

Name \_\_\_\_\_ • Class# \_\_\_\_\_ Due Friday!

Literacy Strands - Tornadoes - [www.weatherwizkids.com](http://www.weatherwizkids.com) / Willow Hambrick

Underline Details!

**Monday: What is a Tornado?** – “A tornado is a violent rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of up to 300 mph. They can destroy large buildings, uproot trees and hurl vehicles hundreds of yards. They can also drive straw into trees. Damage paths can be in excess of one mile wide to 50 miles long. In an average year, 1000 tornadoes are reported nationwide.” Many tornadoes that have struck Kentucky and Indiana have been devastating. Henryville, Indiana endured an EF4 tornado with winds in excess of 207 mph with the tornado on the ground for 45 miles. The tornado that struck West Liberty, KY in 2012 was on the ground for at least 34 miles, and it was an EF 3 tornado with winds in excess of 158 mph. There were 79 tornadoes in KY in 2012 resulting in at least 20 deaths! Tornado safety is essential, and that is why we practice tornado drills in March and April at RSMS.

Write one sentence that expresses your feelings about the power and destruction of last week's tornadoes:

Restate this ↑

Capitalize ↓

Punctuation?

**Tuesday: When and Where are Tornadoes Most Likely to Occur?** – “Tornadoes can happen at any time of the year and at any time of the day. In the southern states, peak tornado season is from March through May. Peak times for tornadoes in the northern states are during the summer. A few southern states have a second peak time for tornado outbreaks in the fall. Tornadoes are most likely to occur between 3 p.m. and 9 p.m. The geography of the central part of the United States, known as the Great Plains, is suited to bring all of the ingredients together to form tornadoes. More than 500 tornadoes typically occur in this area every year and is why it is commonly known as “Tornado Alley”. Texas, Oklahoma, Kansas, Nebraska, South Dakota, North Dakota, Iowa, Missouri, Arkansas and Louisiana all make up Tornado Alley.” With all the devastating tornadoes that have occurred in Kentucky and Indiana in the last few decades, many people believe that those two states should be added to the Tornado Alley roster.

In one sentence, explain when the “tornado season” takes place in the United States.

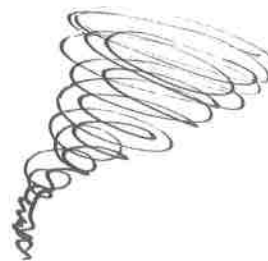
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Dorothy!  
Where's toto?



**Wednesday: Fujita Scale of Tornado Intensity** – “An F1 tornado has winds of 40-72 mph: Light damage/branches broken off trees/light roof damage. An F2 tornado has winds of 113-157 mph: Considerable damage/mobile homes demolished/trees uprooted/homes unroofed. An F3 tornado has winds of 158-206 mph: Severe damage/trains overturned/cars lifted off the ground/outside walls of homes blown away. An F4 tornado has winds of 207-260 mph: Devastating damage/houses leveled leaving piles of debris/cars thrown 300 yards or more in the air. An F5 tornado has winds of 261-318 mph: Incredible damage/strongly built homes completely blown away/often there is nothing left of buildings and homes but concrete slab foundations and sidewalks.” Mrs. Hambrick survived the 1974 F4 tornado that blew the roof and second floor off her dorm while she was at Hanover College and caused over 10 million dollars worth of damage on her campus. Mrs. Hambrick was almost G W T W (Gone With the Wind.) Yikes.

What kind of damage happened at Hanover College in 1974 as a result of the F4 tornado?

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**Thursday: Tornado Safety** – “Go to a basement. If you do not have a basement, go to an interior room without windows on the lowest floor such as a bathroom or closet. If you can, get under a sturdy piece of furniture, like a heavy table. If you live in a mobile home get out. They offer little protection against tornadoes. Get out of automobiles. Do not try to outrun a tornado in your car; leave it immediately. If you're outside, go to a ditch or low lying area and lie flat in it. Stay away from fallen power lines and stay out of damaged areas.” While seeking safety in your home, it is wise to wear bike or football helmets in case of falling or flying debris. It is also wise to get a mattress off the bed to help shield your body. You should have candles, matches, water, a battery powered radio and flashlights and batteries at the ready as often an entire neighborhood or town loses power if a tornado strikes. Stay away from downed power lines, and if you see broken gas lines or hear / smell natural gas – leave the house or building immediately as an explosion may occur. All these tornado safety tips are meant to help keep you and those you love safe during tornado season.

In one sentence, explain what to do at RSMS if a tornado warning has been issued and you hear the tornado alarm.

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\*Fact: Mrs. Schneider has been in 3 F2 tornadoes!  
Have you ever seen one?

# Prepare to Read

## Think About What You Know

Think about what is important to you. Write down your three most important values.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Preview and Predict

- Look at the front cover.
- Read the book summary on the back cover.
- Read The Exchange question on the title page.
- Read page 5.

1. Who tells the story? What kind of person is Arturo? What do you think he will experience in the barrio?

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2. Page through the book and look at the pictures and chapter names. What else do you notice?

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# Respond to American Names

## Character Map

Review what happened in the chapter. Fill in the Character Map on Journal page 4.

## Think It Over

Think about what you read and answer these questions.

1. **Personal Response** How is your family the same as Arturo's? How is it different?

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2. **Simile** What are your favorite similes in American Names? Tell what two things are being compared.

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3. **Character** What is Arturo like? Is he the kind of person you thought he would be? Explain your answer.

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# Respond to Corn Fungus

## Character Map

Review what happened in the chapter. Fill in the Character Map on Journal page 4.

## Think It Over

Think about what you read and answer these questions.

1. **Personal Response** What do you like best about this part of the story? What do you like least?

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2. **Opinion** Abuelita says she'll bring Leo Love some corn fungus to thank him for saving the cat. Do you think that's enough of a reward? Explain.

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3. **Paraphrase** What does Papi mean when he says, "When no eyes are upon him, that is a person's true test"? Use your own words.

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# Respond to The Coach

## Character Map

Review what happened in the chapter. Fill in the Character Map on Journal page 4.

## Think It Over

Think about what you read and answer these questions.

1. **Personal Response** Would you be excited if a professional basketball player came to your school? Why or why not?

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2. **Inference** Why do you think José steals from Coach Tree?

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3. **Summarize** Imagine you were writing an article about this part of the story for Arturo's school paper. What title would you give your article? Why?

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## Natural Chimneys

**Black smokers** are natural chimneys on the bottom of the ocean floor. They form on the seabed along ridges in the middle of an ocean where tectonic plates are moving apart. These are the giant plates that cause continents to drift slowly apart. They can also cause earthquakes or volcanoes.

Black smokers are hot water tubes affected by liquid rocks below the ocean. Seawater seeps through cracks along the ocean floor. This water is heated by the intensely hot liquid rock. This super-heated water dissolves minerals from the rocks. When the water is heated to these very high temperatures, the water is shot through tall stone tubes into the cold sea. Mineral deposits are left in these

tubes. Some of them rise over 150 feet high on the ocean floor.

A large variety of creatures live in these totally dark ocean smokers. Tubeworms more than five feet long live there. They have no mouth or gut! They have more than 200,000 feathery tentacles and live on bacteria. Other creatures include shellfish and giant clams. Seawater travels through these black smokers just as it does throughout the oceans. Every drop of ocean water flows through a black smoker about every ten million years.

## Check Your Understanding

- From the context of the passage, what is a **black smoker**?
  - a hot water tube on the ocean floor
  - a fiery smoking hole in the ocean
  - a tectonic plate
  - a kind of sea creature
- How often does all ocean water circulate through a black smoker?
  - every year
  - every million years
  - every ten million years
  - never
- What is heating the water near black smokers?
  - an earthquake
  - liquid rock
  - the sun
  - tubeworms
- Why would it be hard for scientists to personally touch and examine the tubeworms and black smokers?
  - The hot water would be dangerous.
  - The tubeworms might try to eat them.
  - The pressure of the oceans at this depth would injure the scientists.
  - both a and c

Warm-Up

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Name \_\_\_\_\_

## Threats to Earth

Life as we know it exists on Earth because of special circumstances. Water and air are two important substances that support life. Temperatures are moderate over much of the planet. A huge variety of life exists in the form of both plants and animals. However, there are several things that could destroy life on Earth as we know it.

An unknown volcano, as much as one hundred times greater than any known in history, could erupt anywhere at any time with little or no warning. Large amounts of ash, dirt, deadly smoke, and lava would be pumped into the air. Sunlight would be shut out for many years by the clouds. Millions of plant and animal species would die. A volcano like this blew

up thousands of years ago. It left only a few thousand humans alive.

A meteor is an asteroid that hits Earth. About six tons of meteorites fall into Earth's **atmosphere** every year. Most of them are burned up by the friction that is created when the speeding meteor blasts into the atmosphere. A few survive and hit Earth. They often create craters. About every 10,000 years, a large and highly damaging asteroid hits Earth. About every fifty to one hundred million years, an asteroid about six miles wide hits Earth. The dinosaurs were likely destroyed this way about sixty-five million years ago.

### Check Your Understanding

- From the context of the passage, what is the best meaning of **atmosphere**?
  - land and water
  - air and gases above a planet
  - meteor landing
  - dust and ash
- Which information would be relevant to the passage?
  - Comet collisions can cause enormous damage.
  - There is a super-volcano under Yellowstone National Park.
  - A gamma ray burst in space could boil away Earth's atmosphere.
  - all of the above
- Use the context of the passage to determine which fact stated below is *not* accurate.
  - Not all asteroids become meteors.
  - Some meteors do no damage to Earth.
  - Super-volcanoes happen about every ten years on Earth.
  - Blocking out the sun causes enormous damage to life on Earth.
- Which of the following is essential to human life?
  - water
  - air
  - sunlight
  - all of the above

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Warm-Up

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Name \_\_\_\_\_

## The First Professional Woman Astronomer

The first woman astronomer helped discover the planet Uranus. Caroline Herschel and her brother William were, at first, musicians. They were born in Germany. However, they lived and worked in England for most of their lives. William became **fascinated** by the telescope. At that time, it was a new invention. Because they were poor, William decided to build his own telescope. He even had to use horse manure as the mold for the telescope mirrors. He built his own four-foot wide, forty-foot long telescope. It was the largest telescope in the world at the time. Caroline helped her brother by spoon-feeding him while he ground the lenses for his telescopes.

In 1781, William discovered a new planet—Uranus. He did this using a telescope he built. It was the first planet discovered with a telescope. It was the first planet that had not been known to people in ancient times. It was much farther away than Saturn. So the discovery of Uranus doubled the known size of the solar system. During her lifetime, Caroline herself used the telescope. She discovered eight comets. Both Caroline and her brother were awarded honors. They were also given yearly pensions by King George III for their findings. Because of these awards, Caroline became the first professional female astronomer.

## Check Your Understanding

- Which of the following ideas can you infer from the passage?
  - William and Caroline were trained at a university to study astronomy.
  - Caroline and William were close friends who worked well together.
  - Music and astronomy are similar subjects.
  - William and Caroline were rich members of the nobility.
- Which event made Caroline a professional astronomer instead of just an amateur student of the skies?
 

a. helping William build a telescope	c. using a telescope
b. getting a pension from King George III	d. discovering Uranus
- Which detail in the passage strongly suggests that Caroline and her brother were very close friends and collaborators?
  - William discovered Uranus.
  - William made the largest telescope of its time.
  - The king gave them both a pension.
  - Caroline spoon-fed William while he ground the lens for a telescope.
- From the context of the passage, what is the meaning of **fascinated**?
 

a. lazy	c. happy
b. very interested in	d. both a and b

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Warm-up

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Name \_\_\_\_\_

## Dangerous African Mammals

The male hippopotamus can weigh up to 7,000 pounds, the weight of three or more automobiles, and can run as fast as eighteen miles per hour. Hippos have enormous teeth, including tough, sharp tusks. Hippos can bite a man in half. They have quick tempers and will often target humans. They will even tip over boats and attack the passengers. Hippos kill a large number of humans in Africa every year.

The African buffalo is very dangerous. The oldest and strongest males can weigh 2,000 pounds and run as fast as thirty-five miles an hour. They have long, sharp horns and will gather in herds of more than 2,000 animals. They are extremely **aggressive** and can outrun lions, if they get a head start. The African

buffalo will stalk and kill a human, whether the animal has been provoked or not. They will ambush a hunter by exploding out of a hidden area. Then they charge directly at the hunter. These buffalo will also mob lions, as well as their cubs.

Elephants are also very dangerous to humans. A male African elephant can weigh 11,000 pounds. That is the weight of more than five cars. Elephants will also kill other large animals, such as lions and rhinoceros. They charge their enemies and use their long tusks as weapons. African elephants kill as many as five hundred people a year. Choosing the most dangerous African animal would be hard, but you wouldn't want to be in the way of any of these large, powerful mammals.

### Check Your Understanding

- Which of the following has a similar meaning to **aggressive**?
  - willing to run away
  - ready to attack
  - outrun
  - both a and b
- Which animal will attack and kill lions?
  - African elephant
  - African buffalo
  - hippopotamus
  - both a and b
- Which piece of information provides support for the idea that buffalo are the most dangerous animals in Africa?
  - They attack big game hunters with ease.
  - They are good swimmers and their large ears allow them to hear well.
  - They like to soak in water and can bite humans in half.
  - They attack boats.
- Which of these statements is an opinion and *not* a fact?
  - Hippos attack people and boats.
  - African buffalo are the most intelligent animals.
  - Hippos are prettier than elephants.
  - both b and c

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