

# 5<sup>th</sup> Grade ELA Work Packet

Week of June 7-11, 2021

Name \_\_\_\_\_

\*Please do not begin any assignments until  
instructed by Ms. Eggink.\*

## Expert Group Text

### "Volcano"

Most mountains and islands rise and crumble over millions of years. But a volcanic island or mountain can appear in weeks. It can disappear again in an explosive minute. On May 18, 1980, the eruption of Mount St. Helens, in Washington State, destroyed a side of the mountain. It also killed 57 people.

Volcanoes can cause other problems as well. On April 14, 2010, a volcanic eruption in Iceland sent tons of ash into the air. Such ash can cause airplane engines to fail. Airports across Europe had to be shut down for several days to prevent accidents.

### How Volcanoes Are Formed

Volcanoes mark places where lava and hot gases erupt through Earth's crust. The heat that drives this action arises deep in Earth. Our planet was once entirely molten, or melted. Its core is still that way. Scientists estimate its temperature to be around 7,300°F (4,000°C).

This heat drives magma, or melted rock, toward the surface. It collects in underground pools known as magma chambers. When magma meets groundwater, it produces steam. Steam and other hot gases force the magma up through cracks in the rock. It erupts through openings called vents. Once magma reaches the surface, it is called lava. Together with ash and blasted rock, the lava cools to form a volcano.

### Types of Volcanoes

Most volcanoes are cone shaped. The tallest reach over 20,000 feet (6,000 meters). Others form mounds that are only about 100 feet (30 meters) high. Typically, a volcano has a depression at its peak. This depression surrounds the main vent. Geologists use the term "crater" for vent depressions that are a mile or less in diameter. They use the term "caldera" for larger depressions. Some calderas form when the ground collapses into a magma chamber.

Geologists know of four types of volcanoes. They are composite volcanoes, shield volcanoes, cinder cones, and ash-flow calderas.

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## Kinds of Volcanic Eruptions

Scientists classify volcanoes by how often they erupt. By definition, an active volcano has erupted in the last 10,000 years. Some active volcanoes erupt constantly. Dormant volcanoes are ones that have remained inactive for longer periods. But they may still reawaken. Extinct volcanoes have not erupted in tens of thousands of years. Scientists doubt that such volcanoes will ever erupt again.

There are many different types of volcanic eruptions. They are named after volcanoes or volcanic regions.

## Products of a Volcano

Volcanoes produce a huge amount of material. This material includes lava, ash, and steam. Lava flows out of vents as red-hot, melted rock. Its temperature registers around 2,000°F (1,100°C). As lava cools, its crust turns silvery blue.

The most powerful eruptions spew out ash, or dust-size fragments of magma. Puffs of ash may reach many miles high. Ash can also flow across the ground at hundreds of miles per hour. In wet or rainy areas, mudflows may follow eruptions.

Volcanoes produce enormous amounts of heat and gas. Most of it escapes into the air. But pockets remain underground. These can power hot springs and geysers.

Volcanic eruptions also spew rocks. Some of this rock forms underground from cooled magma. Geologists call it igneous rock. Rock pieces form above ground when eruptions blast lava into chunks. Geologists call these pieces pyroclastics. This means "fire-broken" in Greek.

## Where Volcanoes Occur

Geologists find extinct volcanoes in almost every region of the world. But active volcanoes occur primarily around the edges of continents. The science of plate tectonics helps explain why. Earth's crust consists of several huge plates. As these plates move, they collide. During a collision, one plate dives beneath another. Deep in Earth, the rocks in the lower plate melt. The melted rocks rise again, forming volcanoes.

The continents around the Pacific Ocean sit on plates. They press against the plates that underlie the Pacific. As a result, volcanoes rim the Pacific Ocean. This arc is called the Ring of Fire.

Volcanoes also occur where new crust rises to push plates apart. Such volcanoes form a long ridge on the bottom of the Atlantic Ocean. Iceland is part of this Mid-Atlantic Ridge.

Some volcanoes rise in the middle of tectonic plates. They appear to rise over mysterious hot spots. Beneath each spot is a column of rising magma. Earth's crust moves over the spot. Over millions of years, this movement produces a line of volcanoes. The Hawaiian Islands are an example of this process.

Although we know where to find volcanoes, predicting when they will erupt is not an exact science. Geologists continue to study volcanoes to understand them better.



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## The City of Pompeii

A deafening boom roars through Pompeii's crowded marketplace. The ground shakes violently, throwing midday shoppers off balance and toppling stands of fish and meat. People scream and point toward Mount Vesuvius, a massive volcano that rises above them.

Pompeii was basically lost and forgotten until it was rediscovered in 1748. Thanks to excavations, which are still going on today, scientists have been able to figure out almost exactly what happened on that terrible day.

### **THE SKY IS FALLING**

After the volcano first erupted shortly after noon, the thick ash turned everything black—people couldn't even see the sun. Some residents escaped the city, while others took shelter in their homes. But the ash kept falling. Piles grew as deep as nine feet in some places, blocking doorways and caving in roofs.

Around midnight, the first of four searing-hot clouds of ash, rock, and toxic gas (also called surges) rushed down the volcano. Traveling toward Pompeii at about 180 miles an hour, the surge scorched everything in its path. Around 7 a.m., nearly 19 hours after the initial eruption, the city was completely covered in a deadly mix of ash and rock.

### **LOST AND FOUND**

Visiting the ruins of Pompeii is like going back in time. The layers of ash actually helped preserve buildings, artwork, and even the forms of bodies as they decomposed and left holes in the ash. All that allowed experts to fill in the details that might not have survived at many other Roman sites.

Based on what they uncovered, scientists believe that Pompeii was a prosperous town popular with wealthy vacationing Romans. Well-paved streets had high sidewalks and stepping-stones to keep pedestrians out of the mud. To

relax, people soaked in public baths, watched gladiators or chariot races at an amphitheater, and enjoyed plays in two theaters.

Pompeii may be ancient history, but scientists are pretty sure Mount Vesuvius is overdue for another major explosion. Luckily the people living near the volcano today will likely receive evacuation warnings before it blows.

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### The City of Pompeii: Text-Dependent Questions

Directions: Please answer the questions below using RAPP. Be sure to use as many details from the article as you can to support your answers with text evidence.

1. What do you think the word *excavations* means? Use context clues and your knowledge of volcanoes to help figure out your answer.

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2. What are *surges* and how are they destructive?

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3. Why is visiting Pompeii today like “going back in time?”

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## Expert Group Text

### "Hurricane"

Hurricanes are tropical cyclones that occur in the Atlantic and eastern Pacific oceans. The same storms are called typhoons in the western Pacific. Hurricanes and typhoons are Earth's most violent storms.

### Life Cycle of a Hurricane

Hurricanes form in areas of unsettled air. Such areas are common over tropical seas. Fortunately, only a few develop into hurricanes. They do so when their winds begin spinning around a central pocket of low pressure. This becomes the hurricane's "eye." The winds spin rapidly. They can reach speeds of 100 miles (160 kilometers) per hour or more. This makes the hurricane very destructive. The winds blow strongest near Earth's surface. They are slower near the top of the hurricane. Meanwhile, the storm moves forward at only 10 to 15 miles (16 to 24 kilometers) per hour.

Hurricanes draw energy from warm seas. Warm vapor rises into the storm. It condenses into clouds. This releases energy. The energy feeds the storm while it is over warm water. Hurricanes weaken when they move over cold water or onto land. This causes the storm's eye to collapse.

Once the winds drop below 74 miles (119 kilometers) per hour, the storm is no longer a hurricane. It is a tropical storm. When its winds drop below 39 miles (63 kilometers) per hour, it is no longer a tropical storm. It becomes a "tropical depression."

### Hurricane Structure

When viewed from above, a hurricane looks like a doughnut. The storm's eye forms the doughnut hole. In the eye, winds blow up to 25 miles (40 kilometers) per hour. A light rain may fall.

A bright ring of clouds surrounds the eye. This is called the "eye wall." The most violent winds blow in this area. Beyond this ring, clouds swirl in separate bands. They bring heavy rain and thunderstorms.

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## Hurricane Facts and Figures

### *Hurricane Seasons*

Hurricanes form over oceans when water temperatures exceed 78°F (26°C). So hurricane "seasons" are determined by rising water temperatures. In general, hurricane activity peaks in late summer and early fall.

### *Vital Statistics*

Hurricanes last from one day to over a month. Atlantic hurricanes typically reach a diameter of 300 to 500 miles (about 500 to 800 kilometers). The largest was Hurricane Sandy in 2012. It was 1,100 miles (1,770 kilometers) wide. A hurricane eye usually measures about 20 miles (32 kilometers) in diameter. The largest eye ever measured was 40 by 80 miles (64 by 128 kilometers). This was Hurricane Diane in 1955.

Typically, hurricanes advance around 15 miles (24 kilometers) per hour. But they can slow to a near standstill. The fastest exceed 40 miles (64 kilometers) per hour.

An average of eight hurricanes form off eastern North America each year. Record-setting years include 1995, with 19 hurricanes, and 2004, with 15.

### *Wind Speed*

The highest recorded wind speeds were about 200 miles (320 kilometers) per hour. Higher velocities have probably occurred in a few "super storms." Wind speed depends on air pressure. Winds are fastest when air pressure is low. Air pressure is determined by barometers. It is measured in millibars. At sea level, air pressure is 1013 millibars. A hurricane will form only when air pressure at the center is 998 millibars or below. The lowest pressure ever recorded was in 1979: the eye of Typhoon Tip was 870 millibars.

## Hurricane Dangers

Hurricanes can produce widespread destruction. Above 100 miles (160 kilometers) per hour, winds can uproot trees. They hurl debris through the air at deadly speeds. Roofs peel from sturdy buildings. Weaker structures are flattened. To escape danger, residents must seek shelter in strong buildings with boarded windows. Hurricanes have taken lives. Hurricane Mitch killed about 10,000 people in Central America in 1998.

Flooding poses an even greater threat. Hurricanes can push sea surges into coastal areas. Some hurricane surges reach 30 feet (9.1 meters) high. This can swamp offshore islands. The waters may flow several miles inland. In 2005, floodwaters from Hurricane Katrina surged over broken levees in New Orleans. This caused a staggering amount of damage and loss of life. Hurricane Sandy struck the eastern coast of the United States during high tide in 2012. The high tide helped create a record surge that caused widespread flooding in coastal areas.

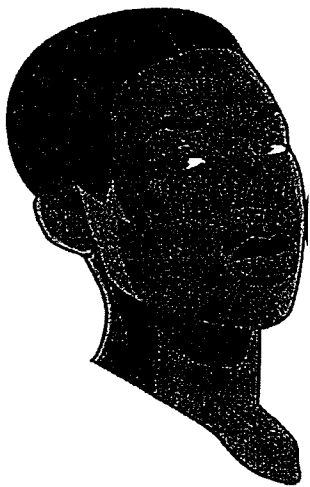
Torrential rainfall worsens the flooding. These rains can exceed 20 inches (51 centimeters) in 24 hours. Flood danger often forces communities to evacuate.

There is another hurricane hazard: tornadoes. Tornadoes frequently develop during hurricanes. They usually form on the right side of the hurricane (with its front being the forward-moving edge) and about 50 to 150 miles (80 to 240 kilometers) from its center. The strong winds near the eye do not allow tornadoes to form. The record-setting hurricane in this category was Ivan in 2004. It spawned 120 tornadoes.





A Hurricane Katrina Story  
by Jayson Fleischer



1.

Daddy was whistling to himself while he climbed the pull-down ladder into the attic, balancing boxes of Saints memorabilia as he maneuvered them to safety. Mama wrung her hands together anxiously and peered through gaps in the boarded-up front window. Studying them both, it struck me again how much Cherie took after Daddy, and how much like Mama I was. Daddy and Cherie were both impulsive and stubborn, while Mama and I tended to be cautious and reasonable.

It was late Sunday night, August 28, 2005, and Hurricane Katrina was barreling toward New Orleans. We were still at home in the city's Lower Ninth Ward, despite the governor's order to evacuate. Granny refused to go, claiming that she was too old to run from a storm. Mama was concerned about not having the money for temporary lodging, while Daddy said that we wouldn't get very far without a car anyway. My twin sister, Cherie, just didn't want to leave our dog, Bella, behind. Although I wanted desperately to go, I didn't want to leave Bella either, plus I needed to be there to make sure Cherie didn't do anything reckless.

"Darren," Daddy's muffled voice came down from the attic, "Hand me that box in the corner." I picked up the dusty box and passed it up the ladder.

"Maybe we *should* go to the Superdome," Mama offered, rehashing an argument from earlier in the day.

"We can't take Bella." Cherie sounded exasperated as she paged through a worn copy of *People* magazine.

"Plenty of folks are headed for the stadium," Daddy said, stepping off the ladder. "I've seen this kind of thing before; rations will be scarce, and without enough food and water it's going to get ugly. We're better off staying right where we are, you'll see." I liked to believe that Daddy was right, but at the moment I had some serious doubts.

Granny must have noticed the alarmed look on my face. "Don't you worry," she smiled, patting my hand as I sat down at the kitchen table, "the levees will keep us safe." She sipped from a cup of peppermint tea and dealt herself another hand of Solitaire. I wasn't very reassured, because Granny always claimed that someone else would protect us; if it wasn't God, the saints, or the angels, it was the president, the governor, or the army. Once she claimed that Grandpa's ghost was watching over us, which I thought was kind of creepy.

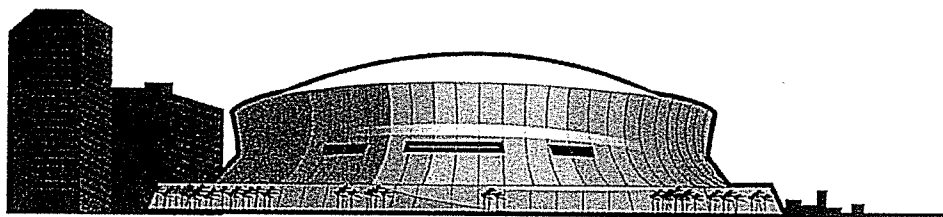
The problem was that I didn't have much faith in the city's levee system. Much of New Orleans was below sea level; it was like a giant bowl just waiting to be filled. The levee walls kept the water at bay, but I'd heard a powerful storm surge could overtop them. It was only a matter of time before the city experienced some major flooding. Earlier, when I voiced my concerns to Cherie, she just shrugged and said, "Granny says the army built the levees, so we'll be fine." I rolled my eyes in response.





## EXPEDITIONARY LEARNING

If meteorologists were right, Katrina could be the worst storm in the city's almost 300-year history. Plenty of people decided to stay in town for one reason or another. Many were going to the Superdome, the Convention Center, or other makeshift shelters—places where pets were prohibited. Even over the whistling wind I could hear the distant chorus of neighborhood dogs abandoned by their fleeing owners. Bella joined in to howl along with them.



“Bella, shush!” Granny said. The old beagle yawned nervously. Daddy often claimed that Bella had raised Cherie and me. He would joke that her nurturing made us into a couple of wild animals. (Which wasn't fair at all—the only reason I ever got *into* trouble was from trying to keep Cherie *out* of trouble!) Bella was hardly wild, though; she spent most of her time lounging under the kitchen table, silently begging for table scraps or simply overseeing the house like a queen surveying her domain.

“You'll keep us safe, won't you old girl?” Granny reached under the table and scratched Bella's head. “You need to go outside?” she asked.

### 2.

We spent the night in uneasy anticipation of Katrina's arrival. Cherie and I were drowsing on opposite ends of the couch. Mama flipped distractedly through Cherie's magazine. Daddy pretended to snore in his leather chair, but I knew he wasn't really sleeping because of the tap-tap-tap of his finger on the chair's armrest. Only Granny seemed unconcerned; she'd gone to bed as if our home wasn't directly in the path of a rampaging miles-wide monster.

Despite the constant howling of the wind, I must have fallen asleep, because my sister was frantically shaking me awake. The electricity had gone out sometime during the night; it was dark, but candles were lit. I sat up and felt water splash over my feet as they touched the floor. Water was gushing in around the front door and trickling down from the window sills, too. Rain hammered against the side of the house, and the wind was like a thousand hungry ghosts shrieking to be let in. It sounded like the walls would be torn off at any moment, and suddenly I wished Grandpa's spirit was actually here. For a brief second, I imagined him standing in the middle of the room, hands raised like a magician, using his ghostly powers to hold the house together.

Returning to reality, I noticed Cherie looking around wildly. “Where's Bella?” she shouted over the gale. The water was knee-deep and rising fast. Mama was yelling down from the attic, while Daddy helped Granny up the ladder. I waded over to Daddy and tugged on his sleeve. “Did you put Bella in the attic?” I had to shout it twice before he understood me. He shook his head and boosted Granny toward Mama's outstretched hands. Cherie and I splashed down the hallway toward the bedrooms. We called out, but there was no sign of the old beagle. Cherie hurried over to a window and peeked through the boards.





“Darren,” she pointed toward the back yard, “she’s outside!”

“Cherie! Don’t—” but before I could stop her, she wrenched open the back door. Water surged in, knocking us off our feet. The deluge slammed me against a wall, but Cherie was still clinging to the door. Somehow, she managed to pull herself through the torrent and escape into the river that was once our back yard. I couldn’t see much in the gloom, but as a flash of lightning tore through the sky I caught sight of Bella, clawing to keep a hold on the roof of her doghouse. The roiling water knocked Cherie around like a buoy as she swam toward the dog. *We should be in the attic*, I said to myself, *but instead, we’re going outside, into the storm! How does this always happen?* Shaking my head, I struggled through the doorway to follow my sister.

3.

Cherie held onto the doghouse with one arm and Bella with the other. We were exhausted, but there was no time to rest. The doghouse was disappearing rapidly beneath the rising water. Turning back toward the house, we watched in horror as the back door was swallowed up as well.

Looking around desperately for somewhere to go, we spotted a familiar tree across the street and swam toward it. On a normal day neither of us could reach its lowest branches, but the flood allowed Cherie to climb easily into a wedge between its limbs. I lifted Bella up to her and then quickly followed. The wind was deafening, and rain pelted us like BBs. Our tree swayed angrily, and many of the smaller branches lashed around like whips. Settling into the questionable protection of the tree, I shouted in Cherie’s ear, “If we don’t die out here, I’m going to kill you myself!” She laughed and hugged Bella close.

We huddled together for hours against the storm. As the water continued to rise beneath us, we had to climb higher. Eventually, the wind and rain gradually stopped and the storm clouds retreated. Murky water still churned below us, and across the flooded street, the water had stopped rising just inches below our roof. I hoped our family was safe in the attic. All manner of debris floated past: furniture, clothes, broken pieces of houses—we even saw a few cars bobbing lazily down the street. Bella started to growl as a log drifted toward our tree. When it was directly beneath us, we realized it was the ridged back of an alligator. It passed harmlessly below, but it was a while before we worked up the courage to swim home.

4.

We could hear thumping and muffled shouting as we climbed onto the roof. I tore up a section of shingles until a small hole was made in the roof.

“Thank God you’re both safe!” Daddy reached up through the gap and took each of our hands, as if to convince himself we weren’t some elaborate mirage. Waves of heat poured out of the hole; the attic was broiling in the sun. With Daddy’s help, we made the opening bigger. Mama climbed out and tears of joy flowed down her cheeks as she hugged us. Daddy lifted Granny out next. She was suffering from heat exhaustion, so Mama gave her some food and water taken from the supplies we’d put in the attic. Daddy made a sunshade out of a tarp, and we spent the rest of the day out of the sun’s punishing glare.

The sun was going down when we heard a boat engine approaching. We shouted and waved our hands until its driver saw us. Our relief didn’t last long though—the man would help us, but he couldn’t take Bella. I was afraid that Cherie would refuse to go, but after a brief argument, Daddy decided to stay behind instead. A few days later, rescuers forced all remaining survivors to evacuate their homes. Daddy had to leave Bella in the attic. He explained later that he’d used the tarp and some duct tape to make a sign that read, “Save our dog Bella! Stranded in the attic!”





5.

A week after the storm, animal rescue teams were finally allowed into the city to search for pets abandoned during the evacuation. We feared the worst, and another week passed without word. Just as we were about to lose hope, we learned that Bella had been found and taken to an animal shelter. She was weak and malnourished, but the vet reassured us that she would make a full recovery.

It was nearly a month after Katrina before we saw Bella again. Cherie raced to meet her, and I wasn't far behind. Bella whined and licked our faces excitedly. Her whole body shook from the frantic wagging of her tail, and I thought that maybe Daddy was right all along; she really did act like a mama reunited with her lost pups.

**Historical Note:** Before Hurricane Katrina, large-scale emergency preparation didn't often include animal rescue efforts. FEMA (the Federal Emergency Management Agency) was unprepared for the number of Katrina victims who wouldn't abandon their pets. Some residents of affected areas refused to evacuate, risking injury or death to avoid leaving their animals behind. Other people snuck pets onto transportation or into shelters where they were prohibited. After Katrina, public outcry led to the passing of the Pets Evacuation and Transportation Standards Act (PETS) in 2006. This law requires all states that want FEMA's help to include pets and service animals in their planning for emergencies. In 2012, the law helped save the lives of many pets—and pet owners—during Superstorm Sandy.

By Jayson Fleischer. Copyright © 2015 by the American Reading Company



\*Choose either "odd" or "even"  
numbers to  
complete using  
RAPP \*

Text-Dependent Questions: "Save Bella!"

**Directions:** Answer the following questions in a new page of your journal.

1. What is the natural disaster that took place in this story, and where did it take place?
2. Who is the narrator, and how does he describe himself in the first paragraph?
3. For what reasons did Darren and his family choose to stay in their home for the storm?
4. In the last paragraph on the first page of the story, Darren says, "The problem was that I didn't have much faith in the city's levee system." What can you infer about the meaning of the word *levee*? What evidence from the text helps you infer this word's meaning?
5. The narrator describes the city as "like a giant bowl just waiting to be filled." What kind of figurative language is this? What does it literally mean?
6. On the top of the second page of the text, the narrator describes the shelters, like the Superdome, as places where "pets were prohibited." What does the word *prohibited* mean?
7. How does the image of the Superdome, on the second page, help you understand this section of the story?
8. In Part 2 of the story, why does Darren follow Cherie out of their house during the storm? How does the narrator describe his thoughts about this event?
9. In Part 4 of the story, the narrator describes having to leave his dog, Bella, behind when the family is rescued. Later, in Part 5, he describes his reunion with his pet. Based on these descriptions, how would you describe Darren's experience as a pet owner during this natural disaster?