "shark." Her stomach dropped. She had never experienced a shark sighting before but knew that she should get everyone out of the water. Even though people were already swimming and running toward the sand, she began to pull people out of the water and assisted young children who couldn't move quickly enough. All the while she kept her eyes on the blue waves but didn't see any sign of a shark.

Once everyone was safely ashore, she grabbed her binoculars from her lifeguard's chair and peered out over the water. Finally, she spotted a black dot moving around in the waves nearby. She giggled and breathed a sigh of relief. To everyone's shock, she entered the water, slowly getting closer and closer to the dot. She stopped once she was a few feet away from the animal and waited. The black dot moved closer and closer to Karina, and she sank in the water to reach its level. All of a sudden, the animal lifted its snout and made a funny noise.

"It's a dolphin!" one kid yelled from the beach. Karina gave the gentle animal a pat and swam back to the shore. She had plenty of experience with dolphins, as she was training to become a marine biologist. "It's okay, everyone; she's just a curious one," she explained. "Please don't approach her-but it's all right to continue to swim." Everyone laughed and ran back into the ocean.

Karina climbed onto her chair and looked out through her binoculars at the dolphin. This day was certainly not boring. In her mind, she thanked the animal for making a visit and hoped she had returned back to her family safely.



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

1. What is Karina's job?

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2. What is the setting of this story?

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3. Read this paragraph.

"Karina dropped off her things, then ran back to the beach to her lifeguard chair. She climbed up and took her position for the day, where she would watch the resort's guests frolic in the water and look out for any potential danger. Some days she would grow bored, watching the same people do the same things over and over again. The job was quite repetitive, but she received steady pay, something that allowed her to continue living on the beautiful island."

Based on this information, what can you conclude about Karina's attitude toward living on the island?

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4. What is the black dot that Karina sees through her binoculars?

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5. What is the main idea of this story?

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6. Read these sentences from the story.

"Just as Karina turned on a small portable fan to cool herself, someone began yelling in the water. Karina immediately jumped off her chair and ran toward the shore. She soon realized the person was yelling 'shark.' Her stomach dropped. She had never experienced a shark sighting before but knew that she should get everyone out of the water. Even though people were already swimming and running toward the sand, she began to pull people out of the water and assisted young children who couldn't move quickly enough. All the while she kept her eyes on the blue waves but didn't see any sign of a shark."

What does it mean that Karina's stomach "dropped"?

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7. What word or phrase best completes the sentence?

Someone at the beach yells "shark;" \_\_\_\_\_, people start moving from the water to the sand.

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8. What does Karina do after the dolphin lifts its snout and makes a funny noise?

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9. Why does Karina decide to enter the water after everyone else has left it? Support your answer with evidence from the story.

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**10.** Why might Karina want to be a marine biologist? (A marine biologist is a person who studies ocean life.) Support your answer with evidence from the story.

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# The Mongols Attack Japan

This text is excerpted from an original work of the Core Knowledge Foundation.

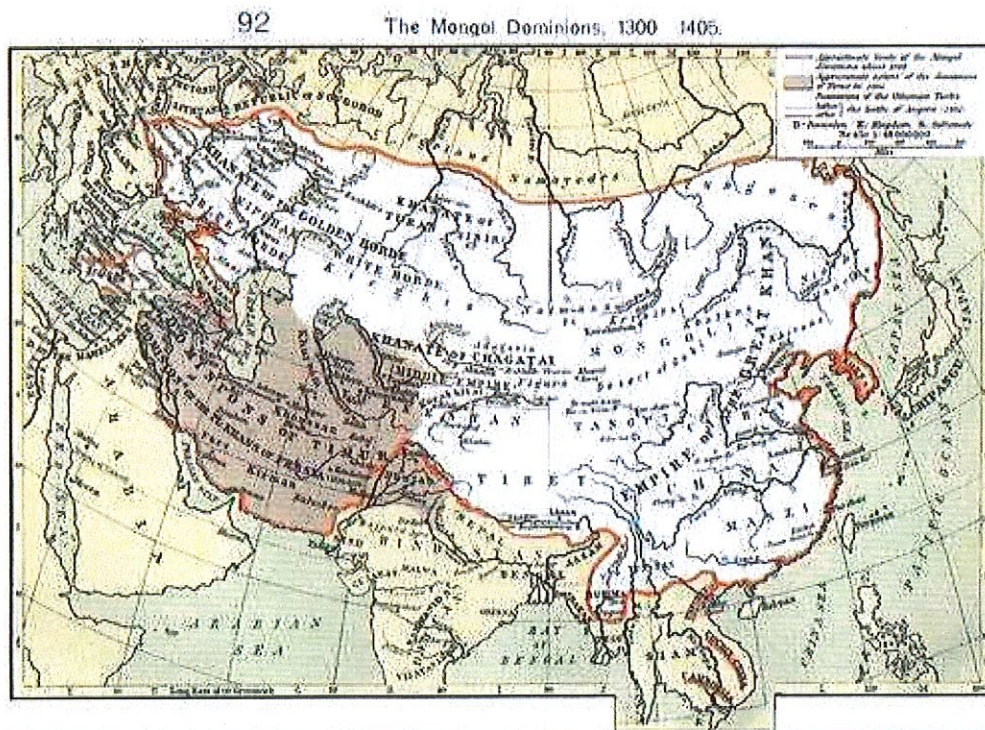
One of the most powerful military forces the world has ever seen were the great Mongol armies of the 1100s and the 1200s. The Mongols created an empire that stretched from China to eastern Europe. The Mongol ruler Kublai Khan, grandson of the great conqueror Chinggis Khan, set his sights on Japan in the late 1200s.

In 1268, Kublai Khan sent a letter to Japan's capital. He threatened to attack if the Japanese did not agree to pay him money to keep peace. Both the emperor and the shogun ignored the threats.

Kublai Khan launched an invasion of Japan from Korea. The first attack came in 1274 when a fleet of nine hundred ships arrived on the shores of the empire's southernmost island, Kyushu.



Kublai Khan





*The Mongols created a large empire. In the late 1200s, Kublai Khan attempted to make Japan part of his vast Mongol empire.*

On the first day of battle, the Mongol invaders were victorious, and they returned to their ships that night. It was a deadly mistake. A storm blew in, splintering the invaders' vessels and killing one third of their troops. The invasion failed.



A much larger attack came in 1281. This time, two separate armies joined in the assault on Hakata Bay. About forty thousand Mongol, Korean, and northern Chinese troops met up with another one hundred thousand troops from southern China. Some 4,400 Mongol warships arrived on the shores of Kyushu. Kublai Khan meant business.

Before the invaders could launch their attack, another storm blew in. This time it packed the fury of a full-scale typhoon, destroying most of the attacking ships and nearly half of the Mongol forces. Once again, the remaining Mongol invaders went home in defeat.

*The Mongols first tried to invade Japan in 1274.*

The  
Japanese  
did not  
believe that

these storms were accidents or coincidences. They believed that each of these two storms was an example of kamikaze (/kah\*mih\*kah\*zee/), meaning divine wind. The gods, wanting to protect Japan, had sent these divine winds to defeat the Mongol invasions.



*The Japanese believe kamikaze, or divine winds, saved them from two Mongol invasions.*



# The Writing Assignment

by ReadWorks



The group of kids who met in the library each week during lunchtime were known to the rest of the school as the Miss Margaret Fan Club. Every Thursday, the twelve members of the Miss Margaret Fan Club made their way to the study center in the back of the library, where Miss Margaret, the new librarian, was waiting with a stack of sharpened pencils and fresh notebook paper. The first Thursday they met, Miss Margaret greeted them with a little speech.

"Welcome to the first meeting of Writing Club!" she said. She tucked a couple of stray hairs behind her ear. "During the rest of the school year, we will meet here to work on story writing. At the end of the year, I will have all of your stories pulled together in a book." She smiled brightly at the group of huddled students.

Miss Margaret passed a pencil and two sheets of notebook paper to each student around the circular table.

"Now, your first assignment is to come up with a character. Who would be a compelling person to write about? Remember: we will be talking about point of view and perspective in a different session, but for now, try to think about an interesting persona that you would want to write about. Once you have come up with this person, write down all the details about them that you can think of."

The kids looked around the room at each other. Leila, the only fifth grader in the room, was nervous. She had always loved to read-and had basically finished the entire Harry Potter series in a week-but she had never thought about writing. Being an author of something seemed really scary. How was she supposed to describe a *fake person's* thoughts and feelings as well as J.K. Rowling?

Leila looked down at the blank sheet of notebook paper in front of her. The other kids in the circle were already scribbling quickly on their papers. Some of them had even started writing on the second sheet Miss Margaret had provided.

Leila bit her lower lip and picked up the pencil. She closed her eyes and thought about her older sister, who had died in a car accident a year before. Leila imagined that her sister was still alive, in high school,



like she was supposed to be, rather than buried at the huge cemetery off of Cavalry Street. What would Chloe be doing today if she were still alive? What would she be thinking about?

Leila gently put the sharp tip of the pencil down on the clean paper and wrote Chloe's name at the top of it. Then she started describing all the things she remembered about her sister: tall and skinny, bony knees and elbows, long dark hair that she wore in tiny braids, always smiling, always confident, only scared of thunder and really big dogs, played Barbies with Leila anytime she wanted to when Leila was little, a fast runner, hated doing homework, loved pizza and Sprite, favorite Gatorade flavor was lemon-lime, did her chores faster than Leila.

After five minutes, Miss Margaret tapped lightly on the table. "Okay, everyone, let's go around the circle and talk about our characters." She gestured to Timothy, a third grader, to start.

"Bat-Spider-Iron Man is the best superhero that has ever lived," Timothy said, holding his paper up close to his thick glasses. "He can fly and he can jump across buildings more easily than anyone else. He is the protector of the weak and defender of the poor." Timothy looked up and smiled, showing his braces.

"Bat-Spider-Iron Man sounds very cool," Miss Margaret said. "I can't wait to see whom he protects." She clapped for Timothy. "Now, Leila, why don't you share your character?"

"Um, I actually wrote about a real person for my character," she muttered. "I guess I did it wrong."

"Characters in short stories can come from anywhere, Leila. And there is no 'wrong' way to write a character. Not to worry, I'm sure whatever you wrote about is perfect." Miss Margaret smiled encouragingly.

"Okay, then..." Leila said. She picked up her paper. "I wrote about my sister Chloe. She was my best friend, and was the nicest person. She had a heart of gold, like my dad used to say, and she would always help a friend in need." Leila felt warm-everyone was looking at her. She gulped and put her paper down.

Miss Margaret walked over to Leila and patted her hand. "I'm sure Chloe is going to be a fantastic character in whatever situation we find for her."

Leila looked up at Miss Margaret and smiled. She was already really liking this class.

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

1. What is the first assignment of the Writing Club?

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2. How does Leila feel about the writing assignment when it is first given?

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3. What can be concluded about Leila's relationship with Chloe based on the description she gives to her class?

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4. Why does Leila probably choose to write about her sister?

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5. What is this story mostly about?

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6. Read the sentences and answer the question.

"Now, your first assignment is to come up with a character. Who would be a compelling person to write about? Remember: we will be talking about point of view and perspective in a different session, but for now, try to think about an interesting persona that you would want to write about. Once you have come up with this person, write down all the details about him or her that you can think of."

What does the word "persona" mean as used in the text?

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7. What word or phrase best completes the sentence?

Leila's sister Chloe was supposed to be in high school; \_\_\_\_\_, she had died in a car accident.

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8. What does Miss Margaret tell Leila when Leila says she did the assignment wrong?

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9. What does Miss Margaret say to Leila about her character Chloe?

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10. Explain why Leila is already liking the writing class by the end of the story. Support your answer using evidence from the text.

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# What Is Global Climate Change?

This text is from NASA's "Climate Kids."

## Is the climate of the whole Earth really changing?

**Yes! Earth has been getting warmer-and fast.**

Global climate is the average climate over the entire planet. And the reason scientists and folks like you are concerned is that Earth's global climate is changing. The planet is warming up fast-faster than at any time scientists know about from their studies of Earth's entire history.

## What is climate?

**"Climate" describes conditions over the long term and over an entire region.**

Climate is the big picture. It is the big picture of temperatures, rainfall, wind, and other conditions over a larger region and a longer time than weather. For example, the weather was rainy in Phoenix, Arizona, last week. But this city usually gets only about 7 inches of rain each year. So the climate for Arizona is dry. Much of Southern California also has a dry, desert climate. Brazil has a tropical climate, because it's warm and rains there a lot.

[. . .]

## Do we care if Earth is getting warmer?

**Yes, we care! After all, Earth is our spaceship.**

It carries us on a 583-million-mile cruise around the Sun every year. It even has its own "force field." Earth has a magnetic field that protects us from killer radiation and brutal solar wind. For its life-support system, Earth has all the air, water, and food we need.

Just like astronauts on a long space voyage, we need to monitor all our "ship's" vital functions and keep our Earth "ship shape."



Courtesy NASA/JPL-Caltech.

*The whole Earth as seen from 22,300 miles away, out in space.*

## Does what we do matter?

**Yes--everything that happens here affects something over there.**

Earth has its own control system. The oceans, the land, the air, the plants and animals (including humans!), and the energy from the Sun all affect each other to make everything work in harmony. Nothing changes in one place without changing something in another place. The overall effect gives us our global climate.



Courtesy NASA/JPL-Caltech.

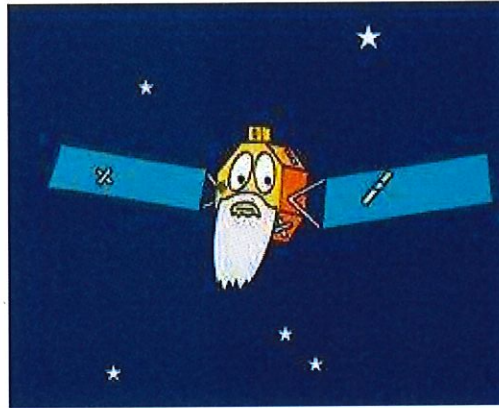
*Earth's fate is in our hands.*



# Where Do Old Satellites Go When They Die?

The text and images are from NASA Space Place.

Like every other machine, satellites do not last forever. Whether their job is to observe weather, measure greenhouse gases in the atmosphere, or point away from Earth to study the stars, eventually all satellites grow old, wear out, and die, just like old washing machines and vacuum cleaners.



So what happens when a trusty satellite's time has come? These days there are two choices, depending on how high the satellite is. For the closer satellites, engineers will use its last bit of fuel to slow it down. That way, it will fall out of orbit and burn up in the atmosphere.

The second choice is to send the satellite even farther away from Earth. It can take a lot of fuel for a satellite to slow down enough to fall back into the atmosphere. That is especially true if a satellite is in a very high orbit. For many of these high satellites, it takes less fuel to blast it farther into space than to send it back to Earth.

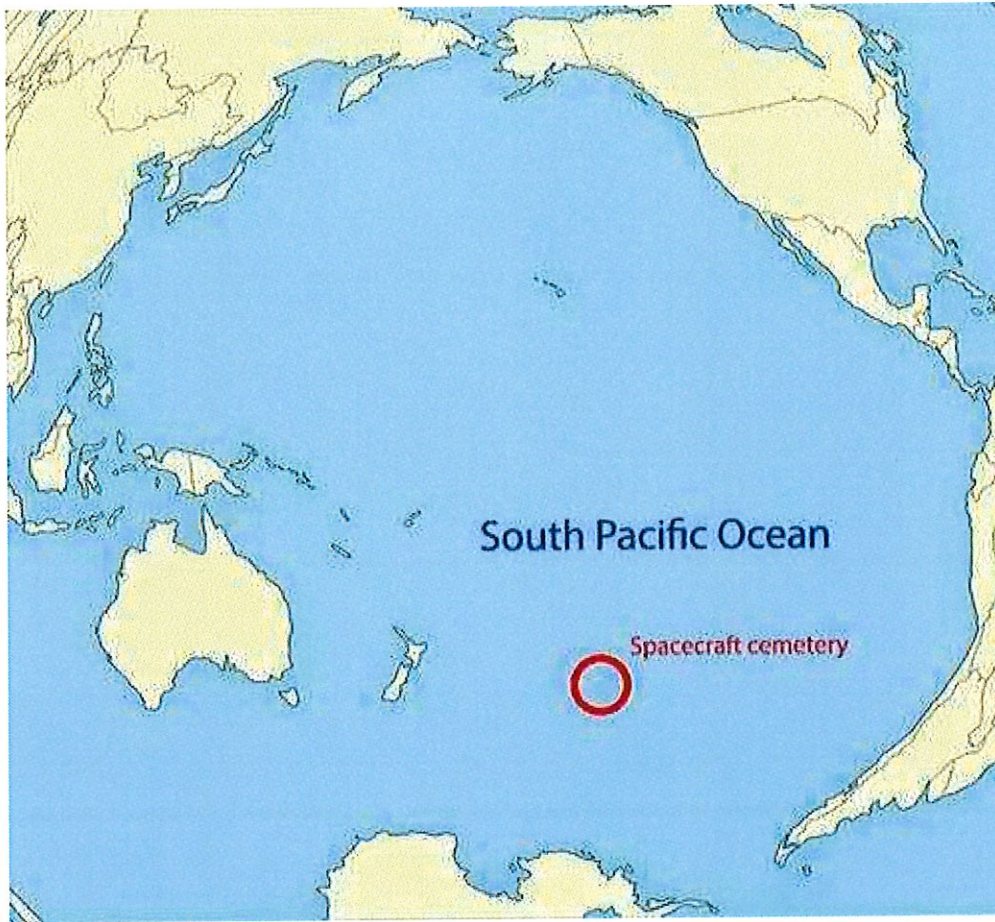
## Burning Metal and "Spacecraft Cemeteries"

Getting rid of the smaller satellites in low orbits is simple. The heat from the friction of the air burns up the satellite as it falls toward Earth at thousands of miles per hour. Ta-da! No more satellite.

What about bigger things like space stations and larger spacecraft in low orbit? These objects might not entirely burn up before reaching the ground. There is a solution-spacecraft operators can plan for the final destination of their old satellites to make sure that any debris falls into a remote area. This place even has a nickname-the Spacecraft Cemetery! It's in



the Pacific Ocean and is pretty much the farthest place from any human civilization you can find.



*Spacecraft cemetery in the South Pacific Ocean, far from where anyone lives*

## "Graveyard Orbits"

What about those higher satellites we blast farther away? Those we send into a "graveyard orbit." This is an orbit almost 200 miles farther away from Earth than the farthest active satellites. And it's a whopping 22,400 miles above Earth!

So is that the end of it for these far-away satellites? As far as you and I are concerned it is! However, some of these satellites will remain in orbit for a very, very long time. Perhaps someday in the future, humans may need to send "space garbage trucks" to clean these up. But for now, at least, they will be out of the way.

## The Boy and a Wish

Gramash was born healthy and strong. But his mother let out a scream when she first saw him. His father put a blanket in the window so that no one could see this strange-looking child. His elderly aunt took a look at him and whispered to his parents, "I will find some help for him. Just don't let anyone in to see him."

She set off in search of an old woman who lived in a cave above the lake. She found the crone seated by an open fire in the cave, weaving a mat with wool and thin reeds.

"Do something for the babe," the aunt pleaded. The old woman replied, "There is nothing the matter with him. He will grow strong and smart. He is just different." Still, she agreed to do what she could. "But," she added, "wishes shouldn't always be granted." Then she began to mix some dust and gold in a stone plate. Finally, she said, "Sprinkle this on his head. It will not make him like others. But it will make being different easier."

The aunt returned to the small cottage. As she let the magic dust drift onto his head, the baby's cries could be heard. The boy himself became invisible, though his mother could still feel him in her arms.

The years passed. Gramash grew in his own way, as his brothers and sisters came into the world. Each of them learned about him in their own time. Sometimes Gramash made himself known by taking a toy or moving a plate. Sometimes he sang. If he was in a good mood, he'd do someone's chores. If he was angry, he'd undo work they had done. One day, as he took a long walk, he came upon a cave.

"Come in, Gramash," said an old voice. Gramash was astounded. "You can see me?" he asked. "Of course," she replied.

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

1. This unusual story is

- A. a tall tale.
- B. science fiction.
- C. biography.
- D. fantasy.

2. What in the story points to the theme: "It's okay to be different."?

- A. the crone says, "There is nothing the matter with him....He's just different."
- B. the crone says, "He will grow strong and smart. He's just different."
- C. the magic dust didn't make Gramash like other people; it just made him invisible
- D. all of the above.

3. A detail that gives a clue to the genre of this story is

- A. Gramash was made invisible.
- B. the story is about one boy's life.
- C. Gramash was born different.
- D. Gramash's family was startled by his appearance.

4. Which of the following parts of the story tells the reader that the story is fiction?

- A. A crone is weaving a mat with wool.
- B. Gramash was born healthy and strong.
- C. A crone grants the wish of Gramash's aunt.
- D. Gramash finds a cave.

5. What do you think will happen to Gramash after he meets the crone?

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## Leaping Lemurs!



Robert Zingg

*A new Lemur has scientists jumping.*

Scientists are thrilled about some tiny, furry finds. They have discovered two new species of lemurs on Madagascar, an island located off the southeast coast of Africa.

The endangered animals are found only in Madagascar and a few of the country's nearby islands. Madagascar is home to some of the world's most **exotic**, or unusual, plants and animals. Lemurs live mainly in forest trees and are **nocturnal**, or active at night.

One of the newly discovered creatures has wide eyes, is small enough to fit in a hand, and bounces from tree branch to tree branch in the dark. Its name in Malagasy means "good man." Malagasy is the official language of Madagascar. The animal was named after scientist Steve Goodman. He has been studying the tiny creatures in Madagascar for 20 years. It is truly an honor to have an animal named after me," says Goodman.

The other species is a giant mouse lemur with a bushy tail. It was named in honor of Madagascar's children. Its name in Malagasy means "child." The scientists chose that name to remind Madagascar's children to care for the many plants and animals in their country.

Finding a new lemur species is rare because many of the tiny creatures have become extinct. The recent find means that there are now 49 known species of lemurs in the wild.

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

1. According to the passage, how many known species of lemurs exist in the wild?

- A. 42
- B. 20
- C. 49
- D. 2

2. Which of the following best describes the giant mouse lemur?

- A. It has big ears.
- B. It bounces around on tree branches at night.
- C. It has wide eyes.
- D. It has a bushy tail.

3. Based on the passage, it is likely that

- A. Steve Goodman does not know a lot about lemurs
- B. it is difficult to find lemurs moving around during the day
- C. the animals found in Madagascar also live in many other countries
- D. scientists will find another species of lemur soon

4. Read the following sentence:

"Madagascar is home to some of the world's most exotic, or unusual, plants and animals."

In this sentence the word **exotic** means

- A. very tropical
- B. very rare
- C. very tall
- D. very common



5. What is the central idea of this passage?

- A. Lemurs are very active.
- B. Scientists found two new species of lemurs.
- C. Scientists are working in Madagascar.
- D. Madagascar is an exotic place to visit.

6. Where is Madagascar located?

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7. Based on the passage, why is it important that scientists named the giant mouse lemur after the children of Madagascar?

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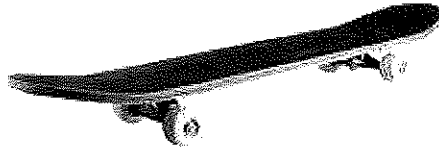
8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

\_\_\_\_\_ so many of these animals have become extinct, the discovery of two new lemurs is unusual.

- A. But
- B. Because
- C. Although
- D. If

# Learning to Skateboard

by Kyria Abrahams



The sound of the skateboard up and down the hallway is driving Ella insane. She sits at her desk, trying to read a book. All she hears is: *scraaaape, scraaaape, thud!*

She pokes her head out of her bedroom door.

"Mom said not to skateboard in the house!" she yells at her brother.

"It's Saturday afternoon, Nerd! Take a break!"

Ella slams her bedroom door. *How dare he!* Then, she opens the bedroom door again and watches quietly. *It does seem like fun, actually.*

"Hey," she calls after him. "Let me try."

"No way, Nerd! Not after you just yelled at me to stop."

*Ugh!* Ella slams the door again and goes back to her desk. She hears Joseph pick up the board and run down the stairs. Outside, his friends are all waiting for him. They all have their skateboards.

*Maybe I spend too much time indoors,* Ella thinks.

Closing the book on her desk, she puts on a jacket and follows her brother outside. He's skating up and down the block now, showing off for all his friends.

She walks up behind him, waving her hands. He sees her, but pretends not to.

"Hey, Joseph! Hey!"

"Get lost," he says.

"Can I skate with you?"

"I said get lost," he says. "Girls can't skate."

All his friends start laughing. "Girls can't skate," they repeat, sneering.

Ella feels tears well up in her eyes, but she won't let the boys see her cry. *Girls can't skate? Maybe that's because you won't even let me try!*

She's about halfway up the block when she hears a voice call out after her.

"Hey Ella! Wait up!"

It's one of Joseph's friends. He looks sheepish and a bit frightened.

She spins around angrily. "What do you want from me?"

"I...I... just thought..."

"You just thought that girls can't skate, so you wanted to come and make fun of me?"

The boy looks at the ground. "No, I just thought maybe you'd like to try out my board a little bit. I can show you how to use it."

Ella wonders if maybe it's a trick, but the boy seems so sincere. He holds out the board to her, and she takes it.

"My name is Jake," he says. "Let me show you how to ride."

"What about my brother?" she asks.

They both turn to look for Joseph. At the end of the street, he grabs one end of his board and flips around in the air. He's busy impressing his friends.

"Come on," Jake says, "He can't notice anyone but himself right now."

Jake takes her by the hand and leads her to a small patch of concrete next to the lawn.

"This way if you fall, you'll fall on the grass," he says.

"I'm afraid to fall," Ella says.

"You can't learn if you're afraid to fall," Jake says.

"But what if I hurt myself?"

Jake hands her a helmet. It's covered with stickers from all his favorite skate punk bands.

"But if you *do* fall, this way, you won't end up in the hospital with a concussion."

He shows her how to stand on the board, how to place her feet in a comfortable position, and how to shove off with one foot.

Ella stands on the board and feels herself wobble back and forth. It looks so easy when Jake does it. She isn't sure what to do with her hands and waves them around wildly in the air. Suddenly, she feels the earth move from her feet to her head.

*WOAAAH!* Her head hits the grass with a *clunk*.

"Good thing you had that helmet on," Jake says. Ella is lying on the ground.

She looks at her arm and gasps. Her elbow is bleeding a little.

"Hey, we'd better stop now. You're hurt!" Jake says.

"I can take it," Ella tells him. "I can't learn if I'm afraid to fall, right?"

They keep practicing until it starts to get dark. They both have so much fun, they completely lose track of time.

"Oh no! I missed dinner!" Jake says, finally noticing the time.

"Oh no!" Ella says. "Well, I guess you'd better take your board and go home." She is trying to disguise the hurt in her voice, but she cannot.

"You were better at hiding your pain when you fell on your elbow, Ella."

Ella laughs. "Yeah," she says, looking down at her feet. "I guess I'm kind of sad about it ending."

"Tell you what, Ella. Why don't you keep the board for a week?"

"Really? Do you mean it?"

"Absolutely. I mean it!" Jake says. "I...uh." Jake stutters and gives her a big hug. She hates to admit it, but the hug feels really nice.

"I promise to give it back in good condition!"

"Hey, maybe it's just an excuse to see you again," he says.

The next day, Ella wakes up early and takes the board outside. She practices everything Jake taught her and only falls a few times. The scrape on her elbow is already almost completely healed.

When Saturday comes around again, she wakes up extra early. She wants to have as much time as possible with the board. She's even taught herself a new trick, one she learned herself by watching a video online. It's called an Ollie.

She does it 10 times and falls. She does it 10 more times and almost completes it. After 10 more tries, she is finally successful.

When Jake comes around the corner, she's jumping in the air, the board flying right along with her. She sees Jake smile and start to applaud, and she's down in the grass again. THUD!

"That was amazing!" Jake says.

"Yeah, well, you didn't see me fall about 50 times before I actually did it!" she says.

In the distance, they hear someone calling Jake's name. It's her brother. He comes skating around the corner along with the rest of his friends.

"Jake, we've been looking for you everywhere!" he says. And then he sees his sister lying in the grass.

"I told you!" he says, holding his sides and doubling over. "I told you girls can't skate!"

"I can!" Ella yells. "I'll prove it to you!"

Ella gets up and starts to do the trick, but Jake runs over and stops her.

"You don't owe anybody an explanation," he says.

"Are you crazy?" Ella asks him. Joseph and his friends are walking away now, still laughing and saying she can't skate.

"You and I both know you can do it, and we know how hard you've been working. No matter what you do, they'll find a way to make fun of you."

"I guess you're right," Ella says. She puts the board down and executes a perfect Ollie.

"I saw that," Jake says. "You're capable of a lot of great things."

At that exact moment, Ella loses her balance and goes tumbling to the ground. Jake reaches into the grass to take her hand.

"It's a good thing I'm not afraid to fall," Ella says. "Or I'd never know I had good friends there to help me back up again."

They hug each other for what seems like a very long time.

"Same time next week?" Jake asks.

"I'll see you then," Ella says. She heads home knowing she has a lot more practice ahead of her, but that's okay.



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

1. Who learns how to skateboard in this story?

- A. Jake
- B. Joseph
- C. Ella
- D. Joseph's and Ella's mom

2. What is a conflict in the story?

- A. Ella wants to skateboard, but her brother won't let her try.
- B. Ella teaches herself a skateboarding trick called an Ollie.
- C. Jake follows Ella and offers to let her use his skateboard.
- D. Jake and Ella have so much fun skateboarding that they lose track of time.

3. Read these sentences from the story.

"At that exact moment, Ella loses her balance and goes tumbling to the ground. Jake reaches into the grass to take her hand.

'It's a good thing I'm not afraid to fall...' Ella says. 'Or I'd never know I had good friends there to help me back up again.'

They hug each other for what seems like a very long time."

What can be concluded from these sentences?

- A. Ella is upset that she has fallen on the ground.
- B. Ella wishes that Jake had not seen her fall.
- C. Ella wishes that Jake would let her get up on her own.
- D. Ella thinks that Jake is a good friend.

4. How does Jake feel about Ella?

- A. Jake does not like Ella very much.
- B. Jake likes Ella a lot.
- C. Jake is afraid of Ella.
- D. Jake is bored by Ella.

5. What is a theme of this story?

- A. Boys are better at skateboarding than girls.
- B. Showing off in front of other people will make them respect you.
- C. Reading a book is more fun than skateboarding.
- D. Making mistakes is a way to learn.

6. Read the following sentences from the story: "The sound of the skateboard up and down the hallway is driving Ella insane. She sits at her desk, trying to read a book. All she hears is: **scraaaape, scraaaape, thud!**"

Why does the author write "**scraaaape, scraaaape, thud!**"?

- A. to prove that skateboarding inside a house is dangerous
- B. to compare reading a book with skateboarding down a hallway
- C. to create the sound of the skateboard in the reader's mind
- D. to explain why Ella wants to try skateboarding

7. Choose the answer that best completes the sentence.

Ella keeps practicing her new trick; \_\_\_\_\_ she becomes able to do it successfully.

- A. in contrast
- B. at last
- C. earlier
- D. for example

8. What does Jake offer to let Ella do with his skateboard after they practice together?

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**9.** What does Jake say letting Ella keep his board for a week might be an excuse for?

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**10.** Why does Jake offer to show Ella how to use his skateboard? Support your answer with evidence from the story.

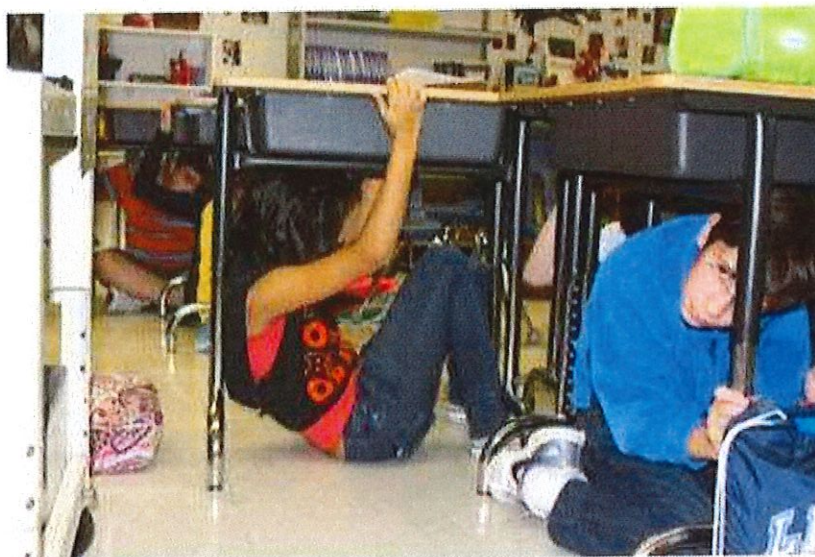
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# Preparing for a Disaster

by Megan McGibney



Some disasters cannot be stopped. These disasters include earthquakes and tornadoes. Tornadoes ruin whatever is in their path. They can destroy houses and other buildings. Earthquakes have a wider range of intensity-some are so small that no one even notices them, except for the people checking earthquake monitoring equipment. Others have leveled cities. It is very hard to deal with these disasters, and it can take a very long time for life to get back to normal.

Because earthquakes and tornadoes are forces of nature, people have to deal with them as they come. The time or intensity of an earthquake cannot usually be predicted. Tornadoes form when the right conditions are met, so a warning would be given once the conditions are detected. But there is still very little time to get ready once a tornado warning is issued. That's why planning for disaster ahead of time is so important. With proper preparation, we can minimize the disaster's impact.

Earthquakes cannot be reliably predicted. While volcanic activity sometimes triggers earthquakes, many other earthquakes happen without warning. Fortunately, we do know the areas where earthquakes are most likely to occur. The people who live in these places, such as California, Japan, or Italy, know what to do when the ground begins to shake. If they are indoors, they will get away from windows and exterior walls and take cover under a desk or table. If there is no desk around, they can stand against an interior wall, that is, a wall whose other side is not the outside of the building. It is important to take cover in an area that is safe



from potential falling objects, such as wall decor, appliances, or furniture. As you can see, people who live in an earthquake territory need to be very aware of their surroundings.

If people are outside during an earthquake, it is best to get into an open spot. They should get away from buildings, power lines, and anything else that may fall and hurt them. Electrical lines which have already fallen are also dangerous-they may be capable of electrocuting people!

Earthquakes can be incredibly destructive, even if they do not last very long. The majority last less than a minute, but there are often aftershocks-smaller earthquakes that occur minutes or hours after the first one. Of course, it all depends on the size of the quake; most are small and don't have much impact. But the big ones can wreak havoc, especially if the area is not prepared. In places where earthquakes often strike, there are strict codes for buildings with the goal that earthquakes would not cause serious damage. These buildings must be built in such a way that they likely would not fall apart as a result of a big quake. Places like Japan and California have much stricter building codes than places without such a high earthquake risk. But even these rigorous codes sometimes fail to protect people; the disastrous 1995 Great Hanshin-Awaji Earthquake destroyed the city of Kobe, Japan, and killed over 5,500 people.

Knowing what to do when earthquakes happen usually saves lives. The same goes for tornadoes. While some places get tornadoes more than others, it is not easy to predict them. There may be warnings that they will happen, but tornadoes cannot be predicted in the same way rainstorms can, days before they happen.

In order to be safe when a tornado does strike, people must already know where they will find shelter. Families and schools must have tornado drills and discuss where to go once a tornado has been spotted. The best place to go to is a basement. If there is no basement, then people should go into hallways or rooms with no windows on the ground floor.

Tornadoes can be strong enough to break windows, which can injure anyone nearby. Even after finding shelter in a basement or windowless room, people should cover themselves with a mattress or other padding in case the tornado damages the ceiling and debris falls through.

People who are outdoors when a tornado hits should seek shelter in a building. If that isn't possible, they must lie flat on low ground away from vehicles, trees, or anything else the tornado might fling about. As with an earthquake, it is important to protect one's head and neck by covering them with one's arms. One of the worst places to be during a tornado is in a car, truck, or bus, because those can easily be thrown around, or simply hit with other flying debris. Tornadoes are very powerful and can even move trailer homes. Anyone in a mobile home during a tornado should leave and seek shelter elsewhere immediately.

Just as places with earthquakes have special building codes, places plagued by tornadoes often have building codes designed to protect buildings from strong winds. People can also build extra-strong safe rooms to weather the storm in. But often nothing can stop this natural disaster from doing a lot of damage.

Although scientists are trying to find better ways to predict these two natural disasters, it is still very hard to know exactly when they will hit and how much damage they will do. In the meantime, people must always be aware that an earthquake or tornado can happen without warning. The important thing is to be prepared and take precautions to stay safe from harm. Buildings can be restored, but lives cannot.

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

1. What types of natural disasters are discussed in this passage?

- A. earthquakes and floods
- B. earthquakes and tornadoes
- C. tornadoes and floods
- D. tornadoes and hurricanes

2. Which of the following is explained in the text?

- A. what causes earthquakes
- B. what causes tornadoes
- C. how to stay safe during a tornado
- D. where tornadoes come from

3. During an earthquake, people indoors take shelter under desks, cover their head and neck, or stand against walls without heavy objects on them. These actions suggest that during an earthquake there is a danger of what?

- A. cars, trucks, and buses being thrown around
- B. trailer homes getting picked up and moved
- C. heavy objects falling and hurting people
- D. a rainstorm happening at the same time

4. Earthquakes and tornadoes can be described as all of the following EXCEPT

- A. dangerous
- B. powerful
- C. difficult to predict
- D. impossible to prepare for

5. The main purpose of this passage is

- A. to explain why and how to prepare for earthquakes and tornadoes
- B. to describe how tornadoes form and where they are likely to happen
- C. to prove that earthquakes cause more damage than tornadoes
- D. to warn people about the risks of living in places like California, Japan, and Italy

6. Read the following sentence: "Although scientists are trying to find ways to **predict** these two natural disasters, it is still very hard to know when exactly they will hit and how much damage they will cause."

What is the meaning of the word **predict** in this sentence?

- A. to prevent something from doing damage
- B. to study something until it is completely understood
- C. to ignore something until it goes away on its own
- D. to tell ahead of time when something is going to happen

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

Earthquakes cannot be predicted; \_\_\_\_\_, they can be prepared for.

- A. for example
- B. however
- C. therefore
- D. particularly

8. Being inside a car, truck, bus, or trailer home during a tornado is dangerous.

What evidence from the passage supports this statement?

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9. According to the passage, what are two things people should do during an earthquake?

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10. Explain how preparing for earthquakes and tornadoes could minimize the damage from these two natural disasters. Support your answer with information from the passage.

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# Casey at the Bat

by Ernest Lawrence Thayer

The outlook wasn't brilliant for the Mudville nine that day;  
The score stood four to two with but one inning more to play.  
And then when Cooney died at first, and Barrows did the same,  
A sickly silence fell upon the patrons of the game.

A straggling few got up to go in deep despair. 5  
The rest Clung to that hope which springs eternal in the human breast;  
They thought if only Casey could but get a whack at that-  
We'd put up even money now with Casey at the bat.

But Flynn preceded Casey, as did also Jimmy Blake, 10  
And the former was a lulu and the latter was a cake;  
So upon that stricken multitude grim melancholy sat,  
For there seemed but little chance of Casey's getting to the bat.

But Flynn let drive a single, to the wonderment of all,  
And Blake, the much despised, tore the cover off the ball;  
And when the dust had lifted, and men saw what had occurred, 15  
There was Jimmy safe at second and Flynn a-hugging third.

Then from 5,000 throats and more there rose a lusty yell;  
It rumbled through the valley, it rattled in the dell;  
It knocked upon the mountain and recoiled upon the flat,  
For Casey, mighty Casey, was advancing to the bat. 20

There was ease in Casey's manner as he stepped into his place;  
There was pride in Casey's bearing and a smile on Casey's face.  
And when, responding to the cheers, he lightly doffed his hat,  
No stranger in the crowd could doubt 'twas Casey at the bat.

Ten thousand eyes were on him as he rubbed his hands with dirt; 25  
Five thousand tongues applauded when he wiped them on his shirt.  
Then while the writhing pitcher ground the ball into his hip,  
Defiance gleamed in Casey's eye, a sneer curled Casey's lip.

And now the leather-covered sphere came hurtling through the air,

And Casey stood a-watching it in haughty grandeur there. 30  
Close by the sturdy batsman the ball unheeded sped-  
"That ain't my style," said Casey. "Strike one," the umpire said.

From the benches, black with people, there went up a muffled roar,  
Like the beating of the storm-waves on a stern and distant shore.  
"Kill him! Kill the umpire!" shouted some one on the stand; 35  
And it's likely they'd have killed him had not Casey raised his hand.

With a smile of Christian charity great Casey's visage shone;  
He stilled the rising tumult; he bade the game go on;  
He signaled to the pitcher, and once more the spheroid flew;  
But Casey still ignored it, and the umpire said, "Strike two." 40

"Fraud!" cried the maddened thousands, and echo answered fraud;  
But one scornful look from Casey and the audience was awed.  
They saw his face grow stern and cold, they saw his muscles strain,  
And they knew that Casey wouldn't let that ball go by again.

The sneer is gone from Casey's lip, his teeth are clinched in hate; 45  
He pounds with cruel violence his bat upon the plate.  
And now the pitcher holds the ball, and now he lets it go,  
And now the air is shattered by the force of Casey's blow.

Oh, somewhere in this favored land the sun is shining bright;  
The band is playing somewhere, and somewhere hearts are light, 50  
And somewhere men are laughing, and somewhere children shout;  
But there is no joy in Mudville-mighty Casey has struck out.

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

1. What is the crowd in Mudville watching?

- A. a TV show
- B. a play
- C. a movie
- D. a game

2. What is the climax of this poem?

- A. when Jimmy and Flynn get to second and third base (lines 13-16)
- B. when Casey stepped up to bat (lines 21-24)
- C. when Casey lets the first ball pass without swinging at it (lines 29-32)
- D. when Casey is taking a swing at the third ball (lines 45-48)

3. The people watching the baseball game felt that Casey could help the Mudville team win the game.

Which lines from the poem best support this conclusion?

- A. lines 1-4
- B. lines 5-8
- C. lines 13-16
- D. lines 29-32

4. Read lines 21-28 of the poem. How does Casey probably feel when he first steps up to bat?

- A. confident
- B. shy
- C. sleepy
- D. worried



5. What is the main idea of this poem?

- A. The people of Mudville think that Casey will lose the baseball game for his team, and Casey does lose the game.
- B. The people of Mudville think that Casey will lose the baseball game for his team, but Casey wins the game instead.
- C. The people of Mudville are sure that Casey will win the baseball game for his team, and Casey does win the game.
- D. The people of Mudville are sure that Casey will win the baseball game for his team, but Casey loses the game instead.

6. In the first half of the poem, the poet uses many similar phrases like "Casey at the bat" (line 8, line 24), "Casey getting to the bat" (line 12), and "Casey, mighty Casey, was advancing to the bat" (line 20). Why might the poet have used such similar phrases over and over?

- A. to show the reader that Casey is a very good baseball player
- B. to suggest that the people watching the game do not want Casey to bat
- C. to hint that Casey often bats during baseball games
- D. to make the reader get excited about Casey coming to bat

7. Read these stanzas from the poem.

"Fraud!" cried the maddened thousands, and echo answered  
fraud;  
But one scornful look from Casey, and the audience was awed.  
They saw his face grow stern and cold, they saw his muscles  
strain,  
And they knew that Casey wouldn't let that ball go by again.  
The sneer is gone from Casey's lip, his teeth are clenched in hate;  
He pounds with cruel violence his bat upon the plate.  
And now the pitcher holds the ball, and now he lets it go,  
And now the air is shattered by the force of Casey's blow.

In the second of these stanzas, the poet uses verbs in a different tense from all of the previous stanzas. How does the verb tense change between the previous stanzas and this second stanza?

- A. The previous stanzas were in past tense, and this stanza is in present tense.
- B. The previous stanzas were in present tense, and this stanza is in past tense.
- C. The previous stanzas were in future tense, and this stanza is in present tense.
- D. The previous stanzas were in present tense, and this stanza is in future tense.

8. Why is there no joy in Mudville at the very end of the poem?

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9. Describe how the people watching the game feel when Casey is at the bat. Use evidence from the poem to support your answer.

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10. Suspense is the state of nervousness or excitement that comes from being unsure about something. How does this poem create a feeling of suspense? Use evidence from the poem to support your answer.

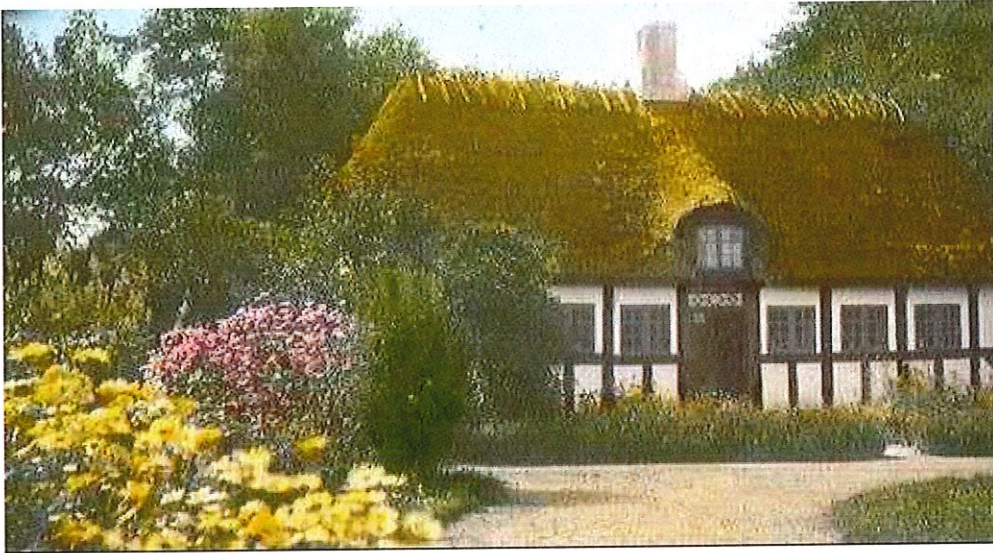
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# Grandma's House

by Rachel Howard



The sun was just peeking through the curtains in Emily and Hannah's room when their mom called upstairs to wake them. "It's time to go to Grandma's!" she said.

Emily groaned and looked over at her twin sister, who was rubbing her eyes. "I don't want to go to Grandma's house," Emily said grumpily.

"Me neither," Hannah said. She sat up and stretched. "But maybe Uncle Joe will be there."

Uncle Joe was their favorite. He always brought them chocolate chip cookies from the bakery he owned.

"Yeah, maybe," Emily said. She hated going to their Grandma's house. It smelled like an old person, and there was plastic on all the couches, which stuck to their legs whenever they wore shorts and tried to get up. Their Grandma was also very deaf, so they had to talk right in her ear whenever they needed to tell her something. Mostly when Emily and Hannah went over to their Grandma's house, they whispered to each other and let their mom talk to Grandma.

Hannah went to the bathroom to brush her teeth, and Emily reluctantly got out of bed. She got dressed quickly and went downstairs for breakfast. Their mom was sitting at the table with a steaming cup of coffee and the newspaper in front of her.



"Morning, Em," she said.

"Hi, Mom." Emily pulled out the cereal she and Hannah liked and poured two bowls before sitting at the table next to their mom.

"Excited to see Grandma?"

"Yeah, kind of," Emily said, in between bites. She knew it would hurt her mom's feelings if her mom knew how uncomfortable she was at their grandmother's house. It was better not to tell her.

Hannah came running down the stairs and started eating quickly, shoveling the cereal into her mouth. "Sorry I'm late, Mom!" she said.

Emily rolled her eyes. Hannah was always the good one. She was even wearing a nice dress to go to Grandma's house. Emily looked down at her old jeans with holes at the knees and the lumpy sweater she had pulled out of her closet.

"You're not late," their mom said. She closed the newspaper and took a long drink of coffee. "I really appreciate you guys going over to Grandma's today. I have a ton of Christmas presents to buy, and I know Grandma will appreciate the company."

Hannah smiled, but Emily felt her stomach drop. They would be at Grandma's house alone? Emily finished her breakfast slowly and took her empty bowl to the sink.

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"Bye!" their mom called, waving from the car before she drove away. Emily and Hannah walked up the long driveway to their grandma's house.

"This is going to be so weird," Emily said.

"It'll be fine, Emily. Maybe Grandma will let us watch TV," Hannah said, swinging her arms. Emily didn't understand why Hannah was so optimistic. Grandma, like their mom, "didn't believe in television."

When they got to the front door, Hannah rang the bell. They could hear the loud ring reverberate through Grandma's house and had to wait a long time until they heard Grandma's shuffling steps walking to the front door.

"Hi, girls," Grandma said. She opened the door and Hannah and Emily walked in, dutifully kissing her on the cheek as they passed into the dark house. They waited in the foyer, not

quite knowing where to go or what to do. After their grandma had locked the door carefully, they followed her into the kitchen, where they all sat at the table.

"Are you girls hungry?" Grandma said, looking from one to the other.

Emily wasn't sure if she could tell them apart. Both she and Hannah shook their heads.

"Okay, well there's something I want to show you," Grandma said. "Will one of you go get that album over there?" She pointed to a thick, brown photo album that was on the kitchen counter. Hannah got up and brought it to the table, placing it right in front of Grandma.

Their grandma opened the album and the spine cracked. "These are pictures of your mom when she was a little girl," Grandma said. Hannah moved closer to Grandma, and even Emily was curious. She pushed her chair closer to Grandma's and looked over her shoulder as she showed them pictures of their mom's childhood.

A few hours later, they heard a loud honk, which meant that their mom was back to pick them up. Emily and Hannah hugged their grandma, and for the first time they felt really close to her.

As they walked down the long driveway, Hannah grabbed Emily's hand. "That wasn't so bad, was it?" she said.

"No," Emily said. She smiled at her sister.

When they got in the car, Emily thought about how she, Hannah, and their mom had the same way of raising one eyebrow when they were happy. Today she had noticed that Grandma had that same habit, too.

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

1. Where do Emily and Hannah go in the story?

- A. shopping with Mom
- B. Uncle Joe's house
- C. Grandma's house
- D. to a restaurant

2. What main problem do Emily and Hannah face?

- A. They don't want to go to Grandma's house.
- B. They don't want to look at old photographs.
- C. They don't want to go shopping with their mom.
- D. They do not get along well with each other.

3. Emily is uncomfortable going to Grandma's house without her mom. What evidence from the story supports this conclusion?

- A. Emily does not want to hurt her mom's feelings, so she pretends to like Grandma's house.
- B. Emily does not understand why Hannah is so optimistic about visiting Grandma.
- C. Usually Emily and Hannah whisper to each other while Mom talks to Grandma.
- D. Emily's stomach drops when she learns she and Hannah will be alone.

4. How do Emily and Hannah feel about seeing old pictures of her mother?

- A. bored
- B. interested
- C. unhappy
- D. excited

5. What is this story mostly about?

- A. two sisters who end up enjoying a visit at their grandma's house
- B. why two sisters feel uncomfortable visiting their grandma alone
- C. why visiting relatives is a good thing to do
- D. two sisters who visit their grandma and Uncle Joe

6. Read the following sentences:

"Bye!" their mom called, waving from the car before she drove away. Emily and Hannah walked up the long driveway to their grandma's house.

"This is going to be so weird," Emily said.

"It'll be fine, Emily. Maybe Grandma will let us watch TV," Hannah said, swinging her arms. Emily didn't understand why Hannah was so **optimistic**: Grandma, like their mom, "didn't believe in television."

What does "**optimistic**" most nearly mean?

- A. uninterested
- B. disappointed
- C. hopeful
- D. excited

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

Emily is very unhappy about visiting Grandma's house. \_\_\_\_\_, Hannah is much more optimistic about the visit.

- A. Finally
- B. Especially
- C. Such as
- D. In contrast

8. What does Grandma show Emily and Hannah?

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**9.** Why does Emily hate going to Grandma's house?

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**10.** Explain how and why Emily's attitude toward visiting Grandma changes during the story.

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## Cool to Be Kind

by Kirsten Weir

### Put yourself in somebody else's shoes.

Amanda O. was in fourth grade when her mom passed away. Amanda had been bullied before, and, incredibly, older kids at school teased her about her devastating loss. "People bullied me about how I looked, how I dressed. They bullied me about my mom," says the 14-year-old from El Paso, Texas.

Amanda told the principal, who called the bullies' parents. Amanda also confronted the kids herself. "I said, 'You didn't know my mom. She was my best friend. If you lost a best friend, how would you feel?'"

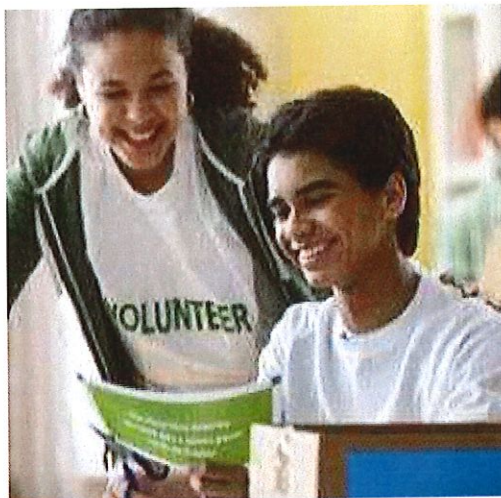
The bullies backed off, and Amanda felt good about standing up for herself. She may not have realized it at the time, but Amanda was asking her tormentors to have a little empathy.

"Empathy is a matter of learning how to understand someone else-both what they think and how they feel," says Jennifer Freed, a family therapist and codirector of a teen program called the Academy of Healing Arts.

In other words, empathy is being able to put yourself in someone else's shoes. Many people who bully others are particularly weak in that department, says Malcolm Watson, a psychologist at Brandeis University in Massachusetts. "Bullies don't tend to have a lot of empathy," he says.

Everyone is different, and levels of empathy differ from person to person. "Some people are more highly sensitive than others. They will naturally feel what other people feel," Freed says. "Others don't understand emotions in other people as well."

The good news? "Empathy is something you can learn," Freed says. In fact, she adds, teaching empathy to prevent bullying is more effective than punishing bullies after the fact. And anyone can learn it. In her teen programs, she says, "every semester we see bullies change their behavior."



Jose L. Pelaez/Corbis

*Volunteering is a good way to develop more empathy, experts say.*

You don't have to be a bully to benefit from developing empathy. Having compassion for others is a valuable skill that everyone should work to improve, she says. "I think everyone needs to develop more of it."

## Emotional Intelligence

Last year, researchers from the University of Michigan reported that empathy among college students had dropped sharply over the past 10 years. That could be because so many people have replaced face time with screen time, the researchers said. Having empathy is about understanding other people. Today, people spend more time solo and are less likely to join groups and clubs.

Freed has another explanation. Turn on the TV, and you're bombarded with news and reality shows highlighting people fighting, competing, and generally treating one another with no respect. Humans learn by example-and most of the examples on TV are anything but empathetic.

There are good reasons not to follow those bad examples. Humans are social by nature. Having relationships with other people is an important part of being human-and having empathy is critical to those relationships. Researchers have also found that empathetic teenagers are more likely to have high self-esteem. That's not all. In a book titled *The Power of Empathy*, psychologist Arthur Ciaramicoli writes that empathy can be a cure for loneliness, depression, anxiety, and fear.

Empathy is also a sign of a good leader. In fact, Freed says, many top companies report that empathy is one of the most important things they look for in new executives. Good social skills—including empathy—are a kind of "emotional intelligence" that will help you succeed in many areas of life. "Academics are important. But if you don't have emotional intelligence, you won't be as successful in work or in your love life," she says.

What's the best way to up your empathy quotient? For starters, let down your guard and really listen to others. "One doesn't develop empathy by having a lot of opinions and doing a lot of talking," Freed says. Here are some great ways to dig beneath the surface and really get to know other people—and to boost empathy in the process:

- Volunteer at a nursing home or a hospital. Challenging yourself to care for others is a great way to learn empathy, Freed says.
- Join a club or a team that has a diverse membership. You can learn a lot from people of different ages, races, or backgrounds.
- Spend time caring for pets at an animal shelter.
- Once a week, have a "sharing circle" with your family. Take turns listening to one another talk, without interrupting.

## Playing Your Part

With bullying such a big issue in schools around the country, experts are looking more closely at empathy. Many schools are teaching teens how to tune in to others' feelings. Often, kids who bully others come from homes where empathy is in short supply, says Watson. Teaching them empathy skills can help squash their aggressive behavior. Just focusing on the bullies and their victims isn't enough to stop the bullying crisis, though. To do that, everyone in school must show some empathy.

Have you ever watched a classmate being teased or pushed around, without intervening? Imagine that victim was your little brother or a close friend. How would you feel about the situation then? It takes both courage and empathy to confront a bully or to report an incident to a teacher. It may not be easy, but working together is the best way to make schools safer, Watson says.

That makes sense to Patrick K., a 16-year-old from South Carolina. He was bullied in middle school and lived in constant fear. One day one of his tormentors threatened to kill him and later threw a rock at his head during gym class.

Fortunately, Patrick's family moved to a new school district not long after that incident, and things are much better at his new school. But he wasn't content to just sit back and let other kids suffer the way he had. He became a teen ambassador for Love Our Children USA's STOMP Out Bullying campaign.

Last year, Patrick saw a classmate getting pushed around at school. He immediately reported the incident to the principal and a guidance counselor. The school called the kids in to sort out the problem, he says. Patrick doesn't think he did anything special. "I feel that everybody should be treated with respect," he says. "I just felt like it was the right thing to do."

## Expressing Empathy-Creatively

If you've ever been called nasty names, you know how awful it feels. Here's your chance to help others understand what it's like to walk in your shoes. The No Name-Calling Week Creative Expression Contest wants your poems, artwork, essays, music, and videos! Tune in to your artistic side to illustrate how name-calling has affected you and your peers. No Name-Calling Week happens each year in January. (But being kind is cool any week of the year.)



Chris Price/Istock

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

1. What is empathy?

- A. Empathy is the ability to make other people do what you want by threatening them.
- B. Empathy is the ability to understand how other people think and feel.
- C. Empathy is the choice that many people make to spend time alone instead of joining groups.
- D. Empathy is the choice that many people make to watch TV shows full of fighting and disrespectful words.

2. What problem does developing empathy help solve?

- A. Developing empathy helps solve the problem of unexpected death.
- B. Developing empathy helps solve the problem of homelessness.
- C. Developing empathy helps solve the problem of lung cancer.
- D. Developing empathy helps solve the problem of bullying.

3. Empathy is something people can learn.

What evidence from the passage supports this statement?

- A. Teaching empathy to prevent bullying is more effective than punishing bullies after the fact.
- B. After Amanda O.'s mom died, older kids at school teased her about her devastating loss.
- C. Patrick K.'s tormentors threatened to kill him and later threw a rock at his head during gym class.
- D. Researchers from the University of Michigan reported that empathy among college students had dropped sharply over the past 10 years.

4. What policy would most likely result in a decrease in bullying at school?

- A. a policy requiring students to spend at least three hours doing homework every night
- B. a policy requiring students to take more math and science classes but fewer arts and language classes
- C. a policy requiring students to volunteer every month at a nursing home, hospital, or animal shelter
- D. a policy discouraging students from speaking up or taking action if they notice a classmate being teased



5. What is this passage mostly about?

- A. fear and loneliness
- B. depression and anxiety
- C. poems and music
- D. empathy and bullying

6. Read the following sentences: "Have you ever watched a classmate being teased or pushed around, without intervening? Imagine that victim was your little brother or a close friend. How would you feel about the situation then? It takes both courage and empathy to confront a **bully** or to report an incident to a teacher."

What does the word **bully** mean above?

- A. a person who naturally feels what other people feel
- B. a person who teases, threatens, or harms someone else
- C. a person who does research studies on how students behave
- D. a person who is a good leader and successful at work

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

There are several ways to develop empathy, \_\_\_\_\_ listening closely to others and getting to know people from many different backgrounds.

- A. such as
- B. although
- C. never
- D. before

8. How much empathy do bullies tend to have?

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9. Name two benefits of empathy mentioned in the passage.

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10. Therapist Jennifer Freed thinks that everyone needs to develop more empathy. Based on the information in the passage, explain whether developing more empathy is or is not a good idea.

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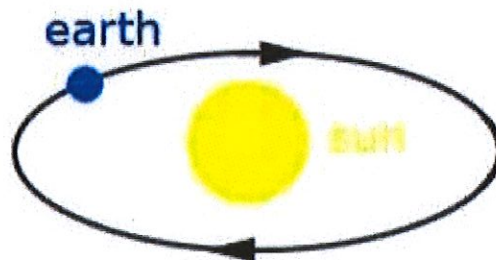
# Why Is It Colder in the Winter Than in the Summer?

by Dr. Hany Farid

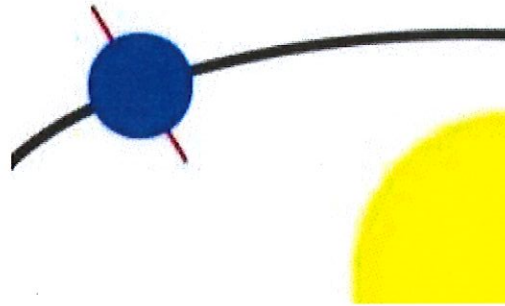
The earth's axis of rotation is tilted relative to the earth's path around the sun. As a result we are tilted towards the sun in the summer and away from the sun in the winter. Read on for a more detailed explanation.



**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.

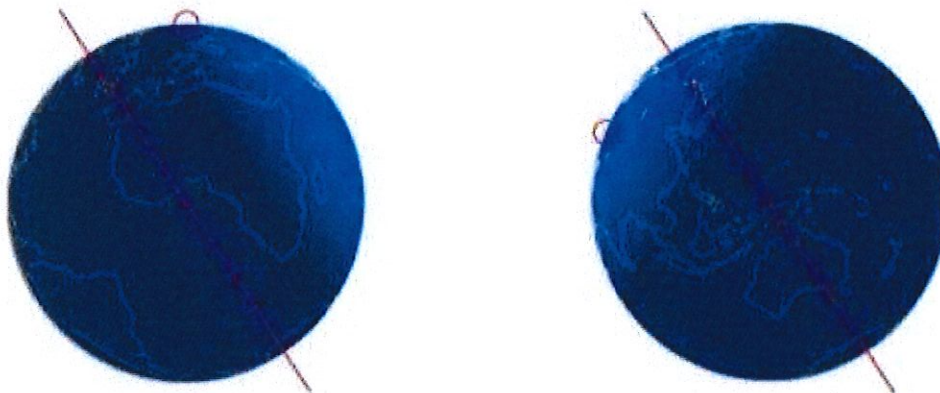


**Fact 2.** The earth orbits the sun, and one full revolution takes (approximately) 365 earth days, or one earth year.



**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?

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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?

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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.

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# The Best Dancer

by ReadWorks



Annabelle was the school's best dancer, something she reminded Taylor, Laura, and even five-year-old Christina of every day. "Mrs. Coolidge says I'm very *gifted*," she said, elongating the word "gifted" until it seemed to have three syllables instead of two. "She says I'll probably be a principal dancer at one of the world's most elite theaters."

Mrs. Coolidge *had* said these things, yes, but she had said them to a number of students in need of inspiration as encouragement. "Getting inspired" was something Mrs. Coolidge thought was very important. Annabelle, she believed, was inspired, but inspired to *win*, to *outdo*, to beat everyone else. Mrs. Coolidge would prefer it if Annabelle simply liked to dance.

"Students! Students!" Mrs. Coolidge called to the small gaggle of girls surrounding Annabelle. "I'd like to introduce you to our newest student, Sally. Sally is a most talented and gifted

student. I hope you'll all take the time to greet her warmly."

Annabelle looked at Sally with lowered brows. Sally didn't have a dancer's body: she was short, with legs that looked bowed, like they belonged to a frog instead of an eleven-year-old girl. Annabelle smirked. This girl would be no competition for Annabelle and her graceful, *gifted* performances.

In the following weeks, however, it became clear that Annabelle had grossly underestimated Sally's dancing abilities. In fact, Sally was not just a gifted dancer, but Sally was an *incredibly gifted* dancer. She leapt and twirled and bowed and moved in ways Annabelle hadn't imagined possible for such a short girl. And to top it off, Sally was a *nice* girl. She didn't brag, she didn't rub her talent in her classmates' faces, and she never said no to helping one of the younger girls learn a new dance move. She was funny, she was smart, and everyone liked her.

Annabelle was furious. Auditions for the lead of the school ballet were only three weeks away, and she was nearly positive that Sally would snatch the part right from underneath her. And so Annabelle devised a plan.

It was a well-known fact that Sally liked cake. In fact, Annabelle wondered how someone so little could eat so much. And yet, Sally managed to eat one-third of a triple chocolate fudge cake every single day. "Cake," Annabelle told herself, "is Sally's weakness."

On the morning of the audition, Annabelle filled a small paper bag with earthworms. There were four of them: big, juicy brown worms that she found sunning themselves on the sidewalk after the previous evening's rain. She felt them wriggle and twist in her hand as she placed them in the bag. She arrived at school just after Sally, and placed the paper bag in her locker.

"Mrs. Coolidge," she said during their first class, "I forgot something in my locker. Can I go get it?"

Mrs. Coolidge nodded yes, and continued to talk about the importance of stretching. Annabelle hurried to her locker. She reached up to the top shelf, but the small bag was missing. She began to look frantically through the locker. She shook out her jacket, pulled out her bag, and emptied her pencil case. The worms were gone.

Annabelle walked back to her class stiffly. She wasn't sure what to make of this development. The worms couldn't have walked away. She frowned. Had someone seen her collecting the worms?

By the time Annabelle returned to class, it was time for auditions. Annabelle would perform

first. She had prepared a beautiful piece in which she slid across the stage on her toes, emulating a flowering tulip.

Annabelle was midway through her performance when she felt something warm and sticky land on her right shoulder. A few moments later, she felt another drop on her head, and then again on her left shoulder. She looked down. The earthworms she had collected in the morning were draped across her shoulders. She could feel the third earthworm dangling from her ear like some misshapen earring. Annabelle looked up, and from the rafter she saw Sally holding the small brown paper bag.

Sally winked at her. "Nice try," she mouthed. Sally got the lead that year.

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

1. Mrs. Coolidge says that Annabelle is very what?

- A. kind
- B. beautiful
- C. snooty
- D. gifted

2. Annabelle devises a plan that somehow involves a bag of earthworms and Sally. What motivates Annabelle's actions?

- A. She wants to stop Sally from getting the lead part in the school ballet.
- B. She wants to prove that she is a more gifted ballet dancer than Sally.
- C. She wants to get the other ballet students to stop liking Sally so much.
- D. She wants Mrs. Coolidge to think that Sally is dirty and gross.

3. Annabelle wants to be the best at ballet. What evidence from the story best supports this conclusion?

- A. "Mrs. Coolidge would prefer it if Annabelle simply liked to dance."
- B. "In the following weeks, however, it became clear that Annabelle had grossly underestimated Sally's dancing abilities."
- C. "Annabelle, she believed, was inspired, but inspired to *win*, to *outdo*, to beat everyone else."
- D. "She had prepared a beautiful piece in which she slid across the stage on her toes, emulating a flowering tulip."

4. How can Annabelle best be described?

- A. honest
- B. competitive
- C. helpful
- D. generous



5. What is the main idea of the passage?

- A. Sally gets the lead part in the school ballet because she tricks Annabelle.
- B. Annabelle gathers earthworms in a bag, but she loses the bag.
- C. Two young ballet dancers start off as rivals, but soon become friends.
- D. Annabelle is jealous of a new student who is a better dancer than her.

6. Read the following sentences: "Annabelle smirked. This girl would be no competition for Annabelle and her graceful, *gifted* performances. In the following weeks, however, it became clear that Annabelle had grossly **underestimated** Sally's dancing abilities. In fact, Sally was not just a gifted dancer, but Sally was an *incredibly gifted* dancer. She leapt and twirled and bowed and moved in ways Annabelle hadn't imagined possible for such a short girl."

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

- A. think someone is lower in ability than they really are
- B. accurately guess how good someone's ability is
- C. think someone is higher in ability than they really are
- D. make a guess with very little information about something

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

\_\_\_\_\_, Annabelle is the best dancer in the class. Then a better dancer joins the class.

- A. For example
- B. However
- C. Initially
- D. Finally

8. Who gets the lead in the school ballet?

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9. During Annabelle's audition, Sally drops the earthworms that Anabelle had collected on her and mouths, "Nice try." Based on this information, what can you conclude about Sally?

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10. "Annabelle and Sally are more similar than they seem at the beginning of the story." Explain whether this statement is accurate or not. Support your answer using information from the story.

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# Solar Absorbers and the Future of Electricity

by James Folta



Electricity is what we use to power things at home or at school. You can probably look around right now and see an electrical outlet or two. Everything that we plug into one of these outlets uses electricity. But where does this electricity come from? Right now we have a few ways to make electricity. Some are better than others. There are some scientists who are trying to find new ways to get electricity that are better for the planet Earth.

Most electricity is generated by machines that are run by steam. Making a lot of steam is the hard part. Water has to be heated up so that it boils and becomes steam. In the United States, a lot of different things are burned to create this steam. The most common things that are burned are oil, gas, and coal. The United States uses a lot of electricity, and so we burn a lot of oil, gas, and coal. In 2012, the United States of America used more oil and gas than any

other country in the world and was number two in the world for using coal.

The problem with using these things is that burning them can be harmful and damaging to the earth. Also, there is only a certain amount of coal, gas, and oil in the world, and they are running out very quickly. We can't make more of them. What happens when they run out? How else can we get electricity?

There are some people who are trying to answer this question. There are many scientists who are developing different methods of getting electricity. One of these people is Jeff Chou, who is a scientist and researcher working on new ways of getting electricity. Jeff works at MIT, which stands for Massachusetts Institute of Technology. It is a university in Cambridge, Massachusetts. MIT is very well known, and people from all over the world go to study there. It is one of the best colleges to learn and practice science.

Jeff is at MIT working as a researcher on electricity. He decided he wanted to be a scientist in high school: "I happened to like the math and physics classes, so in college I chose to focus on electrical engineering." Electrical engineering is studying how electricity works. This is helpful for knowing how things like computers work. In fact, Jeff can build the computer chips that make computers run!

Jeff likes being a scientist because he can change the world. "I get to work on tough problems that could help out everyone on Earth," Jeff says. Jeff likes that he gets to try to "come up with new solutions by thinking creatively. In fact, in science, wild and crazy ideas are encouraged!"

Jeff has been working on how to get better solar power. Solar power, Jeff says, is "converting the light we get from the sun into usable electrical energy." You can feel this energy yourself: the sun feels hot on your skin because it is sending out energy. Solar power is different from oil, gas, or coal because it is what is called renewable energy. This means that its source is not consumed when we use the energy, as happens with gas, for instance, which burns away. Things like the wind, the sun, and ocean currents are called renewable because they won't go away anytime soon.

At MIT, Jeff has been "working on new ways to convert solar energy into electricity." He made something called an absorber. It takes the heat from something hot, like the sun, and turns it into electricity. Absorbers are very small. They are special panels made out of silicon and other materials. These panels can "absorb and convert each photon [from the sun] that comes in, into an electron." These electrons can be used to make electricity. This can power anything, like a toaster, or a TV, or even some cars.

Jeff's job as a researcher involves doing lots of experiments. Jeff says that experiments are

the heart of science. You have to take your ideas and test them to see if they work or not. "Sometimes the ideas work and sometimes they don't, and that's science in a nutshell," Jeff says. These experiments involve lots of special equipment and laboratories. Jeff does most experiments in a clean room, which is a room that has no germs or dirt or anything that might damage his experiments. In the clean room, Jeff made the tiny solar absorbers. Then he shined light on them to see how much energy they could make. He took careful notes and measurements so that he could tell everyone how good or bad the device was.

Jeff likes working with solar energy because it is better for the earth. "Solar energy is very important because we can create electrical energy without polluting the earth," Jeff says. Older ways of getting electricity that use oil, gas, or coal are more harmful. They "burn toxic chemicals and release them into the sky and Earth, which are harmful to you and me," Jeff says. But the absorbers that Jeff built are cleaner. "All we have to do is point our solar silicon panels towards the sun, and we get clean energy," Jeff says.

For Jeff, his solar absorbers are very exciting because they can help us turn anything hot into electricity. Jeff is hoping that if his panels are sensitive enough, anything hot could generate electricity, not just the sun. He says, "There are a lot of hot things we encounter every day; imagine if we can now use those to help power an entire city!" This is the exciting part of science for Jeff. He is helping to make the world a cleaner and better place through his solar panels. If scientists like Jeff are successful, the world would be able to get all its electricity from clean, renewable sources. This would make our world a cleaner and safer place to live.

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

1. What kinds of energy does Jeff Chou work with?

- A. energy from coal, gas, and oil
- B. solar energy and energy from coal
- C. electrical energy and energy from oil
- D. solar energy and electrical energy

2. What does the passage describe?

- A. The passage describes electricity and the efforts of a scientist to turn solar energy into electricity.
- B. The passage describes the reasons that people from all over the world go to study at MIT.
- C. The passage describes what Jeff Chou does to keep the room where he does his experiments clean.
- D. The passage describes the few harmful byproducts that are created by people use energy from the sun.

3. Getting electricity from oil, gas, and coal pollutes the Earth.

What evidence from the passage supports this statement?

- A. Jeff Chou hopes that his panels will be sensitive enough to absorb electricity from anything hot, not just the sun.
- B. In order to generate steam for its electricity needs, the United States has to burn a lot of oil, gas, and coal.
- C. Using oil, gas, and coal burns toxic chemicals and releases them into the sky and the earth, which is harmful to people.
- D. According to Jeff Chou, testing your ideas to see whether or not they work is at the heart of science.



4. Why might Jeff and other scientists be working on making electricity from **renewable** sources, like solar energy?

- A. because it is much more expensive to make electricity from non-renewable sources than to make it from renewable ones
- B. because the sources used most are running out very quickly, and renewable sources will not run out any time soon
- C. because renewable sources can burn more easily, which means we can produce more steam to power more machines
- D. because using energy from renewable sources is a "wild and crazy idea", and scientists prefer to work on very creative projects

5. What is this passage mostly about?

- A. the reasons that the United States of America used more oil and gas than any other country in 2012
- B. the computer chips that Jeff Chou learned how to build as an electrical engineer
- C. electrical engineering, the process of burning coal, and the importance of electrical outlets in daily life
- D. electricity, solar energy, and a scientist working on ways to turn solar energy into electricity

6. Read the following sentence: "At MIT, Jeff has been 'working on new ways to **convert** solar energy into electricity.'"

What does the word **convert** mean?

- A. increase
- B. decrease
- C. change
- D. destroy

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

Solar power is renewable; \_\_\_\_\_, power from oil, gas, and coal is not renewable.

- A. however
- B. especially
- C. in conclusion
- D. initially

8. What did Jeff make to convert solar energy into electricity?

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9. According to Jeff, why is solar energy "very important"?

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10. Are the solar absorbers that Jeff worked on a better way of getting electricity than oil, gas, and coal? Use evidence from the passage to explain why or why not.

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## A Tale of Segregation: Fetching Water



The memory of a traumatic childhood incident near his hometown of Spiro, Oklahoma, still brings tears to the eyes of William Minner . . .

"We had stopped at a spring. It was a very popular place that both blacks and whites would go to get water. We had waited there for about 30 minutes. But the people ahead of us, they were all white. When we had reached our turn, two white men grabbed my dad. They told him that he'd have to wait until all of the white people were finished. Dad said, 'We'll get our water another day or we'll come back.' They wouldn't let my dad leave. They said, 'You're going to stay here, and when all of the good white people have gotten their water, and when everyone is gone, then you can do what you want to.' When all the white people finished getting their water, Dad got his water. I remember him telling me, 'What you saw there was real hatred and prejudice. But this is not going to be forever . . . there's gonna come a day when this won't be anymore.'"

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

1. Why did William Minner and his father go to the spring?

- A. to go swimming
- B. to get water
- C. to wash their clothes
- D. to bathe themselves

2. What does the author describe in the passage?

- A. a freshwater spring that was popular with blacks and whites
- B. a true account of slavery in the American South
- C. how William and his father were treated hatefully
- D. how other people reacted to William and his father being stopped

3. William and his father had been waiting for a long time when they were stopped by two white men. What evidence from the passage supports this conclusion?

- A. "But the people ahead of us, they were all white."
- B. "When all the white people finished getting their water, Dad got his water."
- C. "When we had reached our turn, two white men grabbed my dad."
- D. "We had waited there for about 30 minutes."

4. Why did the two white men make William and his father wait?

- A. They thought that white people deserved to go first.
- B. They thought that William and his father didn't need water.
- C. The white men were in a hurry and didn't want to wait.
- D. They thought that William and his father had cut in line.

5. What is this passage mostly about?

- A. how to fetch water from a spring
- B. an account of segregation
- C. the end of segregation in the USA
- D. a fictional story about segregation

6. Read the following sentence: "The memory of a traumatic childhood incident near his hometown of Spiro, Oklahoma, still brings tears to the eyes of William Minner . . ."

Why does the author begin the passage with this sentence?

- A. to introduce William's personal account
- B. to tell the reader the story is fictional
- C. to explain who William Minner is
- D. to describe the aftermath of the account

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

William's father told the two white men that he would come back later to get their water, \_\_\_\_\_ the white men made him stay and wait.

- A. so
- B. also
- C. after
- D. but

8. Why did William and his father have to wait to get water?

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9. What is the act of "real hatred and prejudice" that William's father talked about?

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**10.** Explain what William's father meant when he said, "*But this is not going to be forever . . . there's gonna come a day when this won't be anymore.*"

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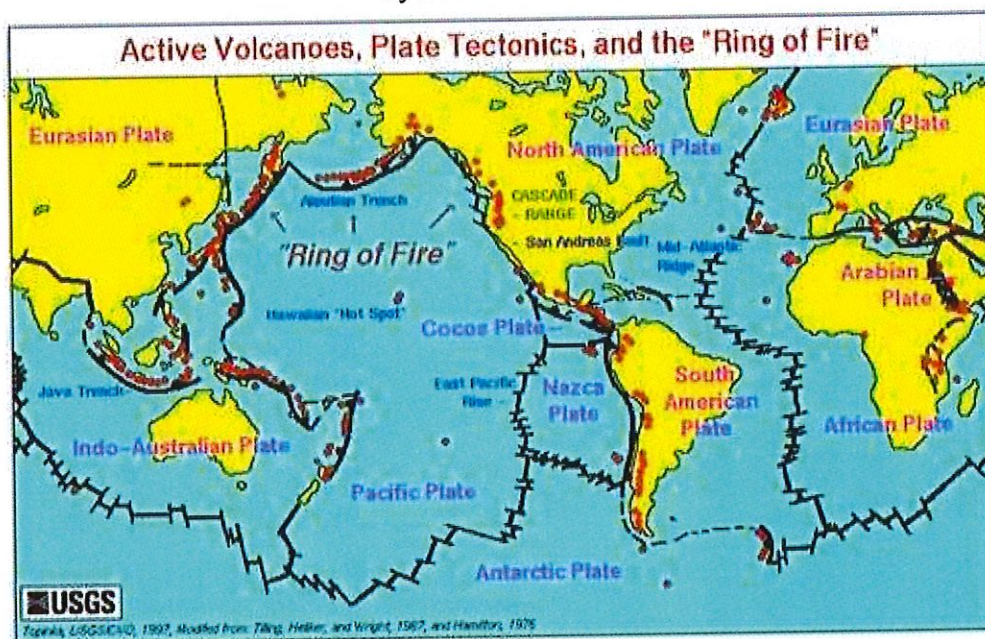
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# The Variety of Maps

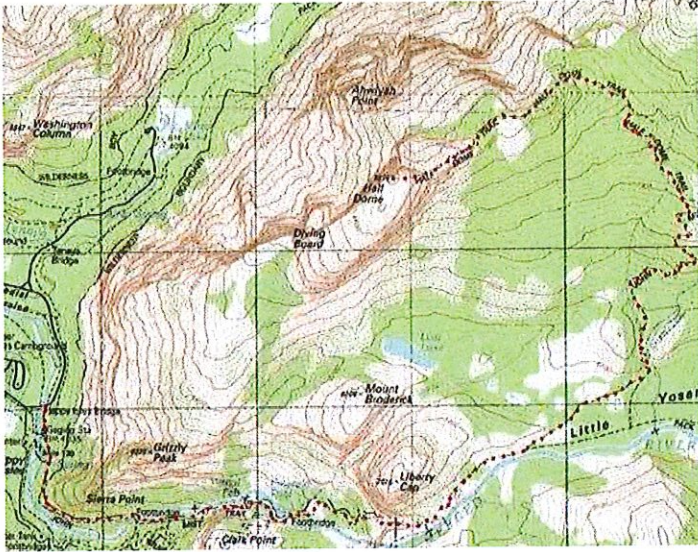
by Frances Killea



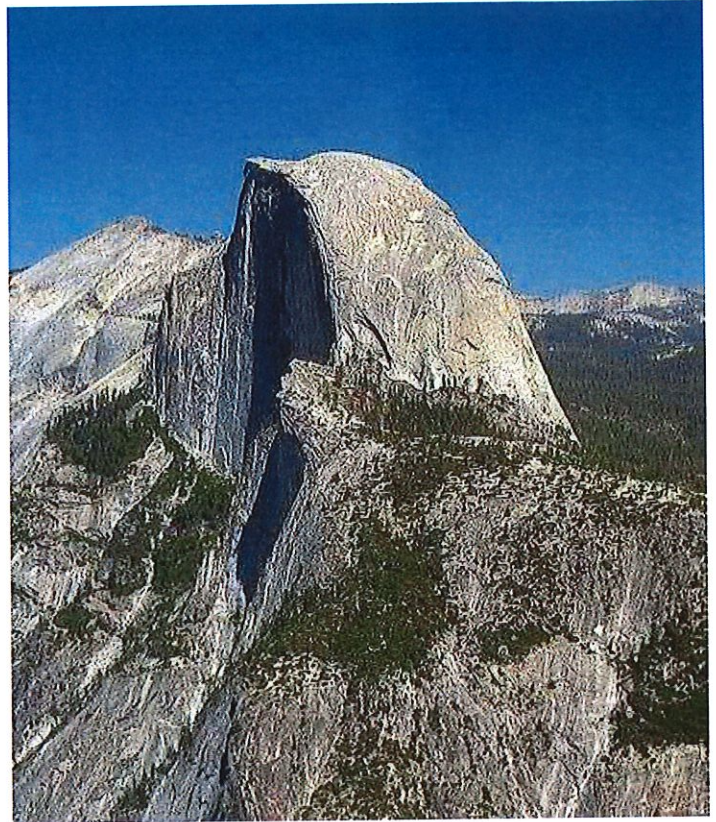
Maps are known for helping us figure out how to get to a certain location: which road do I take to the ice-cream parlor? How do I get from my house to my best friend's? But maps can show us a lot more than just roads and cities. Different types of maps are created to provide various kinds of information about the earth.

For example, some maps mark the borders of tectonic plates. Tectonic plates are large pieces of the earth made up of the earth's crust and some of the mantle below the crust. The crust and mantle are layers of the earth. Other maps indicate where vents known as volcanoes are located and movements of the earth's crust known as earthquakes occur. In the map above, you can see not only the borders of different tectonic plates but also an area known as the Ring of Fire. The Ring of Fire is an area in the basin of the Pacific Ocean where a large number of volcanic eruptions and earthquakes take place. The Ring of Fire is unique because the plate boundaries on which it lies are part of highly populated areas, like the West Coast of the U.S., the Philippines, and Japan. As you can see, most of the other borders between plates are in the middle of various oceans.





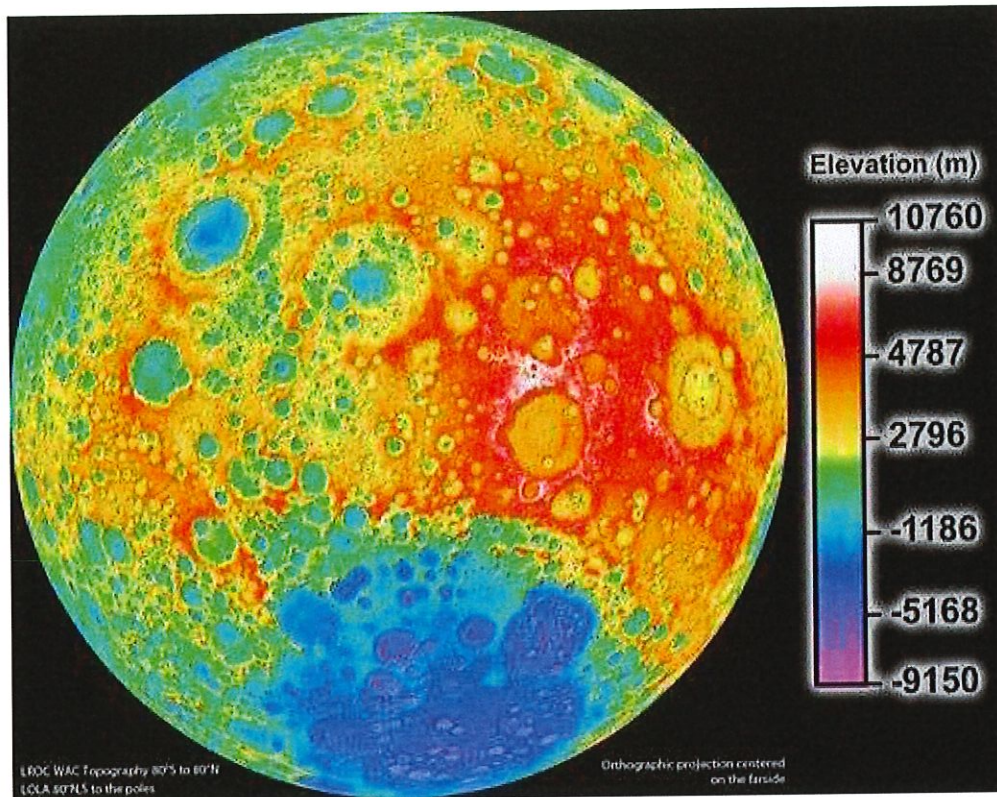
*An elevation map of Half Dome, in Yosemite National Park*



*Yosemite's Half Dome: You can see how steep the slope of the peak is. This is represented by the extremely dense cluster of lines on the elevation map.*

Maps can show other features of the earth, too, not just volcanoes and the earth's different segments. Elevation maps show us how high the land is. Some of them look like the ripples in a pond when you throw a pebble into the water, or like the rings of a tree. The rings show elevation-the closer together they are, the higher the land. If the rings are really far apart, the land is nearly flat in that area. Other elevation maps use color to illustrate where mountains are, changing color or getting darker or lighter as the peaks rise.





*A color-based elevation map of the moon*

Maps can be used to represent any place. Maps aren't limited to land, either—maps of oceans and lakes sometimes show how deep the water is in different areas by using darker coloring for deeper sections.

Cartographers—people who make maps—can even map moving things. Think of weather maps. They use color to show where it's raining, where it's snowing, and where there might be hurricanes or thunderstorms. With computers, it's gotten easier to make features of these maps move, to show where clouds producing rain or snow are going to travel.

People use maps to understand much more than distance and location: they are not just for keeping us from getting lost!

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

1. According to the passage, which of the following can maps show?

- A. the way plates move
- B. the way volcanoes form
- C. how earthquakes occur
- D. borders of tectonic plates

2. What does this passage list?

- A. This passage lists different effects of volcanic eruptions.
- B. This passage lists different cartographers.
- C. This passage lists different examples of maps.
- D. This passage lists different ways maps are created.

3. Some maps indicate where volcanoes are located and earthquakes occur. Other maps show the weather in an area. Furthermore, certain maps called elevation maps show how high the land is.

What can be concluded about the way people use maps based on this information?

- A. People use a variety of maps to show or learn a variety of information about the earth.
- B. People are more likely to use weather maps than elevation of maps.
- C. Maps that show where volcanoes are located have evolved from elevation maps and weather maps.
- D. Maps are very similar no matter what kind of information about earth they are illustrating.

4. How would an elevation map of an area with hills differ from an elevation map of an area with mountains?

- A. The rings in the elevation map of an area with hills are farther apart. The rings in the elevation map of an area with mountains are closer together.
- B. The rings in the elevation map of an area with hills are closer together. The rings in the elevation map of an area with mountains are farther apart.
- C. The rings in the elevation map of an area with hills are thicker. The rings in the elevation map of an area with mountains are thinner.
- D. The rings in the elevation map of a hill are brighter. The rings in the elevation map of a mountain are darker.

5. What is the main idea of this passage?

- A. The closer the rings on an elevation map, the higher the land.
- B. Some elevation maps use color to illustrate where mountains are, changing color or getting darker or lighter as the peaks rise.
- C. The Ring of Fire is an area in the basin of the Pacific Ocean where a large number of volcanic eruptions and earthquakes take place.
- D. Different types of maps are created to provide various kinds of information about the earth.

6. Read the following sentences: "Other elevation maps use color to **illustrate** where mountains are, changing color or getting darker or lighter as the peaks rise."

As used in the passage, what is the meaning of the word "**illustrate**"?

- A. to show
- B. to explain
- C. to draw
- D. to photograph

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

Elevation maps show how high the land is in different ways. \_\_\_\_\_, some elevation maps use rings and others use color.

- A. On the other hand
- B. For example
- C. Although
- D. Because

8. What does an elevation map show?

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---

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9. Name at least two of the different things weather maps can show.

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**10.** Maps that show distance and location can be used by people to keep from getting lost. Name one other type of map mentioned in the passage and give an example of how it can help people.

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Math

Name:

Date:

5.OA.1

# Parentheses, Brackets, & Braces

Directions: Evaluate each. Show your work.

$$30 - (8 \times 2) = \_\_\_\_\_\_$$

$$10 - [(8 - 4) \div 2] = \_\_\_\_\_\_$$

$$45 - \{3 \times [(6 + 4) \div 2]\} = \_\_\_\_\_\_$$

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

Date: \_\_\_\_\_

5.OA.2

# Expressions

Directions: Write each as a Numerical Expression.

Add 3 and 7, then multiply by 3.

\_\_\_\_\_

Subtract the product of 5 and 8 from 50.

\_\_\_\_\_

Subtract 12 from 23, then multiply by 4.

\_\_\_\_\_

Multiply the sum of 6 and 3 by 2.

\_\_\_\_\_

Directions: Write each in Word Form.

$$(16 + 24) \times 3$$

\_\_\_\_\_

$$38 - (7 + 9)$$

\_\_\_\_\_

$$(6 \times 8) \div 4$$

\_\_\_\_\_

Name:

Date:

5.OA.3

# Numerical Patterns, Ordered Pairs, Coordinate Plane

Step 1: Generate Two Numerical Patterns

Add 5	
x	y
0	
1	
2	
3	
4	

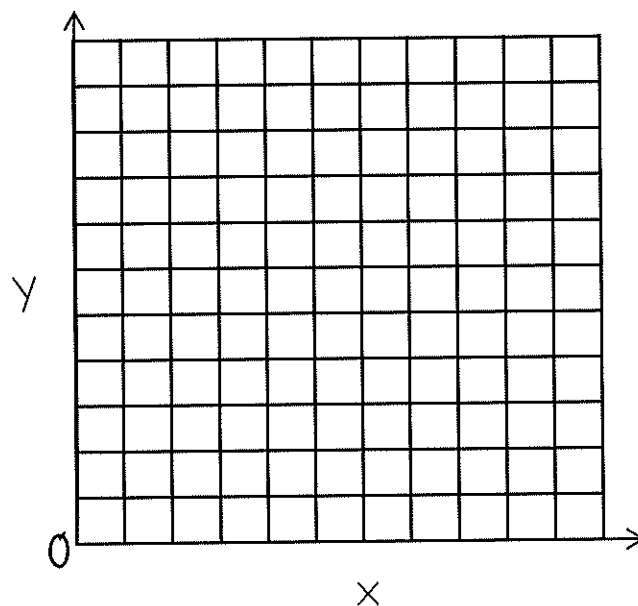
Add 7	
x	y
0	
1	
2	
3	
4	

Step 2: Form Ordered Pairs

Add 5
( , )
( , )
( , )
( , )
( , )

Add 7
( , )
( , )
( , )
( , )
( , )

Step 3: Graph Ordered Pairs



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

Date: \_\_\_\_\_

5.NBT.1

# Place Value

Directions: Find the value of the number given. Then compare the different values.

What is the value of 5 in the following numbers?

654,362

125,348

Value: \_\_\_\_\_

Compare the value of the 5 in these two numbers:

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

What is the value of 3 in the following numbers?

123,524

382

Value: \_\_\_\_\_

Compare the value of the 3 in these two numbers:

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

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

Date: \_\_\_\_\_

5.NBT.2

## Powers of 10

Directions: Solve each of the following.

$35 \times 100 = \underline{\hspace{2cm}}$

$72 \div 100 = \underline{\hspace{2cm}}$

$12 \div 1000 = \underline{\hspace{2cm}}$

$25 \times 10^3 = \underline{\hspace{2cm}}$

$32 \times 10^2 = \underline{\hspace{2cm}}$

$4 \times 10^4 = \underline{\hspace{2cm}}$

$871 \times 10 = \underline{\hspace{2cm}}$

$67 \times 10,000 = \underline{\hspace{2cm}}$

$94 \div 100 = \underline{\hspace{2cm}}$

$25 \div 1000 = \underline{\hspace{2cm}}$

$23 \times 10^3 = \underline{\hspace{2cm}}$

$71 \times 100 = \underline{\hspace{2cm}}$

$8 \times 10^4 = \underline{\hspace{2cm}}$

$23 \div 1000 = \underline{\hspace{2cm}}$

$65 \times 10,000 = \underline{\hspace{2cm}}$

$18 \times 10^2 = \underline{\hspace{2cm}}$

$14 \div 1000 = \underline{\hspace{2cm}}$

$426 \times 100 = \underline{\hspace{2cm}}$



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

Date: \_\_\_\_\_

5.NBT.3

## Numerals, Word Form, & Expanded Form

Directions: Write each decimal in word form and expanded form.

**2.789**

Word Form: \_\_\_\_\_

\_\_\_\_\_

Expanded Form: \_\_\_\_\_

\_\_\_\_\_

**20.65**

Word Form: \_\_\_\_\_

\_\_\_\_\_

Expanded Form: \_\_\_\_\_

\_\_\_\_\_

**19.238**

Word Form: \_\_\_\_\_

\_\_\_\_\_

Expanded Form: \_\_\_\_\_

\_\_\_\_\_

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

Date: \_\_\_\_\_

5.NBT.3

# Comparing Decimals

Directions: Use  $<$ ,  $>$ , or  $=$  to compare.

$$8.719 \text{ --- } 7.819$$

$$32.971 \text{ --- } 39.217$$

$$25.789 \text{ --- } 25.879$$

$$5.48 \text{ --- } 4.585$$

$$36.782 \text{ --- } 37.762$$

$$3.974 \text{ --- } 3.794$$

$$71.9 \text{ --- } 17.92$$

$$4.87 \text{ --- } 4.783$$

$$5.578 \text{ --- } 5.58$$

$$3.988 \text{ --- } 3.998$$

$$23.780 \text{ --- } 27.380$$

$$51.332 \text{ --- } 51.322$$

$$29.680 \text{ --- } 29.68$$

$$1.689 \text{ --- } 1.86$$

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

Date: \_\_\_\_\_

5.NBT.4

# Rounding Decimals

Directions: Round to the nearest place given.

Round to the nearest tenth.

23.791 \_\_\_\_\_ 19.83 \_\_\_\_\_

9.921 \_\_\_\_\_ 10.29 \_\_\_\_\_

Round to the nearest hundredth.

13.689 \_\_\_\_\_ 8.921 \_\_\_\_\_

23.492 \_\_\_\_\_ 3.122 \_\_\_\_\_

8.793 \_\_\_\_\_ 42.675 \_\_\_\_\_

Round to the nearest whole number.

24.867 \_\_\_\_\_ 19.98 \_\_\_\_\_

239.901 \_\_\_\_\_ 3.392 \_\_\_\_\_

Name:

Date:

5.NBT.5

# Multiplication

Directions: Use the strategy of your choice to find the product.

$$\begin{array}{r} 592 \\ \times 43 \\ \hline \end{array}$$

$$\begin{array}{r} 568 \\ \times 34 \\ \hline \end{array}$$

$$\begin{array}{r} 786 \\ \times 43 \\ \hline \end{array}$$

$$\begin{array}{r} 483 \\ \times 537 \\ \hline \end{array}$$

$$\begin{array}{r} 863 \\ \times 286 \\ \hline \end{array}$$

$$\begin{array}{r} 475 \\ \times 198 \\ \hline \end{array}$$

Name:

Date:

5.NBT.6

# Division

Directions: Use the strategy of your choice to find the quotient.

$$19 \overline{) 789}$$

$$26 \overline{) 542}$$

$$35 \overline{) 4,293}$$

$$18 \overline{) 453}$$

$$32 \overline{) 732}$$

$$43 \overline{) 5,615}$$

Name:

Date:

5.NBT.7

## Addition & Subtraction of Decimals

Directions: Find the sum or difference.

$$\begin{array}{r} 32.7 \\ + 21.63 \\ \hline \end{array}$$

$$\begin{array}{r} 64.58 \\ + 2.3 \\ \hline \end{array}$$

$$\begin{array}{r} 125.6 \\ + 24.72 \\ \hline \end{array}$$

$$\begin{array}{r} 52.3 \\ + 43.73 \\ \hline \end{array}$$

$$\begin{array}{r} 44.38 \\ - 7.9 \\ \hline \end{array}$$

$$\begin{array}{r} 367.6 \\ - 64.18 \\ \hline \end{array}$$

$$\begin{array}{r} 65.8 \\ - 37.83 \\ \hline \end{array}$$

$$\begin{array}{r} 67.04 \\ - 5.8 \\ \hline \end{array}$$

$$\begin{array}{r} 207.3 \\ - 94.48 \\ \hline \end{array}$$



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

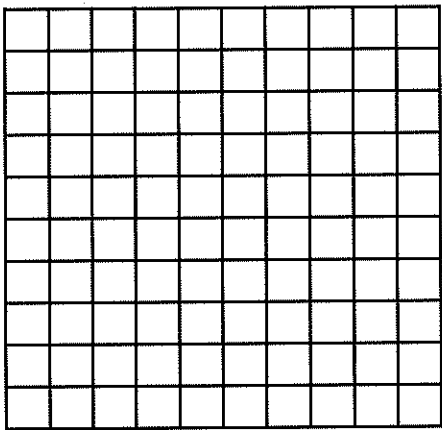
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5.NBT.7

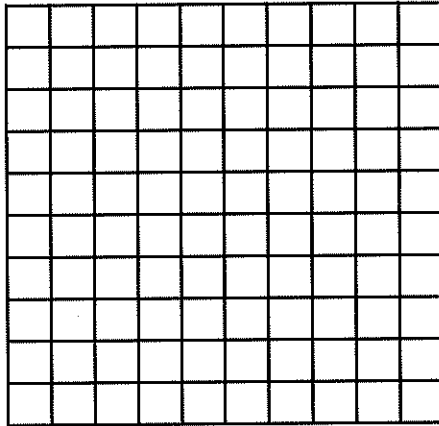
# Multiplication of Decimals

Directions: Find the product of each.

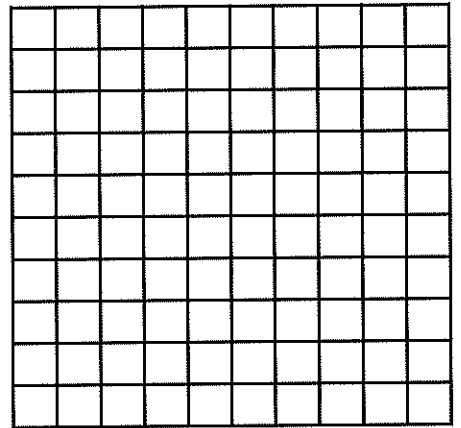
$0.8 \times 0.3 = \underline{\hspace{2cm}}$



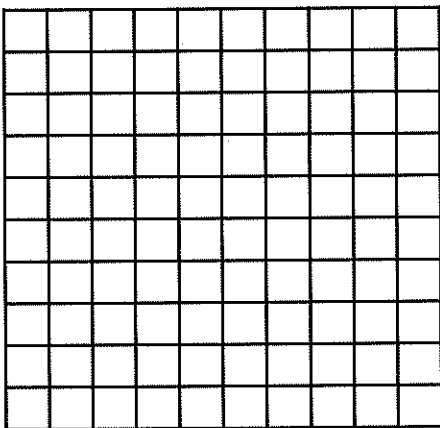
$0.8 \times 0.8 = \underline{\hspace{2cm}}$



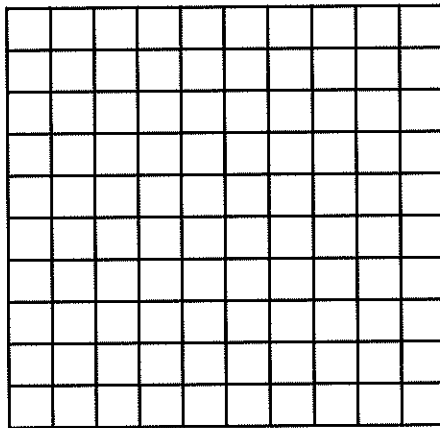
$0.2 \times 0.7 = \underline{\hspace{2cm}}$



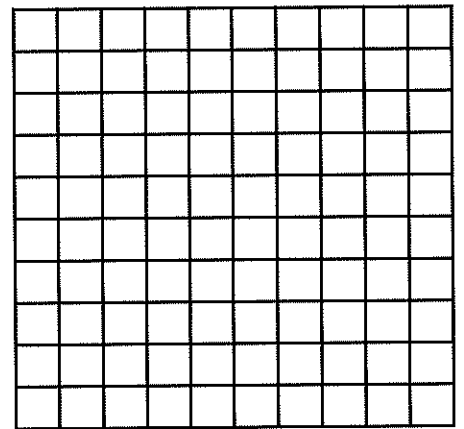
$0.9 \times 0.6 = \underline{\hspace{2cm}}$



$0.4 \times 0.3 = \underline{\hspace{2cm}}$



$0.8 \times 0.2 = \underline{\hspace{2cm}}$



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

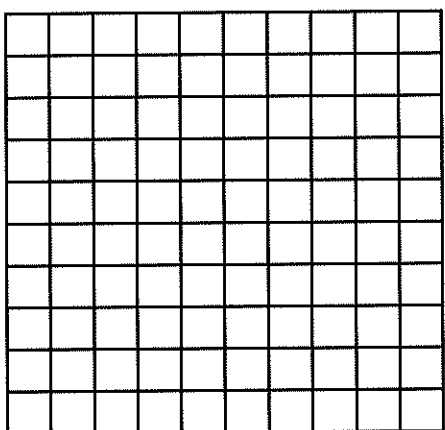
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5.NBT.7

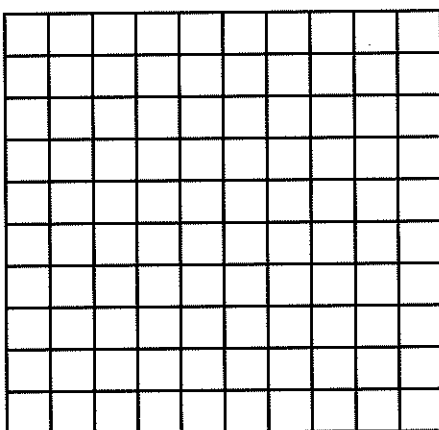
# Division of Decimals

Directions: Find the quotient of each.

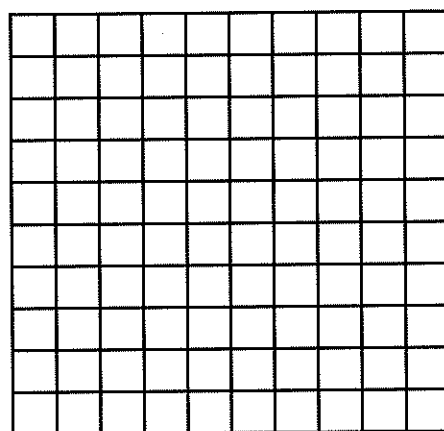
$0.24 \div 0.03 = \underline{\hspace{2cm}}$



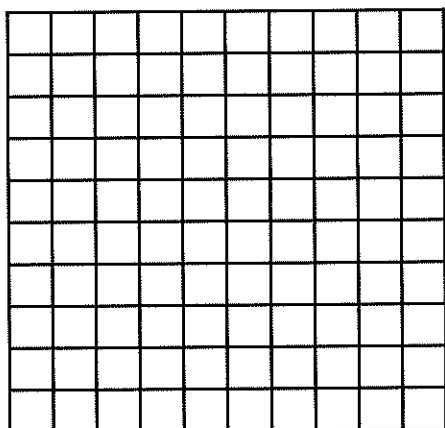
$0.32 \div 0.08 = \underline{\hspace{2cm}}$



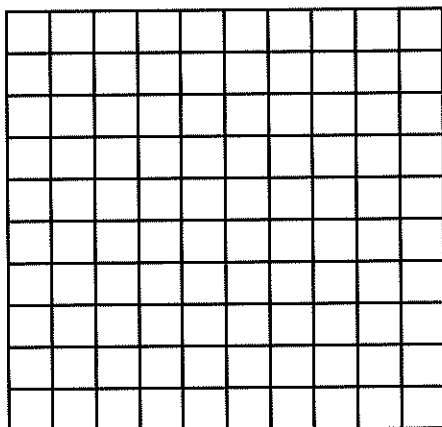
$0.49 \div 0.07 = \underline{\hspace{2cm}}$



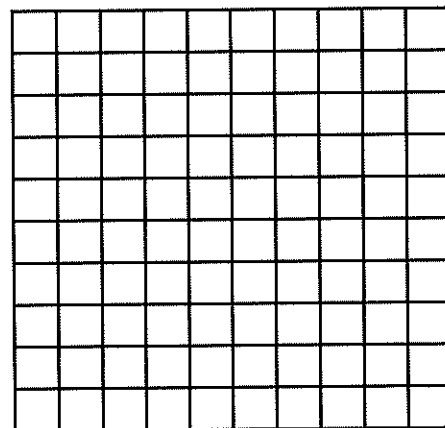
$0.3 \div 0.05 = \underline{\hspace{2cm}}$



$0.48 \div 0.06 = \underline{\hspace{2cm}}$



$0.36 \div 0.04 = \underline{\hspace{2cm}}$



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

Date: \_\_\_\_\_

5.NF.1

# Adding & Subtracting Fractions

Directions: Find the sum or difference.

$$\frac{1}{4} + \frac{1}{2} =$$

---

$$\frac{2}{5} + \frac{3}{4} =$$

---

$$\frac{3}{4} - \frac{1}{8} =$$

---

$$\frac{7}{10} - \frac{1}{3} =$$

---

$$\frac{5}{8} - \frac{1}{2} =$$

---

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

Date: \_\_\_\_\_

5.NF.1

## Adding & Subtracting Mixed Numbers

Directions: Find the sum or difference.

$$3\frac{3}{4} + 2\frac{1}{2} = \underline{\hspace{2cm}}$$

$$4\frac{1}{5} + 2\frac{2}{3} = \underline{\hspace{2cm}}$$

$$2\frac{1}{8} + 1\frac{1}{3} = \underline{\hspace{2cm}}$$

$$3\frac{3}{4} - 1\frac{1}{3} = \underline{\hspace{2cm}}$$

$$3\frac{7}{8} - 2\frac{2}{3} = \underline{\hspace{2cm}}$$

Name:

Date:

5.NF.2

## Word Problems: Adding & Subtracting Fractions

Directions: For each word problem, write an equation and/or draw a picture or model. Then solve.

At a party, Kim and Lyle shared a cheese pizza. Lyle ate  $\frac{2}{5}$  of the pizza and Kim ate  $\frac{1}{4}$  of the pizza. What fraction of the pizza did they eat altogether?

When Alicia arrived at the party a whole pepperoni pizza was left. If Alicia ate  $\frac{2}{5}$  of the pizza, then how much was left?

Riley brought cupcakes to a party. By the end of the party  $\frac{5}{6}$  of the cupcakes were gone. What fraction of the cupcakes were left at the end of the party?

Name:

Date:

5.NF.3

# Relating Fractions to Division

Directions: Find the quotient for each fraction.

$$\begin{array}{r} 7 \\ \hline 3 \end{array}$$

---

$$\begin{array}{r} 8 \\ \hline 5 \end{array}$$

---

$$\begin{array}{r} 9 \\ \hline 2 \end{array}$$

---

$$\begin{array}{r} 7 \\ \hline 5 \end{array}$$

---

$$\begin{array}{r} 9 \\ \hline 5 \end{array}$$

---



Name:

Date:

5.NF.3

## Word Problems: Relating Fractions to Decimals

Directions: For each word problem, write an equation and/or draw a picture or model. Then solve.

Last week Sofia practiced dancing for a total of 8 hours in 5 days. If she practiced for the same amount of time each day, how long did she practice for each day?

During P.E., Manny ran 8 laps in 6 minutes. About how many laps did he run per minute?

5 friends wanted to share a half-dozen pack of donuts. How many donuts did they each get to eat?

Name:

Date:

5.NF.4

## Multiplying Fractions

Directions: Find the product for each.

$$\frac{1}{4} \times \frac{2}{3} =$$

$$\frac{1}{3} \times \frac{2}{5} =$$

$$\frac{5}{6} \times \frac{1}{2} =$$

$$\frac{3}{4} \times \frac{2}{5} =$$

$$\frac{2}{3} \times \frac{1}{5} =$$

$$\frac{3}{5} \times \frac{1}{3} =$$

$$\frac{3}{4} \times \frac{1}{4} =$$

$$\frac{2}{5} \times \frac{2}{3} =$$

Name:

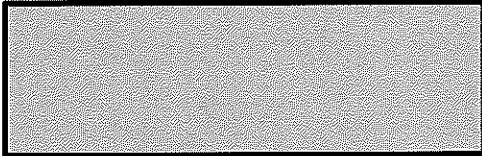
Date:

5.NF.4

# Area & Fractions

Directions: Find the area for each rectangle.

$\frac{4}{5}$  in.

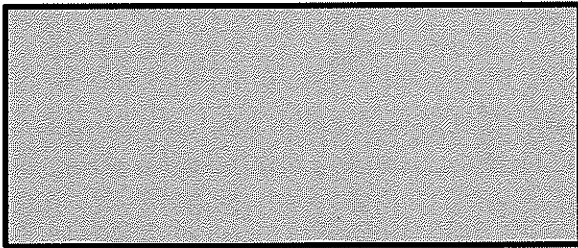


$2\frac{1}{2}$  in.

Area:

\_\_\_\_\_ square inches

$1\frac{1}{4}$  in.

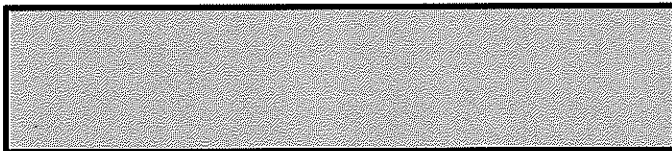


3 in.

Area:

\_\_\_\_\_ square inches

$\frac{3}{4}$  in.

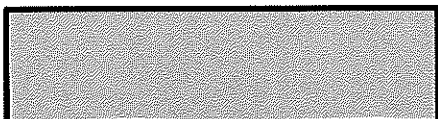


$3\frac{1}{2}$  in.

Area:

\_\_\_\_\_ square inches

$\frac{3}{5}$  in.



$2\frac{1}{4}$  in.

Area:

\_\_\_\_\_ square inches

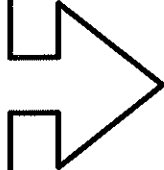
Name: \_\_\_\_\_

Date: \_\_\_\_\_

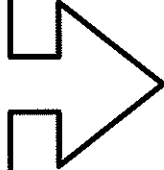
5.NF.5

## Understanding Multiplication of Fractions By Whole Numbers

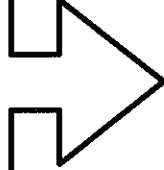
Directions: Tell whether the whole number will increase or decrease.

$$3 \times \frac{5}{2}$$


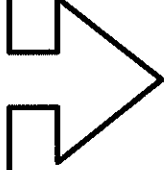
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$$7 \times \frac{1}{2}$$


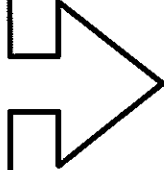
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$$4 \times \frac{7}{3}$$


\_\_\_\_\_

$$2 \times \frac{1}{3}$$


\_\_\_\_\_

$$5 \times \frac{1}{5}$$


\_\_\_\_\_

Name:

Date:

5.NF.6

## Word Problems: Multiplying Fractions

Directions: For each word problem, write an equation and/or draw a picture or model. Then solve.

On Sunday morning Ethan's dad brought home a dozen donuts. Ethan ate  $\frac{1}{3}$  of the donuts. How many donuts did Ethan eat?

When Taylor packed her lunch, there was  $\frac{2}{3}$  of a box of cheese crackers left. She packed  $\frac{1}{2}$  of what was left. How much of the cheese crackers did Taylor pack in her lunch?

When Alex got to the party there were  $2\frac{2}{3}$  of a pizza left. He ate  $\frac{1}{4}$  of what was left. How much pizza did Alex eat?

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

Date: \_\_\_\_\_

5.NF.7

## Dividing with Fractions

Directions: Find the quotient for each.

$$\frac{5}{6} \div 2 = \underline{\hspace{2cm}}$$

$$\frac{2}{3} \div 2 = \underline{\hspace{2cm}}$$

$$5 \div \frac{3}{4} = \underline{\hspace{2cm}}$$

$$4 \div \frac{1}{5} = \underline{\hspace{2cm}}$$

$$\frac{3}{5} \div 2 = \underline{\hspace{2cm}}$$

$$7 \div \frac{2}{5} = \underline{\hspace{2cm}}$$

Name:

Date:

5.NF.7

## Word Problems: Dividing with Fractions

Directions: For each word problem, write an equation and/or draw a picture or model. Then solve.

2 friends want to equally share  $\frac{2}{3}$  of a bag of chocolate cookies. What fraction of the bag will each friend get to eat?

Josh has 3 hours of homework to complete over the weekend. He wants to break up his work time into  $\frac{1}{2}$  hour blocks. How many times will he work this weekend?

Directions: Create your own word problem to match each division problem. Then solve.

$$7 \div \frac{1}{2} = ?$$

$$\frac{5}{6} \div 4 = ?$$



Name:

Date:

**5.MD.1**

# Converting Measurements

Directions: Complete each conversion chart.

1 gallon	8 pints
3	
	64
12	
16	

1 liter	1,000 milliliters
0.07	
	100
0.2	
0.7	

1 pound	16 ounces
5	
10	
15	
20	

1 kilogram	1,000 grams
5	
	10,000
20	
	25,000

1 yard	36 inches
3	
	180
	288
12	

1 meter	100 centimeters
0.03	
0.3	
3	
30	

Name:

Date:

5.MD.1

## Word Problems: Conversions

Directions: For each word problem, write an equation and/or draw a picture or model. Then solve.

Bill's baseball bag weighs 4 pounds. If he takes out 2 pairs of cleats that weigh 6 ounces each, how much will his bag weigh?

Kimberly is making strawberry lemonade for her class. She mixes 2 liters of lemonade and 3000 milliliters of strawberry juice. How many liters of strawberry lemonade will Kimberly have?

On a trip across the country, the Millers drive 60 kilometers a day for 7 days. How many meters will they drive in 7 days?

Name:

Date:

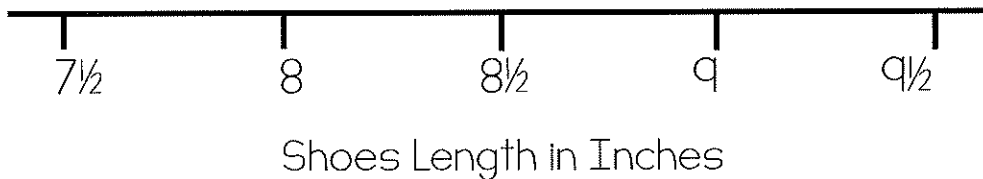
5.MD.2

# Line Plots

Miss Lea's students measured the length of one of each of their shoes to the nearest  $\frac{1}{2}$  inch. They organized the data using a tally chart. Use the tally chart to create a line plot. Answer the questions that follow.

Shoe Length	Number of Students
$7\frac{1}{2}$	III
8	IIII
$8\frac{1}{2}$	IIII I
9	III
$9\frac{1}{2}$	IIII

Line Plot:



What is the total shoe length of the students with the largest shoes?

What is the total shoe length of the students with the smallest shoes?

What is the total length of all of the shoes?

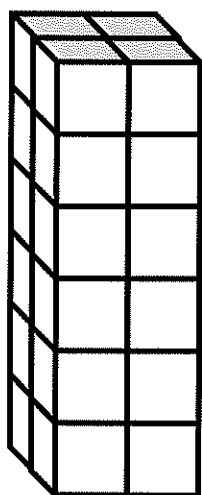
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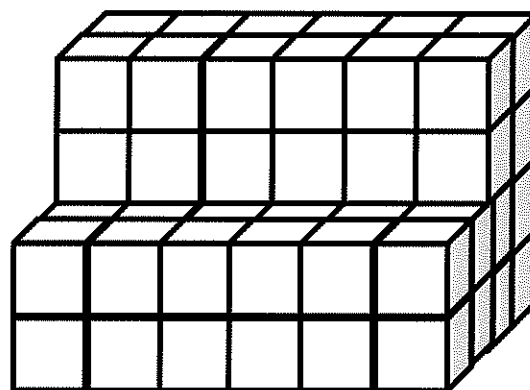
5.MD.3/4

# Understanding & Measuring Volume

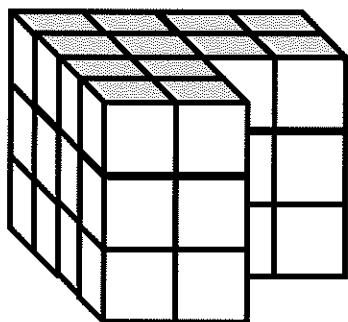
Directions: Find the volume for each.



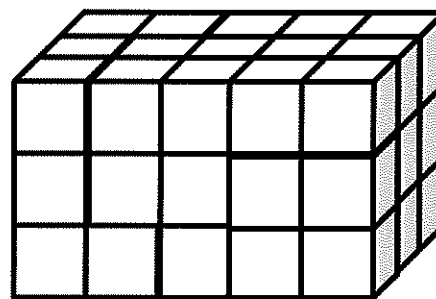
\_\_\_\_\_ Cubic Units



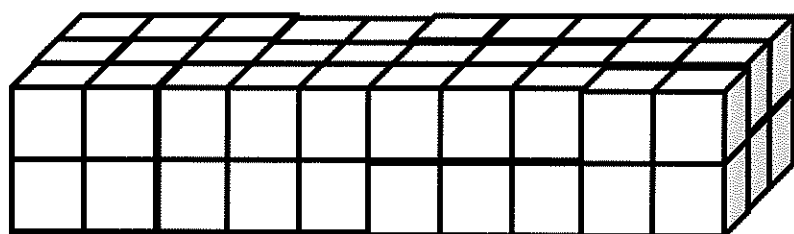
\_\_\_\_\_ Cubic Units



\_\_\_\_\_ Cubic Units



\_\_\_\_\_ Cubic Units



\_\_\_\_\_ Cubic Units

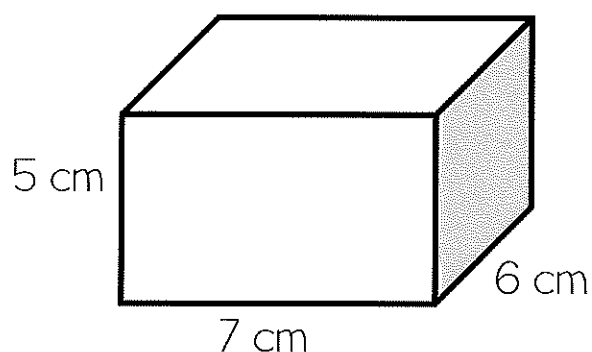
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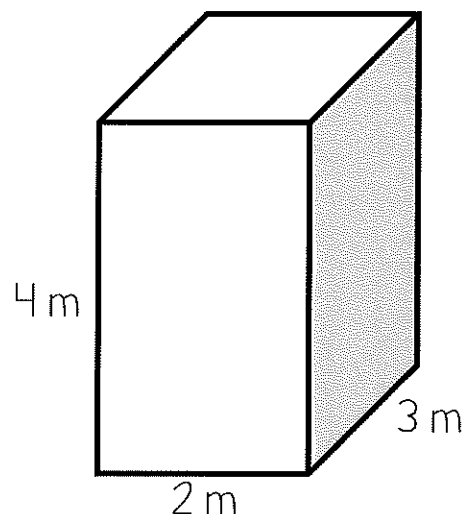
5.MD.5

## Volume of Rectangular Prisms

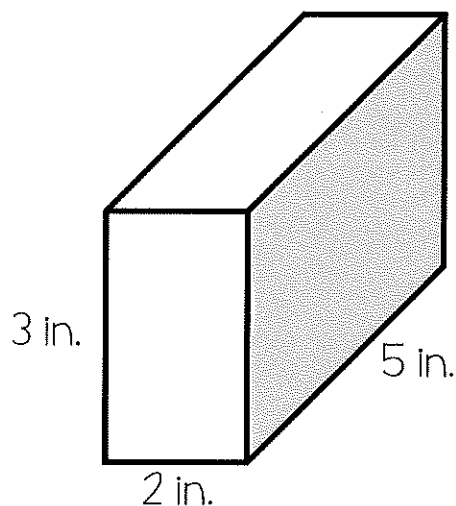
Directions: Find the volume of each rectangular prism.



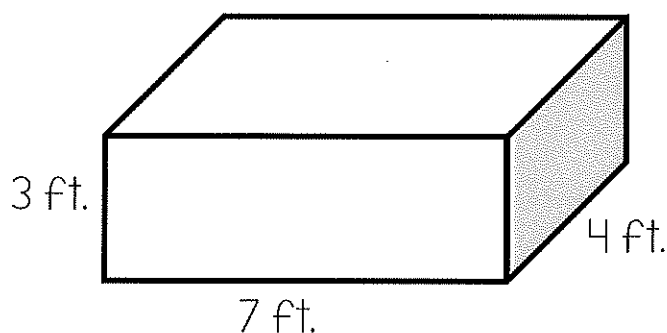
Volume = \_\_\_\_\_



Volume = \_\_\_\_\_



Volume = \_\_\_\_\_



Volume = \_\_\_\_\_

Name:

Date:

5.MD.5

## Word Problems: Volume

Directions: For each word problem, write an equation and/or draw a picture or model. Then solve.

Lindsay packed her old books into a box that was 13 inches in length, 22 inches wide, and 18 inches high. What was the volume of the box?

Caleb built a planter to plant some flowers. The planter was 4 feet in length, 5 feet wide, and 2 feet high. What was the volume of the planter?

Kristen is using a shoe box for a diorama book report. The shoe box is 9 inches in length, 6 inches wide, and 7 inches high. What is the volume of the shoe box?

Name:

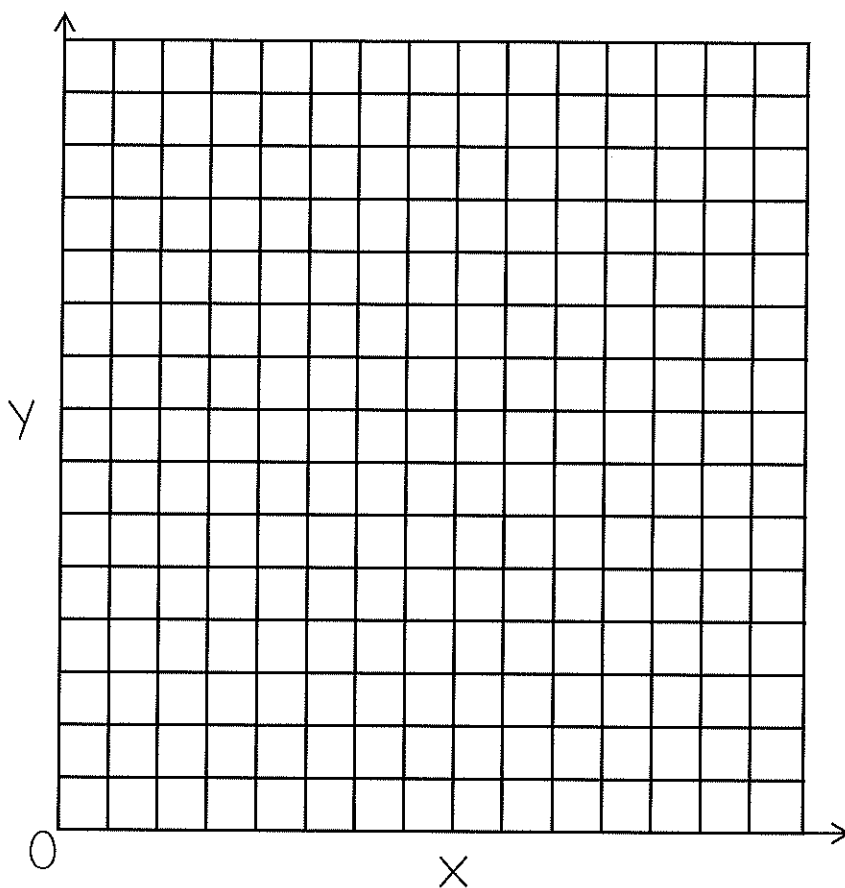
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5.G.1/2

## Graphing Ordered Pairs on a Coordinate Plane

Kelly is saving to buy a new book that costs \$15. Every two weeks she saves \$3. Complete the rest of the chart, then use it to graph the amount of money Kelly saves.

Week	Money Saved
2	3
4	6
6	9
8	
10	



How many weeks will it take Kelly to save up for the book?

If the pattern continues, how many weeks will it take for Kelly to be able to buy 3 new books?



Name:

Date:

5.G.3/4

# Classifying Shapes

Directions: Tell whether each statement is True or False. Then explain how you know.

A square can be classified as a rectangle.

---

A rectangle can be classified as a square.

---

A parallelogram can be classified as a rhombus.

---

A rhombus can be classified as a parallelogram.

---

A trapezoid can be classified as a parallelogram.

---

# Parentheses, Brackets, & Braces

Directions: Evaluate each. Show your work.

$$30 - (8 \times 2) = \underline{14}$$

$$10 - [(8 - 4) \div 2] = \underline{8}$$

$$45 - \{3 \times [(6 + 4) \div 2]\} = \underline{30}$$