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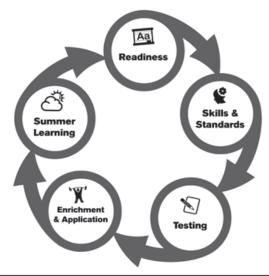
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SPECTRUM® Reading

Grade 8

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The New Americans

What are some concerns Americans have about immigration?

¹ The poem "The New Colossus" is engraved on a bronze plaque at the base of the Statue of Liberty. It contains the famous lines "Give me your tired, your poor, your huddled masses yearning to breathe free, the wretched refuse of your teeming shore." Many people entering the United States for the first time over a century ago were greeted with these words.

² Over the past 400 years, our nation has seen millions of immigrants. Most began to arrive from Europe and from Africa. Some were adventurers and wealthy landowners. Others came as slaves or servants. Some were high officials. As more immigrants settled here, the country came to be organized as the United States. As recently as 50 years ago, most of our immigrant population came from Europe. Today, immigrants come from almost every country in the world.

³ How do immigrants become citizens of the U.S.? Becoming a citizen takes a lot of patience. It also requires a good deal of studying and persistence. Family based immigration allows immediate relatives of U.S. citizens to get visas. Employment based visas are options for some, but visa numbers are limited by the skill set of the worker.

⁴ People fleeing persecution may seek asylum as refugees. This means that America is willing to offer a safe haven for a certain number of immigrants who are in danger. This number is limited to 70,000 people per year, but the number of people hoping to become American citizens is staggering. In 2011, 15.5 million immigrants were naturalized citizens. More than 13 million were legal permanent residents, and 11.1 million were unauthorized migrants.

⁵ Those who have held legal residence for at least five years can qualify for full citizenship. They must be at least eighteen years old. They have to show continuous residency and "good moral character," as well as pass English language, civics, and history exams. ⁶ Immigrants come bringing their religious and cultural traditions with them. Some new arrivals adjust quickly, while others maintain the customs of their homelands. Immigrants can be welcomed as ready sources of labor. They can also be seen as competition for scarce jobs and the cause of lowered wages and benefits for American workers.

⁷ One source of controversy is the millions of migrant workers who do not have legal residency. Some Americans see offering these migrant workers a path to citizenship as a fair first move in reforming immigration laws. Others believe that when there are so many people who have waited years for a legal path to citizenship, it is not right to award those who have not followed the laws.

⁸ Another issue is how to handle immigrants who illegally cross the nation's border. Should we open a path of citizenship to them? While plenty of people believe that we should give amnesty to these immigrants, there are just as many who believe we should not. Others think that we should make sure our border patrol is strong while still providing assistance to those who wish to become residents of the United States.

⁹ Since its birth more than 200 years ago, people have wanted to become citizens of a country that will offer them a better life. They come from all over the world and arrive by boat, by plane, or on foot. However immigration controversies are resolved, we can all benefit from the many different cultures immigrants bring to America to enrich our own perspectives.



1.	Reread the lines in paragraph I from "The New Colossus" that appear on the Statue of Liberty. If you were a new immigrant to this country, would this poem make you feel welcomed? Explain.
2.	How are the backgrounds of immigrants today different than they were 50 years ago?
3.	What does the word <i>controversy</i> mean in paragraph 7?
4.	Why would someone seek asylum in the U.S. as a refugee?
5.	Do you think the author does a good job of showing both sides of the controversy surrounding immigration? Use examples from the text to support your answer.
6.	Do you know the immigration history of your family? Tell what you do know, including
	where your family came from and when they arrived in this country. If you do not know anything about your family's immigration history, explain how you could find out.

Starting Over

Will Chantale's brother be able to emigrate from Haiti and join his family in America?

¹ Chantale sighed and squirmed slightly on the gray metal folding chair. No matter how she sat, there was no way to get comfortable. Her legs were practically numb from sitting for nearly two hours in the uncomfortable seats.

² Both Chantale and Mrs. Jean-Louis had been dreading this visit. Chantale disliked having to translate for her mother, who was uncomfortable in her English-speaking abilities in public. Something about the powerlessness her mother felt because she couldn't speak for herself made Chantale extremely uncomfortable. Mrs. Jean-Louis had dreaded the trip because she was anxious. There was nothing more important to her than reuniting her family, yet she had little confidence that the mounds of paperwork would ever result in her son being granted permission to move to the United States.

³ Chantale slouched again, trying to get comfortable. Just then, the heavy door at the corner of the waiting room opened and a woman with a tired face called "Jean-Louis? Violine Jean-Louis?" She mispronounced the last name, but Chantale hurriedly stood up and nudged her mother.

⁴ Sitting inside the small, cramped office, Chantale and Mrs. Jean-Louis waited patiently for Ms. Washington to sort through some paperwork on her desk and type for a moment at her computer. Finally, she faced them. "Tell me what I can do for you today," she said, smiling unexpectedly. "You want to bring your son... Edgard, I believe... to the United States from Haiti. Is that correct?" she asked.

⁵ Mrs. Jean Louis looked at Chantale and nodded. She understood English and actually could speak it fairly well, too, but her confidence, especially in official circumstances, was lacking. She turned to Chantale and spoke in rapid French, her hand resting on her daughter's arm.

⁶ "My mom wants me to tell you that Edgard is all alone. He was married but lost his wife and son in the earthquake in 2010. He has never recovered from his losses and needs to be with his family. He needs a fresh start, a new beginning. She says that Edgard is a quick learner and a hard worker, that he will be an asset to America."

⁷ "I'm so sorry for your losses," said Ms. Washington. "I remember hearing about the horrors that accompanied that earthquake." She turned to her computer screen. "Mrs. Jean-Louis, is it correct that you immigrated to the United States in 2008, along with your husband, Georges and daughter, Chantale?" Chantale's mother nodded, and Ms. Washington continued. "And all three of you have green cards?" she asked. Mrs. Jean-Louis nodded again, reaching for her purse.

⁸ Ms. Washington put up a hand. "I don't need to see it right now," she said kindly, "I'm just checking to see that the information I have is correct. As a green card holder, you may petition to have an unmarried son or daughter of any age immigrate to the United States and become a permanent resident. We'll need to start by having you fill out Form I-130, Petition for an Alien Relative. We'll need proof of your status as a permanent resident, as well as evidence of your relationship with Edgard Jean-Louis."

⁹ Ms. Washington continued to go over the requirements and necessary documents needed for Edgard's immigration. Chantale translated when necessary, but she was distracted by the look on her mother's face. It was hope, and it was something Chantale had stopped associating with her mom years ago. When Chantale and Mrs. Jean-Louis stepped out into the sunshine half an hour later, the same look of peace was still on her face.

¹⁰ "You have your phone?" asked Mrs. Jean-Louis, hugging her daughter with one arm. Chantale nodded and handed her phone to her mom. A moment later, her mother smiled. "Edgard?" she began.



	ow are Chantale's and Mrs. Jean-Louis's feelings at the beginning of the story different
_	
H	ow does Mrs. Jean-Louis change during the course of the story?
 If	the story continued, what do you think would happen next?
W	'hich of these best describes the main idea of the story?
	A Haitian-American girl named Chantale is bothered by having to translate for her mother.
	A young Haitian man loses his wife and son in an earthquake.
	A Haitian woman and her daughter visit the Office of Immigration to find out how to help the woman's adult son immigrate to the United States.
	nis story is told from the narrator's point of view. How do you think it would be different i were told from Mrs. Washington's point of view?
	o you think that immigrants should be allowed to petition for family members to come the United States as permanent residents? Why or why not?

New Neighbor, Nuevo Amigo

Will Alexander and Leonardo find a way to communicate?

" "Alexander, did you finish your homework?"

² "No worries, Mom, it's all done," said Alexander as he sprinted out the kitchen door with a soccer ball in his hands.

³ If his parents let him, he would have gladly skipped dinner to keep on practicing as the sky turned dusky and the sun started to set. Usually, he would practice his drills by himself, since his little sister showed no interest at all in the game he loved. But today was different; something happened that changed his routine. Today Alexander met Leonardo.

⁴ Alexander's mom said that the house next door had finally sold, and a couple and their son from Villavicencio, Columbia, were moving in. She told Alexander that the son was about his age. It had been a week, but Alexander had yet to see Leonardo.

⁵ Alexander was known among his classmates for being outgoing. "Alexander could strike up a conversation with a goalpost," his coach was fond of saying.

⁶ Alexander crossed the yard and rapped confidently at the cheery red door, and almost immediately Leonardo appeared. "Hi, my name is Alexander," Alexander said, as he extended his hand to Leonardo.

⁷ Leonardo smiled shyly and shook Alexander's hand. "Leonardo... my name is Leonardo," said the dark haired boy quietly.

⁸ "I haven't seen you around school yet, have you started? Do you play any sports? How do you like the neighborhood?" Alexander started spewing questions to a wide-eyed Leonardo.

⁹ Leonardo just shook his head and looked uncomfortable. *Uh oh*, thought Alexander, *I don't think he understands me*. He held up his soccer ball to Leonardo and said, "Do you want to play?" hoping Leonardo would understand the gesture, if not the words. The grin on Leonardo's face was the answer.

¹⁰ "I play in Villavicencio," said Leonardo.

"Great!" responded Alexander "Let's go!"

¹² Alexander and Leonardo started passing the soccer ball back and forth between their two yards. Alexander could tell right away that Leonardo was a talented player, better than he was himself. The hour sped by, and Alexander's mom called out that dinner was ready. Alexander stopped playing and pantomimed putting a fork to his mouth and chewing. "It's time for dinner," he said regretfully.

 $^{\mbox{\tiny I3}}$ Leonardo understood and repeated the sentence, "It's time for dinner."

¹⁴ "Exactly," said Alexander, "It's time for dinner. Can we play again tomorrow after school?" Alexander asked, hoping Leonardo would understand.

¹⁵ Alexander could tell Leonardo wasn't sure when he shrugged his shoulders. Then, Alexander got a great idea, "Come with me!" Alexander excitedly grabbed onto Leonardo's t-shirt and pulled him toward his house.

¹⁶ Alexander took Leonardo to his room and started rummaging through his bookshelf. "I have a Spanish dictionary here somewhere," he muttered to himself. A moment later, he found the small orange book and looked up the words for *tomorrow, after*, and *school*.

¹⁷ Alexander looked directly at Leonardo, held up the soccer ball, and said *mañana, despué de,* and *la escuela*. He had no idea if what he said really translated into what he intended, and he was relieved when Leonardo smiled and eagerly nodded his head.

- ¹⁸ "*Mañana*!" Alexander repeated.
- "[¶] "*Mañana*!" agreed Leonardo.



Spectrum Reading Grade 8

- I. Name one way in which Alexander and Leonardo are different and one way in which they are similar.
- 2. Give two examples of ways that the boys found to communicate with one another.
- 3. In paragraph 5, it says that "Alexander could strike up a conversation with a goalpost." What does this mean? What does it tell you about Alexander's personality?

4. How do you think Leonardo feels when he first meets Alexander? Use examples from the story to support your answer.

- 5. On the lines below, write a brief summary of paragraph 3.
- 6. In paragraph 12, what does pantomimed mean?
- 7. Tell about a time when you used something other than spoken language to communicate with someone.

Island of Hope

What role did Ellis Island play in America's history?

¹ Ellis Island sits quietly in New York Harbor. For many years, it was a beacon of hope for new immigrants. People came to America from around the world, searching for a better life. Some were fleeing poverty; others were seeking freedom from religious persecution. Reaching Ellis Island and the Statue of Liberty were a sign to immigrants that they had arrived in America and could begin their new lives. For some of the 12 million people who passed through Ellis Island between 1892 and 1954, this was true. They were processed and admitted in just a few hours. Others had a much different experience.

² The trip across the Atlantic Ocean was difficult, especially for passengers in third class, or steerage. People were often tired and sick when they arrived. They had spent several weeks aboard a large, crowded ship. First- and secondclass passengers had an easier time. If they passed a health check onboard the ship, they would be quickly processed and released. The third-class passengers had to wait much longer sometimes, even days. When they did finally leave the ship, they were given identity tags and told to head for the main building on Ellis Island.

³ This was often a time of great confusion. Following directions in a language you don't understand is difficult! The passengers carried their most important belongings—the items they had chosen to make the long trip across the ocean with them. They were tired, they were anxious, and there were often young children or elderly parents to keep track of.

⁴ On the way to the Great Hall (officially known as the Registry Room), doctors watched the immigrants as they waited in line. They looked for people who were having any sort of difficulty that could indicate they were ill. In the large, noisy room, the immigrants had to pass a health inspection. One of the worst parts was having your eyelid lifted by a tool called a buttonhook so that doctors could check for a contagious eye disease.

⁵ Immigrants who needed further inspection had a letter marked with chalk on their clothing. The letter indicated what sort of problem they were suspected of having. Immigrants who passed the health inspection were sent on to have their legal inspection. The big worry, of course, was separation. What if you passed the health inspection but your child or spouse did not?

At the next stop, immigrants were asked a series of questions, such as where they were born, were they married, what sort of work did they do, how much money did they have, and so on. Their answers needed to match the answers on the list, or manifest, from the ship. Many people were admitted to the United States after passing the necessary requirements, but many were also detained. Some were immediately sent back to their home countries, while others spent days, or even months, in the infirmary. Their cases would eventually be reviewed again and a decision would be made as to whether or not they could stay in America. About three thousand immigrants died on Ellis Island, and about two percent were denied entry to the U.S.

⁷ For the fortunate immigrants who were given permission to stay, social workers were on hand to offer help as people made their way in a new and foreign country. They often met relatives at the Kissing Post, a column outside the Great Hall, where the new immigrants were reunited with friends and family.

⁸ The last immigrant passed through Ellis Island in 1954. Today, you can visit the museum and learn about the history of a place that played a role in the lives of so many American immigrants. In fact, about 40 percent of Americans today can trace at least one ancestor to Ellis Island. Are you one of them?



	n paragraph 1, what does the author mean by saying that Ellis Island was "a beacon of nope"?
	How was the experience of third-class passengers different from first- and second-class passengers?
	Do you feel that it was fair or just for officials to detain passengers who were thought to be weak or ill? Why or why not?
_ \	What were Ellis Island and the Statue of Liberty a sign of for immigrants?
	Even if a passenger did not pass the health inspection, he or she would not be sent home. Is this statement true or false?
- \	What was the author's purpose in writing this article?
	What are four adjectives you could use to describe how immigrants may have felt as They passed through Ellis Island?

Chickens in the Neighborhood

Will Isabella and Noah get the backyard chickens they want?

¹ Noah got up from the couch, dusted the cracker crumbs off his shirt, and headed for the door. He opened it to find his sister standing there grinning at him.

² "What's going on?" he asked, raising his eyebrows at her. "Did you forget your key or something?"

³ "I couldn't open the door," explained Isabella, holding up her hands to show her brother that they were occupied. In one hand, she carried a canvas bag bursting with books. In the other was a plain brown paper bag with the top folded over.

"What's in the bag?" asked Noah, taking it from his sister. He peeked inside and was surprised to find more than a dozen eggs nestled into several handfuls of wood shavings. About half of them were light brown, some with speckles, and half were a pale greenish blue. "Where'd you get these?" he exclaimed. "I've never seen blue eggs before."

⁵ "I went to Claudia's house after school to see her chickens," said Isabella. "Her family has seven chickens, and each one lays an egg a day, so they have entirely too many eggs most of the time."

⁶ "And you should have seen Hazel and Annabelle run," she added. "It was truly one of the funniest things ever to see them hustling across the yard with their backsides bobbing along."

⁷ "You want chickens now, don't you?" asked Noah. "I'm actually pretty sure that Mom and Dad will think it's a good idea, in terms of being a learning experience and getting back to the earth and everything, but I think we're going to have a problem with the neighborhood association."

⁸ In her excitement, she had forgotten about the governing body of the dozen or so streets that formed the Sardis Creek subdivision. There were restrictions on what color you could paint your front door, what you could plant in your yard, and what color the curtains facing the street could be. Isabella suddenly felt quite certain that there was no way that she and Noah were going to have any chickens of their own anytime soon.

⁹ That evening at dinner, Isabella and Noah told their parents about Isabella's afternoon experience with Claudia's chickens and their worries about the neighborhood association. "I even stopped at the library on my way home," lamented Isabella, halfheartedly scooping up a bite of mashed potatoes. "I have a whole bagful of books on raising backyard chickens and building a coop," she added, slumping in her chair.

¹⁰ "Okay, okay, don't give up yet," commented Mrs. Burlingham. As Noah had predicted to his sister, their parents immediately jumped onboard with the idea of raising chickens. "I think that you should at least give your idea a chance," she added. "How could you present this to the association so they'd say yes?"

¹¹ The kitchen was quiet for a moment, except for the squeak of the dog toy that Hoolihan, the family dog, was busily gnawing on.

¹² "Well," began Isabella thoughtfully, "at school when we wanted to change the rule about cell phones in the cafeteria, we created a petition and collected signatures . . . and the rule was changed!"

¹³ "That's just what I mean!" said Mrs. Burlingham. "I think that collecting signatures of residents of the neighborhood is a great place to start."

¹⁴ "We could compost the old chicken litter and use it for the gardens in the common areas," added Isabella, scooting her chair back. "Can I be excused? I have a lot of work to do!"



Spectrum Reading Grade 8

Ι.	What problem do Isabella and Noah have in the story?
2.	What ideas do they have for a possible solution?
3.	Why do Isabella and Noah think that the neighborhood association will not allow them to have chickens?
4.	In paragraph 8, what does <i>restrictions</i> mean?
5.	Check the character traits that best describe Isabella enthusiastic competitive immature reckless determined cautious energetic
6.	From whose point of view is the story told?
7.	Reread the first sentence in paragraph 10. What does it tell you about Mrs. Burlingham?
8.	Describe what you think will happen next in the story.

Here a Chick, There a Chick

Will Isabella and Noah know how to take care of their new chicks?

¹ Isabella and Noah stared at the lump of peeping fuzz huddled at the back of the bin. They had been planning and waiting for this day for a long time. The neighborhood association had been much more receptive to their idea than they had anticipated. It probably didn't hurt that they had been so well prepared. They had spent hours pouring over the stack of books Isabella brought from the library and checking out websites about raising backyard chickens.

² When they showed up at a neighborhood association meeting with their petition containing a hundred signatures, a quick vote was held. The guidelines were amended to allow residents of Sardis Creek to keep up to five chickens in their backyard. "No roosters, of course," cautioned Mr. Claussen. "I already have an alarm clock."

³ And now, two months later, the Burlinghams had returned home from the feed store just outside the city limits, with a box full of the cutest little fuzz balls any of them had ever seen. The weekend before, Mr. Burlingham had helped Noah and Isabella convert a clear plastic storage bin into a brooder for the chicks. Mr. Burlingham cut a large hole in the bin's lid, which he then lined with chicken wire. A red heat lamp was carefully positioned so that the temperature in the brooder would remain consistently around 95 degrees until the chicks' feathers started to come in.

"Do you have the feeder and waterer?" Noah asked his sister. "Remember, we also need to put marbles or something similar in the waterer so the chicks don't drown."

⁵ "I've got them," said Mrs. Burlingham, entering the room carefully carrying the feeder and full waterer. Once everything was set up just the way the books had suggested, Isabella and Noah pulled up chairs to watch the babies get acquainted with their new home.

Saturday morning was clear and sunny, with a breeze that gently shook the tender green leaves in the trees of the Burlinghams' yard. "Can we try taking the chicks outside today for a bit?" Isabella asked her mom. ⁷ "Sure," replied Mrs. Burlingham, "just be sure to keep a close eye on them; we don't want any babies escaping or getting lost under the bushes."

⁸ Noah carefully carried the brooder outside to the backyard, where he and Isabella scooped up the chicks one by one and placed them on the grass. They cheeped excitedly, and immediately began pecking the grass, looking for something tasty. Hoolihan, who had been watching the goings-on curiously, gave the chicks a sniff or two and then headed for his favorite spot at the base of a tall pine. The chicks waited a moment and then followed him in a wobbly line.

⁹ "Ha!" exclaimed Isabella. "Maybe they think Hoolihan is their mother." Isabella noticed a shadow pass over the yard. She glanced up, expecting to see a fluffy white cloud passing momentarily over the sun, but what she saw instead made her gasp in surprise. A hawk circled, its wings outstretched as it soared. It circled back, lower this time, and Isabella yelled "Hawk!" to her brother, who was no closer to the chicks than she was.

¹⁰ They both began to run as the hawk dove toward the yard. Hoolihan began barking, sharp, high pitched barks that sounded completely unfamiliar to Isabella and Noah. Hoolihan moved so that he blocked the chicks from the hawk, as he continued to bark. As Noah and Isabella reached the babies, the hawk was already circling higher, moving away from the commotion. Isabella panted, resting her hands on her knees for a moment. "Back in the brooder," she said when she caught her breath. "It's too dangerous out here!"



L	What purpose	would a read	der have for	reading this	selection?
		would died		Teading mis	36160110111

_____ to form an opinion

_____ for entertainment

- _____ to learn how to care for chickens
- 2. What is the climax, or high point in this story?
- 3. On the lines below, write one cause from the story and its effect.
 - Cause:

Effect:_____

4. Do you feel like the Burlinghams were well equipped to deal with their new chicks? Why or why not?

- **5.** How did Isabella and Noah convince the neighborhood association to allow them to raise chickens?
- 6. On the lines below, write a brief summary of the story.
- 7. Based on the information you've learned in this story, do you think you would like to raise chicks? Explain your answer.

Eggs-perimenting with Eggs

What can you do with eggs other than eat them?

Naked Eggs

What does an egg look like without its shell? You may be picturing the white and yolk in a bowl after you crack the shell, but cracking an egg isn't the only way to remove the shell.

Materials: I egg, 2 cups of white vinegar, a small bowl, a slotted spoon

Directions: Fill a small bowl with one cup of vinegar. Add the egg to the bowl, and set it in a safe place for at least 24 hours. When you check it after a day, you'll notice some bubbles on the egg and a residue in the water. Use the slotted spoon to gently remove the egg from the bowl. Dump out the old vinegar, and add a cup of fresh vinegar. Return the egg to the bowl, and wait an additional 24 hours. When you use the slotted spoon to remove the egg this time, the shell should be completely dissolved. What remains will be the contents of the egg (the white and yolk) encased in the egg's membrane. Pick it up in your hand. How does it feel? The egg should feel rubbery and flexible. You may even be able to bounce it!

The Great Egg Drop

Can you find a way to protect an egg from a drop of 4 feet?

Materials: several eggs, paper towels, popsicle sticks, bubble wrap, plastic grocery bags, glue, drinking straws, boxes, tissue paper, packing tape, masking tape, several balloons, a measuring tape or yard stick

Directions: Your goal is to devise a system to protect an egg from breaking on impact after being dropped from a height of 4 feet. Use the materials to construct various forms of protection for the egg. Something to absorb the energy and soften the blow when the egg lands can help prevent it from breaking. Another option is to devise a way to slow the egg's fall. If you choose both tactics, your egg may have the best chance of survival. Keep a roll of paper towels handy for your first few trials!

Walking on Eggshells

Eggs are delicate and breakable . . . aren't they? Or can they hold the weight of your entire body?

Materials: six cartons of eggs, a plastic garbage bag

Directions: Place the garbage bag on the floor to make any necessary clean up a bit easier. Place the cartons of eggs into two rows of three. Check the eggs to make sure that there aren't any that have cracks or that are already broken. Then, make sure that all the eggs are pointing in the same direction--either all pointy end up or all rounded end up. With a friend to assist you, take a careful step onto the first carton of eggs. Make sure that your foot is as flat as possible and that you are distributing your weight as evenly as possible. If you're careful, you should be able to walk across the cartons without breaking any eggs. Eggs are actually incredibly strong. The arch shape at the top and the bottom of the egg allows pressure to be distributed evenly over the egg. If you were to place the eggs on their sides instead, you'd be likely to wind up with a gooey mess.



- **I.** In the first experiment, what causes the eggshell to dissolve?
- 2. In the first experiment, what holds the egg together after the shell has dissolved?
- 3. In the directions for the egg drop experiment, what does the word *devise* mean?
- **4.** On the lines below, write one cause and one effect from the selection.

Cause: _____

Effect:_____

5. Describe what you need to do to prepare the experiment in which you walk on eggs.

- 6. What was the author's purpose in writing this selection?
 - _____ to persuade the reader to use eggs in new ways
 - _____ to instruct the reader in how to perform experiments with eggs
 - _____ to entertain the reader with funny uses for eggs
- 7. On the lines below, summarize the directions for the Great Egg Drop.

8. If you performed the egg drop experiment, describe what sort of a system you would create for keeping your egg from breaking.

The Hen Pen

What kind of a coop will the Burlinghams build for their chickens?

Mr. Burlingham sat in front of the computer, scrolling through page after page of chicken coop plans. He took a sip of coffee, and then called again for Noah and Isabella to come join him. "Unless you two come and help me decide what kind of coop you want," he announced, "I'm going to pick something myself, and it probably won't be very fancy!"

² "Coming, Dad, coming," said Isabella, as she and Noah joined their dad at the kitchen table.

³ For the next hour, Noah, Isabella, and their dad learned everything there is to know about chicken coops. One site recommended allowing at least three to four square feet of space per chicken, which meant that the coop would be about five feet long by four feet wide. They also discovered that they needed only one nesting box per four or five birds. That, however, didn't seem like enough nesting boxes to Isabella, who was worried they might want to all lay at the same time, so they decided on three nesting boxes.

⁴ "I'd like the nesting boxes to have their own door," commented Mr. Burlingham. "That will make it easier for us to collect eggs without letting the chickens out each time."

⁵ "What about a door and a ramp for the chickens to come down?" questioned Noah, pointing at an image on the computer screen.

⁶ "I think that will be fine for one end of the coop," agreed Mr. Burlingham, "but we're still going to need to have a larger door on the other side where I can access the inside of the coop for cleaning," he added.

⁷ "Why don't we also build a little shelf above the nesting boxes," suggested Noah, sketching on a scrap of paper, "and then we can make the perch perpendicular to the shelf, which they can use to get onto the perch so they can roost at night."

⁸ "I think we should be able to do that," said Mr. Burlingham, scratching his head. "It's been a long time since I tried something like this," he admitted, "but you both have some really good ideas, and I think things will come together pretty

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quickly. As long as I have some helpers!" he added.

⁹ "We need to use really fine mesh wire for the windows," said Isabella thoughtfully. "I'm worried about predators." She told her dad and her brother the story that Claudia, her friend and fellow chicken lover, had told her. Shortly after Claudia's family transferred their chickens from the brooder to the coop, there was an incident at night with some raccoons. Although the chickens were safely locked up in their coop, one of their windows had been left open for ventilation. Raccoons, with their nimble fingers and greedy appetites, had managed to kill two chickens through the holes in the chicken wire.

¹⁰ "That's crazy," said Noah, shaking his head. "I had no idea that raccoons were so . . . well . . . fierce, I guess."

"I know!" said Isabella. "Claudia also told me that they have the fine motor skills of a toddler, so if you put a latch on the door to the coop that a two-year-old can open, a raccoon can probably open it too!"

¹² "All right, kids," said Mr. Burlingham, "I think we have enough to get things started. A trip to the hardware store is next. Oh, and I guess we'll need a name for the coop, too."

¹³ "I think we should call it *Hoolihan's Hen Pen*," said Isabella, her eyes sparkling. "The girls love him, and he did protect them from that hawk when they were still babies."

¹⁴ "*Hoolihan's Hen Pen* it is!" said Noah. "I'm going to get started on the sign right now."



Circle the word that best completes each sentence below.

Adding windows to a coop is important for proper

ventilation safety construction

2. Because raccoons have ______ fingers, it is important to get secure latches for your coop.

delicate robust nimble

3. After a tragic ______ involving raccoons, Claudia's family changed the type of mesh on the coop's windows.

observation incident culmination

- **4.** Why does Mr. Burlingham want to make sure there is a larger door on one side of the coop?
- **5.** How did the Burlinghams come to the conclusion that the coop should be approximately four feet by five feet?

- 6. Why does Isabella think that they need more than the recommended number of nesting boxes?
- 7. Hyperbole is the use of exaggeration to make a point. What is the example of hyperbole in paragraph 3?

An Egg-cellent Recipe!

What egg dishes do you like to prepare or eat?

Garden Veggie Frittata

I tablespoon olive oil

I large Yukon Gold potato, peeled and thinly sliced

- 2 green onions, sliced
- I red pepper, seeded and chopped
- I cup baby spinach, chopped
- I teaspoon minced garlic

8 eggs

I tablespoon chopped fresh basil, plus more for garnish

I cup shredded cheddar cheese salt and pepper to taste

* **Safety Reminder:** Remember to wash all vegetables before you begin cooking, and wash your hands after you handle raw eggs.

Additional Materials: oven safe pan or skillet, sharp knife, whisk, measuring cup, cutting board

- I. Preheat the oven to 375°F.
- 2. Heat half a tablespoon of olive oil in a large skillet over medium heat. Add the sliced potatoes to the pan, and sauté them until they are tender but firm (about 6 minutes). Remove the potatoes from the pan. Put the rest of the olive oil in the pan, and then add the green onions, red pepper, spinach, and garlic. Sauté just until the spinach is wilted. Season the vegetables with salt and pepper.
- 3. In a medium bowl, beat together the eggs, basil, and cheddar cheese with a whisk. Pour into the pan over the vegetables. Reduce heat to medium low, and scramble the eggs for about a minute. Return the potatoes to the pan, and cook for an additional 2 to 3 minutes. You should notice the eggs starting to set around the edges.
- 4. Place the pan in the preheated oven, and bake for 10 to 12 minutes, until the eggs have completely set in the center. Loosen the frittata with a spatula, and then flip it onto a serving place. Garnish it with some of the fresh basil. Slice and serve while warm.

Serves four.

Serving suggestion: This frittata is tasty, versatile dish that can be served at any time of day. Serve it for breakfast or lunch with a slice of toast and a fruit salad. At dinner, add a baguette and side salad, and you'll be all set.



1.	According to the safety reminder, what do you need to remember to do before and while making this recipe?
2.	Why do you need to use an oven safe skillet or pan for this recipe?
3.	In step 2, what does the word <i>sauté</i> mean?
4.	In step 4, what does <i>garnish</i> mean?
5.	blend flavor decorate In step 3, the author says that you should notice the eggs starting to set around the edges. What does this mean?
6.	Number the following steps in the order in which they should be completed in the recipe.
	Remove the potatoes from the pan.
	Sauté the potatoes in olive oil.
	Preheat the oven.
	Loosen the frittata with a spatula.
	Scramble the eggs for a minute.
	Season the vegetables with salt and pepper.

Powered by Sunshine

What new record will Solar Impulse set next?

You've probably heard of people using solar panels to create electricity for their homes. You may even own a solar powered calculator. But did you know that in 2013, a solar powered airplane flew across the entire U.S. without using any fuel or creating any pollution? Although this is only the beginning as far as solar airplanes are concerned, the world may soon be a cleaner place.

2 The story behind Solar Impulse begins with its creators, Swiss pilots Bertrand Piccard and André Borschberg. Both men are experienced aviators, but they come from different backgrounds. Borschberg is a former fighter pilot and an engineer. Piccard is a physician and the first person to fly a hot air balloon around the world. Together, the two used their varied knowledge and experience to create Solar Impulse. It was a project that took ten years and cost \$115 million to complete. The plane, which weighs only about as much as a small car, collects the sun's energy via about 12,000 solar cells on its wings. The energy is stored in special batteries. The batteries power the four electric motors that turn the plane's propellers.

³ Solar Impulse flies fairly slowly if you compare it to a standard passenger plane. It reaches speeds of about 50 miles per hour on its own but can fly twice as fast with tailwinds boosting its speed. In comparison, a commercial Boeing travels between 500 and 600 miles per hour. This isn't a great concern to Solar Impulse's creators, who aren't in a great hurry. At this point, they are just happy that they've made as much progress as they have.

⁴ Solar Impulse's journey across the U.S. was not its first record setting flight. In 2010, the pilots completed their first night flight over Switzerland (using the energy stored in batteries from the daylight's sunshine). The next step was an international flight from Switzerland to Belgium to France. Solar Impulse even flew to Africa in 2012, setting a record for the longest flight by a solar aircraft—nearly 700 miles.



⁵ For Piccard and Borschberg, flying across America, the birthplace of aviation, was a logical next step. The flight departed from San Francisco, on May 3, 2013. After stops in five cities around the country, the pilots completed the last leg of their trip on July 6, as they touched down in New York. The flight was 3,511 miles and took nearly 106 hours.

6 The trip was not without problems, such as tornadoes, thunderstorms, and extreme heat, but the pilots used these encounters as learning experiences. Even the long hours spent in the plane were a chance to learn. The cockpit is small, and staying comfortable, eating, sleeping, and staying alert are all challenges. Piccard and Borschberg want to get it right because their next planned trip is quite a bit more ambitious. In 2015, the duo plans to fly around the world in a solar powered plane. They are building a second plane, Solar Impulse 2, and hope to complete the trip in 20 days. Aside from the thrill of setting world records and trying things that have never been done before, the Swiss team hopes to bring the world's attention to the potential of clean, green technology. With a little creativity and a lot of know how, every idea has the chance to become a reality.

I. If Solar Impulse is powered by t	the sun, how does it fly at night?
-------------------------------------	------------------------------------

2.	Why are	Piccard o	and Bors	schberg (a good	team?
----	---------	-----------	----------	-----------	--------	-------

3. How did the pilots regard the problems they had during their journey across the U.S.?

_____ as learning opportunities

_____ as great sources of frustration

- _____ as a reason to abort the trip
- 4. What do Piccard and Borschberg have planned for their next major trip?
- 5. Name two ways in which *Solar Impulse* is similar to and different from a conventional airplane.

6. In the next to last sentence of the selection, what do you think the author means by "clean, green technology"?

7. Solar Impulse can travel faster than its typical 50 mile per hour speed with the help of

_____ gasoline. _____ wind. _____ extra propellers.

8. Do you think that solar-powered airplanes will become more popular in the future? Why or why not?

Taking Flight

How did Amelia Earhart become one of history's most well known women?

Amelia Earhart did not take her first flight in a plane until she was 23 years old. That event, however, was life changing. As she soared above the ground as a passenger at an air show, she knew that she had to learn to fly.

² Earhart had been a daredevil and a tomboy as a child. She enjoyed climbing trees, sledding at top speed, and shooting rats. She was born in 1897, and in the early years of the new century, these were certainly not typical pastimes for young ladies. Earhart also kept a scrapbook filled with clippings about women who succeeded in fields that were typically dominated by men. It seemed clear, even early on, that Earhart would forge her own way instead of following the prescribed paths for women.

³ In school, Earhart excelled in science. During World War I, she worked as a nurse's aide for the Red Cross at a military hospital in Canada. She made acquaintances with wounded pilots and aviators and spent her spare time watching the planes at a nearby airfield. After her ride at the air show, she immediately began working a variety of odd jobs to earn enough money to take lessons and eventually buy her own plane.

⁴ Earhart's first plane was a bright yellow Kinner Airster biplane, which she nicknamed "The Canary." She set her first record in that plane in 1922, when she flew to a record height for a female pilot of 14,000 feet. When she received her pilot's license in 1923, she was only the sixteenth woman in the world to do so. Earhart was on her way to breaking barriers for both women and aviators.

⁵ Charles Lindbergh had completed the first solo transatlantic flight in 1927, and Earhart was asked to become the first woman to complete the same flight. Unfortunately, she was only expected to be a passenger on the journey. It was considered too dangerous of a flight for a woman to pilot, although Earhart would have much preferred it that way. When Earhart and the two male pilots returned to the U.S. from their record setting flight, they were greeted with a parade and later a reception with President Coolidge. Earhart was nicknamed "Lady Lindy," a spinoff of Charles Lindbergh's nickname, "Lucky Lind." ⁶ Earhart continued to follow in Lindbergh's footsteps. Exactly five years to the day after Lindbergh's famous flight, Earhart set off to become the second person, and the first woman, to fly across the Atlantic. Her projected flight was from Newfoundland to Paris, but poor weather conditions caused her to land in Ireland instead. In fact, she landed in a cow pasture! With each flight and each record, Earhart's popularity and celebrity status grew. To Earhart, however, the most important thing was that she was showing the world that women were capable of anything men were.

⁷ In 1937, Amelia Earhart and her navigator, Fred Noonan, set off on an incredible trip: Earhart wanted to be the first woman to circumnavigate the globe. She knew that it was a dangerous journey, but there was nothing Earhart liked better than a challenge. The duo began their 29,000 mile adventure from Miami, Florida. A month later, they had completed all but the last 7,000 miles. They set off from New Guinea, heading to Howland Island in the Pacific. It was during this leg of the journey that Earhart's plane disappeared. Naval ships and rescue planes were not able to find any wreckage of the plane.

⁸ Although Earhart was only 40 years old at the time of her disappearance, she had had a lifetime's worth of adventures. She never completed that final journey, but she accomplished much of what she set out to do in life. She pushed herself to her limits and changed the way the world thought about women.



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Write the words from the passage that have the meanings below.

I. controlled by

Par. 2

2. obstacles; things that stand in the way

Par. 4

3. travel completely around

Par. 7

4. What indications were there during Amelia's childhood that she would grow up to be a brave and independent thinker?

- 5. What aspect of her first trip across the Atlantic was disappointing for Earhart?
- 6. Earhart's nickname was based on the nickname of another famous aviator,
- 7. Do you think that Earhart was a feminist? Use details from the selection to support your answer.

8. Which of these character traits describe Amelia Earhart?

_____ sentimental _____ daring _____ courageous

_____ obedient _____ competitive _____ independent

Searching for Amelia

Will the wreckage of Amelia Earhart's plane ever be recovered?

Amelia Earhart's plane disappeared in 1937, during an attempt at flying around the world. No one imagined at that time that the mystery would go unsolved for so long. Earhart, accompanied by her navigator Fred Noonan, hoped to become the first woman to circle the globe at the equator. She had completed three quarters of the journey in her Lockheed Electra plane. Earhart and Noonan were headed from New Guinea to Howland Island in the South Pacific when their plane went missing. Despite continued searches over the last seven decades, the fate of Earhart, Noonan, and the plane are still unknown.

² A number of theories about the disappearance have been proposed. Many experts believe that Earhart's plane ran out of fuel and crashed into the sea around Howland Island. If that's true, the wreckage could be at a depth of 18,000 feet. There were rumors that Earhart was spying on the Japanese or that she and Noonan were held hostage and later executed by the Japanese on an island called Saipan. There were even rumors that Earhart had returned to the U.S. and taken on a new identity. The rumors were discredited over the years, but the search continued.

³ One of the main participants in the search has been The International Group for Historic Aircraft Recovery (TIGHAR). The group believes that instead of crashing into the Pacific, Earhart's plane made an emergency landing on a shallow coral reef near Gardener's Island (now known as Nikumaroro Island). In 2012, they published online images taken deep underwater off the coast of the island. Visible in the images is an object that may be the wing of the Electra. The sonar image shows a 22-foot long object 600 feet below the surface. It lies in the same area as other debris that is thought to be part of the plane's wreckage.

⁴ One worry about retrieving the wreckage is the condition of the material. The Electra was made of a type of aluminum. Over time, the saltwater would have corroded the aluminum. If someone tried to move it, it could crumble. TIGHAR's idea is to bring along a tank filled with a solution to help stabilize the wreckage. If they



transport it in the tank, the solution may preserve the parts so that they can be studied.

⁵ In addition to the possible wreckage, TIGHAR believes that there are signs on the island of castaways. TIGHAR has made many trips to Nikumaroro Island. Explorers have found a campsite and sites of at least nine fires, including thousands of fish, turtle, and bird bones. On an uninhabited island, these are all likely clues to the existence of a castaway at some point. In addition, more than one hundred artifacts were found on the island. They included buttons, a pocket knife, cloth, and a jar that analysts believe might have contained freckle cream. (Earhart was fair skinned and freckled.)

⁶ In 1940, the skeletal remains of a human were found on the island. An analysis of the remains concluded that the bones were likely to have been from a Caucasian female who was between 5 feet 5 inches and 5 feet 9 inches tall—a description that fit Earhart. Unfortunately, the bones were somehow lost long ago, so no further analysis is possible.

⁷ In the fall of 2014, TIGHAR plans to return to Nikumaroro Island. The organization will use the latest undersea technologies to try to locate and recover what they believe to be the wreckage of Earhart's plane. Will the mystery of Earhart's disappearance ever be solved? Probably not completely. Even if scientists and researchers can identify the plane as being Earhart's Electra, we'll probably never know exactly what happened or what Earhart's last days were like. Even so, Amelia Earhart will continue to live on in our collective memory as an inspirational woman and aviator.

١.	What is the main idea of this selection?
	Amelia Earhart was rumored to be spying on the Japanese at the time of her disappearance.
	The search for Amelia Earhart's plane and details of her disappearance has continued over seven decades.
	Amelia Earhart may have been a castaway on Nikumaroro Island.
2.	What signs of castaways have been found on Nikumaroro Island?
3.	How is a rumor different from a fact?
4.	How has improved technology affected the search for Earhart's plane?
5.	In paragraph 5, what does <i>uninhabited</i> mean?
6.	Which of these is NOT one of the artifacts found on Nikumaroro Island?
	buttons a photograph a jar
7.	Why do you think people continue to search for Earhart's plane so long after her disappearance?

Facing Fear

Why is it difficult to face and conquer one's fears?

L The bell sounded, and all the students in Savannah's eighth-grade class cheered everyone except Savannah. Their summer vacation officially had just begun, and many of Savannah's classmates were buzzing about the plans they had for the next few months. Savannah wished she could feel as excited as her peers. Normally, the summer held nothing but promise and excitement; this summer, however, was different. In just three short weeks, Savannah and her family would be heading to visit family in North Carolina. Although she loved to spend time with her cousins, Savannah dreaded the fact that she would be flying for the very first time.

2 Just then, Savannah's friend, Durya, walked down the hallway. She could not help but notice Savannah's gloomy mood. "Hey, Savannah, what's your deal today? You hardly said a thing during lunch when I told you about my plans for summer soccer camp. It's like you're here, but vou're somewhere else at the same time!"

Savannah looked up quickly, snapped out of her funk, at least momentarily. "Oh, hey, Durya. That's really great, honestly. Listen, would you mind walking home with me today?"

"Sure thing, Savannah, as long as you're okay with stopping by the elementary school so I can pick up my annoying baby brother." Durya's brother, Praveen, was in the fifth grade. He was also notorious for his silly sense of humor. Savannah thought Praveen was pretty funny, although she wouldn't ever admit it to Durya.

5 The two friends began walking to Clearwater Heights Elementary, and Savannah finally confessed her fear of airplanes to Durya. "I feel so silly admitting this to you! You fly back to India every other summer with your family. I can't even imagine boarding a plane, not to mention not passing out once the engines start!" Praveen walked up to greet them, and Savannah continued explaining all of the things about flying that caused her anxiety.

6 Praveen looked up at Savannah, confused. "Wait a minute, is this the same Savannah Sherman-Li who won the regional middle school public speaking award last year? I can't possibly be hearing this from the person who stood up to the neighborhood bully." Praveen smiled as Savannah giggled. Durya rolled her eyes, knowing he was referring to the overly aggressive Canada goose family that Savannah had helped to relocate last spring.

"I know, I do enjoy rising to a challenge," Savannah admitted. "But those situations are entirely different. I understand effective public speaking techniques. I worked with the local animal control agency so they could properly manage those cranky geese. But there's no set of rules for how to be a calm passenger in an airplane!"

8 Just then, Durya had an idea and shared it with Savannah. Durya's mother had been terrified to fly prior to moving from India to the United States. But she had learned to overcome it. Durya invited Savannah to come over to speak with her mother.

What was supposed to be a quick chat about Savannah's fear of flying became several visits with Mrs. Das. Conquering the fear of flying, in Mrs. Das's opinion, was all about being educated. Just like Savannah had explained to Durya and Praveen, she always felt comfortable if she understood what to expect. During an early discussion, Savannah listened to Mrs. Das explain the fundamentals of how airplanes work. This slightly eased Savannah's worry. Savannah read websites dedicated to helping people overcome the fear of flying. During repeated viewings at home, Savannah practiced breathing calmly.

10 As she boarded the airplane a few weeks later, Savannah was nervous. But she was not afraid, and she certainly didn't feel like she would pass out!



Ι.	What problem does Savannah have in this selection, and how does she solve it?						
2.	On the lines below, write one cause from the story and its effect.						
	Cause:						
	Effect:						
3.	In paragraph 9, what does <i>conquering</i> mean?						
4.	What does Savannah need in order to make her feel comfortable flying? How is this similar to the way she faced other challenges?						
5.	What is the main idea of this passage?						
	Mrs. Das was fearful of flying before she moved from India to the United States.						
	Savannah is going to be spending time with her cousins in North Carolina over the summer.						
	Durya and her family help Savannah overcome her fear of flying before a summer trip to North Carolina.						
6.	Do you think that Savannah will confide in Durya the next she has a problem? Why or why not?						

Flying Through the Air

How does an air show pilot perform aerial maneuvers without getting sick?

A long trail of smoke followed the plane's looping, spinning path through the sky, and then it slowly drifted away with the light breeze and disappeared. Victor thought the soft white lines against the blue sky looked a lot like cursive writing, although the smoky scribbles didn't add up to anything legible. Still, Victor could read one message clearly: that pilot sure knew how to fly a plane!

² Next, the plane grew tinier and tinier as it climbed high into the atmosphere above the airfield. The plane became just a dark speck in an ocean of blue, and then the crowd watched as the pilot pointed the nose back toward Earth, and the plane began plummeting straight down to the ground. Victor and his dad, Mr. Robinson, both stopped breathing as an everextending line of smoke marked the plane's vertical descent. At the last possible second, the pilot changed course and the plane zoomed horizontally across the airfield, only a few yards above the grassy surface. The crowd erupted wildly with cheers.

³ After one last lap through the air around the audience gathered below, the pilot brought the plane in for a safe landing on the thin strip of concrete runway. Victor gave his dad a high five, and yelled, "That was awesome!"

⁴ At the end of the runway, Victor saw the pilot, Stuart Tucker, climb from his plane and jump down into the crowd gathered around him for autographs. Victor turned to his dad and said, "I can't believe he isn't keeling over from dizziness! How does he fly like that and not get sick?"

⁵ "Why don't we ask him?" Mr. Robinson suggested. "Let's wait here for a few minutes until the crowd dies down a bit."

⁶ As Mr. Robinson predicted, the crowd of autograph seekers quickly dispersed, and Stuart Tucker turned back to his plane to inspect it and get it ready for his next performance later in the afternoon.

⁷ As Victor and his dad approached the pilot, Victor called out, "Mr. Tucker, that was so cool! Would you mind if I asked you a few things? I love airplanes, and I'm really interested in the idea of being a stunt pilot someday."

⁸ Stuart Tucker smiled and nodded, "I'm glad you enjoyed the show, and of course you can ask me anything you'd like about aerobatics. By the way, that's the term we like to use, rather than "stunts" or "tricks." It's important to understand how carefully everything you saw today was planned out and practiced beforehand. We don't just go up there in a plane and start flying around doing tricks. It's more like gymnastics, where every move is choreographed and precise, and each step leads to the next step. That's the only way it can be safe."

⁹ "So how can you fly upside down and do flips in the air like that and not end up getting nauseous? That's the first thing I imagine when I see myself in the cockpit doing stunt . . . I mean, aerobatic flying."

¹⁰ "Believe it or not, that really doesn't end up bothering most people, especially if someone has been flying long enough to start working on aerobatic maneuvers. Partly it's because, as the pilot, you're too focused on flying the plane and reading the gauges and other controls to notice much else. But you also learn where to focus your eyes as you turn upside down or go into a spin, and that helps keep you from feeling disoriented or dizzy. Mostly, though, you just get used to it. If you're really interested in aerobatics, I take people up for flights. Here's my card."

"Thanks!" Victor said as he took the card.

¹² As Mr. Robinson and Victor walked away, Victor turned to his dad and said, "I guess I know what I want for my next birthday."

¹³ Mr. Robinson laughed and replied, "Let's just be sure to serve the cake *after* your flight."



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١.	Provide two	possible re	asons why	Victor	and his	father (are atter	nding the	air show.

2.	Why do Victor and Mr. Robinson wait a few minutes before approaching the pilot?							
3.	What three reasons are given by Stuart Tucker to explain why he does not feel sick after flying?							
4.	 Complete the following sentences to identify a simile in the first paragraph and a metaphor in the second paragraph. 							
	In paragraph I, is compared to							
	In paragraph 2, is compared to							
5.	5. What does Stuart Tucker compare aerobatics to? Why?							
6.	What does Victor want to do on his next birthday?							
7.	Why does Mr. Robinson think it would be best to serve cake after Victor gets his birthday present?							
8.	Imagine attending an air show event. Write three adjectives that would describe the experience.							
۹.	Describe a performance you have attended in which the performers demonstrated special skills.							

Up Close and Personal

What makes the work of artist Chuck Close so unique?

Are you familiar with the paintings or photographs of Chuck Close? You may not know his name, but chances are that you'd probably recognize his artwork. Close's signature pieces are very large close up images of people's faces. Some are so precise that they look like photos. This art style is called photorealism, and Close managed to perfect it in a way that few others have.

² Close was born in 1940 to parents who supported his early interest in art. In fact, Close knew that he wanted to be an artist ever since the age of four. Although Close was dyslexic and had difficulty in school, art was always his saving grace. He was not particularly popular, and a muscle condition prevented him from playing sports, so Close relied on his art for pleasure and enjoyment.

³ When he was eleven years old, Close's life changed dramatically. His father died, and his mother became ill with breast cancer. Close himself developed a kidney infection, which resulted in much of the next year being spent in bed. His family lost their home, and money was a source of worry. Through all of these challenges and hardships, art remained a constant in Close's life.

⁴ One of the most influential moments for Close as an artist came during a trip to the Seattle Art Museum with his mother as a teenager. Close saw a Jackson Pollock drip painting, and it changed the way he thought about art. Jackson Pollock was known for his bold and unusual style of creating artwork. Enormous abstract drip paintings were his signature. Close was inspired by Pollock's work, and has continued to be influenced by Pollock's art throughout his career.

⁵ Close enrolled in the University of Washington, where he earned his bachelor's degree in 1962. He then moved east, where he received his Master of Fine Arts degree from Yale University. It was at Yale that Close began to develop his interest in photorealism. The process that Close began to develop involved painting from a photograph onto large, oversized canvas. He used a grid method to transfer the image with great accuracy. Close also experimented with using a variety of materials to create the same image. He was able to achieve amazingly realistic results using everything from a stamp pad and fingerprints, to watercolors, paper collage, pastels, and graphite.

⁶ Chuck Close's life changed again in 1988 when he experienced a seizure that was the result of a collapsed spinal cord artery. Close was paralyzed from the neck down. He spent months in physical therapy and eventually regained some use of his arms. He's been in a wheelchair ever since, but he has not allowed his disability to prevent him from creating art.

⁷ Today, Close continues to paint, now using a brush attached to his arm with tape. He no longer paints the same type of hyperrealism he used, although he still focuses on close up images of human faces. Close continues to paint on a large scale, using the grid method. When you look at one of his more recent paintings up close, it's like looking at a pixilated digital photograph that has been enlarged repeatedly. When you step back and look at it from a distance, the image becomes visible as a whole.

⁸ One of the most interesting things about Chuck Close's fascination with the details of the human face is that he has a very hard time recognizing faces. Close has a disorder called prosopagnosia, which is also known as face blindness. He literally has great difficultly in recognizing and remembering faces. It seems fitting that he has gained such admiration and recognition for the amazing faces he has created. For his many admirers, they are certainly unforgettable.



١.	Number the following events in order based on when they occurred.
	Close became paralyzed from the neck down.
	Close saw a Jackson Pollock drip painting.
	Close became well known for his photorealist paintings.
	Close's father died.
	Close began to paint with a brush attached to his arm with tape.
2.	Why is Chuck Close's fascination with painting faces particularly interesting?
3.	Compare and contrast Close's painting style today with his style before he became
	paralyzed.
4.	Jackson Pollock was best known for his paintings.
	realistic drip pointillist
5.	In paragraph 6, regained means
	replaced examined recovered
6.	On the lines below, write the main idea of this selection.
7.	<i>Chuck Close is one of the most interesting and unique artists of the last half century.</i> Is this statement a fact or an opinion?
8.	Do you think that Chuck Close would have been happy or satisfied spending his life doing something other than art? Use examples from the selection to support your answer.

Honored with Art

What does it mean to honor someone's memory?

¹ Elijah waved goodbye to his parents and grabbed the tote bags, stuffed to the brim with art supplies. He walked up the sidewalk in front of the school, turned, and saw the wall just ahead, on the school's eighth grade wing. As he approached the place where the mural would soon be painted, Elijah was suddenly flooded by memories of his good friend, Andrei. He and Andrei had known each other since Andrei's family moved into Elijah's neighborhood the summer before they both started second grade. That summer had been memorable: bicycle rides in the nearby ravine, swimming at the community center, and playing video games.

² Best of friends, Elijah and Andrei were constant companions. Over the years, they shared many adventures. But in the middle of sixth grade, Andrei became very ill, and shortly after, he was diagnosed with cancer.

³ Elijah supported his best friend as best he could. Whenever Andrei had to stay at the pediatric hospital, he and Elijah texted each other, discussing basketball scores and their favorite video games, just like always. When Andrei was at home recovering, Elijah visited him. Inspired by the artwork of one of his fellow patients, Andrei had begun to sketch, and he shared his knowledge of drawing techniques with Elijah.

⁴ Even though Andrei fought hard, his body did not respond to treatment. Now, Elijah wanted to commemorate Andrei's memory. Andrei had been well liked by his classmates, and teachers had appreciated his cheerful demeanor and commitment to schoolwork. Knowing this, Elijah worked with a small group of students and teachers to propose a mural in Andrei's memory. After meeting with the principal, the mural was approved.

⁵ Once it was approved, the project became Elijah's passion. He recruited several other students and a few teachers to design and paint the mural. There were several ideas for a theme, and because all the ideas represented Andrei, the group decided that they would create a collage. This way, everyone would have an opportunity to make an individual tribute to Andrei. ⁶ Their first step was to sketch what they wanted to draw onto a large piece of paper. Next, they learned about how to use the grid method. They drew one-square-inch grids on their sketch, and their art teacher, Mr. Redmond, showed them how to scale the one-square-inch grids from the sketch as one-square-foot grids onto the wall.

⁷ The group had decided to meet on Saturday morning to begin painting. As Elijah approached the mural, he stopped to take inventory of the art supplies he had brought with him. The local art supply storeowner, Mrs. Bennington, had learned about the mural project from her niece, a classmate of Andrei's who was also helping with the mural. Mrs. Bennington had generously contributed high quality brushes and acrylic paints to the group.

⁸ Within 15 minutes, the rest of the students and teachers arrived. One of the students put on a CD, and soon the group was busily applying the basecoat to the wall. Mr. Redmond arrived at lunchtime with sandwiches and fresh fruit. After setting down the food on a foldout table, he stepped back and looked at the progress the group had made. He began speaking to the group. "Lunch is here, but before we eat, I'd like to take a quick moment to thank all of you for sacrificing your free time to be here today. I remember visiting Andrei during his illness, and how proud he was of the drawings he had created. I cannot think of a more appropriate way to honor his memory."

^a Elijah's eyes filled with tears, and he looked at the portion of the mural where he had sketched his memory. It was a scene of two young boys riding bicycles in a ravine. Elijah decided that creating a mural was the perfect way to honor Andrei's memory.



Spectrum Reading Grade 8

Ι.	What effect do you think planning and painting the mural had on Elijah and his classmates? Explain.
2.	In your own words, explain what the grid method is.
3.	What was the author's purpose in writing this selection?
	to entertain to instruct to persuade
4.	Why did the students decide to make a collage for the mural, instead of sticking with a particular theme?
5.	How did Elijah support Andrei during Andrei's illness?
6 .	On the lines below, write one fact and one opinion from the story.
	Fact:
	Opinion:
7.	Describe another way that Andrei's classmates and teachers could have chosen to honor and remember him.

But Is It Art?

How has the definition of art changed through the centuries?

In 1917, artist Marcel Duchamp submitted an unusual sculpture to an art show: a urinal. It was not a replica that he had created out of clay or carved from stone; it was a real urinal that could have been in a bathroom. He had simply signed it. The judges who decided which artworks would be included in the show rejected Duchamp's submission, saying it was not art, but history has disagreed. Today, Duchamp's *Fountain* is considered a landmark in art history because it changed forever how we view what is or is not considered art.

² Duchamp's urinal was one of several "readymades" that he created during his lifetime. These were non-art objects he chose for example a bicycle wheel, a dog grooming comb, and a window—and then placed on display in art settings such as museums or galleries. Duchamp's goal was to make the viewer think more about the idea of "art," rather than to focus on the object. In other words, the idea behind a work of art was more important than the object itself, whether it was a painting, a drawing, a sculpture, or simply an item you saw every day.

³ Duchamp's idea was a radical departure from previous theories about what was or was not art. Originally, art was created to serve practical purposes for the community. Art was used to illustrate religious stories and ideas, or it was used to promote political ideas. Art was also used as a status symbol. Artists were hired by the wealthy, such as royalty or landowners, to paint their portraits. A painting or sculpture was clearly a work of art if it was used for one of those purposes; if an object did not serve one of those purposes, it was not art.

⁴ During the Renaissance and the Age of Enlightenment, the purpose of art began to change. The same ideas about individuality and freedom that led to the French and American Revolutions also changed the way artists thought about and created their work. This era saw the rise of "the artist," and the creator of an artwork became as important as the work itself. The first great individual artists appeared at this time, such as Michelangelo and Leonardo da Vinci. Art became a way of expressing one's personal views or feelings about the world. As the purpose of art changed, so did ideas about how to define art.

⁵ When art was created for the purpose of expressing collective ideas about a culture, it was easier to decide what was or was not art. When art became more about personal expression, who was to say that one person's creation was art, while another person's was not? For example, when Monet and the other Impressionists first exhibited their paintings, critics thought the work was sloppy and unfinished. *How could that be considered art*? they wondered. Of course, today, these paintings are among the most treasured art objects in the world.

⁶ As the 20th century began, the purpose of art once again shifted. Artists began creating art about art. They made works that explored the idea of what could be defined as art. Although Duchamp's urinal sculpture was shocking, it was also the logical answer: anything could be art. And so, during the next hundred years, the art world saw Jackson Pollock's drip paintings, Andy Warhol's portraits of soup cans, and Jeff Koons's giant, steel balloon dogs.

⁷ Today, only two rules determine whether or not an object is art: it needs to be made by a human, and someone has to call it art. As long as one person—even if it's the artist—says something is a work of art, then it is. The debate is no longer about whether something is or is not art; the debate is about the work itself. The object may be ugly, silly, beautiful, boring, or shocking, but it is art.



١.	What was the name of Duchamp's artwork that was rejected from the show in	1917?
	Place a checkmark next to the correct answer.	

Urinal	Readymade
--------	-----------

_____ Fountain _____ The text does not say.

2. How were Duchamp's readymades different from traditional works of art?

3. Write **T** for true or **F** for false next to each statement below.

_____ Marcel Duchamp was one of the first true artists of the Age of Enlightenment.

- _____ Although the Impressionists created some of the greatest paintings in art history, their work was originally unpopular with critics.
- _____ In the past, one of art's main purposes was to serve as a status symbol.

4. Identify three main ideas from the text.

5. Choose one of the main ideas you provided above. What evidence or details does the author provide to support the main idea?

6. Do you agree with the idea that anything can be art? Why or why not?

7. Who is your favorite artist? What do you like most about his or her work?

Stuck in the Pits

What kinds of historical treasures have been found in the La Brea Tar Pits?

¹ Picture the busy, humming streets of Los Angeles today. Stores, skyscrapers, restaurants, taxis, convertibles, and people rushing to and fro fill the streets. The scene was very different 100,000, or even 50,000, years ago. Cracks in the ground allowed oil to seep to the surface and form pools of sticky asphalt. During warm weather, small animals and insects became trapped in it. Sometimes, they came to drink the water that collected on its surface. Other times, they simply were unlucky enough to stumble into the asphalt.

² The small trapped animals were easy prey for larger animals that happened by. Sometimes, the larger animals would become trapped, too. Their weight caused their feet to sink into the asphalt. If they were young and strong, they may have had a chance at freeing themselves, but many died of exhaustion, struggling to lift their limbs from the clinging muck.

³ Although this was a tragic situation for the animals that died there, the La Brea Tar Pits have provided modern scientists with a wealth of information. Excavation of the tar pits began in 1913. The Hancock family, who owned the land, gave the Los Angeles County Museum the right to excavate there for two years. In just that two-year period, a million bones, from more than 300 species, were recovered. Imagine cleaning, identifying, and housing all those remains!

⁴ Since that time, paleontologists have unearthed more than three million fossils. The most common find in the pits is dire wolf bones. Dire wolves were large, prehistoric wolves that lived between 40,000 and 11,000 years ago. Scientists believe that the wolves were trapped in the asphalt when they came to feed on smaller trapped animals. Specimens of more than 4,000 dire wolves can be found at the Page Museum, which houses items found in the tar pits.

⁵ Next to dire wolves, the most common animals found are saber tooth cats and coyotes. Like wolves, these animals were predators that were likely to have been attracted to the tar pits by the temptation of easy prey. Although the large skeletons are obviously the most dramatic finds, even the fossilized remains of plants and



insects can give scientists a broader picture of what life was like long ago.

⁶ The La Brea paleontologists are often asked if they have uncovered any dinosaur fossils or if there's a chance they will. That is one question that is easy to answer—no. The oldest remains found in the tar pits are approximately 55,000 years old. Dinosaurs lived 65 *million* years ago, when the area surrounding the tar pits was still entirely covered by the Pacific Ocean.

7 One of the most interesting things about the La Brea Tar Pits is that they are still being excavated. In a world where so many mysteries have already been solved, it's exciting to know that there is still a treasure trove of uncovered specimens from this rich time in history. In 2006, the LA County Museum of Art began construction on a new parking garage. Digging for this project uncovered new fossil deposits. Among them was the nearly complete skeleton of a wooly mammoth! The new fossil deposits were placed in 23 enormous boxes, which were then moved to a site closer to the other tar pits. "Project 23," as it is known, will take paleontologists years to sort through. There is no super fast and efficient method of uncovering the remains. Although methods have changed slightly over the century during which the tar pits have been excavated, the old, reliable methods of recovery still work best.

Ι.	Check the line beside the word or words that best describe what type of nonfiction passage this is.
	how-to
	informational text
	persuasive text
2.	Is it likely that fossilized dinosaur bones will be discovered at the La Brea Tar Pits? Why or why not?
3.	Paleontologists have found more remains than any other animal. dire wolf saber tooth cat coyote
ш	Name one cause and its effect from the selection.
	Cause:
	Effect:
_	
5.	Describe what Project 23 is.
6.	Excavating fossils is very different today than it was 100 years ago. Is this statement true or false?
7.	How do you think the author feels about the discoveries in the La Brea Tar Pits? Cite examples from the selection to support your answer.

Fossil Hunters

What is it like to be a paleontologist?

Although many people think of paleontologists as dinosaur hunters, searching for dinosaur fossils is only one part of the job. Paleontologists study the history of life on Earth and fossils of all kinds—from plants and cells to fish and saber tooth cats. Dinosaurs are some of the most dramatic remains, but fossils of plants and animals from different points in time help scientists piece together a more complete picture of the history of life on our planet.

² Paleontology draws heavily on geology (the study of rocks) and biology (the study of life). An in-depth knowledge of rocks is important because rocks can provide needed information about the fossils they hold. Information about layering of rocks and soil types can also be valuable. Principles of biology come into play when paleontologists date and identify the specimens they find. Imagine trying to put together the fossilized remains of an animal's skeleton. It would be like working on a puzzle without knowing what the finished picture looks like. The knowledge of other life forms gives paleontologists the background they need to form conclusions about prehistoric forms of life.

³ Paleontology can be exciting work. Think of finding the remains of plants and animals that have been buried for millions of years. Picture the thrilling discovery of a new creature, or finding the missing piece in a mystery scientists have been trying to solve. While these are the more glamorous parts of the job, paleontology also requires a lot of painstaking work. Paleontologists can dig for long periods of time with few finds. When they do find a fossil, recovering it is often slow. To keep from damaging the fossil, great care must be used in extracting it. Working with precise tools and small brushes can help scientists remove and preserve the fossil.

⁴ Field work isn't the only part of the job for paleontologists. They spend time in labs and offices, too. They analyze and study the discoveries they make. Everything must be identified and cataloged for future reference. Paleontologists also often write about their work, sharing it with other scientists and students. ⁵ Although becoming a paleontologist takes years of school, anyone can try their hand at fossil hunting. All it takes is interest, a little knowledge, some basic tools, and of course, patience! Experts advise that quarries, road cuts, and cliffs are good places to look for fossils. You may be able to find local paleontology groups online that can give you tips on places to look for fossils. A masonry hammer, a small chisel, a screen (for sifting out dirt), and a soft bristled brush (for cleaning the dirt off your finds) are useful tools to bring on a fossil hunt.

⁶ Experts also advise that you bring a small notebook to record information about any fossils you find. Write the location as precisely as you can. Try to also record details about the geology of the area. Include the type of rocks above and below your find. If you can make a rough sketch or take a photo, too, that can also be helpful. Chances are, any fossils you find will probably mostly be of personal interest. If you do happen to find a large fossil, however, you should contact a local museum or university. They can help retrieve it without damaging it.

⁷ Fossil hunting can be exciting and interesting work for both professionals and amateurs. There is always room to add to the body of knowledge of what Earth was like long before humans walked the planet. And the more we learn about our planet's past, the more we know about who we are and the role of living things on Earth today.



Why do you think it is important to bring a notebook on a fossil hunt and record nformation about your find in it?					
Name two other sciences that play a large role in paleontology.					
In paragraph 5, the text says that quarries, cliffs, and road cuts are good places to for fossils. Why do you think this is?					
Paleontologists work exclusively in the field. Is this statement true or false?					
Explain why the author says that paleontology can be both exciting and painstakir work.	-				
According to the selection, assembling a dinosaur skeleton can be like					
How does knowledge of biology make the process described in question 6 easier?					
After reading this selection, do you think you'll ever try fossil hunting? Explain.					

Working with History

What will Sierra do as a new volunteer at the natural history museum?

¹ Sierra heaved a sigh as her mom braked for yet another red light. Sierra was convinced that every light between her house and the Caswell Natural History Museum had been red that morning.

² Sierra had waited eagerly for the last month of school to wrap up so that she could begin her summer volunteering job at the museum. A few of her friends thought it was a little odd that she was choosing to spend two mornings a week in that "dim museum that smells weird," instead of at the pool or camp or the soccer field. Maybe it was a little odd, but the museum had been one of Sierra's favorite places in the world since her grandpa first took her there when she was four. She loved the hush of the quiet rooms, the fossils and giant skeletons of prehistoric animals, and the old-fashioned-looking dioramas of deserts, tide pools, and grasslands.

³ Mrs. Mendoza finally pulled up in front of the museum, next to a giant bronze statue of a triceratops. Sierra eagerly started to hop out of the car, but her mom stopped her. "Could you pose for a quick picture with the dinosaur?" she asked Sierra.

⁴ Sierra patiently slung one arm around the triceratops's neck, already warm from the sun, and grinned as her mother snapped a few photos with her cell phone.

⁵ "Perfect," said Mrs. Mendoza. "I'll pick you up at 1:00 this afternoon, okay? Have a wonderful time—I can't wait to hear all about it!"

⁶ Sierra opened the heavy wooden door to the museum and stepped inside, heading down the long hallway to the offices on the left. She smiled to herself as her eyes adjusted to the dim light. Maybe it *did* smell a little weird.

⁷ "Hi, Mr. Rockwell," Sierra said, tapping lightly on one of the open office doors.

⁸ "Sierra, good to see you!" replied Mr. Rockwell, taking off his glasses and jumping up to shake Sierra's hand. "I was just planning a few things for you to do this morning," he said, sitting back down at his desk. "I was thinking that you'd be sort of a jack-of-all trades for the museum." ⁹ Sierra nodded. "It sounds like I'll get a chance to work in lots of different areas that way."

¹⁰ "That's just what I was thinking," Mr. Rockwell agreed, "which means that we should probably get started on your tour so that you can get the lay of the land."

Ш Sierra and Mr. Rockwell began the tour of the museum—all the exhibits that were so familiar to Sierra were different now that she saw them from the point of view of an employee. She had often listened to the recorded messages about the exhibits on headphones that were located all over the museum. Now, however, it would be part of her job to test the headphones, wipe them down with antibacterial wipes in the morning, and make sure they were returned neatly to their stands. When they visited an area that featured animals of North America, Mr. Rockwell showed Sierra a hands-on display for kids that was frequently scattered all over the floor. Sierra would need to match the plaster animal tracks back up with the stuffed animals they belonged to.

¹² "Are you any good at following recipes?" Mr. Rockwell asked, stopping to straighten a sign. Sierra looked surprised, but she nodded. "Good," responded Mr. Rockwell, "because it would be a great help to me if you could mix up a batch of dough that our youngest day campers could use today to make fossil imprints."

¹³ Sierra grinned. "I remember doing that activity here myself not too long ago," she said. "I think I'm going to like being a jack-of-alltrades!"



- I. What clues at the beginning of the story let you know that Sierra is feeling impatient?
- 2. What does Sierra like about the natural history museum?

- 3. Based on the text, what do you think a jack-of-all-trades is?
- 4. Do you think Sierra will enjoy her volunteering experience? Why or why not?

- 5. In paragraph 10, Mr. Rockwell uses an idiom. What is it, and what does it mean?
- **6.** If you were to volunteer somewhere during your summer break, what would you choose to do? Why?

7. Have you ever visited a natural history museum? If so, what displays did you find most interesting? If not, what exhibits would you most like to see at this type of museum?

Coming Back to Life

Do scientists have the ability to recreate extinct species?

Have you ever wondered what the world would be like if scientists were able to bring back extinct animals? Repopulating the world with dinosaurs is an interesting (and frightening) idea, but it's not a real possibility. In order to bring back a species that no longer exists, scientists would need a living cell or a sample of the animal's DNA. Because dinosaurs lived 65 million years ago, there are no available samples to use—they died out just too long ago. There are many other species, however, that scientists may be able to bring back.

² In fact, in 2003, scientists were able to recreate the extinct Pyrenean ibex. The ibex was a sort of wild goat that lived in the Pyrenees Mountains between France and Spain. Spanish scientists had placed a radio collar on the last known ibex so that they could track her. The ibex, nicknamed Celia, died in 2000 when a tree fell on her.

³ Some of Celia's cells were preserved, and several years later, scientists injected them into goat cells that had been emptied of DNA. These cells were then implanted in surrogate goat mothers. Only one of the attempts they tried worked, and a baby Pyrenean ibex was born. For a brief time, scientists had managed to bring back an extinct species. Unfortunately, the baby ibex had massive health issues and died just a few minutes after birth. Although this specific instance was only a brief success, it has given scientists great hope that de-extinction is a very real possibility.



Scientists in China and Siberia are currently researching the idea of recreating an Ice Age wooly mammoth. One reason the mammoth is a good choice for this project is that it lived in very cold habitats. The ice and snow helped to preserve parts of the animals' bodies that would have quickly decayed otherwise. Scientists drilled into frozen cliffs along a river in Russia. They were excited to find samples of mammoth bone marrow, skin, hair, and fat. They have not found any living cells, which would make their work much easier. A living cell could be injected into an elephant egg that had been emptied of its DNA, much the same way the goat/ibex project worked. The egg would then be inserted into a mother elephant, which is the closest living relative of the mammoth.

5 There are a lot of hurdles to clear before scientists will have any chance of trying to recreate the mammoth. Even the possibility of doing so, though, has created quite a controversy. Some people think that humans have a responsibility to bring back extinct animals, especially when we've had a role in their extinction. Some species, like the Pyrenean ibex, have been hunted out of existence. In other cases, humans have altered the environment enough to cause a species to become extinct. In addition, many things in nature are interrelated. The extinction of one species can have far reaching effects on other species of both plants and animals.

⁶ Those who are against the idea of deextinction believe that it is a waste of time, money, and effort. They feel that there are thousands of living species of plants and animals that are in need of protection. They believe that human resources would be better spent in locating, studying, and preserving these living animals than in trying to bring back ones that no longer exist. There are no clear answers about the rights and wrongs of de-extinction. One thing is clear, however: human beings have always loved a challenge. The idea of doing something that once seemed impossible may be too much of a temptation to resist. I. In your own words, explain what de-extinction is.

2. Who was Celia?

_____ the Pyrenean ibex that scientists created

_____ a wooly mammoth

_____ the last living Pyrenean ibex

3. Why can't dinosaurs be brought back from extinction?

4. Why do some people think that humans have the responsibility to bring back extinct animals?

5. On the lines below, write a summary of paragraph 4.

Write **F** before the sentences that are facts. Write **O** before the sentences that are opinions.

- **6.** _____ De-extinction is a waste of time, money, and effort.
- 7. _____ Scientists placed a radio collar on an ibex named Celia.
- **8.** _____ The Pyrenean ibex was hunted to extinction.
- **9.** _____ Humans have a responsibility to bring back extinct creatures.
- 10. Do you think that scientists should try to recreate extinct animals? Why or why not?

An Ancient Memento

What will Sierra do when she has to make a difficult decision at the museum?

I Sierra had been volunteering at the Caswell Natural History Museum for two weeks. She loved getting ready for work in the morning, patting the bronze triceratops on the head as she arrived, and finding out each day what her tasks would be. The week before, the Native American room had required some renovations to fix a leak in the ceiling. All the artifacts needed to be carefully packed and moved into a storage area until the repairs were made. Sierra touched the arrowheads, the birch bark canoe, the beaver skins, and the hand thrown pottery with great reverence. This was exactly what she loved so much about the museum; it allowed her a glimpse into lives and time periods totally different from her own.

² That Wednesday morning, Mr. Rockwell had asked Sierra to shelve some books in the museum's mini science library. When she had finished, her next assignment was to dust the fossils in the "hands-on science" area of the prehistoric room. Her favorite part of the room held the miniature dioramas of prehistoric life. There were different ones for various eras in time, but the one Sierra liked best held tiny cavepeople draped in furs in a wintry setting. A frozen lake lay at the far end of the display, and a family of early humans huddled over a tiny faux fire. Sierra paused for a few moments to marvel at the details before she moved to the hands-on area.

³ She carefully picked up an ammonite and dusted the ridges of stone before she returned it to the tray above its label and information card. The crinoids, or corals, were next. Finally, Sierra reached the trilobites, the bug like creatures that always reminded her of cockroaches, even though they were more closely related to crabs and lobsters. She was returning the last one to the tray when two little boys sprinted into the room. Their father strode quickly after them, speaking in a low but stern tone. Sierra was startled by the unexpected activity, and the trilobite she was holding slipped from her hand to the polished concrete floor.

⁴ Sierra felt her face flush as she knelt to pick up the pieces. The trilobite pieces she was holding were at least 240 million years old! Why on earth had she been entrusted with such an ancient piece of history? Sierra was certain that she would lose her position, even though she was just a volunteer. Even worse was the embarrassment she felt. She was certain that she'd never be able to return to the museum again. Sierra couldn't believe that the mood of the morning had changed so rapidly.

⁵ Sierra briefly considered putting the pieces back on the tray, but she knew she would be unable to lie if Mr. Rockwell asked her what happened. The only thing to do was to take responsibility for what had happened. Sierra inhaled deeply and headed for Mr. Rockwell's office.

⁶ "I'm so sorry," Sierra blurted out, "but I accidentally dropped one of the trilobite fossils when I was dusting, and it broke. I can try to reimburse the museum for it if you want. I was trying really hard to be careful, but I got startled and I dropped it."

⁷ "Whoa, whoa, Sierra, please don't worry about it," said Mr. Rockwell reassuringly. "It happens all the time," he added. "We wouldn't leave anything out for patrons to touch that we couldn't stand to see break. Why don't you take the pieces of the trilobite home with you as a memento of the day you truly became a member of the museum staff. I can't think of a single person who works here who hasn't broken something at some point in time!"

⁸ Sierra breathed a sigh of relief. "I feel so much better," she admitted. She put the trilobite pieces in her bag. "I promise that this will be my one and only memento!"



١.	In paragraph I, what does reverence mean?
2.	What is Sierra's favorite part of the prehistoric room?
•	
3.	On the lines below, tell what the main idea of this selection is.
4.	In paragraph 2, <i>faux</i> means
	ancient fake fossilized
5.	Who is the protagonist in this story?
6.	What is Sierra's reaction when she drops the trilobite?
7	Which word best describes Mr. Rockwell's response to Sierra?
	dismayed sympathetic regretful
8.	Describe a time when you did something that you felt badly about. How did you handle the situation?

The Greatest Show on Earth!

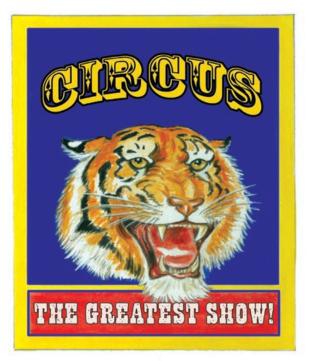
Who was P.T. Barnum, and how did he begin the world's most famous circus?

I Phineas Taylor Barnum was, above all, a businessman, a showman, and a promoter. He was born in 1810 in Connecticut, the son of an innkeeper, tailor, and storekeeper. By the age of 12, he was already showing his talent for business by selling lottery tickets. Barnum tried his hand at various business ventures in New York City as an adult. Then, in 1841, he opened Barnum's American Museum. He displayed approximately 500,000 oddities and curiosities, including what he called the "Feejee Mermaid." He claimed to have bought the embalmed mermaid from a sailor in Boston. The mermaid was obviously a fake, but that didn't seem to matter. Barnum was a success in arousing the public's curiosity and imagination.

Barnum's next great find was Charles Stratton. At the age of six months, Charles had stopped growing. He was 25 inches long and weighed 15 pounds. His parents and siblings were of average size, but by the age of four, Charles was still the size of a baby. He immediately captured the attention of P.T. Barnum, who correctly predicted the crowds that Charles would draw. Barnum nicknamed Charles "General Tom Thumb." He taught the boy how to sing, dance, mime, and do impersonations. Tom Thumb was incredibly popular at the museum, just as his founder had hoped. The two went on tour in Europe and even appeared before the queen of England at one point.

³ In 1850, Barnum made yet another wise business decision. He had heard of a famous Swedish opera singer named Jenny Lind and decided to bring her to the U.S. Jenny Lind, the "Swedish Nightingale," accepted Barnum's generous offer of \$1,000 per show for 150 shows. The offer was indeed generous for its time—but it didn't compare to the \$500,000 that Barnum earned in profits from Ms. Lind's tour.

⁴ In 1868, Barnum's museum caught on fire and burned down. Instead of rebuilding the museum, Barnum chose to found "the greatest show on Earth": P.T. Barnum's Grand Traveling Museum, Menagerie, Caravan, and Circus. It was Barnum's goal to create a spectacle, something that would capture the attention of crowds. He



wanted it to be big, and he wanted it to be oneof-a-kind. Barnum succeeded with his goals. His circus covered five acres and could seat 10,000 spectators. Within a year of the circus's opening, Barnum had earned \$400,000—quite a sum, especially in the 1870s.

⁵ Barnum continued to follow his instincts for business when he bought an elephant named Jumbo from the London Zoo in 1882. Jumbo drew large crowds at Madison Square Garden. The giant elephant quickly earned back the \$10,000 that Barnum had spent to purchase him. The common usage of the word *jumbo* today has its origins in Barnum's popular elephant.

⁶ As Barnum aged, he saw the wisdom of merging with other showmen in the circus business. In 1881, he joined up with James Bailey and James Hutchinson. Barnum and Bailey parted ways in the mid-1880s and then teamed up again in 1888 with Barnum and Bailey's Greatest Show on Earth. Three years later, Barnum died in his sleep at the age of 81. It was fitting for this lifelong businessman to be concerned about his profits right up until the end. No one was surprised that in his last conversation, he asked about the totals from the performance the night before. P.T. Barnum was a showman through and through.

- I. What was an early sign that P.T. Barnum would be a talented businessman?
- 2. Why do you think it didn't matter that Barnum's mermaid was a fake?

- 3. What was unusual about Charles Stratton?
- **4.** What does it mean to say that Barnum was a skilled promoter? Why was this important in his job?

- 5. In paragraph 4, what does the word spectators mean?
- 6. *P.T. Barnum and General Tom Thumb went on tour in Europe.* Is this statement a fact or an opinion?
- 7. P.T. Barnum often made personal gains by capitalizing on the unusual physical characteristics of others. Do you think this is ethical? Could Barnum make a living doing this today? Explain.

The Tumbling Tennenbaums

How will Christian handle the biggest decision of his life?

¹ Christian's gaze drifted up to the peaks of the main tent, where multicolored pennants snapped in the breeze. He knew that if he stared down at the narrow cable, his concentration would be broken and he would fall. With each step, the cable wobbled slightly, and he shifted his balance accordingly. One move too far to the left or right, and he would tumble into the net. Luckily, the strong breeze playing with the flags high overhead was much weaker near ground level. The performers' trailers and RVs surrounding the practice area must have been blocking the wind some.

² Christian finally made it across the wire and stood solidly on a small platform with a ladder leading to the ground. His father, Mr. Tennenbaum, clapped and shouted, "Excellent, Christian!" Then, Christian's father tossed him three juggling pins, one at a time.

³ The Tumbling Tennenbaums had traveled with the circus for four generations, beginning with Christian's great-grandfather, Thomas Tennenbaum. He had joined the circus as a tightrope walker nearly 100 years ago and soon met and married a lovely young trapeze artist named Louisa. They raised their children to be performers, and when those children grew up, they had kids of their own and continued with the circus, too. Each generation was expected to master a few basic skills: juggling, tightrope walking, flying on the trapeze, and a variety of balancing tricks. Eventually, one of those skills would become a person's specialty.

⁴ Christian was still testing the waters with all the acts, and he knew this frustrated his father. By twelve or thirteen, Tennenbaums were supposed to know their strengths or weaknesses and begin perfecting one skill over all the others. But what Christian was beginning to realize was that he wasn't even sure he wanted to spend his life in the circus.

⁵ Christian often watched the kids in the audience or in the food court, and he wondered about their lives. What would it be like to live in one place all the time and go to a real school? Christian and the other young performers were taught by a tutor who traveled with the families and led small classes in her trailer. But Christian had watched movies and read plenty of books; he knew how different a regular school would be.

⁶ With his arms stretched out and the pins held in each hand, Christian stepped carefully back toward the middle of the wire. He paused, steadied the wire below his body, and then tossed one pin, another pin, and then the last pin into the air. As soon as he caught one, he launched it back into the air, and, like a machine, he kept the pins rising and falling in rhythm as his father yelled, "Bravo!"

⁷ Back on the ground, Mr. Tennenbaum clapped his son on the back and smiled. Christian saw the look in his eyes as he said, "Christian, you work so hard every day. I'm proud of you, but I can't help but wonder as I watch you: do you like this? Do you like performing for people?"

⁸ Christian shrugged, but his reply lacked enthusiasm. "Sure, we're the Tumbling Tennenbaums. It's what we do."

⁹ Later, at dinner, Mr. Tennenbaum asked Christian, "Do you remember your Aunt Lucille? She lives in the next town we're visiting. You know, she left the circus at about 18 to attend college, and now she's a biologist. I called her this afternoon, and we spoke for a long time about you, Christian. If you want—and it is completely your decision—you could stay with her for a year and try the townie life. Just know that I love you and want you to do what makes your life happy. If that's not the circus, well, then it's not the circus."

¹⁰ Christian swallowed hard, realizing it would be the biggest decision of his life so far—and he had no idea what to do.



- I. What acrobatic feats does Christian perform in the story?
- 2. Which of the following does NOT describe a possible theme for this story? Place a checkmark on the line of the best answer. love and understanding among family members _____ the importance of traditions _____ the risks and dangers of a life in the circus _____ following your dreams where they lead you **3.** Do you think Mr. Tennenbaum is disappointed in Christian? Why or why not? Include details from the story in your answer. **4.** At the beginning of the story, why is Christian staring up at the pennant waving above the main tent? 5. What does Christian juggle? Place a checkmark on the line of the correct answer. knives balls _____pins _____ oranges 6. Why is the decision Christian must make so difficult for him? 7. Make a prediction about the choice Christian will make, and justify your prediction with evidence from the text. 8. What traditions do you have in your family? Are they traditions you will continue following as an adult? Why or why not?

The Big Truth

What does Franny discover about the treatment of animals in circuses?

¹ Francine and her older brother William were sitting at the kitchen table. He was studiously reading a newspaper, while she nervously drummed her fingers on the table.

² "Franny, would you please relax," said William, "I'm almost finished."

³ Franny was a reporter for her school newspaper, and she was recently assigned her very first editorial. Her assignment was to review and write an editorial on the circus that was coming to their town. What Franny discovered through her research, however, didn't take her in the direction she thought her article would go. It didn't reveal the glamorous lives of the circus performers and the glitz and spectacle of the big show. This was going to be a bold statement for her very first editorial, but Franny felt she had to reveal the behind-the-scenes reality of the circus.

> The Big Truth Beneath the Big Top an editorial by Francine Morris

⁴ The air smelled like popcorn and cotton candy within the walls of the dusty tent. I remember the elephants, the lions, the clowns, and the beautiful spangled costumes of the acrobats. I remember some of the spectators feeling apprehensive about being so close to the animals. They were frightened for the lion tamer and the other animal trainers. What I didn't know during my first visit to a circus a few years ago, is that those animals had more to fear from their trainers and handlers than the people had to fear from them. The circus animals that look so happy in that ring do not lead happy or fulfilled lives.

⁵ Every one of the major circuses that come in and out of towns all across our country have been charged with violating the minimal standards of care of the Animal Welfare Act. While the animals are traveling, which can be up to 11 months out of the year, they are caged or chained for much of the day. Many of the training tools, including clubs, whips, and electric prods, are inhumane. Most of these animals have never been free to enjoy life in a natural environment. Many circus horses, lions,



and elephants have died early and unexpected deaths.

⁶ These performance animals have no voice of their own. They do not have a choice about when or where they perform, how they are trained, and what kind of care they receive. We must be their voice. Our dollars can be their voice. Family fun and harmless entertainment is the lie. Abuse, mistreatment, and death is the unfortunate truth.

⁷ I, for one, will never again attend a circus with animal performers. In addition, I am going to contact my local political leaders to encourage them to support legislation to stop the inhumane practices of circuses with performance animals. We have been learning about our rights as citizens in our government and citizenship classes. We have learned about the roles our elected leaders play. They speak for us. It is our right and duty to speak for those who are defenseless. Our voices, our dollars, and our votes can help to put an end to an industry that so inhumanely treats these beautiful, majestic, sensitive creatures.

⁸ William finally put the paper down and looked at his sister. "Count me in," he said to Franny, "I'll never again attend one of those circuses, either. And I'll also help you to spread the word. You make a good reporter, little sister, and an even better human being."

1	What is the	nurnose	of an		niaca i		spaper?
		puipose	or arr	eanona	hiece i	IL O LIEW	spuper:

In	paragraph 4, <i>apprehensi</i>	ive means		
	anxious e	xhausted	_ excite	d
Cł	neck the character traits t	hat describe Fran	ıny.	
	compassionate	reckless		_gullible
	determined	careless		_ responsible
	n the lines below, write a s			
In 	paragraph 6, what does	"Our dollars can k	be their v	oice" mean?
	o you think that Franny wil	I want to continue	e writing	editorials for the paper? Why or
	not?			

Dreams of Cirque du Soleil

How can an all-human circus transfer its audience to a land of imagination and dreams?

¹ High flying acrobatic dancers traverse the sky. Brightly colored costumes glitter in the lights. Jugglers, trapeze artists, and magicians astound their audiences. Its name says a lot: Cirque du Soleil, or Circus of the Sun.

² Cirque du Soleil began in Quebec, Canada, in 1984 with just 73 employees. Today, more than 5,000 people work for the company all over the world. Cirque du Soleil is a departure from what some people consider a "traditional" circus. Cirque du Soleil employs no animals. Only human performances awe and inspire its worldwide audiences. To be certain, though, Cirque du Soleil is a circus. The company offers traveling shows that perform in tents in cities all over the world.

3 In the early 1980s, in a village near Quebec, Guy Laliberté founded an entertainment group made up of dancers, jugglers, musicians, and even stilt walkers. When Quebec needed an event to help celebrate the 450th anniversary of the founding of Canada, Laliberté convinced event organizers that Cirque du Soleil would be perfect for the occasion. His idea was for his performers to tour throughout the provinces. The event organizers agreed, and the group commenced its tour. However, the company did not stop once it had performed in each of Canada's ten provinces. It crossed the Canadian borders and kept going. In fact, it hasn't stopped yet.

Central to the philosophy of Cirque du Soleil is creativity with limitless possibilities. Imagination and dreams drive the creative process of the artists and craftspeople. Their creative juices have inspired 21 Cirque du Soleil shows. The themes of the shows include a magician-inspired show called *Believe;* a show which takes place on a mysterious and beautiful island called Amaluna; and a journey through the evolution of man called Totem. Even popular music makes its way into the Cirque du Soleil shows with Michael Jackson One and The Beatles Love. What do all of Cirque du Soleil's many performances have in common? Creativity, artistry, imagination, and a mastery of human movement and form are what connect all of Cirque du Soleil's shows.

⁵ In 2012, filmmaker James Cameron and director Andrew Adamson took Cirque du Soleil into a new medium: film. They created a 3D movie featuring performances from Cirque du Soleil's live performances.

In addition to a philosophy devoted to artistic creations, the producers and artists of Cirque du Soleil also believe in having philanthropic goals. They believe in supporting local communities as a way to improve what they call the "global community." Cirque du Soleil works with troubled youths, helps fight against poverty, and supports projects providing accessible water and sanitation in the places where it performs. With its belief in good citizenship and social responsibility, Cirque du Soleil has a vested interest in 20 countries over five continents. Cirque du Soleil's social and community responsibilities are "founded on the conviction that the arts, business and social initiatives can, together, contribute to making a better world." True to its values, the Cirque du Soleil global headquarters in Montreal is nestled in expansive, green gardens. Food and herbs from the gardens provide meals for employees.

⁷ Words used to describe Cirque du Soleil's performers and performances include *grace*, *strength, joy, discipline, energy,* and *passion*. If you are lucky enough to see a live performance, or you get to watch the 3D movie, hold onto your seats and prepare to be launched into a world of beautiful human artistry and imagination. Let the shows inspire you to create, perform, and live your own dreams.



I. For each paragraph, write a sentence summarizing its main idea.

	paragraph I:
	paragraph 2:
	paragraph 3:
	paragraph 4:
	paragraph 5:
	paragraph 6:
	paragraph 7:
2.	Does the author have a positive, negative, or neutral point of view about Cirque du Soleil? How do you know?
3.	The word <i>philanthropic</i> is used in paragraph 6. Review the paragraph, and then describe the meaning of <i>philanthropic</i> in your own words.

4. Even though Cirque du Soleil does not have performing animals, the author insists it is still a circus. What reasoning does the author provide to support her view? Do you agree with the author? Why or why not?

5. Approximately how many different Cirque du Soleil shows have the producers created? Place a checkmark on the line of the best answer.

_____ about 5 _____ about 20 _____ about 10 _____ more than 50

6. If you could create your own Cirque du Soleil type of performance, what would it be like? What theme would you choose? What kinds of tricks would the performers do? Use the lines below to describe what you imagine.

Hidden Danger

How do avalanches occur?

As snow accumulates on a car windshield, it sticks to the cold surface of the window. When the driver turns the ignition and starts the car, the windshield begins to warm from the increased temperature in the car's interior. As the temperature rises, the snow on the windshield begins to slide off, sometimes in large chunks. Although the driver might not recognize it, an avalanche has just occurred on the windshield!

² A windshield avalanche imitates what is known as a *slab*, or large scale, avalanche. However, it is not the deadly force of nature that occurs during an avalanche in a large area. A real avalanche is one of the most powerful natural events. Its formation depends upon three factors: snow, a sloped surface, and a trigger. A snowy slope with an angle between 30° and 45° is considered a potential avalanche site. The first day following a heavy, sudden snowfall over 12 inches is prime time for an avalanche to form.

³ Several natural circumstances can cause an avalanche. An environment with forests is much safer than open terrain. The trees create a natural buffer to anchor snow and prevent it from causing an avalanche. Valleys or sloped areas are possible danger zones, as they can quickly accumulate large amounts of snow.

The condition of snow layers in a *snowpack*, or accumulation of snow, also influences the likelihood of an avalanche. In areas that are quite snowy, snowpack consists of several layers of snow that have developed over time. The types of bonds throughout the snowpack's layers can determine whether an avalanche might occur. If the snow crystals do not create a strong bond, they create a weak layer in the snowpack. If the weak layer exists near the surface, it may cause a *sluff*, or small slide of dry, powdery snow. If the weakened layer is at the base of a snowpack, it can result in a deadly slab avalanche. Dramatic changes in temperature also can cause melting in the snowpack, causing weak bonds.

⁵ Many natural events can trigger an avalanche. However, it is estimated that about 90% of avalanches are caused by human activity. Skiers, snowboarders, and snowmobilers all depend upon snowpack to enjoy their sport. If



they are not careful, their activities can result in a deadly avalanche.

⁶ Areas with smooth, steep slopes and few obstacles create an ideal setting for an avalanche. Winter sports enthusiasts seek out these exact conditions. They must use extreme caution in order to assure their safety. Usually these types of areas will provide signs to warn people of dangerous conditions. Most parks also offer web pages or hotlines with avalanche forecasts.

⁷ Of course, skiers or snowboarders who are in avalanche-prone areas should be aware of their surroundings at all times. A partner should always be present. If travel in an area that is potentially dangerous is required, it should occur above the avalanche zone, not through the center. Basic equipment, such as shovels, rescue beacons, and avalanche probes, is essential and should be present during any such activity.

⁸ In areas where many people gather to enjoy snow sports, such as ski resorts, there are methods to control the likelihood of avalanches. One example is avalanche control teams, whose job it is to trigger controlled avalanches. They do this with explosives or by using a cannon. These methods clear the area of new snow, which can overwhelm a sturdy snowpack. This, in turn, prevents an avalanche from occurring when people are using the area for recreation. An avalanche can be a powerful and deadly force, but with caution and a little luck, most winter athletes will never encounter one.

- I. In the selection, the author uses an analogy to compare two things. What are they?
- 2. How does the analogy add to your understanding of avalanches?

- 3. The three elements necessary for avalanche formation are:
- **4.** What is snowpack?
- 5. Where is an avalanche more likely to occur—in a wooded area or on open terrain? Why?

- **6.** Is the author presenting a particular point of view in this selection, or does he or she just present the facts?
- 7. What can create a weak layer in snowpack?
- 8. Do you think that skiing or snowboarding in avalanche-prone areas is too risky? Explain.

An Avalanche for Breakfast

What does Benjamin do as part of the avalanche ski patrol?

¹ Santiago carried napkins and silverware to the table while his mother, Mrs. Hernandez, stirred the scrambled eggs and flipped the frying pieces of bacon. Santiago's older brother, Benjamin, entered the kitchen, rubbing his eyes and stretching his arms above his head.

² "That smells fantastic, Mom," Benjamin said. "I haven't had a home cooked meal in forever. I end up eating most of my meals at a little diner a couple of blocks from my apartment."

³ "Absolutely my pleasure," Mrs. Hernandez replied. "Santiago and I are glad you got to come home for a few days, considering it's still ski season. I figured we wouldn't have you back here until sometime in May."

"I wasn't the only new employee hired for the patrol this season, so we have more flexibility compared to the patrollers last year."

⁵ The three filled their plates and sat at the table to eat breakfast. Santiago couldn't wait to hear about his brother's new job.

⁶ "Have you seen any avalanches yet?" Santiago asked.

⁷ "Lots, because our job is to actually make avalanches occur. We ski around the mountain looking for potential problem spots, and when we find one, we make sure the mountainside is evacuated, and then we use explosives to shake the snow and make it fall downhill."

⁸ "That sounds pretty dangerous," Mrs. Hernandez said worriedly.

⁹ "It is, but we all work together to make it as safe as possible. We work in teams and watch out for each other, and everyone wears a little device that sends out radio signals. If someone does end up buried in the snow, we can locate them and dig them out by following the radio signals."

¹⁰ Santiago was trying to figure out what causes avalanches. "So, when the snow piles up too high, does it get too heavy and fall downhill? Is that an avalanche?" 11 "Not exactly," Benjamin explained, "it has to do more with the layers of snow. Each time it snows, a new layer is created, and the layers can have different consistencies. One layer might be wetter and slushier, while another layer is frozen solid, and another is light and fluffy. If something disturbs the top layer, like a person walking or skiing on it, then the top layer can suddenly let loose and start sliding downhill across the layer below it. That's an avalanche. When that top layer of snow breaks free and starts racing downhill, gravity can quickly get it moving up to about 80 miles per hour. All that heavy snow tumbling downhill can cause a lot of damage, and anything in its path gets buried. You can see why the avalanche ski patrol is an important job."

¹² "No kidding," Santiago agreed. "So what happens when someone who *isn't* wearing a radio transmitter gets buried?"

¹³ "Then, we bring out our secret weapon: the dogs. We have German shepherds that we send out onto the mountainside. They have an amazing sense of smell, and they use it to find where people might be buried. Then, they race back to us and guide the patrol to where they think someone might be located under the snow. We use long poles to carefully poke down into the snow until we hit something solid, and then we start digging. I've done quite a few training exercises with the dogs, where volunteers are buried safely in the snow, and then we use the dogs to find them."

¹⁴ Santiago went to the stove and came back with the pan of scrambled eggs. He tipped it over his plate, and as the eggs tumbled from the pan onto his plate, he yelled, "Egg-valanche!"

¹⁵ Benjamin and Mrs. Hernandez rolled their eyes at each other, and then they started to laugh.



Ι.	Why is Benjamin home visiting his mother and brother? Place a checkmark on the line of the best answer.
	It is Santiago's birthday Benjamin lost his job with the ski patrol.
	Ski season is over The story does not explain.
2.	Identify the author's two main purposes for writing the story.
3.	Do you think Benjamin is or is not a good cook? How do you know?
4.	How does the ski patrol reduce the risk of avalanches?
5.	Complete the sentence below. The story is told from point of view.
6.	As indicated, provide either a cause or an effect to complete each cause and effect relationship from the story.
	cause:effect: A long pole is carefully poked down into the snow.
	cause: Eggs tumbled from the pan onto Santiago's plate.
	effect:
	cause:
	effect: Benjamin explained what causes an avalanche.
7.	Why do the ski patrol members wear radio transmitting devices?
8.	Describe the role dogs play during an avalanche rescue operation.

Canine Rescue

Will two ski patrol rescue dogs be able to find the skiers buried by the avalanche near a ski resort?

¹ The Henry family—Richard, Leah, Mitchell, and Elizabeth—had been saving all year for their vacation at a ski resort in the Rocky Mountains. On their first afternoon, they planned which slopes they wanted to ski that day and then quickly changed into their ski clothes. As the family made its way through the crowded lobby, Elizabeth noticed two ski patrollers. Each patroller was walking with a dog wearing a jacket that read, "Dog Rescue." Elizabeth and Mitchell, who were already missing their own dogs, ran over.

² "Hi, my name is Elizabeth and this is my brother, Mitchell," Elizabeth said to the female patroller. "Are these really rescue dogs?"

³ "They remind me of our dogs, Mac and Spike, back home," commented Mitchell.

⁴ "I'm Katherine, and yes, both Aspen and Shadow are Avalanche Rescue Dogs with our ski patrol team. They are incredibly important to our Search and Rescue Department."

⁵ "How did Aspen and Shadow become rescue dogs?" asked Elizabeth.

⁶ "Well, certain breeds of dogs are more suited for this type of work and a lot of training is involved, too, " began Enrique, the other patroller.

⁷ Katherine continued, "Dogs have been involved in avalanche rescue for almost 80 years. Since then, training programs and techniques have improved. Dogs can detect human scent much more quickly than humans can. And they can search much more quickly, too. It's been documented that one rescue dog is equivalent to about 20 human searchers on foot."

⁸ "Many avalanche survivors have been saved by avalanche rescue dogs like Aspen and Shadow here," added Enrique proudly. "Aspen and Shadow have been working since" Enrique was caught off guard by the sound of his walkie-talkie calling out a report. Both Aspen and Shadow came to full attention.

⁹ Looks of alarm spread across Richard's and Leah's faces as they heard the words coming through. "Avalanche reported in Area 12. Two

Spectrum Reading Grade 8

backcountry skiers reported missing." With no further words, Enrique, Katherine, Aspen, and Shadow disappeared into the crowd.

¹⁰ Apparently, slightly rising temperatures over the last week had caused instability near one of the outer ski areas. The snowpack had weakened, and the mere presence and weight of skiers may have triggered the avalanche. Fortunately for the missing skiers, their friends were far enough behind to avoid getting caught in the avalanche, yet close enough to be able to give a description of where they appeared to have been buried.

¹¹ The rescue patrol arrived on the scene, and Aspen and Shadow got to work sniffing out the area, trying to locate scent pools. Within minutes, Aspen began digging rapidly.

¹² "He's on it," hollered Enrique. "Good boy, Aspen!"

¹³ The ski patrol team went to work in Aspen's area, and within five minutes they had located and freed one of the buried skiers. The other skier was located nearby two minutes later. Word quickly spread back to the lodge that both skiers were rescued, on their way to a local hospital, and reportedly doing well. Cheers and sighs of relief could be heard in the crowded lobby. The news also spread that Aspen had almost immediately pinpointed the exact spot of the first skier rescued.

¹⁴ "I can't wait to talk to the ski patrol team," said Elizabeth.

¹⁵ "I hope we get to see Aspen and Shadow again to give them some extra special pets and hugs," added Mitchell.

¹⁶ "I agree," said Richard. "After talking with Katherine and Enrique today, and learning about avalanche rescue dogs, it doesn't surprise me at all that Aspen is a hero!"



١.	In paragraph 7, <i>documented</i> means
	explained recorded; proven disputed.
2.	What signal did the sound of the walkie-talkies send to Aspen and Shadow?
3.	On the lines below, write one fact and one opinion from the story.
	Fact:
	Opinion:
4.	What advantage do search and rescue dogs have over humans?
5.	In paragraph 11, what do you think "scent pools" means?
6.	What words would you be most likely to use when describing a ski patroller?
	courageous suspicious fussy dependable
_	conceited athletic energetic studious
7.	Cite examples from the story that indicate how Elizabeth and Mitchell feel about dogs.
•	
8.	What is the climax of the story?
0	What is the stary's resolution?
ч.	What is the story's resolution?

An Icy Welcome

How would you feel about vacationing in a hotel made entirely of ice?

Have you ever wanted to take a vacation that was totally unique? If you enjoy a good adventure (and you don't hate the cold), a stay at ICEHOTEL may be just the thing. ICEHOTEL is located in a northern Swedish village called Jukkasjärvi. The village sits about 120 miles north of the Arctic Circle and boasts a population of nearly as many dogs as humans. ICEHOTEL is constructed of snow and ice, as well as a combination of the two that the builders call "snice." Snice is used to strengthen the structure—it holds the blocks of ice together more securely than just snow would.

² The nearby Torne River is the source of the ice used in the construction of the hotel. Unlike most European rivers, it is not used for industrial purposes, which contributes to its purity. Early each spring, about 5,000 tons of ice are harvested from the river. It is stored through the summer and fall, and construction begins on the hotel every November. It takes about eight weeks to construct the hotel, which is then open for business between December and mid-April.

³ One of the magical things about ICEHOTEL is that it is never the same place two years in a row. Construction begins from scratch every winter, and every year, a new hotel is born. It will exist in its current form for only a few months. Then, the sunshine and warming weather begin to melt its walls and roofs, and the water slowly returns to the Torne River.

⁴ One of the most interesting things about ICEHOTEL is that it is not only a hotel; it is also a unique work of art. Each year, hundreds of artists apply to be the designers of the next year's hotel, and forty artists are chosen. The artists come from a variety of backgrounds. Some specialize in sculpture. Others may have backgrounds in theater, architecture, or even photography. Some of the artists have experience working with ice and snow, but for others, it is a new and inspiring material. Along with about 60 other people who have various roles, they are responsible for creating an 18,000-foot-square space that is beautiful, unique, safe, and artistic. ⁵ If you are like most people, you're probably wondering about how cold the rooms actually are. There's no doubt that you'll want to bring appropriate clothing. In fact, one section on ICEHOTEL's website is devoted to telling visitors how to dress. No matter what the temperatures are outside (and it can get *really* cold), the temperatures inside won't drop below 20° F. This is still cold enough to be potentially dangerous, but as long as you follow the guidelines, you'll be snug and warm.

⁶ The staff at ICEHOTEL recommends that guests sleep in thermal underwear and a hat that they can use to cover their ears. Sleeping bags are provided, and although the beds are made from blocks of ice, they do have coverings of thick mattresses and reindeer skins. While some of the more adventurous guests spend their entire stay in the cold rooms, others spend only a night or two there and then spend the remainder of their stay in "warm accommodations."

⁷ Because the hotel is a work of art, as well as a place for tourists to stay, the rooms are open to the public during the day. Guests move their belongings into a warm building, and the rooms are on display for visitors as works of ice sculpture. There are plenty of activities to do during the day, including snowmobile tours of the area and dog sledding. Cross country skiing and snowshoeing are other options. And, if you're lucky, you may even get to see the northern lights.

⁸ There's no doubt that a stay at ICEHOTEL isn't for everyone. But for people who love adventure, challenges, and trying new things, ICEHOTEL offers an experience that is hard to find anywhere else.



١.	A guest at ICEHOTEL would be likely to be
	adventurousirritableconceitedcurious
	sentimental reckless hardy delicate
2.	Why is ICEHOTEL considered both a hotel and a work of art?
3.	A <i>portmanteau word</i> is a word that is created from the combination of two other words. Find the portmanteau word in paragraph 1, and define it.
	Tha me pormamead word in palagraph 1, and define it.
ц	Where does the ice used to build the hotel come from?
5.	Explain two ways in which ICEHOTEL is similar to and different from an average hotel.
6.	How is ICEHOTEL cyclical in nature, the way the seasons are?
7.	On the lines below, write a summary of paragraph 4.
8.	If you ever had the opportunity to stay at ICEHOTEL, would you want to? Explain.

Planting a Seed for the Future

How can an experiment conducted in space help humans stay healthy?

¹ Jessica stopped in her tracks as she saw the NASA poster in the hallway at school. Her friend Juan barely avoided bumping into her and looked to see what was capturing her attention.

² "Did you see this?" asked Jessica. "What an awesome opportunity!" She looked at the details of the contest that the poster was publicizing. One lucky student would have his or her experiment performed in space. The deadline for the contest was in just a few weeks, though. Jessica sighed, thinking it would be impossible for her to even brainstorm an idea for a project in a few weeks, much less design an entire experiment.

³ Jessica had biology class next period, and she stayed a few minutes to talk to her teacher, Mrs. Butcher. "Do you have any idea what I could do for an experiment for the NASA contest?"

⁴ Mrs. Butcher looked at Jessica thoughtfully. "Well, Jessica, I can't tell you specifically what to do, but maybe you could consider an experiment that will benefit people's health. Many plants are used in medical treatments. You could think about doing an experiment using one of them."

⁵ Jessica grinned. "Thanks Mrs. B., you've given me the *seed* of a thought!" As she walked away, she heard Mrs. Butcher chuckling. Jessica headed to the library and asked the librarian to help her find books about plant science, or botany. The librarian found one that contained a chapter on plants used in medications, and Jessica's eye was immediately drawn to the picture of foxglove that she saw on the second page. She thought with excitement, *I'm almost positive that Mom has that in our garden! I wonder what it's used for?*

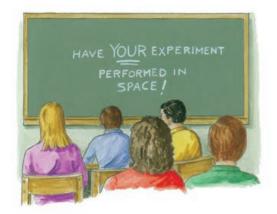
⁶ After reading further, Jessica discovered that foxglove, scientifically called *digitalis*, is used in the treatment of irregular heartbeats because it strengthens heart contractions. Because foxglove was obviously valuable to heart patients, Jessica thought that finding more efficient ways to grow the plant might reduce the price of the medication produced from it. She decided that her experiment would focus on finding out if foxglove would grow more rapidly in a reduced gravity environment.

Jessica ran her idea by Mrs. Butcher, who approved it and asked her to come up with the method that she would use to design and perform her experiment. As Jessica bounced back to the library, she grabbed a dictionary off the shelf. Words like atrial, fibrillation, and cardiac were coming up regularly in her research, which was a little intimidating, and she wanted to be able to use them correctly as she developed her experiment. Juan found her there, and Jessica excitedly explained that she thought foxglove plants would grow faster in reduced gravity. In the next few weeks, she planned to design an experiment that evaluated how different light, soil, and moisture levels can affect the growth of foxglove plants.

⁸ A week before the deadline, Jessica brought her project outline and completed contest entry form to Mrs. Butcher. Mrs. Butcher was eager to comment on her work, and Jessica made the few changes her teacher suggested. Jessica carefully packed up her completed experiment details and shipped them via registered mail to NASA. It would be several months before the winner of the contest was announced, but with the hard work behind her, she wasn't bothered a bit.

⁹ Jessica found Juan shooting baskets on his driveway. "I think we need to go celebrate," she said, grabbing the ball and dribbling a few times before she attempted a shot. "My work is done. The next step is . . . space!" she said, sinking a basket.

¹⁰ Juan grinned and bumped fists with her. "That definitely calls for ice cream," he agreed.



- I. What is the hypothesis (or what she wants to prove) in Jessica's experiment?
- 2. How does Jessica's attitude about the contest change between the beginning and end of the story?

3. Why does Jessica decide to use foxglove in her experiment?

Circle the word or words that best complete each sentence below.

4. Jessica was a little ______ some of the more technical words in her research.

invigorated by appreciative of intimidated by

- 5. The goal of NASA's poster was to _______ the contest. publicize eradicate eliminate
- 6. Jessica ______ an experiment to test the rate of growth of foxglove plants in space.

rejected duplicated designed

- 7. Why does Mrs. Butcher laugh when Jessica says, "You've given me the *seed* of a thought"?
- 8. Why is Jessica's experiment well suited to being performed in space?

Curiosity in Space

What can scientists learn about Mars using only a robot?

On a partly cloudy day in November 2011, a 15-story-tall rocket lifted off from the Cape Canaveral Air Force Station in Florida. The spacecraft perched atop the rocket was destined for Mars. It contained one the most complex pieces of machinery ever developed by NASA (National Aeronautics and Space Administration). After the rockets fell away, the spacecraft—called the *Mars Science Laboratory*—traveled through space for the next eight months with its precious cargo: a car-sized robotic rover called *Curiosity*.

² On August 6, 2012, *Curiosity* landed safely at the Bradbury Landing Site, named after science fiction writer Ray Bradbury. The rover would be sending information back to Earth about the Martian landscape and climate. Specifically, scientists hoped to find signs that life may have once existed on the planet. Water plays a vital role in allowing life to exist, so one of the first steps was to investigate evidence of water on Mars. The landing site was carefully chosen so *Curiosity* could fulfill this mission.

³ The Bradbury Landing Site is located in the Gale Crater. By studying the geography of Mars, scientists believed the giant crater had slowly filled with sediment over billions of years. Their research suggested that much of the sediment was carried into the crater by flowing water. The area seemed like the perfect place to investigate billions of years of Martian history, including the role of water on the planet.

⁴ *Curiosity* was outfitted with a wide array of scientific equipment to help it study the planet. The rover has cameras and radio transmitters so it can communicate with scientists on Earth and send back pictures. It has an arm so it can pick up rocks or dust from the planet's surface. The rover even contains a chemical lab so it can analyze the materials it picks up. The results of the analyses are sent via radio signals to scientists on Earth. Of course, the rover is also mobile. It can roll around the planet's surface to study different parts of the crater. Scientists operate everything remotely from Earth.

⁵ Within just a few months of landing, *Curiosity* was already making exciting and important discoveries about the Red Planet. It found a dry, ancient streambed where water once flowed. The stream was probably about knee deep, and water ran through it for thousands of years. After drilling a few inches into the planet's rocky surface, the rover also discovered life-friendly minerals. In combination with water, these minerals suggested that life was possible at some point in Mars's past.

⁶ The next step for *Curiosity* is to find evidence of that life, if it did exist at one time. However, scientists are not searching for fossilized bones or little green men. The signs of life they are looking for are much smaller. Realistically, they hope to find traces of microbial life, such as bacteria or single-celled organisms.

⁷ Along with the search for signs of life, *Curiosity's* other purpose is to study the possibility of sending humans to Mars. One risk of space travel is exposure to radiation. Earth's atmosphere blocks much of the harmful radiation that moves through space. Mars has no atmosphere, so *Curiosity* took measurements at the planet's surface. The results show that exposure to radiation on Mars would be about the same as what astronauts experience on the International Space Station. A manned mission to Mars would certainly have its risks, but the planet itself is possible for humans to visit.

⁸ *Curiosity* was not the first rover sent to Mars, and it probably will not be the last. Based on the tremendous success of *Curiosity*, NASA already has plans for its next Mars rover.



I. Write **T** for true or **F** for false next to each statement below.

_____ Curiosity was a rocket launched by NASA in November 2011.

- _____ Although *Curiosity* did not find evidence of life on Mars, it did find evidence that life could have existed on Mars in the past.
- *Curiosity* measured levels of radiation on the Martian surface.
- _____ The Bradbury Landing Site was named after the scientist who first discovered the Gale Crater.
- 2. Why was the Gale Crater chosen as the landing site for *Curiosity*?
- **3.** Which of the following was NOT described as one of *Curiosity's* abilities? Place a checkmark on the line of the correct answer.
 - _____ picking up rocks from the planet's surface
 - _____ transmitting photographs back to Earth
 - _____ flying to different areas of the Martian landscape
 - _____ drilling into the planet's surface
- **4.** *Curiosity* has a lab onboard that can analyze materials found on Mars. Describe one advantage and one disadvantage to having this lab on the rover.

- 5. Use information from paragraph 6 to write your own definition of microbial.
- 6. What is the main idea of paragraph 4?
- 7. What details are included to support the main idea of paragraph 4?
- 8. Do you think sending humans to Mars is a good idea? Why or why not?

Out of This World Experience

What is it like to be an astronaut?

¹ "All right, everyone, let's settle down a bit," said Mr. Singh, addressing his class of excited eighth-graders. "We have Ms. Rebecca Farrow here with us today. Ms. Farrow is an astronaut who is a veteran of three space flights, and she's here to answer your questions." He turned to the woman seated in the chair next to his desk. "Ms. Farrow, we're thrilled to have you here. The kids have been talking about nothing else for days," he confessed.

2 Ms. Farrow got up and faced the class. "I don't know if I've ever had such anticipation for one of my visits before! I'll do my best to live up to your expectations," she added. "As Mr. Singh mentioned, I've participated in three flights into space. My undergraduate degree is in biology, and I have a PhD in biochemistry. I've been fascinated by space ever since I was a little girl and first learned, during a library story time, that humans had walked on the moon. On my next trip into space, I'll be spending six months on the International Space Station," Ms. Farrow paused and sipped from a glass of water on the desk. "So, tell me—what are your questions about space or being an astronaut?"

³ Hands quickly shot up across the classroom. Ms. Farrow pointed to a girl in the back of the class with a ponytail. "What should you study in college if you want to be an astronaut?" she asked.

⁴ "You should study whatever you most enjoy," responded Ms. Farrow, "because that will make you a passionate and hard worker. There is no one single field of study for astronauts, and in fact, a crew is often made up of people with fairly different backgrounds. It's helpful to have folks with various areas of expertise, so my advice is to study technology, engineering, math, chemistry—whatever field you excel in."

⁵ Ms. Farrow smiled as hands eagerly extended back into the air. "What was the most interesting or amazing or surprising part about going into space?" asked Micah Reynolds.

⁶ "Walking in space for the first time was one of the greatest, most memorable moments of my life," said Ms. Farrow thoughtfully. "The absolute immensity of space is almost overwhelming," she added, "and the amazing progress that humans have made to send us there makes me enormously proud."

⁷ "Do you think that there are other planets with intelligent life?" asked Kristopher.

⁸ "I'm asked that question probably more than any other," replied Ms. Farrow, "although it's one that I obviously have no concrete answer for. The short answer is yes, I do believe that intelligent life exists on other planets. Based on the size of the universe and the vast number of stars, it seems a bit arrogant to me to think that our sun and planet Earth are the only ones that can support life."

⁹ Ms. Farrow gestured to a girl near the window, and Lina cleared her throat. "Do you have to go through any special medical tests before you can become an astronaut?" she asked.

¹⁰ Ms. Farrow nodded, "Yes, that's a fairly important part of the process. It would really be quite a crisis if an astronaut had a heart attack in space or suffered a seizure or a stroke. Because access to medical treatment is so limited, NASA does its best to insure that only people with no serious medical issues travel into space. In addition, the mere fact of being in space is hard on your body. Because of the lack of gravity, you get less blood to your calves and feet. Your bones can lose calcium. Even depression can set in during long missions."

 "I'm going to stop you there," said Mr. Singh, waving one hand at the students who groaned.
 "We can talk a little more with Ms. Farrow following lunch. I like your thoughtful questions," he added. "Just hold on to them for about 45 minutes!"



Ι.	According to Ms. Farrow, what should you study in college if you want to become an astronaut? Why?
2.	Who is the protagonist in this story?
3.	Reread the second line of dialogue in paragraph 6. What does this line tell you about Ms. Farrow?
4.	On the lines below, write a summary for paragraph 10.
5.	This selection is written almost as an interview with Ms. Farrow. Did the author's choice of style work for this story? Why or why not?
6.	In paragraph 8, Ms. Farrow says, "It seems a bit arrogant to me to think that our sun and planet Earth are the only ones that can support life." What do you think she means by this?
7.	If you were able to ask an astronaut one question, what would it be?

Moon Veggies

Is it possible to grow vegetables on the moon?

¹ The next time you go to the grocery store, pick up a zucchini or a red pepper and look at the sticker on it. Where did it come from— California? Chile? What would you think about eating a vegetable that was grown on the moon? This isn't something that we are likely to see soon on supermarket shelves, but NASA is planning to attempt growing several varieties of lunar vegetables. This will be the first life-science experiment performed in what scientists refer to as "deep space." The goal is to show that humans may someday be able to live—and provide food for themselves—on the moon.

² In the summer of 2013, six explorers lived in a simulated Mars habitat in Hawaii for four months. One of their goals was to see what the effects were of eating freeze-dried food on a long-term space mission. Although the explorers gave the flavors of the foods fairly high ratings, the first thing they wanted when they left the habitat was fresh fruits and vegetables. Apparently, there is really no satisfying substitute.

³ In 2015, NASA will send cress (an herb that can be used in salads), basil, and turnip seeds to the moon in specially designed canisters. The seed habitats contain everything the plants need to grow, including a nutrient-rich paper, enough air in the canisters for 5 to 10 days of growth, and water. The temperature and light in the canisters can be regulated. Cameras will record the growth of the plants, and scientists can compare the growth with that of the same seeds grown on Earth.



⁴ There is no doubt that the moon has a very different environment than Earth. It has one-sixth the gravity of Earth, as well as harsh radiation from the sun. The side that faces the sun is unbearably hot at about 150° F. On the opposite side of the moon, the temperature is –150° F. These are hardly ideal conditions for creating life, yet the conditions inside the canisters should make it possible.

⁵ In addition to their potential to provide food for astronauts, or even future visitors to space, NASA scientists are curious about the plants' ability to grow and thrive in space. Plants need many of the same things humans do to survive food, water, and air. If plants can survive in deep space, it is one indication that humans may be able to do the same one day. Plants also provide comfort to people in a foreign landscape. In a barren place like the moon, the sight of something green and growing can be a reminder of home. Greenhouses in Antarctica and on the International Space Station have proved popular for these very reasons.

⁶ The planned lunar garden will be the first of several experiments that will be performed on the moon. The team working on the project hopes to gradually extend the life the vegetable plants so that they can be observed through various stages of growth, including reproduction.

⁷ The habitat will be sent to the moon aboard the Moon Express Lander, a commercial spacecraft that is competing to win a prize by landing on the moon. Even some lucky students will have a chance to try a similar experiment themselves. NASA plans to send materials used to build the plant habitats to schools around the country so that students can try to grow the seeds themselves. And perhaps one day, you'll be able to buy some moon produce in your local grocery store.

- I. What foods did explorers in the simulated Mars habitat most miss during their experiment?
- 2. Why do you think the seeds will not be planted directly on the moon?
- **3.** How is the ability to grow plants on the moon related to the concept of humans someday living on the moon?

- **4.** In what way do plants provide psychological comfort for humans?
- 5. The author's purpose in writing this selection is to ______.
- 6. What three main elements do the canisters contain?
- 7. On the lines below, write a summary of paragraph 2.

8. If this first lunar garden is successful, what do you think will happen next?

Home, Home on the Moon

Will life on the Moon be as lonely as Markus imagines?

¹ Looking through the thick, plastic window, Markus watched Earth shrink as the spacecraft carried him farther and farther away from home. *My old home, anyway,* he thought. He could hardly imagine what living in his new home would be like. His mother had sent videos showing everyone how she had decorated the rooms to be cozy and comfortable, but outside of every window, Markus could see the Moon's rocky, desolate landscape stretching away to meet the pitch-black sky.

2 Markus looked over at his sister, Madison, who sat across the aisle with their father. She looked as grim as he felt. Neither of them had wanted to make the move, but his mother's stay at the colony had been extended for another two years, and their father insisted that they all needed to be together as a family. Markus couldn't wait to see his mother, but leaving Earth was tough. When his friends had thrown a going away party for him, he had acted like he was having fun, but the entire time he was close to breaking down into tears. Markus closed his eyes and tried to picture everything going on as normal—seeing his friends at school, taking piano lessons, being dropped off at swim team practice—but when he opened his eyes, he was still thousands of miles away, moving through the emptiness of space.

³ The pilot announced that they were just a few minutes away from landing. Everyone onboard sat up and began craning their necks to look out the windows. The spacecraft banked to the left, and Markus got a clear view of the colony spread across the lunar landscape below. He remembered flying in an airplane on Earth. When the plane approached the airport for a landing, you could make out cars, trains, and even people moving around on the ground. As they approached the colony, though, Markus saw nothing moving at all; the place looked lifeless.

⁴ The spacecraft touched down on a runway built across the Moon's surface and entered the colony through huge doors that immediately shut behind them once they were inside. Loud whooshing sounds surrounded them as oxygen was pumped into the space where the craft now sat. When the sound suddenly ceased, the



pilot announced that it was time to exit the craft. Markus, Madison, and their father headed down the aisle to the spacecraft's exit, walked across a small bridge, and went through a door that took them into the heart of the colony.

⁵ It was a massive, open room with people hurrying about or standing in small groups talking. The place reminded Markus of a mall, with planters filled with greenery, escalators carrying people to different levels, and seating scattered throughout. High overhead, a domed, glass ceiling covered the entire area, but instead of a blue sky, Markus saw the blackness of space through it. Then, he noticed Earth, which hung like a brilliant blue-green jewel in the midst of all that emptiness.

⁶ Markus's mother wasn't there to meet them—she was busy working on her research assignment—but they would see her that evening. In the meantime, they headed to the cafeteria to get something to eat.

⁷ As Markus stood in line, someone tapped him on the shoulder and said, "Hey, Markus! Welcome to the space place."

⁸ Markus turned around and exclaimed, "Isabella! I haven't seen you since sixth grade. Is there where you went?"

⁹ "Yeah, we've been here a couple of years now," Isabella explained. "I heard you were coming up here—word gets around in a place like this—and I remember how much I hated it at first. I wanted to be sure to say hi as soon as you got here. After classes tomorrow, I'll show you the ropes."

¹⁰ And for the first time in nearly a month, Markus smiled.

Spectrum Reading Grade 8

Ι.	Write a short paragraph summarizing the plot of the story.
2.	Identify two aspects of the story that are fantasy.
3.	Identify two aspects of the story that are realistic.
4.	Complete the sentence below to identify the simile in paragraph 5.
5.	is compared to For most of the story, how does Markus feel about moving to the Moon? Identify words or phrases used by the author to show you how Markus feels.
6.	How does Markus feel about the move at the end of the story? How does the author show you Markus's feelings at the end?
7.	What does the main area inside the colony remind Markus of? Place a checkmark on the line of the correct answer.
	airport mall office building cafeteria
8.	Describe a time when you were new to a place or an activity and someone helped you feel more comfortable.

Bottle Rocket Blues

What can help Penelope feel better about leaving the familiarity of her old school?

¹ Penelope loved the annual Spring Days festival at Morris South Junior High, and she was sad that this would her last chance to attend one. High school started next year, and everything about school that had grown so familiar over the last three years would be gone, including some of her friends. While Penelope would be headed to South Lake High, Emily and Abigail would attend Morris East. They had all promised each other that they would stay in touch, but Penelope couldn't help wondering how realistic that was. Even with this cloud hanging over her mood, she was determined to have a fantastic time.

² Penelope crossed the grassy campus that spread between the school's four main buildings. Booths lined the outer square, holding traditional Spring Days games like skee ball, popping balloons with a dart, and a beanbag toss. At the end of one row was the dunking booth. Principal Spinelli would be in it later, and she knew a long line of students would form to get their chance at knocking him into the water.

³ As Penelope reached the bottle rocket launch site, Ms. Salamanca greeted her. "Penelope! I knew you'd be here any minute. Alright guys, let's open up for business."

⁴ Penelope and the other students in Ms. Salamanca's science class were manning a bottle rocket booth. For the cost of two tickets, a student would get to use a bike pump to pump air into a plastic soda bottle half filled with water. When the pressure was just right, the bottle would shoot off the pipe that held it and zoom into the air, soaking everyone on the ground with the water spraying out behind it.

⁵ The booth was part of the finale for a monthlong unit on rockets that Ms. Salamanca had been teaching. The students had designed plans for their own rockets, including the shape, weight, and power sources. They had used their plans to build the rockets, but unfortunately, they wouldn't get to launch them. The school's insurance policy didn't cover fiery explosions in case something went wrong! However, any student with a signed permission slip would get to see Ms. Salamanca launch an even bigger rocket that she had built herself. That rocket launch was the *real* grand finale of Spring Days, but it would happen in a field a few miles from school. Penelope's parents were driving her there, along with Emily and Abigail.

⁶ The rocket booth turned out to be a huge hit. Teachers and students took turns seeing who could launch the highest rocket, or even better, who could soak the most people. Penelope wondered if their booth had gotten even more traffic than the dunking booth.

⁷ As the time neared for Ms. Salamanca's rocket launch, Penelope hunted for her friends in the crowd so they could all head over to where her parents were parked. When she spotted Emily and Abigail, she waved.

⁸ "Hey, Penelope!" Emily yelled, and then gave her friend a hug. "Look at the goofy bear I won!" She laughed and held up a garish pink, polka dotted teddy bear.

Penelope rolled her eyes and suggested, "You should give it to your little sister because she'll love it. Did you win anything, Abigail?"

¹⁰ "Nothing. I'm never any good at these kinds of games," said Abigail. Then, she pointed to the boy standing next to her. "Do you know Mason? Could your parents give him a ride?"

" "Of course I know him. Hey, Mason. If you have a permission slip, then that's no problem."

¹² Mason nodded. "Thanks, Penelope. Hey, you're going to South Lake High next year, right? There's only a few of us Morris Southers that're going there, so we need to stick together, okay?"

¹³ "Absolutely!" Penelope replied, and the cloud over her mood suddenly drifted away.



- I. What metaphor does the author use to describe how Penelope feels?
- 2. Why is this the last Spring Days festival Penelope will get to attend?
- 3. Why is Penelope working at the bottle rocket booth?
- **4.** The school did not allow the students to launch the rockets they designed in class. However, they are allowed to launch the bottle rockets. Explain why.

5. Why do you think students need permission slips to view Ms. Salamanca's rocket launch?

- 6. Why does Penelope's mood change at the end of the story?
- 7. What words does the author use to describe Emily's bear? Do these words have a positive or negative connotation?
- 8. Write a sentence summarizing the text.

9. How do you or would you feel about starting at a new school? How could you make the transition easier for yourself?

Anime: Art for All Ages

What are the characteristics of anime?

¹ Can adults enjoy cartoons as much as children do? Fans of *anime* would agree! Anime is a style of animation that originated in Japan. Its subject matter can be lighthearted and appropriate for children. But anime also covers more serious topics than typically used in the cartoons of Western culture. While some forms of anime are intended for children, there are also genres that appeal to adults.

² Anime is rooted in Japan's past. Japan was an isolated country before it was opened to the Western world in the 1800s. *Manga*, or comic strips, had existed for many centuries. Japanese comic artists learned new techniques from their Western counterparts. They began to use word balloons in their manga and separated their stories into boxed sequences. These became incorporated into manga. Like Western comic artists, manga artists poked fun at authority and questioned the government. These comic strips appeared in newspapers, and their artists enjoyed great popularity.

³ During the 1920s and 1930s, the Japanese government began to pressure manga artists to stop drawing such comics. They did not want artists to raise questions about the country's leadership. This pressure increased in the early 1940s, during World War II. Suddenly, artists who had spent their careers criticizing the government were forced to praise it. These same artists began to draw cartoons that showed only positive aspects of life in Japan.

⁴ After Japan was defeated in World War II, there were many changes in Japanese life. Citizens enjoyed more freedom. Once again, there was much opportunity for manga artists. Some formed their own small publishing companies and began animating their works. Anime began to thrive.

⁵ Anime has a distinct style. Artists portray characters with huge eyes, small mouths, and pointy hairdos. In fact, many of these attributes were taken from the cartoons produced by Walt Disney during the 1940s and 1950s.

⁶ In anime, large eyes represent honesty and innocence. A sneaky character is drawn with smaller eyes. The smallest eyes are used to show that characters have an evil nature and cannot be trusted. Similarly, a sudden shift in the character's eye size is used to convey strong emotion. For example, when a kind character feels very angry, his or her eyes become very tiny. It is much more common for characters to be shown with "happy eyes," though. These eyes are dark half circles that dominate the face.

⁷ The color used for an anime character's hair can be very meaningful. Hair color tells the viewer about a character's personality. Red hair shows strong emotion, such as a strong or passionate spirit. A blue haired character is typically calm and dependable. Western audiences might interpret these colors to be the character's actual hair color. To Japanese audiences, these colors merely describe a character's personality. It is generally assumed that all characters actually are dark haired!

⁸ Eyes and hair are not the only unique qualities of anime. The character's body types are very exaggerated, as well as their expressions and gestures. Action scenes in anime are cut abruptly, so that actions end very suddenly. The angles that anime artists use to draw scenes are unusual. Scenes are often shown from perspectives very different than used in Western cartoons. When two characters are very angry, sparks might literally connect one to the other.

^a The approach to subject matter in anime also reflects Japanese culture and attitudes. Many anime series are based on young characters, as in Western cartoons. Whereas Western characters are typically heroic and confident, Japanese anime characters are flawed. They strive for perfection. This can be traced to the pressure to succeed in Japanese education. If you enjoy comics and animation, you may want to check out manga or anime. Compare it to the animation you're familiar with. Which do you like better?



I. How do Japanese anime characters reflect Japanese culture?

How was manga different in the years leading up to World War II than it was in the yea following the war?
The author's purpose in writing this selection was
to persuade the reader that Japanese animation is superior to Western animation.
to entertain the reader with humorous accounts of Japanese animation.
to inform the reader about Japanese anime and its history.
In paragraph 8, what does exaggerated mean?
What is the significance of hair color in anime?
Write T for true or F for false next to each statement below.
In anime, trustworthy characters are drawn with very small eyes.
Anime began years before manga did.
Japanese anime was influenced by the style of Walt Disney.
Anime is enjoyed by children and adults.
Have you ever viewed any anime? If not, are you more likely to after reading this selection? Explain.

Finding a Way to Comic Con

Will Malik find a way to save enough money to make it to Comic Con?

¹ Malik sighed as he counted the last pieces of change that he had found hiding in his winter jacket. When Malik's dad had offered to let him go to Comic Con this year in San Diego, Malik could hardly believe his good luck. He had been pleading to go to the massive comic book convention for the past three years. The deal was that Mr. Goode would go with Malik if Malik could pay for his own airfare. Malik had some money saved from his previous birthday and from walking the dog that used to live across the street, but he had a bad habit of spending his weekly allowance before it ever got anywhere near his savings jar.

² Malik threw himself onto his bed, feeling half defeated and half determined to figure out a way to get to the convention. A moment later, his bedroom door opened, and Shaun walked in, his nose buried in a book. Malik could never figure out how his little brother managed to walk that way without seriously injuring himself.

³ "Are you still moping about Comic Con?" asked Shaun.

⁴ Malik just nodded, knowing that his brother didn't understand his obsession with going to Comic Con. Shaun was enthusiastic about anything related to space and space travel. As far as Malik knew, his brother had never even opened a comic book.

⁵ Malik, on the other hand, had been a serious fan of graphic novels ever since he was in second grade. He had had difficulty learning to read fluently and had become discouraged by school and homework. Malik's mom had introduced him to graphic novels one day at the library, hoping they would capture his attention. Mrs. Goode had been exactly right, and Malik's love for all things animated had begun.

⁶ Six years later, reading was no longer an issue for Malik, but his interest in graphic novels had never waned. He wrote his own now and illustrated them in his spare time. He had aspirations of attending art school and someday having his own series of comics. He wanted to go to Comic Con to see the latest artwork by the illustrators he admired. Malik visited the convention's website often and knew that more than 130,000 visitors were expected this year. There would be film screenings, games, handson workshops, and a costume competition. He could probably get autographs for all five of his favorite graphic novels. Malik groaned at the mere thought of all he'd be missing and rolled over on his bed.

⁷ "How much money are you short?" asked Shaun.

⁸ "One hundred and thirty-seven dollars," said Malik. "Dad said he'd pay for our hotel and food, but I need to come up with the money for the plane ticket."

⁹ "How many weeks are left before the convention?" asked Shaun, opening up the laptop that he and Malik shared.

¹⁰ "Nine," answered Malik without hesitation. The dates had been marked on his calendar ever since they were first announced.

"This is totally doable," responded Shaun enthusiastically. He made a quick spreadsheet and turned the screen so his brother could see it. "You just need to save your entire allowance. And if you do my chores for me for the next two months," added Shaun, "I'll give you half my allowance. As long as Dad will buy your ticket and let you reimburse him, you're good to go."

¹² Malik shook his head in disbelief. "This is so simple," he admitted. "I feel a little sheepish that I didn't come up with this in the first place, Shaun. I owe you one. Let me know if there's an autograph or something I can bring back for you."

¹³ Shaun shook his head. "No autographs, thanks," he responded, "but I'm pretty sure there's space center in San Diego that has some pretty cool souvenirs..."



Ι.	Describe how Shaun and Malik are different from one another.
2.	In paragraph 11, what does <i>reimburse</i> mean?
3.	How would you characterize Malik and Shaun's relationship?
4.	Do you think the deal that Mr. Goode proposes to Malik is fair? Why or why not?
5.	The protagonist in this story is
	Shaun Malik the narrator.
6.	What is the main idea of paragraph 1?
7.	How does Shaun help Malik solve his problem?
8.	Describe your experience saving your money for something you wanted to do or buy.

Born to Draw

How can people who disagree reach an understanding?

I Aisha scanned the calendar on her phone and sighed. Even though she looked forward to beginning eighth grade, she would miss spending her summer vacation drawing. In only two months, Aisha had finally developed the character concepts that, for months, she had only been able to see in her mind's eye. Whenever she flipped through her recent work, Aisha got chills. It was so gratifying to see how her drawings could bring life to her storytelling! The way she saw it, comic illustration was the perfect medium for combining the two.

Unfortunately, Aisha's parents didn't understand how committed she was to becoming a comic illustrator. Her parents had no objection when Aisha's older sister decided to study law in college. Her older brother had worked for a landscape company over the summer to see if landscape architecture suited him. So when Aisha had shared her storyboards with her parents recently, she expected them to support her. Instead, they had explained that drawing comics was a hobby, not a career.

As she was recalling that unpleasant conversation, James, her brother, knocked on the door. He said, "Aisha, Mom and Dad want you to help set the table for dinner, and I know you're going to help me with the dishes afterward!" James's footsteps pounded down the hall.

4 After dinner, when Aisha began helping with the dishes, James was surprised. "Why are you being so helpful, Aisha? Washing dishes is your absolute least favorite chore, and don't pretend otherwise!"

5 "Hey now," Aisha began, "don't you think you should stop questioning me before I change my mind?" The siblings giggled, and Aisha continued. "Actually, I hoped you could give me some advice. You know I've been drawing comics all summer." Aisha paused before continuing. "Well, I finally decided to show Mom and Dad my work."

James looked at Aisha. "How much did they love 'The Critter Crew,' especially that crazy little squirrel and his—what did you call it—`merry

murder of crow pals'? I've got to say Aisha, that is one of the funniest stories my friends and I have ever read. I wish I had half your creativity and imagination. But I don't understand—I don't have your talent, so why are you coming to me for advice?"

7 "I'm not looking for advice about The Critter Crew, James," Aisha responded. She was slightly annoyed; her brother sometimes really missed the point. "I want you to help me convince Mom and Dad that drawing comics is an art form, and that it can even be a great career."

But as she spoke, the look on her brother's face told her that he agreed with their parents. Aisha politely listened to her brother's response, and then she went back to her room, dejected.

q At school a few weeks later, Miss Santoro noticed that Aisha wasn't herself. Aisha confessed to Miss Santoro that she was frustrated with trying to convince her parents to take her comic illustrations seriously. She explained that the way her family felt about each of their chosen paths was how she felt about illustration.

Pointing to the bookshelf in the front of the room, Miss Santoro began, "My dad got into an argument once with his sister—my aunt who was a journalist. According to my dad, writing was not a career. When I heard that conversation, I was probably about your age. In spite of my anxiety, I was straightforward with my dad. I simply told him the truth. I explained that writing was my passion, and that I wanted to get better and to write. I guess my honesty came through, and he believed me."

When Aisha heard Miss Santoro's story, it inspired her to seriously discuss her intentions with her parents. It wasn't instantaneous, but eventually, they came to understand that Aisha's love of comic illustration was more important than whether it was the career they wanted for Aisha.



١.	Based on information from the story, which of the following statements is false? Place a
	checkmark on the line of the false statement.

 _ Aisha is frustrated because her parents do not regard comic illustration as a
realistic career choice.

- _____ Aisha is frustrated because her parents have supported her siblings' career goals, but not hers.
- Aisha is frustrated because she plans to become wealthy as a comic illustrator and her parents are not supporting that goal.
- _____ Aisha is frustrated because her brother agrees with her parents.
- 2. Why is Aisha disappointed that the summer is coming to an end?
- **3.** The word *storyboards* appears in paragraph 2. Write a definition for this word based on how it is used in the text.

- **4.** Write a sentence that summarizes Miss Santoro's advice to Aisha.
- **5.** Circle the word below that you think best describes Aisha. Then, explain on the lines that follow why you chose the word.

creative	self-motivated	determined	angry
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- 6. What do Miss Santoro's actions tell you about her abilities as a teacher?
- 7. Do you think writing and illustrating comics is a realistic career choice? Why or why not?

The Sturgeon General

What inspires oceanographer and marine biologist Sylvia Earle?

¹ Sylvia Earle has had a fascination with the sea ever since was a little girl. She grew up on a small New Jersey farm, and first encountered the ocean on a trip to the beach when she was three. Earle's family moved to Florida when she was 12, and the Gulf of Mexico became her new backyard. Earle's interest in and love for the ocean began in earnest then. She was never scared of the ocean or fearful of its creatures. Instead, Earle was mesmerized by its beauty and respectful of the animals that made their home there.

² Earle's parents could not afford to pay her tuition for college, but she was an accomplished student and earned a scholarship to Florida State. Earle paid for the remainder of her tuition by working in laboratories while she was in school. Earle completed her bachelor's degree in science in 1955, and over the next 11 years, earned her master's degree and PhD while also marrying and starting a family.

³ Earle's dissertation for her PhD was an indepth exploration and study of aquatic plant life in the Gulf of Mexico. No scientist had ever done that kind of detailed study of ocean vegetation before, and Earle received much admiration for her work. To her, plants are a vital part of the oceans and the first step in understanding the complex ecosystems below the sea.



⁴ Earle's career and study of the ocean continued in a variety of venues. In 1969, Earle applied for the Tektite project. She wanted to be one of the scientists chosen to live for several weeks in an enclosed habitat on the ocean floor. Despite her experience, Earle was not chosen, at least in part because the overseers of the project did not think that men and women should live together in such close quarters. A year later, Earle led a team of all female scientists on another Tektite mission, 50 feet below the ocean's surface. This expedition increased Earle's visibility as a scientist and oceanographer. To Earle, anything that brought the public's attention to the oceans was a good thing.

⁵ Over the next decade, Earle traveled all over the world, visiting and exploring the waters around the Galapagos Islands, China, the Bahamas, and the Indian Ocean. Earle began working with an undersea photographer named Al Giddings. She and Giddings decided to make a documentary about sperm whales. The two followed whales in their journeys through the world's oceans. Once again, Earle was able to bring the oceans to people at home. She believed that it was hard to care about something you don't know about. Earle considered it her job to bring that knowledge to as many people as possible.

⁶ In 1979, Earle set a record for walking untethered on the ocean floor at a greater depth than any other human being had. She wore something called a Jim suit, which looked a bit like an astronaut's space gear. For more than two hours, Earle explored the ocean floor at a depth of 1,250 feet. She was attached by a communication line to the nearby submersible, but nothing connected her to the world above the ocean. Even more than 30 years later, no one has broken Earle's record.

⁷ Today, Earle is an Explorer-in-Residence for the National Geographic Society. She has spent approximately 7,000 hours underwater, yet the ocean still holds the same attraction for her. She continues to raise awareness about the ocean and its importance to all life on Earth. Earle has referred to the world's oceans as our planet's "blue heart." She believes that in order to keep our planet healthy and alive, we must care for its heart.

cle	the word that be	est completes each	sentence.	
١.	Sylvia Earle has	had a(n)		_ fascination with the world's oceans
	temporary	everlasting	remote	
2.		s worked to increase ce of the oceans.	e the public's	
	awareness	visibility	perception	
3.	The Tektite proje	ect involved living in	an enclosed	on the ocean floo
	connection	receptacle	habitat	
4.	Write three cha	racter traits that des	cribe Sylvia Earle.	
6.	Which word or \	words best describe	the selection.	
	historicc	al fiction		
	biograp	hy		
	persuas	ive selection		
7.	-		ntary Earle and G	iddings made together?
	What was the to		·	
	What was the to	opic of the documer	·	

Fishing for Change

Will a change in attitude about dogfish make a difference in the livelihood of the Dunkirk family?

Fiona's dad handed her a cup of steaming coffee from his thermos. Fiona wrapped her hand around her mug and watched the steam dance up into the watercolor blue morning sky. The water lapped gently against the boat, and Fiona smiled, remembering being rocked to sleep by the waves for dozens of long ago naps.

² "I'm trying to remember the last time we did this, just the two of us," wondered Mr. Dunkirk. He adjusted his hat and leaned back for a moment, inhaling deeply. "I've been coming out here practically every day since I was 16," he added, "and I still never get tired of the ocean air."

³ "What are we trying to bring in today, Dad?" asked Fiona, standing up and stretching.

⁴ "Hold on just a minute, and I'll show you," responded Mr. Dunkirk. He hauled in a small net, and a moment later there was a mess of flopping, wriggling dogfish on the boat's deck.

⁵ Fiona laughed and gave her dad a searching look. "If I'm remembering correctly, and I'm pretty sure I am, you always said that dogfish was garbage fish, not worth even the fuel it costs to haul it in."

⁶ Fiona's dad grinned and clapped her on the shoulder. "I'm impressed that you were listening to all my words of wisdom out here, Fiona, but times are changing, and if I want to preserve the family tradition, I need to change too."

⁷ Mr. Dunkirk proceeded to tell his daughter how hard things had actually been for the past few years. Fiona acted as though it was all news to her, but the truth was that she had overheard some of her parents' hushed and worried conversations after they thought she was sleeping. And anyway, it was hard to live in a New England fishing village, surrounded by people who made their living from the ocean, without knowing that times were hard.

⁸ The fish that had supported the Dunkirk family for the past four generations were no longer available in the quantities that they used to be. Some of the problem had to do with new government regulations, but Fiona knew that overfishing of popular species was also an issue.

Spectrum Reading Grade 8

She had heard some people complaining that it was ridiculous that you couldn't even find local cod in Cape Cod anymore.

⁹ "So how is dogfish going to change all this for us?" asked Fiona, staring with new interest at the large spotted creatures.

¹⁰ "It all started with Nico Kovitch," began Mr. Dunkirk, "who opened that new restaurant out by the pier. His focus is on fresh, local, and sustainable, and his customers can't get enough of it—he's got lines out the door most nights."

¹¹ Fiona's dad continued excitedly with his story. Chef Kovitch had been traveling in Europe and had tried cape shark (more commonly known as dogfish) at a restaurant. He loved the mild, creamy flavor and talked to the chef at the restaurant about his sources for the fish.

¹² "Chef Kovitch couldn't believe that the dogfish came from what is essentially his own backyard!" exclaimed Mr. Dunkirk. "These dogfish we've been throwing back are getting all kinds of new attention here," he added. "They're plentiful, tasty, and according to the chef, they're easy to cook. Apparently, calling them dogfish isn't adding to their appeal, so on menus, they're referred to as `cape shark'."

¹³ "This is amazing, Dad," replied Fiona. "Are the prices of dogfish going up since there's more of a demand?"

¹⁴ Her dad nodded as he grabbed the old, well-seasoned cast iron pan from its hook. He lit the flame under the small camp stove he kept on the boat. "Want to try some of the fish that's going to turn things around for the Dunkirks?" he added.

¹⁵ "Who could pass that up?" responded Fiona. "It's been a while since I had fish for breakfast!"



- I. How is dogfish regarded differently in Europe than in the United States?
- 2. Do you think Mr. Dunkirk would find it easy to switch professions if he could no longer make a living as a fisherman? Explain.

- **3.** How would you characterize Fiona's relationship with her dad?
- 4. Why are chefs calling dogfish "cape shark"?
- 5. Fiona knew that her family had been having hard times before her dad told her on the boat. Is this statement true or false?
- 6. How is the relationship between chefs and fishermen important?

- 7. Which word best describes Mr. Dunkirk's attitude at the end of the story?
 - _____ pessimistic _____ optimistic _____ independent
- 8. Do you think that Fiona will follow in the family tradition of fishing for a living when she grows up? Why or why not?

Going the Distance

How do distance swimmers prepare for races?

¹ Vijay spotted Cameron in the hallway of Garfield Heights High School, "Hey, Cam, I heard you're training for a marathon. When is it? I might want to compete, too."

² Cameron appeared confused for a minute and then laughed, "Oh, I know what you mean! Actually, I'm a marathon swimmer. Marathon, or distance, swimmers complete races that are longer than most aquatic competitions held in pools, although distance competitions are sometimes held in pools."

³ "Are you swimming the English Channel or something?" Vijay asked.

"No, that's way out of my league at this point—this marathon I'm going to be competing in is a 10-kilometer race in Sandusky Bay a few months from now. It'll take me a few more months of training to become a competitive swimmer for this race. I've competed fivekilometer races in the past, but this competition will require a lot more endurance than the races I'm used to, " Cameron explained, expertly twirling the dial on his locker.

⁵ "How long will the entire race take then?" asked Vijay.

⁶ Cameron grabbed an algebra textbook from his locker and shut the door. "I'll be in the water for a little over three hours, but it's not like I'll be in the middle of the ocean. I'm swimming in a loop race, which means I'll swim in Sandusky Bay, but I'll be swimming in circles that return to a boat every thirty minutes or so. I can get water for hydration during the race, or even a small snack when I need it—kind of the way marathon runners do."

⁷ "Distance swimming sounds pretty intense," Vijay said. "I think I may be more of a runner. Do you just wear regular swim trunks during the race, or is there some kind of special wet suit or something?"

⁸ "It depends," replied Cameron, "because the rules are different for different racing organizations. A lot of people think distance swimmers shouldn't wear compression swimsuits, although personally they make me feel more comfortable. Honestly, I think they make me a little faster, too. This upcoming race, the Great Sandusky Swim, allows them, so that's what I'll wear. I also like to wear a swimming cap with a chinstrap, but I won't be able to wear one in this race, which bans caps with straps. I'll also wear goggles, earplugs, and a nose clip. I'll use a skin lubricant, too, to help keep my body from chafing, to keep me a little warmer, and to ward off jellyfish stings," Cameron added.

[°] "Jellyfish stings!" exclaimed Vijay. "In Lake Erie—are you serious?"

¹⁰ Cameron nodded. "Isn't that extremely weird? I always thought that jellyfish only lived in the oceans, but there are actually small, freshwater jellyfish in the Great Lakes."

"That's another good reason for me to stick to running!" exclaimed Vijay, as the boys headed down the hallway to their algebra class. "How are you training for the race?" Vijay asked.

¹² "I've been increasing the length of my swims by one-kilometer increments," Cameron replied. "A five-kilometer race has become almost easy, so I've worked up to an eight-kilometer swim. I don't do the longer distances every week, but I consistently swim at least five kilometers each week, completing longer races every other week. The most important thing is for me to be consistent in my training, which is really building my endurance—I haven't become exhausted during any swim yet. Do you think you'd want to train for the next race with me?"

¹³ The sound of the bell echoed shrilly through the hallway as Cameron and Vijay reached their classroom. "Ah, saved by the bell," Vijay joked. "I'm not so sure that distance swimming is for me, but I'd give it a try," he said. "Maybe you hit the streets with me for a run now and then, and I'll see if I can muster up the courage to battle the Lake Erie jellyfish."



Ι.	How are a running marathon and a swimming marathon similar to one another?
2	Why does Cameron wear a skin lubricant during a distance race?
-	why does carrieren wear a skirhablearn adning a distance race?
3.	Based on the selection, what are three character traits you could use to describe
	Cameron?
4.	Vijay is surprised to hear that live in Lake Erie.
	jellyfish sharks stingrays
5.	Sometimes, authors have more than one purpose in writing. For this story, entertainment is
	one purpose. What is the other?
	·
6.	Do you think that Vijay will train for a long distance swimming competition with Cameron
	next time? Explain.
	·
7.	Have you ever participated in any kind of race? If you have, describe your experience. If
	you haven't, explain why you would or would not like to compete in a race in the future.

Find a Way

How did long distance swimmer Diana Nyad have the willpower and endurance to complete her record setting swim?

¹ Long distance swimmer Diana Nyad is nearly unstoppable. At the age of 64, she set a record for a swim she attempted four other times, beginning when she was 28 years old. Nyad wanted to show the world that you can always find a way to follow your dreams. She also wanted to send the message that you are never too old to reach your goals. Diana Nyad captured the attention and hearts of people around the world. People rooted her on, knowing that enormous personal strength and endurance allowed Nyad to keep going when others might have quit.

Nyad first caught the public's attention in 1975, when she swam around Manhattan Island, a distance of 28 miles, in slightly under 8 hours. She first attempted the swim from Cuba to Florida, three years later, at the age of 28. During this attempt, she swam inside a steel shark cage. She completed 42 hours of the swim, but had to quit because large waves kept slamming her into the shark cage and were throwing her well off course.

³ Although Nyad continued swimming, she did not attempt the Cuba/Key West crossing again for another 33 years. In 2011, Nyad attempted the swim, this time without a protective shark cage. Again, strong currents threw Nyad off course, but the main factor in her decision to quit this time was a flare-up of asthma. Nyad had to continually flip onto her back to catch her breath. Eleven hours into her asthma attack, Nyad knew that she wasn't going to make it.

⁴ At this point, many people would have given up, but Nyad was determined to reach her goal and complete the 110-mile swim. Just about six weeks following her second attempt, Nyad tried again. Although she completed about two-thirds of the total distance, she was unable to finish because of severe jellyfish and Portuguese manof-war stings. Afterwards, Nyad reported that she had never been in so much pain. Her face was red and swollen, and some of the man-of-war stings had temporarily paralyzed muscles in her back.



⁵ Still determined to beat her greatest challenge, Nyad set out on her fourth attempt in August of 2012. Although she wore a nylon body suit to protect her from jellyfish stings, she was stung repeatedly on her lips where the suit had an opening. Large sharks circled below her. Nyad was not swimming in a shark cage, and although her team was using an electronic shark repellant, there were no guarantees that the system was foolproof. Thunderstorms and lightning threatened Nyad's safety and that of her crew. She decided it wasn't worth putting everyone at risk of a lightning strike, and so Nyad's fourth attempt also ended without success.

⁶ In August of 2013, Diana Nyad began her fifth and final attempt at swimming the Straits of Florida. Once again, she did not swim in a shark cage, but her team of 35 did keep a lookout for sharks, as well as use the electronic repellant. She wore a full body suit, a mask, gloves, and booties to protect her body from jellyfish stings. Fifty-three hours and 110 miles later, Nyad walked onto the shores of Florida, amid cheers of fans and wellwishers.

⁷ Nyad was 64 years old when she completed her swim—an age at which many people are retiring and starting to take it easy in life. Nyad battled wind and rough currents on her trip. She vomited from having too much salt water in her body. The night before the last leg of her swim, Nyad's team didn't stop to feed her because she was so cold, they felt it was more important for her to keep swimming to try to stay warm.

⁸ Today, Nyad uses her experiences to give inspirational talks. She hopes that in some way her journey will serve as an inspiration to others to persevere, to follow their dreams, and to find a way.

Ι.	What were Nyad's greatest problems during her attempted swims of the Straits of Florida?
	Nyad attempted to swim from to four times before she was successful. Why do you think Nyad chose not to use the shark cage after her first attempt?
4.	What are two of the messages Nyad wanted to communicate to people through her swimming?
5.	What three adjectives could you use to describe Diana Nyad?
	What sort of protective equipment did Nyad use during her swims?
7.	Do you think that athletic heroes like Nyad are a useful inspiration to everyday people? Why or why not?
8.	Tell about an experience you've had when you wished you could quit but instead you kept going.

The Age of Aquarius

What would it be like to live and work underwater?

Imagine living and working deep in the ocean. For some people, this idea might sound a little frightening. Others are fascinated by the chance to experience a mysterious world that so few humans get to see firsthand. Aquarius Reef Base is an undersea laboratory and habitat located about 4.5 miles off the coast of Key Largo, Florida. It sits in a sandy area near a coral reef, about 60 feet below the ocean's surface.

² Aquarius is owned by the National Oceanic and Atmospheric Administration (NOAA) and is operated by Florida International University. Scientists live in Aquarius for 10 to 14 days at a time. There, they have the chance to spend 8 hours a day in the ocean without having to return to the surface. Aquarius is equipped with many comforts of home. It has six bunk beds, a shower, a toilet, a microwave, a refrigerator, computers, and Internet connection. The vessel measures about 43 feet long and 9 feet wide. Since 1993, more than 115 missions have been completed on Aquarius!

One of the greatest benefits to scientists working in Aquarius (often known as "aquanauts") is that they do not need to surface regularly, the way scuba divers do. Decompression sickness is always a risk to scuba divers. Also known as "the bends," it is the result of the pressure differences deep underwater and at the surface. Common symptoms are joint pain, rashes, headaches, and dizziness. In severe cases, it can result in death. Aquanauts do not need to surface after a dive. They just return to Aquarius, which is pressurized. At the end of a mission, the scientists spend about 17 hours undergoing decompression. The pressure in Aquarius is slowly reduced over that time, so that the scientists can return to the surface without any ill effects.

⁴ The goal of the undersea explorers who work and live in Aquarius are diverse. The one thing they have in common is the desire to learn about and protect the oceans. Aquarius's nearness to a coral reef offers scientists an upclose look at this amazing habitat. Coral reefs around the world are threatened by pollution, overfishing, and climate change. Scientists can perform experiments, record observations, and take samples that allow them to better understand the reefs and their role in underwater ecosystems. In addition, they can determine the ways that humans can best protect the reefs and save them from more damage.

⁵ One example of research done on Aquarius involves looking at the effects of UV rays on coral. Coral produces a chemical that protects it from UV rays. This is similar to the way sunblock protects humans. A decrease in the ozone layer, the result of pollution, is causing UV rays to become more intense. This means that a coral reef's natural protection is no longer as effective as it once was.

⁶ Going forward, Florida International University hopes to offer more educational opportunities via Aquarius. What better way to create enthusiasm and a sense of responsibility for the oceans than to allow students to closely observe what is at risk? Classes are already sometimes taught in real time from Aquarius. There are several observation windows, so a simple Internet connection can allow students the experience of watching the undersea activities around the lab.



I. an assignment, task, or job

Par. 3
systems made up of living things that interact with each other and their environment
Par. 4
a lessening
Par. 5
What causes "the bends"?
Aquarius is currently located off the coast of
What kind of research can aquanauts do on the nearby coral reef?
Would you enjoy spending time in an undersea research station like Aquarius? Why or why not?

A Painful Beach Adventure

What would you do if you got stung by a jellyfish?

¹ Marguerite looked forward to her first trip to the Pacific Ocean. Although she was an avid swimmer, she had no experience with the ocean, so she was eagerly anticipating the relaxation and sunbathing on the sand.

² Amazingly, she learned that one of her classmates—a girl named Amelia—was heading to the same California beach that week and would be staying in a hotel about a block away. They promised to look for each other along the beach, and maybe get together with their parents for lunch one afternoon.

³ After a tiring drive in a rather small car, Marguerite and her family arrived at the beach in California. Everyone was excited, people were running around, flying kites, and even fishing, because the weather was perfect. Finally, a California ocean vacation!

⁴ Marguerite stepped into the water, amazed that it wasn't freezing cold, and surveyed the ocean around her. The waves were coming in low and not too fast, and Marguerite could see the ocean floor through two feet of water. It was as beautiful as she had imagined.

⁵ Marguerite decided to wade a bit deeper, feeling the warm Pacific water reach up to her belly button. She was cautious about venturing out too far, because she knew she was inexperienced with rough water. She also knew her parents would worry. After walking a few more steps, Marguerite suddenly felt a tremendous pain in her left leg. She yelped and started swimming to shore, trying to grip her leg with one hand to lessen the pain.

⁶ Marguerite made it to the shore, but the pain was getting worse. When she inspected her leg, she observed that her left calf was turning red. The area that was stinging felt like she had run directly into a thorn bush. Marguerite assumed she had a jellyfish sting, which was something she had heard about but had never imagined would happen to her. The pain wasn't going away, so she started to yell for her parents, but to her complete surprise, there stood Amelia.

⁷ "Wow, Marguerite, what's the matter?" asked Amelia, wiping sunscreen off her hands using a towel draped around her shoulders.

Spectrum Reading Grade 8

⁸ "I think I've been stung by a jellyfish," Marguerite groaned unhappily, showing her friend the red, swollen area on her calf.

⁹ "Okay, Marguerite, you're going to be all right. We've been coming to this beach for a long time, and my brother's been stung before. I know what to do. Hold on, I'll be right back."

¹⁰ Amelia ran back up the beach towards a group of people—most likely her family—sitting on towels spread across the sand. She quickly bounded back down to where Marguerite waited near the water's edge, carrying what appeared to be a bottle of vinegar. "What are you going to do with that?" asked Marguerite, and then trying to keep her spirits up, added jokingly, "I'm not a salad!"

"Just have some confidence in me," responded Amelia with smile, and she began pouring vinegar over the red, irritated area on Marguerite's leg. Marguerite expected to feel a horrific burning sensation, but the horrible stinging subsided and changed into a dull throb.

¹² "Let's get you up to your parents, and then we'll head inside. We can finish dealing with the injury there. Can you walk okay?" asked Amelia.

¹³ "I think so," Marguerite replied hesitantly, and she carefully got up to tag along behind Amelia.

¹⁴ Back inside their hotel room, Marguerite's parents helped her to the couch while Amelia went into the kitchen to gather up supplies to treat the burn. Amelia returned with a bucket of hot water and antibacterial ointment, which she applied to Marguerite's jellyfish sting.

¹⁵ "Boy," said Marguerite, "I can't think of a better time I could have run into you! I definitely wasn't prepared for an encounter with a California beach jellyfish!"



١.	Identify the following elements of the story:
	protagonist: conflict:
	resolution:
2.	What is the main setting of the story, and what role does it play?
3.	If Amelia had not been at the beach, how would the outcome of the story have been different?
4.	Do you think this is a realistic story? Why or why not?
5.	Even though she is in a lot of pain, why does Marguerite try to make a joke?
6.	What is the most likely reason Amelia's family has a bottle of vinegar with them at the beach? Place a checkmark on the line of the best answer.
	They are having a picnic, and they brought vinegar with them for salads.
	They were using the vinegar as a type of natural sunscreen.
	An open container of vinegar keeps away sand fleas.
	They bring vinegar with them in case someone gets stung by a jellyfish.
7.	Have you ever been in an emergency situation when someone was injured and needed help? How did you react? What did you do?

The Giant Jellyfish of Japan

Why are Nomura's jellyfish a problem in Japan?

Jellyfish measuring more than six feet in diameter and 400 pounds in weight are making their homes in the Sea of Japan. These giant jellyfish begin life as tiny creatures (called polyps) that are about as big as a grain of rice. They can grow to be the size of an oven in only six months. When fully grown, they have a diameter a little bigger than the height of the average man. Because they don't have backbones, the giant jellyfish are invertebrates, not fish. They are called Nomura's jellyfish, named for the scientist who first studied these newly discovered creatures.

2 Nomura's jellyfish usually reside further north in the waters near China and North and South Korea, but they have begun to migrate southward. There are now 100 times as many giant jellyfish as before in the Sea of Japan. These jellyfish have the potential to rapidly increase in population. The young giant jellyfish polyps can even reproduce before becoming free-swimming jellyfish!

3 No one knows for sure why the population of jellyfish has increased in the Sea of Japan. One reason might be that the polyps have more places to attach. Jellyfish polyps must be attached to something in order to grow. An increasing number of buildings are being constructed along the shoreline, which provides a nursery of sorts for the young jellyfish. Many scientists claim the problem occurred as seawater temperatures rose. The giant jellyfish began multiplying at an abnormally high rate. This could be because the warmer water temperature led to faster rates of reproduction.



Other scientists claim the population of jellyfish is increasing because anglers have removed too many of the fish that eat plankton. As a result, more plankton is available for the giant jellyfish to eat. Fertilizer runoff into the sea also makes the plankton grow faster and bigger. Where plankton is plentiful, the jellyfish thrive, because it is their main food source.

Although they are 95% water, these giant jellyfish can be quite harmful. If you encounter one in the sea, be careful. Giant jellyfish needles are highly poisonous and can cause serious damage. They are a threat to the fishing industry as well, because the giant jellyfish can crush the fish in anglers' nets, ruin the nets and other fishing equipment, and cause physical injury to anglers. A ten-ton boat in Japan capsized because it tried to haul in a net that contained Nomura's iellvfish.

6 The giant jellyfish usually arrive in autumn, and one small way the country is dealing with them is to use them as a food source. Cooking classes have been offered to show chefs how to prepare and serve the creatures. Because they are so watery, they tend not to be steamed or grilled. Instead, they are cut into small pieces of sushi and served with soy and plum sauce.

More importantly, though, the Japanese have developed an early warning system to let anglers know when the jellyfish will arrive. From ferry boats, the system tracks the populations of giant jellyfish. Scientists can then analyze the gathered data to predict the pathway of the giant jellyfish through the Sea of Japan. They can predict this path as early as three months ahead of time. Anglers can then adjust their nets as needed to avoid encounters with these giant creatures of the sea. However, if catching too many fish contributes to the population growth of the giant jellyfish, this is only a temporary solution. More methods must be developed to manage the population of the giant jellies in the Sea of Japan.

Spectrum Reading Grade 8

Write **true** or **false** next to each statement below.

- **I.** _____ Giant jellyfish have always been a problem in Japan.
- 2. _____ Fertilizer runoff may have an indirect effect on the increase in the population of giant jellyfish.
- **3.** _____ A jellyfish's body is made up mostly of water.
- **4.** _____ Giant jellyfish reproduce slowly.
- 5. _____ Jellyfish begin life as polyps.
- 6. In what ways are giant jellyfish a problem for the fishing industry in Japan?
- 7. If jellyfish are prepared as food, how are they usually served? Why?
- 8. What was the author's purpose in writing this selection?
 - _____ to inform the reader about the problems with Japan's giant jellyfish
 - _____ to persuade the reader that giant jellyfish are a problem
 - _____ to entertain the reader with facts about an amazing underwater creature
- **9.** How is Japan's early warning system for jellyfish arrivals helpful to fishermen?

Every Lap Counts

What motivates Dylan to swim farther than he has ever swum before?

¹ The muscles in Dylan's arms and legs burned, and with each breath, he wondered if he should be done, but as he touched the wall at the end of the pool, he automatically turned for another lap. *I can do one more,* Dylan told himself. *This is for Charley.* He was starting his seventh lap farther than he had ever swum before—and he was definitely feeling the effort.

² As Dylan's head moved in and out of the water, he heard cheering and clapping echoing through the tiled space, first muffled, then clear, and then muffled again as water covered his ears. In the next lane, he caught a glimpse of his teammate, Kaitlyn, splashing along in the opposite direction. Dylan wondered how many laps she had completed so far. He normally felt competitive toward the other swimmers, but today he hoped she swam more laps than anyone else.

3 Dylan passed below the banner that stretched overhead, spanning from one side of the room to the other above the center of the pool. In big red letters, the banner announced, Swim for Charley! Every Lap Counts! Dylan and the other members of his swim team were taking part in a swimathon to raise money for Dylan's best friend, Charley Watkins. Earlier in the year, Charley had been diagnosed with multiple sclerosis, but his family did not have insurance. He needed physical therapy and expensive medications that his family couldn't afford. After Charley's friends learned what was happening, they started brainstorming ways to help. Several of Charley's friends were on the swim team, so that led to the idea of a swimathon.

⁴ For a month, Dylan and the other swim team members had asked for pledges from anyone who would help: family members, friends, and neighbors. Most people pledged a dollar or two per lap, but others were amazingly generous. Dylan's grandmother offered to donate \$10 for each lap Dylan swam! Considering the number of pledges the team had received altogether, and with each team member swimming at least four or five laps, they figured they would raise more than \$1,000. ⁵ Dylan touched the wall again and spun around to head down the length of the pool for the eighth time. Even though the chlorine stung his eyes, he noticed that his muscles felt looser and no longer ached. *I'm getting my second wind*, Dylan thought. His instinct was to begin swimming faster, but he knew that would be a mistake. He wasn't in a race—the goal was to swim as long as possible—so he held back and paced himself.

⁶ Finally, as Dylan completed his tenth lap, he knew he was too exhausted to keep going. If I try another lap, I'll end up treading water in the middle of the pool, waiting for someone to come get me, he thought. Dylan pulled himself up onto the edge of the pool and sat panting for a couple of minutes, quietly resting before he tried to stand.

⁷ Dylan's father approached him and placed a towel around his shoulders. "Wow, Dylan," his father said, shaking his head in amazement, "I am so impressed. You were obviously motivated, because that's farther than anyone else has swum today, and I know it's farther than you've ever swum before."

⁸ Dylan stood, feeling the wobbliness of his legs, and slowly walked with his father back to the benches where the other swimmers sat alongside Charley. Coach Templeton smiled and congratulated Dylan on his hard work, and then Charley rose and bumped fists with Dylan.

⁹ "My parents and I are giving a "thank you" speech to everyone at the potluck afterward," Charley told his friend, "but you deserve one now. Thanks, dude."

¹⁰ "Naw," Dylan insisted, "it's no big deal. I know you'd do the same for me. So when do we eat? I'm starving." And the two friends laughed.



- **I.** Why are the students having a swimathon?
- 2. How many laps did Dylan complete?
- **3.** Even though his arms and legs ache, Dylan keeps swimming. What does this tell you about his character?
- **4.** Which of the following would NOT be considered as one of the themes of this story? Place a checkmark on the line of the best answer.

_____ generosity ______ friendship _____ competitiveness ______ teamwork

- **5.** This story was told using third-person limited point of view, which means the story was told by a narrator, but mainly from the perspective of one character. Which character's perspective was used for telling the story?
- 6. Choose one of the other characters, and explain how the story would be different it were told from that character's perspective.

7. Authors include sensory details to make their stories more interesting. Sensory details describe sights, sounds, smells, tastes, and textures experienced by the characters. Find examples in the text of details describing three different senses. Record the senses and examples below.

Sense:	Example:
Sense:	Example:
Sense:	Example:

8. Why is it important for friends to help each other in times of trouble? Provide a personal example as part of your answer.

Rebecca Ling for Mayor!

What is it like to be part of a political campaign?

Sophia and her mother stood at the wide open doors leading into the ballroom and took in the festive scene inside. Dozens of round tables draped in black cloths were scattered through the room, with a small, colorful arrangement of flowers set in the middle of each one. A jazz quartet performed on a small stage set up on one side of the room, but Sophia could barely hear what they played. Clinking glasses, laughter, and the steady din of a hundred or more raised voices drowned out most of the band's music. A banner draped over the main stage summed up the occasion for the gathering: Rebecca Ling for Mayor! It had been a long day of campaigning, and everyone was excited to learn what the voters had decided.

² "Are you ready to head in?" Sophia's mother asked, and Sophia nodded enthusiastically. She was pretty amped up herself.

³ They made their way through the boisterous crowd and located a buffet spread with appetizers and sweets. Sophia inhaled the savory scent of tiny quiches stacked on a tray and decided to take a couple of them. She added some celery, olives, cucumber slices, and some ranch dip to her plate.

⁴ A tall man in a *Rebecca Ling for Mayor* T-shirt came over to Sophia's mother, and the two began talking. Sophia scanned the crowd for anyone she recognized from the last few weeks. Across the room, she spotted Jackson standing by himself. He looked just like she felt: a bit unsure about how he was supposed to act as one of the few kids at the party. Sophia caught his eye and gave a wave.

⁵ "I'm going to go talk with Jackson, okay?" Sophia asked her mother, and then she weaved her way through the crowd to where he waited. They had become friends during the campaign, running into each other at the different rallies held to promote the candidate. One afternoon, they had spent several hours together with their parents going door-to-door to spread Ms. Ling's campaign message. Sophia couldn't believe how rude some of the people were, but others were willing to listen for a few minutes and agreed to consider the candidate's ideas. ⁶ Today, Jackson and Sophia had campaigned for the last time, standing across the street from one of the polling places. They had waved signs and yelled in support of Ms. Ling. Sophia could still feel the scratchiness at the back of her throat from so much shouting. But all the hard work they and so many others had done ended tonight. Rebecca Ling either would or would not be the new mayor. It was out of their hands now and up to the voters.

⁷ Sophia and Jackson relaxed as they talked about some of the weird things they had seen during the campaign, including a guy who answered the door wearing a tuxedo, and a house where everything inside appeared to be painted bright pink. They also promised each other to keep in touch, and to look for each other at high school the next year.

⁸ Suddenly, a hush ran through the crowd. Sophia turned toward the stage along with everyone else. The band had stopped playing, and the tall man in the T-shirt approached the podium.

⁹ "First," he began, "let's all applaud ourselves on an amazing campaign. You volunteers deserve a huge thank you from Rebecca and me and the entire staff for everything you've done." The crowd cheered, but not for long; everyone was impatient to hear what else he had to say.

¹⁰ "Well, we've just received the call, and I'm so proud to officially introduce for the first time, *Mayor* Rebecca Ling."

¹¹ The crowd erupted with applause and shouting and hugging as Mayor Ling strode onstage. Sophia was so caught up in the celebration, she realized she had tears in her eyes.



- I. Number the events below I-8 according to when they happened.
 - _____ Sophia's mother talks with the man in the T-shirt.
 - _____ The tall man in the T-shirt comes out onstage.
 - _____ Sophia and Jackson campaign outside the polling place.
 - _____ Sophia and her mother get food from the buffet.
 - _____ Mayor Rebecca Ling comes out onstage.
 - _____ Sophia and her mother stand outside the ballroom.
 - _____ Sophia sees Jackson across the room.
 - _____ Sophia and Jackson see a man in a tuxedo answer the door.
- 2. What causes Sophia's tears at the end of the story? Place a checkmark on the line of the correct answer.
 - _____ She is sad that the campaign has ended.
 - _____ She is happy that Rebecca Ling was elected mayor.
 - _____ She is sad that she will not see her friend Jackson until they both start high school.
 - _____ She is laughing very hard about the pink house.
- **3.** When the man in the T-shirt encourages the crowd to applaud for their own hard work, the crowd cheers only briefly. Why?
- 4. An idiom is a common saying that has a meaning different from its literal meaning. Paragraph 6 contains the idiom "it was out of their hands." Explain why this is an example of an idiom.
- **5.** Authors include sensory details to make their stories more interesting. Sensory details describe sights, sounds, smells, tastes, and textures experienced by the characters. Find examples in the text of details describing three different senses. Record the senses and examples below.

Sense:	Example:
Sense:	Example:
Sense:	Example:

The Road to the Presidency

What path led Barack Obama to the U.S. Presidency?

¹ Do you know where you were on November 4, 2008? It may not have been a significant day in your memory, but many Americans will never forget it. On that date in history, Barack Obama was elected the first African-American president of the United States. Obama ran his campaign on the promise of change and was able to overcome barriers that minorities had faced for most of our country's history.

² Barack Hussein Obama II was born in Hawaii in 1961. His father was Kenyan, and his mother was a Caucasian woman from Kansas. His parents divorced during Obama's early years, and he had little contact with his father during his childhood. Obama was raised in Indonesia and Hawaii by his mother and her parents. He often mentions the role his grandparents played in raising him and the great affection he had for them.

³ After completing his degree in political science from Columbia University, Obama planned to go to law school. He decided to first spend some time serving the community. He moved to Chicago and worked as a community organizer to help improve the lives of people in poor neighborhoods.

⁴ Following his community service, Obama moved to Massachusetts, where he attended the prestigious Harvard Law School. There, he became the first African-American president of the *Harvard Law Review*. He graduated with honors in 1991 and returned to Chicago to practice law as a civil rights lawyer. Obama met his wife-to-be, Michelle Robinson, while working at a law firm. She rejected his first few offers of a date, but eventually agreed to go out with him. The couple became engaged in 1991 and married a year later. Today, they have two teenage daughters named Malia and Sasha.

⁵ In 1996, Obama became involved in politics. He served in the Illinois State Senate for eight years. In 2004, he was elected to the U.S. Senate. After three years, he announced that he was running as a candidate for president. The other likely nominee for the Democratic Party was Hillary Rodham Clinton. She was already well known as a senator from New York and the wife



of former president Bill Clinton. For the first time in history, either a woman or a black man would be on the ticket for the Democratic Party. Neither women nor African Americans had had full voting rights less than 100 years before. It would be a memorable nomination one way or the other.

⁶ Although the race was close, Obama received the nomination over Hillary Clinton. His next challenge, along with running mate Joseph Biden, was to convince Americans to vote for him on Election Day. Republicans John McCain and Sarah Palin proved to be stiff competition. On November 4, Americans made their voices heard and elected Barack Obama president.

⁷ Obama's campaign had been run on the promise of unity and change for all Americans, regardless of class, race, or gender. His first four years in office presented many challenges. He inherited a country that was struggling with the biggest financial crisis since the Great Depression. American soldiers were still in Iraq and Afghanistan. The country was weary of a war that many people believed should never have been fought. Democrats and Republicans alike agreed that the healthcare system was in need of serious change. Obama made progress in all these areas and was elected to a second term in office in 2012.

- I. Number the following items in order based on when they occurred.
 - _____ Barack Obama and Joseph Biden ran on the Democratic ticket.
 - _____ Obama worked as a community organizer in Chicago.
 - _____ Obama was elected to his first term in office.
 - _____ Hillary Clinton competed against Obama for the Democratic nomination.
 - _____ Obama was elected to the U.S. Senate.
- 2. Why were the Democratic Party nominations for 2008 an important moment in history?

- 3. What financial troubles was America having when Obama became president?
- 4. In what two places was Obama raised?
- 5. What political experience did Obama have before he ran for president?
- 6. Obama's second term in office began in _____
- 7. Do you think that the 2008 presidential campaign has made it easier for women and people of color to run for office? Why or why not?

_ •

Democrats and Republicans

How do the Democratic and Republican parties differ?

¹ Our two-party system is part of a democratic government. In this system, each major party supports a candidate it considers moderate. A moderate candidate can appeal to a broader amount of voters. This increases the chance of winning an election. Also, moderate leadership is more likely to result in compromise between each party. This is very important in order for the government to pass laws to help its citizens.

² The leaders of the American Revolution did not support the idea of political parties. People such as Thomas Jefferson and Alexander Hamilton worried that such parties would divide the country. Nevertheless, their beliefs formed the first American political parties. Hamilton and his supporters wanted a strong national government. Supporters of Jefferson believed that state and local governments should have more influence.

³ Today, the majority of voters in the United States have organized to support a two-party system. In such a system, two political parties are dominant. In the U.S., those parties are the Republican and Democratic parties.

⁴ During the 1800s, several different American political parties enjoyed some success. The Democrats emerged as a party in 1828. Antislavery activists founded the Republican Party in 1854. At the outbreak of the Civil War, in 1861, four major parties promoted presidential candidates. The Republican candidate, Abraham Lincoln, won the presidency. The Democratic South seceded, and the country was divided. Following the South's defeat in 1865, the Democratic Party lost much of its influence. The Republicans supported business and enjoyed majority rule for many years.

⁵ By the turn of the twentieth century, Democrats and Republicans had emerged as the two main parties. During the 1930s, the country suffered severely from economic depression. The Democratic president, Franklin D. Roosevelt, introduced programs to help. Known as the New Deal, these programs created relief measures to help the nation recover.

⁶ Republicans worried that the New Deal gave the federal government too much power. They

Spectrum Reading Grade 8

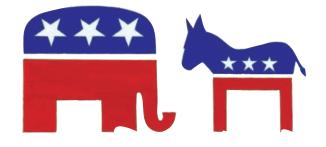
feared that the new policies would interfere with business. The U.S., they argued, should not do too much to protect the health and financial well-being of its citizens. Citizens, and not the government, should be in charge of their own well-being. The Republican opposition became known as social conservatives. Supporters of the New Deal became known as social liberals.

⁷ Each party continues to be associated with these values. Democrats believe that the government should be actively involved in providing for and improving the lives of all citizens. They believe that money from taxes should be used to support social services. Examples of social services include health care, public assistance, and unemployment benefits. They support political oversight in business. They want to prevent businesses from having too much power over workers. Democrats also hope to limit the amount of damage a business can have on the environment.

⁸ The Republican Party supports a limited role of national government over the lives of citizens. Tax money, they believe, should be spent on military and defense to create a strong U.S. presence in the world. Republicans believe that government should not closely monitor businesses. They feel that businesses will operate more effectively if given more freedom. In turn, this creates more jobs and a stronger economy.

⁹ The donkey is the symbol of the Democratic Party. It was chosen because it is known as having a strong will. The Republican Party's symbol, the elephant, was chosen because it is a strong animal. The color blue is associated with Democrats, while red is tied to Republicans. Sometimes, Democrats are referred to as "left wing," and Republicans as "right wing."

¹⁰ Not everyone aligns to the two major political parties. Independent voters do not support a specific party. Instead, they agree with portions of each party's point of view. During an election, independent voters can have an enormous influence over who gets elected.



I. Label each statement below as **O** if it states an opinion or **F** if it states a fact.

In general, Democrats care more about poor people than Republicans do.

_____ Most Republicans opposed President Roosevelt's creation of government programs.

_____ Republicans are often known as the "right wing" of American politics.

- _____ The Democratic Party supports ideas that are bad for business.
- _____ The best way to get elected is to combine ideas from both parties.
- Independent voters are the smartest citizens because they do not align themselves with either party.
- 2. Which of the following statements is true? Place a checkmark on the line of the true statement.

_____ The Republican Party was founded by people who opposed slavery.

_____ Abraham Lincoln was the first Democrat elected to the presidency.

- _____ The donkey was chosen as the symbol of the Democratic Party because of its intelligence.
- _____ Republicans believe the government should play a strong role in people's lives.
- **3.** Why did Republicans oppose the New Deal?
- **4.** Reread the final two sentences in paragraph 2. Based on the information they contain, do you think Thomas Jefferson would be a Democrat or Republican today? What about Alexander Hamilton? Explain your answer.

5. Jefferson and Hamilton opposed the idea of political parties because they thought political parties would divide the nation. Looking at American politics today, do you think their prediction was right or wrong? Explain your answer.

Dear President Obama

President Barack Obama The White House 1600 Pennsylvania Ave. NW Washington, DC 20500

May 16, 2014



Ian Reynolds 1542 West Whittington Dr. Lexington, KY 40502

Dear President Obama,

¹ My name is Ian Reynolds, and I'm 14 years old. I'm writing to you today because I often hear about healthcare and health insurance in the news. I'm sure that many families don't pay much attention to news about health insurance. The situation is very different for my family, and as the president of the United States, I'd like for you to know our story. I think that it's important for the people who make the decisions in our country to know that there are stories that go with every statistic.

² I come from a fairly typical middle class family. My mother stayed at home with my brother and me while we were little, and once we started school, she began to work as a hair stylist. She liked the flexibility of the hours, since she could be at home with us after school. Today, she works at a hair salon where all of the stylists are independent contractors. This means that she doesn't receive health insurance from an employer. My father worked for 16 years as an office manager. We had health insurance during that time, but when the economy hit rough times a few years ago, my father was laid off.

³ It was 18 months before my dad was able to find any kind of a job, even though he filled out applications almost every day. In the last year, my dad has worked as a sales associate at an electronics store. He doesn't receive insurance through his employer. My parents briefly had an insurance plan that they paid for out-of-pocket, but it was more than they could afford on my dad's new salary. In fact, for our family of four, it was more than the amount my parents pay each month for our house!

⁴ My mom has rheumatoid arthritis. She needs prescription medication for her to manage her condition. As a hair stylist, she obviously has to be able to use her hands, so medication and visits to the doctor are absolutely necessary.

⁵ Earlier this year, my dad had to have a pacemaker put in. Because we didn't have any coverage at that time, my parents are still trying to pay off those bills. My dad has high blood pressure, too, and his doctors say that he may need bypass surgery in the future. If he does, there's no way my family will be able to pay for it. My parents say that we'll cross that bridge when we come to it, but I don't see many options. They say that I'm too young to be worrying about these things, and that I should leave the worrying to them. But how can I? What if my dad needs surgery? What if he loses his job again and we can't afford the medications both my parents need?

⁶ I know that working on healthcare reform is one of the major goals of your administration, and I appreciate that it's an enormous problem to tackle. I just wanted you to know that while the lawmakers and politicians and doctors debate these issues, there are real people out here who are sick. There are people who are going without medication they need. There are people who can't see a doctor when they need to because they also need to eat and to buy school clothes for their kids.

⁷ Thank you for taking the time to read my letter. I know that you have one of the hardest jobs in the world, and I appreciate that you still take the time to care about individuals.

Yours Truly, Ian Reynolds

Spectrum Reading Grade 8

From what point of view is this selection written?
Which character traits best describe Ian?
mature sentimental disagreeable
gulliblearticulateconcerned
What is the purpose of Ian's letter?
Do you think Ian presents his case well? Why or why not?
Why doesn't Ian's family have health insurance?
In paragraph 5, Ian uses an idiom. What is it, and what does it mean?
In paragraph 6, <i>reform</i> means
an excuse a plan for change a new presentation
In paragraph 5, Ian uses three rhetorical questions. Does he expect the president to answer them? If not, what purpose do they serve?

A Heated Battle

How do forest fires start, and how do firefighters extinguish them?

¹ "Remember... Only YOU can prevent wildfires." These were the famous words that appeared on posters with Smokey the Bear, starting in the 1940s. In a way, Smokey was right—humans do start the majority of forest fires. Some are the result of an unattended campfire or carelessly discarded cigarette. Others are started accidentally by a downed power line or deliberately by arsonists. Once a wildfire starts, it spreads quickly and is difficult to contain. A wildfire can move at a speed of approximately 14 miles per hour and burns everything in its path. Every year, more than four million acres of land are burned in forest fires in the United States.

2 Not all fires are started by humans. Lightning storms are a frequent cause. In addition, conditions, particularly in the American West, often create the perfect atmosphere for fires that burn out of control. Firefighters refer to the fire triangle, which are the three ingredients necessary for a wildfire: fuel, oxygen, and a heat source. Although wildfires occur all over the country, they are most common in the West. Frequent droughts and dry weather create brittle, dry trees, leaves, branches, and vegetation that go up quickly in flames. When forest fires get very large, the intense heat can even change local weather conditionsbasically creating its own weather!

³ Even the wind can aid in the spread of a fire. Santa Ana winds occur in Southern California in fall and early winter. This hot, dry wind can push a forest fire ahead at terrifying speeds. When populated areas are nearby, these quickly moving fires can be a great threat to property, as well as to human life. ⁴ Firefighters have several ways of slowing and stopping the spread of a wildfire, although some fires take weeks to get under control. Spraying the fire and the surrounding vegetation with water and with flame retardants is one step. Another vital element is creating a fireline or firebreak, which deprives a fire of the fuel it needs to continue burning. A firebreak is created by clearing a strip of land of brush and vegetation, often with a tool called a *pulaski* (a combination of an ax and a hoe). When the fire reaches the firebreak, the hope is that it will burn itself out for lack of fuel.

⁵ Firefighters also rely on the help of planes and helicopters. They can drop water or chemicals on the fire from above in an attempt to put out the blaze. The benefit of using airborne assistance is that it can cover relatively large distance in short periods of time. In addition, firefighters sometimes set controlled burns. They intentionally light fires to clear vegetation and again deprive a wildfire of its fuel.

⁶ Although wildfires are enormously destructive—to both natural and human-made habitats—they do serve some purposes in nature. A wildfire returns nutrients to the soil when decaying matter burns. A wildfire can remove layers of thick undergrowth that tend to block sunlight from the forest floor. This allows new growth to receive the light it needs. In addition, fires rid the forest of plants that are diseased, as well as bugs that are harmful and destructive. The cost may not be worth the benefit, but like nearly everything in nature, wildfires have a job to do, too.



١.	What three e	elements	compose	the	fire	triangle?
			001110000			indi igio i

2. What effect do weather conditions have on forest fires?

3. Write one cause and its effect from the selection.

Cause: _____

Effect:_____

4. The purpose of creating a firebreak is

_____ to allow nutrients to return to the soil.

_____ to deprive a fire of fuel.

- _____ give humans a chance to flee to safety.
- 5. What was the author's purpose in writing this selection?
- 6. Name three ways in which humans can cause a forest fire to start.

7. What are benefits of a wildfire to a forest?

Evacuation

Will the Greenberg family have to evacuate their home to avoid a wildfire?

¹ Madeleine felt someone shaking her shoulder. She turned over and groaned, trying to pull the covers over her head. "Madeleine, wake up, it's important," came her mother's insistent voice. Madeleine's first thought was that she was late for school, but she quickly realized by the expression on her mother's face that something more serious was going on.

² "It's the fires, honey, they're moving closer, and I'm pretty sure we're going to have to evacuate this morning." The week before, a wildfire had started in the hills outside of the Greenbergs' home when someone had neglected to properly put out a campfire in a no-campfire zone. Living in California, the Greenbergs were somewhat accustomed to the threat of wildfires spreading through the forested areas in the nearby mountains, but nothing had ever come so close before.

³ "Dad's outside, spraying down the trees and shrubbery around the house in case the fire gets that close, and Elliot's packing a bag. I'm going to need your help, too, just as soon as you throw some clothes on and grab something to eat." Mrs. Greenberg hurried from the room, and Madeleine sat quietly for a moment, listening to the sound of sirens off in the distance and the helicopters hovering nearby.

⁴ Madeleine moved to the window and pushed her curtain aside. It had been weeks since the last rain, and everything was dusty and parched-looking. A giant cloud of ash-colored smoke billowed in the sky and extended nearly as far as Madeleine could see. Orange flames licked at the trees covering the hillside, and Madeleine shivered involuntarily. She could see her dad outside, a mask covering his nose and mouth, soaking the line of trees alongside the driveway.

⁵ Madeleine threw on a T-shirt and shorts and headed for the kitchen. Her older brother, Elliot, was just coming down the stairs carrying a duffel bag. "It looks like we're really going to have to evacuate, huh?" he asked. "I talked to Tyson about half an hour ago, and the police have already been knocking on doors in his neighborhood, telling residents to pack up and get out right away." ⁶ "What did you pack?" Madeleine asked her brother, wondering how she could jam everything she loved into a single bag.

⁷ "A few changes of clothes," replied Elliot, "and anything I couldn't stand to live without. Make sure to bring your laptop," he reminded Madeleine.

⁸ Mrs. Greenberg rushed into the kitchen carrying a plastic bin. "Elliot, please put a mask on and go put this in the car. It's got family photos that I don't have saved on the computer, our folder of important documents, your baby blankets, and Grandma's recipe book. I'm so glad I packed this a few days ago! Your dad thought I was jumping the gun, but I feel much better knowing that we're at least a little prepared."

⁹ Madeleine quickly finished her yogurt, packed some canned dog food for Phoebe, and ran into her room to pack. She felt as if she were in a dream as she surveyed her room, trying to figure out what she couldn't live without. A few outfits were easy to pack, but choosing among her books, keepsakes, and photos was much more difficult. She moved as quickly as she could and joined her family downstairs.

¹⁰ Mr. Greenberg was standing in the front hallway, the computer tower at his feet. His face was red, and his hair was damp, but he was smiling as he wrapped one arm around Madeleine. "Are we ready, guys?" he asked.

" "How can you be smiling, Dad?" Elliot asked.

¹² Mr. Greenberg opened the front door and ushered his family out into the hazy, smoke-filled morning. "We're safe, we're together, and we have the things that matter most to us," he said. "Right now, I consider us lucky."



Spectrum Reading Grade 8

Ι.	Why do you think that Madeleine's dad is spraying the vegetation around the Greenbergs' home?
2.	How did the wildfire begin?
3.	Was the evacuation a complete surprise to the Greenbergs? Cite examples in the story that support your answer.
4.	What idiom does Mrs. Greenberg use in paragraph 8, and what does it mean?
5.	The weather in the Greenbergs' town has recently been
6.	damp and rainy hot and dry windy and cool If you were in the Greenbergs' position, would you also consider yourself lucky? Why or why not?
7.	If you needed to evacuate for some reason and could only bring a few items with you, what would they be? Explain.

Jumping into Danger

How do firefighters reach wildfires burning in remote areas?

¹ Smoke jumping is one of the world's most dangerous jobs. Firefighting, in general, is fraught with hazards. But can you imagine parachuting into a wildfire in a remote area with no easy access out? This is exactly what smoke jumpers do. They are special individuals who are highly trained. They are skilled at thinking on their feet and making quick decisions.

² The idea of smoke jumping was first proposed in 1934 by a forester named T.V. Pearson. Fires in remote places were difficult to reach when the nearest town was miles away and no roads led to the areas that needed to be reached. Pearson's idea was that trained firefighters could drop into the affected area via parachute, where they could gain quick access to the fire. Less of their energy needed to be spent on a lengthy hike over rough terrain. Instead, the smoke jumpers could save their energy for where it was needed: fighting the fire. In addition, the sooner they could reach the fire, the better chance they would have of controlling it.

3 Experiments began in 1939 in the state of Washington. After it was proved that firefighters could safely parachute into areas that were dense with trees, the first smoke jumping operation was established in Washington and Montana. In 1940, firefighters Rufus Robinson and Earl Cooley made the first jump into Idaho's Nez Perce National Forest. Thirty-one years later, a woman named Deanne Shulman became the first female smoke jumper. Today, there are fewer than 500 smoke jumpers in the United States, and only a small percentage of them are women. This statistic is less about gender discrimination than about the stiff physical requirements. Smoke jumping is a strenuous job—for men and women.

⁴ After smoke jumpers parachute into a forest, the planes drop provisions, such as food, water, and camping gear. The supplies are dropped by parachute so that the firefighters can set up camp nearby. One of the physically demanding requirements of the job is the ability to carry a pack that weighs between 85 and 110 pounds. The hike can be rough, especially when you keep in mind that wildfires often occur in very hot, dry areas. 5 Smoke jumper bases are located in only a few states today: Alaska, Idaho, Washington, California, Oregon, and Montana. The firefighters who work there are frequently sent to fight wildfires in other areas of the country where remote blazes are burning, too. Even when they're not busy fighting fires, there is plenty of work for smoke jumpers to do. Their equipment needs to be maintained and always ready for action. Parachutes must be checked for tears, broken lines, or anything that could keep them from working properly. The smoke jumpers themselves need to stay in top shape. Every day includes a workout that is least an hour and a half long.

⁶ Does an intense job filled with danger and excitement appeal to you? Even if it does, there are a few other characteristics that smoke jumpers also need to possess. Smoke jumpers need to be in very good physical condition. They need to be mentally strong as well, since they work in a high-stress field. Reliability, the desire to help others, and the ability to work well both independently and with a team, are important. Few people have the desire to do such demanding and potentially dangerous work. Those who would rather remain at a comfortable distance from a fire are in debt to the brave few who are willing to risk everything.



Ι.	Why do you think that smoke jumper bases are located only in the states listed in paragraph 5?
2.	What are the characteristics of a fire that smoke jumpers might fight?
3.	What are two things smoke jumpers do when they are not fighting fires?
4.	In paragraph I, what does the word <i>fraught</i> mean?
5.	Deanne Shulman was the first
6.	Name three characteristics of smoke jumpers and why they are important.
7.	In paragraph 2, <i>terrain</i> means
	experiences ground boulders.
8.	Would you ever consider a career in smoke jumping or firefighting? Explain your answer.

What Remains

Will the Greenbergs choose to rebuild after a wildfire destroys their home?

¹ It had been exactly two weeks since the Greenbergs had evacuated their home to escape the wildfire that had been quickly approaching their neighborhood. Nearly 2,500 homes in their area had been evacuated, and although they knew that every other family was as heartbroken as they were, there was a feeling of solidarity, of "we're all in this together" that made everything a little easier to handle. On each trip to the grocery store or the post office, there was someone to commiserate with. People chatted longer, they hurried less, they were quicker to offer a hug or a smile.

² The Greenbergs knew that they had lost their house. As soon as firefighters had deemed the neighborhood safe to re-enter, Mr. Greenberg had gone back alone to assess the damage. Mr. Greenberg was known among his family and friends for being able to find the silver lining in just about any cloud, but even he was unable to find an upside to this situation.

³ "It was mostly just really incredibly sad," he reported, his eyes welling up as he watched his children's faces.

⁴ "Do you think there's anything we can salvage?" asked Mrs. Greenberg.

⁵ Her husband shook his head. "I doubt that there's anything we'd want to save," he said sadly, "that isn't sopping wet or sprayed with fire retardant or covered with ash."

⁶ "I want to see the house, Dad," said Elliot. "Even if it's a total loss, I want to see it one more time." Madeleine nodded in agreement.

⁷ Mrs. Greenberg exchanged glances with her husband. "If it's really important to you both, we'll go back and look at the house again." She shrugged, "I can't help hoping that there will be something we can still save."

⁸ Two days later, the Greenbergs pulled into their neighborhood. Although the firefighters had gained control and the wildfires were starting to recede, the Greenbergs had still needed to show identification to pass through police barriers. As they parked on the street and opened their car doors, the smell of scorched air and wet wood

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surrounded them. They slowly made their way to the house, stepping carefully over pieces of charred wood and puddles of ashy water.

⁹ "It's hard to recognize anything, isn't it?" asked Mrs. Greenberg in a small voice, leaning down to pick up a picture frame.

¹⁰ "Look how many other people are here doing the exact same thing," commented Madeleine, pointing across the street. Up and down the street, neighbors and acquaintances picked through the charred remains of their belongings. There were a few houses that looked as though they had survived relatively unscathed, but most appeared to be in the same condition as the Greenbergs'.

"I guess this is what's left of my graphic novels," said Elliot, nudging a soggy box.

¹² Madeleine reached down to pick up a stuffed seal from a long-ago trip to the aquarium. She rubbed its sooty face. "It looks like something you'd see on the news," she commented glumly, "not like a scene from our actual lives."

¹³ "I don't know how you kids feel about this," said Mrs. Greenberg, "but neither Dad nor I want to rebuild here. I know that this has always been your home," she added, smiling ruefully, "but I can't go through this kind of loss again."

¹⁴ Madeleine nodded. "I feel the same way, Mom—I think there would always be this feeling of apprehension, of wondering when it was going to happen again."

¹⁵ "We need to start over someplace where we're not so likely to lose everything again," Elliot chimed in.

¹⁶ The Greenbergs stood together watching the gray, smoky clouds drift across the blue sky. "To starting over," said Mr. Greenberg, holding up his bottle of water.



2. In	paragraph 10, the word <i>unscathed</i> means
	resentful harmed unharmed
3. In	paragraph I, what does <i>commiserate</i> mean?
/rite F ne	ext to the statements below that are facts and $oldsymbol{O}$ next to statements that are opinions.
4	"We need to start over someplace where we're not so likely to lose everything again."
5	It had been exactly two weeks since the Greenbergs had evacuated their home
6	"I doubt that there's anything we'd want to save."
7	Neighbors and acquaintances picked through the charred remains of their belongings.
	paragraph 2, it says that Mr. Greenberg could "find the silver lining in just about any bud." What does this mean?
	ould you have made the same decision as the Greenbergs about whether to rebuild? plain.

Living Online: A Brief History

Do the benefits of social media outweigh the risks?

L Humans have been able to communicate across long distances for more than a century. First telegraphs and then telephones carried our conversations along wires from city to city. With the advent of radio, wires were no longer necessary. Suddenly, we could speak with people anywhere on Earth—or even in space, as with astronauts heading to the moon. However, none of these technologies changed the way we communicate with each other as much as the Internet has. Although we still spend much of our day speaking face-to-face with those around us, we also communicate more and more via texts, e-mails, and social media sites. Has this change been for the better?

2 The history of social media is intertwined with the history of the Internet and the World Wide Web. Without the ease of communication they provide, social media could not exist as we know it. The Internet began when scientists studied how to share information between computers. By 1969, researchers had found a way to use telephone lines to send packets of data between computers. When four computers were linked via phone lines, the ARPANET was born. The ARPANET grew quickly, as more and more computers were added to its network. In 1972, the ARPANET was introduced to the public. That same year, the first e-mail program was developed. The ARPANET was no longer a tool only for science and research. An e-mail could contain whatever message the sender wanted it to convey. It might be important scientific information, but it also could be a request for business forms, a silly joke, or an invitation to a lunch date.

³ As the ARPANET and its e-mail capabilities reached a much wider group of users, it grew into what we call the Internet today. However, the Internet during the 1980s was still very different from what we are familiar with now. It was mostly text-based and did not use images. A major innovation occurred in 1991 when Tim Berners-Lee developed the World Wide Web. He created a system of "pages" that would appear on the Internet. Each page contained links to other "pages." Berners-Lee's idea took hold quickly, and the Internet was transformed in just a few years into the Web as we know it now.



⁴ As the Web's abilities to share information developed throughout the 1990s, so did people's ideas about how to put those capabilities to use. If anything we did in the "real" world could be transformed into something done in the "virtual" world of the Internet, someone found a way to do it. By the 2000s, the list of things that could be done online was massive: working, banking, buying, selling, listening to music, watching videos, playing games, and, of course, keeping in touch with friends and family.

⁵ Social media sites rose in popularity. Facebook, Twitter, Instagram, Pinterest, YouTube, and so many others have provided places for us to share our lives online. You can take a photo with your phone, and with a few touches to the screen, your photo can be shared with the entire world. To a limited degree, you can control who will see what you post, but there is no guarantee of privacy.

⁶ That is the trade-off with social media: communication is easier than ever, but we live our lives in a much more public way. Instead of mailing 1,000 letters or calling 1,000 people to let them know about a business venture or a political idea, a single online post can easily reach that many people. However, those 1,000 people—or even more—may also see the embarrassing photo your friend took of you, or read a snarky, unkind comment you made in a moment of anger.

⁷ Our private and public selves are no longer as distinct as they used to be. Being aware of this reality is the key to getting the most out of social media—and avoiding the worst.

- I. For each statement below, write **O** if it is an opinion and **F** if it is a fact.
 - _____ The ARPANET was the most important development in communication to occur during the 1960s.
 - _____ The introduction of the World Wide Web led to a massive increase in the number of people who used the Internet.
 - _____ E-mail is a more efficient way to communicate compared to using a phone.
 - _____ Sharing photos online is the riskiest of all Internet activities.
 - _____ It is much easier to share a photo online than it is to print copies of the photo and mail them to everyone you know.
- 2. Describe two ways the ARPANET is similar to the Internet we use today.
- **3.** Describe two ways the ARPANET is different from the Internet we use today.
- **4.** Which of the following best describes the author's point of view? Place a checkmark on the best answer.
 - _____ If the ARPANET had not been developed, we would still be communicating mostly via radios and telephones.
 - _____ The Internet and social media sites provide certain conveniences, but we have also lost some of the privacy we had in the past.
 - _____ The Internet and, in particular, social media sites are dangerous, and they should be used as little as possible.
 - If the World Wide Web had not been developed, the Internet would have remained a safer, more private place to exchange information.
- **5.** The author states that the "history of social media is intertwined with the history of the Internet." What evidence does the author provide to support this idea? Is this evidence sufficient to support the author's idea?

Good Social Media Practices

What are some of the dos and don'ts of the online world?

¹ Although the online world exists only as digital bits of data streaming through computer cables or across wifi networks, it has become an integral part of our modern existence. We conduct business online, we make friends online, we share the best of our lives online, and we can make mistakes online as well. Unfortunately, those mistakes can have lasting effects that reach beyond the virtual world and impact our lives in the traditional physical world.

² Understanding how to avoid these mistakes is an important skill if you wish to safely and responsibly be part of the many social media sites available online. The following list will help guide you as you navigate the online world.

³ • Nothing is private online. Social media sites provide settings that can limit who will see your posts, but these tools go only so far in protecting your privacy. If you share a post or a photo with even one person online, you have lost control of who will see it. Screen capturing programs allow anyone to copy whatever is shown on a computer. No matter what level of privacy you have set for your posting, if it appears on other people's computers, they can copy it and send it along to as many other people as they wish. Once something is online, you must assume it is available to the public.

• **Be careful about the personal**

information you post. If you have several hundred friends on a social media site, how well do you really know each of them? Using popular "check-in" apps tells everyone where you are, and if you are alone someplace, it might be unsafe to share that information. Be especially careful about announcing to the online world when your home will be empty, such as during a family vacation. If that information is obtained by the wrong people, you might come home to find you've been robbed. And, of course, don't post your social security number, bank account information, credit card numbers, or any other information that could be used by a criminal.

• **Avoid emotional posts.** If someone upsets you, take time to calm down before posting any comments about your feelings. In the heat of your anger, you may write something that



you will later regret. Even if you delete the post, there is a good chance many others will have read it. Writing angry, hurtful comments not only affects your relationship with whomever they were directed at. Anyone else who reads the comments will see you as the type of person who writes angry, hurtful things. Your reputation could be affected.

• Be careful and thoughtful when posting about teachers. Anything negative you might post about a teacher could easily be seen by him or her. Complaining about a teacher—or worse, making fun of a teacher—can come back to haunt you. Never forget that teachers are human beings. If you hurt someone's feelings, how do you think they will act toward you? If you offend a teacher, don't be surprised if he or she is less forgiving the next time you are late with an assignment.

⁷ • **Do not harass or bully others.** Bullying is a serious offense, whether it happens at school or online. Be sure you clearly understand your school's policy about bullying. If you take part in harassment of another student, you could be subject to suspension, expulsion, or even criminal prosecution.

⁸ • **Be positive and friendly.** Never hesitate to make comments that encourage others and support their endeavors. The more positive and outgoing you are on social media sites, the more that positivity will reflect on you in your real life. People you barely know will get a positive impression of who you are, and that can benefit you in the real world.

- I. Write a sentence summarizing the author's purpose for writing this text.
- 2. Why do you think the author chose to organize the text as a list rather than a series of paragraphs linked together with transitional phrases? Do you think the author's choice was a good one? Why or why not?

3. Which of the author's suggestions is the most important? Why?

- 4. Why should you avoid writing emotional posts?
- 5. In paragraph 2, the author uses the word *navigate*. Provide a definition for *navigate* based on how it is used in the text.
- 6. The author says that being positive and friendly online can have benefits in the real world. Describe a scenario that would support this idea.

7. Provide two more suggestions of responsible ways to act on social media sites that were not given by the author.

Worth a Thousand Laughs

What happens when Grayson shares a silly photograph of himself?

¹ Grayson stared into the mirror and laughed. His little sister, Emily, had certainly had a good time "decorating" his face. Bright red lipstick was smeared around his mouth haphazardly, large circles of rouge adorned each cheek, and his eyelids were painted dark blue. She had even attached a couple of his mother's clip-on earrings to his ears. Grayson thought he looked hilarious, and he knew his best friend, Alexander, would agree, so he pulled out his phone to take a selfie. Grayson pursed his lips, cocked his head, and took the picture. He added the caption, *Here's my long-lost sister, Kyliel* and he sent off the photograph to Alexander.

² After carefully washing the makeup off, Grayson headed downstairs to help his dad with dinner. As he set the table, his phone began buzzing. He pulled the phone out of his pocket and chuckled at Alexander's text: *LOL! ur a goof!* Grayson stuffed the phone back in his pocket and headed into the kitchen to pour drinks for dinner.

³ The following morning started out normally enough, as Grayson and Alexander met at their usual corner and headed off together to school. They were running a few minutes late, so when they arrived, Grayson headed straight for his locker to grab the materials he needed for the first class. That was when he got the first inkling that things weren't going to be normal that day after all.

 ⁴ Christopher Anderson stood at his locker across the hall from Grayson and called out,
 "Hey, pretty boy, where's your sister?" Several students surrounding Christopher cackled along with him and they all bumped fists.

⁵ As Grayson traveled down the hall, a group of girls heading in the opposite direction were whispering to each other. Grayson noticed one of them point to him as they all started giggling.

⁶ Grayson's first class was pre-algebra with Mr. Henkins, and as the teacher explained how to solve equations with one variable, something brushed past Grayson's face and landed quietly in his lap. He glanced down to find a crumpled piece of paper lying there. When he unfolded it, he discovered a scribbled drawing of a woman's face with the words *Kiss! Kiss!* scrawled underneath it. Grayson slumped dejectedly in his chair and wished he were invisible.

⁷ For the remainder of the morning, Grayson continued receiving comments, sideways glances, and snickers. He attempted to brush off the comments by replying, "Yeah, I'm a really funny guy, aren't I? Ha, ha." But he was embarrassed by the attention, especially for something as silly as that photograph. How could everyone have seen it? He had sent it to just one person!

⁸ In the cafeteria at lunchtime, Grayson finally saw Alexander again. By this time, his embarrassment had escalated into anger. "How many people did you send that photograph to? I didn't say you could send it to anyone else!"

⁹ "Man, I am so sorry," Alexander apologized sheepishly. "I only sent it to Sebastian because I didn't think you'd care if he saw it. He thought it was super funny, just like we did, but he must have sent it to someone else, and they sent it to someone, and on it went, like dominoes falling. Pretty soon, almost everybody in our grade apparently got the photograph. Grayson, I promise you, I did not mean for that to happen."

¹⁰ Grayson inhaled deeply, and then exhaled a long breath. He knew he couldn't really blame Alexander. If he didn't want anyone to see the photograph, he shouldn't have sent it in the first place, because once it was out there, there was no getting it back or controlling where it would go next.

"Don't sweat it," Grayson assured his friend. "It's on me for not knowing better what might happen. I guess I'll just have to be 'Kylie' for awhile, at least until the next thing comes along to grab everyone's attention."



١.	Who is the protagonist in this story?
2.	Does this story have an antagonist? Explain your answer.
3.	Is this a realistic story or a fantasy story? Explain your answer.
4.	Is this story set in the past, present, or future? How do you know?
5.	Why does Grayson share the photo?
6.	What does Alexander mean when he says the way the photo was shared around school was "like dominoes falling"?
7.	What does the story tell you about Grayson's character? Provide evidence from the story to support your answer.
8.	A fable is a folktale with a lesson. Fables usually end with a moral, which is a short sentence that sums up the lesson of the story. Write a moral for this story.
٩.	Describe an embarrassing moment from your life. How did you react?

The Bill Gates Story

How did Bill Gates become one of the wealthiest people on Earth?

¹ Bill Gates was born in 1955 in Seattle, Washington. His father was a prominent lawyer, and his mother was a former schoolteacher. Along with his two siblings, the family members were competitive with each other at all kinds of games and sports. At an early age, Bill excelled at board games, but he was also a strong student, doing well at math in particular. However, school sometimes bored him. As a result, he often got into trouble for disruptive actions.

² In order to challenge their son, the Gateses enrolled Bill in a more academically difficult school when he was thirteen: the Lakeside Preparatory School. This decision would set the course for the remainder of his life. At Lakeside, Bill was introduced to computers, as well a new friend, his future Microsoft partner Paul Allen.

³ In the late-1960s, computers were very different from what we know today. Computers took up entire rooms, and they were owned mainly by the government or by big businesses. Most people did not have access to computers, especially students in junior high or high school. However, Lakeside rented time on a computer owned by a business so its students would have the opportunity to learn how to use it. Bill was fascinated with the computer. He was soon allowed to skip his math classes to study computer programming instead. Before long, he had written his first program: a version of tic-tactoe.

⁴ But Bill was soon up to his old tricks, and he was in trouble again. Bill, Paul, and two other students were caught hacking into the computer to get free access to it. The four were banned from using the computer for a few months. When their ban was over, though, the company hired them to find and fix the bugs in the system! During the next couple of years, Bill was hired to write several different computer programs: one that handled payroll for a business, one that scheduled classes for a school, and with his friend Paul, one that helped study Seattle's traffic patterns. He wasn't even out of high school yet. 5 In 1973, Bill graduated and headed to Harvard University. His parent's plans had always been for him to be a lawyer like his father, so that was the direction in which his studies began. However, he still spent all the time he could working with computers. Meanwhile, his friend Paul had taken a job with a large company that did a wide range of electronics work. The two friends stayed in touch. When they learned about a new personal computer being developed for sale to the public, they decided to go into business together writing software for the new computer system. Bill dropped out of Harvard and dedicated himself full time to computer programming.

⁶ In 1975, Bill Gates and Paul Allen founded their own software company. They named it *Microsoft*. They did well during the next few years, mainly through sales of a software language they created called BASIC. It was used by computer hobbyists around the world. However, Microsoft's fortunes changed dramatically in 1980.

⁷ IBM approached the company and asked them to develop software that would run their new PCs. Gates developed MS-DOS to run the computers built by IBM, and it eventually became the most widely used operating system in the world. Then, in 1985, Microsoft developed the Windows operating system. According to some estimates, 90% of personal computers are run using a version of Windows.

⁸ Today, Bill Gates regularly ranks as one of the world's wealthiest individuals. But everything he does is not about computers or competitiveness. Along with his wife, Melinda, he runs the Bill and Melinda Gates Foundation, which donates millions of dollars each year to a wide variety of causes.



I. Complete the time line below by including a description of an event from Bill Gates's life that corresponds to each date. Refer to the text as needed.

	1955:
	1968:
	1973:
	1975:
	1980:
	1985:
2.	Bill Gates did not finish college. Instead, he dropped out of Harvard to start his own business. What does this tell you about his character?
3.	How were the computers of the late-1960s different from the computers of today?
4.	Why does the author write that Bill Gates's enrollment at Lakeside "set the course for the remainder of his life"?
5.	Bill Gates is highly intelligent, and he is a very hard worker. However, most intelligent and hardworking people do not achieve the kind of financial success as Bill Gates. Explain the role that being in the right place at the right time played in Bill Gates's success.
6.	Write a short paragraph describing what you are most passionate about doing in life and whether it is something you can do as a career someday.

Of Posting and Posters

How can Ms. Takahashi's students use the Internet to promote their art show?

¹ Ms. Takahashi unrolled the poster and held it up so the students in her art class could see it clearly. Four images were arranged in the top half: Elizabeth's painting of her sister, Rico's abstract paper sculpture, Benjamin's drawing of downtown buildings, and Aarav's painting of a floral arrangement. The bottom half of the poster announced Macklemore Junior High School Student Art Show and provided the details of when and where the event would take place.

² "What do you guys think?" Ms. Takahashi asked, as several students stood to get a better look. "Pretty nice, isn't it? We'll display posters throughout the school campus, and I'll give each of you a poster so they can be distributed around town. Choose someplace where a lot of people will see it, like a coffee shop or a community bulletin board at the grocery store. Just make sure you get permission to post it first, otherwise the poster might get taken down and thrown out before anyone sees it."

³ Elizabeth raised her hand, and Ms. Takahashi motioned for her to go ahead and speak. "Ms. Takahashi, the posters look awesome, but do people even notice things posted in windows or on bulletin boards? I know I hardly pay any attention to stuff like that. If we want a lot of people to come to the exhibition, shouldn't we try to promote it in other ways, too?"

⁴ Mr. Takahashi agreed, "You're absolutely right, Elizabeth, and I was going to ask you guys about that. How else could promote the event?"

⁵ "When my brother's band has a concert," Brandon explained, "they put up a few posters, but mostly they use the Internet to tell people about it. That's definitely what we should do also."

⁶ Ms. Takahashi went to the board and wrote Online Promotion Ideas. "All right, tell me where we should start."

⁷ "I'm pretty sure most of us have FacePage accounts," suggested Ashley, "so we should create a page for the show and invite all of our FacePage friends. I bet we could reach 1,000 people just by inviting the FacePage friends of everyone in this class." ⁸ "Ms. Takahashi?" asked Rico. "Is there a way to make a digital image of the poster? If there isn't one already, we could take a photo of the poster and put that online to promote the event. The photograph might not be very high quality, though."

⁹ "As a matter of fact, Rico, look at this," Ms. Takahashi clicked open a file on her computer. The screen filled with a crystal clear digital image of the poster. "We can use this image online. Once it is posted, though, we'll want to encourage people to share the image. How do you think we can get that to happen?"

¹⁰ The class was silent for a moment, and then Aarav replied excitedly, "Free tickets! How about if we add a comment to the post that says the 50th or 100th person who shares the image gets free tickets?"

"I like that idea a lot," Ms. Takahashi said, and all the other students agreed.

¹² Elizabeth added, "We need to create a buzz about the art show so people will be excited to come and be a part of it. We all need to post a bunch of enthusiastic comments online about how cool the opening night will be. I have a Chirpee account, and I know a lot of you do too, so let's create a hashtag that we all use. If someone clicks the hashtag, they'll see all the great comments we've made appear in one place. How about *#Macklemoreartshow*? That's pretty simple and straightforward."

"Perfect," agreed Ms. Takahashi, as she finished listing everyone's ideas on the board.
"We have a solid plan for promoting the show, so let's get to work posting—both in the real world, and the virtual one!"



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١.	What is the conflict,	or problem,	that needs to	be solved in	this story?
					11 110 01 01 9 1

2.	How do the students reach a solution?
3.	Do you think the students' ideas are good ones? Why or why not?
4.	Why do students need to get permission before displaying their posters?
5.	What do students plan to give away as part of the promotion for the art show? Place a checkmark on the line of the correct answer.
	a free paintinga free poster
	free tickets free art lessons
6.	Only four works of student art are shown on the poster. How do you think the class decided which pieces would be featured on the poster?
7.	Describe one more way the class could promote the art show that was not mentioned in the story.
8.	Make a prediction about attendance at the students' art show. Be sure to explain the reasoning behind your prediction.
۹.	Choose a school event or activity, and describe how you would promote it if cost were not an issue.

Where Are the Bees?

What is causing bee populations to decrease all over the world?

¹ Think about all the things you've eaten in the last 24 hours. Every fruit or vegetable you ate (including the foods that contained fruits or vegetables) most likely relied on bees for pollination. Bees are tied so closely to the crops that humans depend on that they are often viewed as a barometer for the health of the environment. This makes the recent state of bees even more alarming. If bees are in trouble, so are we.

² Several years ago, beekeepers began talking about a something called Colony Collapse Disorder (CCD). It occurred when healthy colonies of bees suddenly collapsed with no apparent reason. The bees just seemed to abandon their hives, honey, and wax and disappear. Beekeepers were also finding that about 30% of the colonies were dying off over the winter. Although the numbers have fluctuated over the years, bees have remained in decline.

³ Bees provide a very important service for humans. About one-third of the foods we eat rely on bees for pollination. Movable hives are taken from farm to farm in trucks. They play a vital role in pollinating commercial crops. Without them, many fruits and vegetables would disappear off the supermarket shelves. Imagine going to the grocery store on a summer afternoon and finding only empty spaces where the strawberries, blueberries, apples, broccoli, onions, and almonds should be.

4 Although the bee crisis began nearly a decade ago, scientists are still unsure exactly what the problem is. Most likely, several factors are involved, which makes a solution even more difficult to find. A parasite called the Varroa mite has been attacking hives and is proving very hard to get rid of. Pesticides are another major problem. While experts do not yet know the effects of many pesticides on bees, they do know that increased pesticide use is contributing to the problem. In fact, the European Union is banning the use of pesticides called neonicotinoids. Studies have show that this class of chemicals can change the behavior of bees and even cause confusion.

⁵ Another problem is that bees are having trouble finding enough of the nectar and pollen they need for survival. Weather conditions and humans are both at fault here. Changes in weather, such as long-term droughts, affect the growth of wildflowers. Major corporate farms plant massive fields of single crops, like corn or wheat, that provide little pollen for the bees. Even suburban backyards showcase green lawns, frequently free of unwanted weeds, like clover or dandelions, that can attract bees.

⁶ While none of these conditions is solely responsible for the decline of bees, the combination is creating an environment in which bees are struggling to survive. For example, bees that are weakened by the use of a pesticide might be more susceptible to disease. And a hive that is struggling because of a disease or parasite may find it harder to seek out food if it's not readily available.

⁷ So what can be done about the bee crisis? Will bees become extinct like so many other species? Will our selection of foods become much more limited? We don't know the answers, of course, but spreading awareness is one step in the right direction. Planting an assortment of flowering plants can help attract and feed bees. Buying organic produce whenever possible can decrease the demand for crops treated with pesticides. And letting your yard be just a little more natural might help bring back the tiny buzzing creatures that play an important part in Earth's ecosystem.



Ι.	In paragraph 1, the text says that bees are often viewed as a "barometer for the environment." What does this mean?
2.	In paragraph 2, what does <i>fluctuated</i> mean?
3.	On the lines below, write one cause from the selection and its effect.
4.	Effect: What makes a solution to the bee crisis difficult to find?
5.	At the beginning of paragraph 7, the author asks several questions. What is the purpose of these questions?
6.	What is the purpose of this article?
7.	Is it better for bees to have a single flowering plant to feed from or a variety? Explain.

Honey Hill Farm

What kinds of information do you need to have before you get your own beehive?

¹ Dylan and his mom sat on a faded quilt with a dozen other future beekeepers. It was an early spring day, and the morning air was still crisp. Several bees buzzed busily around the hive, while Mr. Loughton, the beekeeper, chatted with a young couple.

² The previous fall, Dylan had written a research paper about bees and their recently declining populations. Before that, he'd never thought much about bees, aside from trying to avoid them when he was barefoot. One article he'd read discussed the responsibility of everyday people in making global change. Raising bees seemed like recycling to Dylan it was a small thing he could do to make a difference. And his mom was always on board with new ideas for things she could do or make herself, especially if they were good for your health or the planet.

³ "All right, folks," began Mr. Loughton, "I'd like to give you some basic information about beekeeping so that you feel comfortable when your bees arrive. I'm hoping that everyone ordered their bees back in January, right?" Everyone nodded, and Mr. Loughton continued. "Good, then let's talk about your options for hives."

⁴ Mr. Loughton went on to describe the Langstroth hive—the type of hive he kept on the farm and the one that he said most beekeepers would recommend. Dylan recognized the stacks of boxes that looked almost like filing cabinets oddly placed in the middle of a field. In the Langstroth hive, each of the boxes contained a frame where the bees built their honeycomb and stored their honey. You could pull the boxes out like drawers, which gave you easy access to the bees and their honey.

⁵ "The extra parts are a bit bulky to store, and the boxes can be heavy to lift," admitted Mr. Loughton. "When you access the hive, you do disrupt the bees, which means that you may want to have a smoker on hand to calm them."

⁶ "The other main hive system, the top bar hive, is less disruptive to the bees and is lighter to work with, but you may lose your hive in a cold winter. In addition, I've found in the past that proper ventilation can be a problem."

⁷ "I think we should go with the Langstroth hive, don't you?" Mrs. Hwang whispered in Dylan's ear. Dylan nodded in agreement. The reading he'd done so far indicated that supplies and advice about Langstroth hives were also easier to find.

⁸ "At the same time you order your hive," said Mr. Loughton, "you'll also want to purchase your protective clothing. The veil and gloves are the most important items to purchase, although if you are a beginner and are working with a Langstroth hive, you may want the full-body suit. Some folks also feel that wearing long sleeves and pants, along with the veil and gloves, is sufficient."

⁹ Mr. Loughton produced a full-body bee suit, veil, and gloves from a box at his feet. "I also recommend buying a smoker, which is especially helpful for beginner beekeepers. You load it with pine straw or grass, and it produces a thick smoke, which calms the bees and reduces your chances of getting stung. You will get stung, though, by the way," he added, grinning.

¹⁰ Dylan noticed a picnic basket sitting on the ground and was about to ask his mom what she thought was inside, when Mr. Loughton picked it up and began passing out biscuits and honey. "I thought you might all be ready for a break," he said, passing out a stack of yellow gingham napkins. "You can sample some of my honey and see if all this rigmarole is worth the effort."

¹¹ Dylan sat back and drizzled the sweet amber honey onto the biscuit. He looked up at the startlingly blue sky and listened to the buzz of the bees as he bit into his biscuit. Oh yeah, he was sure it would be worth it.



Ι.	Name a pro and a con for each of the hive types mentioned in the selection.
	Туре:
	Pros:
	Cons:
	Type:
	Pros:
	Cons:
2.	The purpose of a smoker is to
	cause the bees to produce more honey.
	calm the bees.
	encourage the queen to lay more eggs.
3.	How did Dylan first become interested in beekeeping?
4.	Do you think that the beekeeping class is giving Dylan and Mrs. Hwang a realistic idea of what beekeeping is like? Why or why not?
5.	Langstroth hives remind Dylan of
	filing cabinets a dresser a trunk.
6.	What two purposes do you think the author had for writing this story?
7.	Is beekeeping a hobby that appeals to you? Why or why not?

Sweet as Honey

What are some of the many uses for honey?

¹ Honey is a sweet treat that most people take for granted. It appears on grocery store shelves, often in a cute plastic bear squeeze bottle. If you're lucky, your local farmers' market may even carry fresh honey, brought to you directly by the beekeeper. But honey is more than just a topping for waffles or a sweetener for tea. It's a miracle of sorts.

² Honey is the only food product that humans eat that is made by an insect. In addition, even with all our technical abilities—sending humans into space, designing computers, creating 3-D printers—no one has figured out how to make artificial honey. There's really no substitute for what bees have always known how to do.

3 A beehive may contain as many as 60,000 bees. The worker bees, the ones that gather nectar, may visit up to two million flowers just to make a single pound of honey. No wonder some people call it liquid gold! Although ambercolored clover honey tends to be most common, honey comes in a variety of shades and flavors. Honey can be almost clear and have a very mild flavor. It can also be yellow, orange, amber, or almost brown. In general, the lighter honeys have a milder flavor, while the darker honeys have a stronger, bolder flavor. The flavor is influenced by the flower that produced the nectar that the bees used to make the honey. In America, you can buy about 300 different types of honey! Some well-known varieties are alfalfa, clover, orange blossom, sage, eucalyptus, and tupelo.



⁴ Honey has been used throughout history in a number of ways. One of the most remarkable things about it is that it never spoils. It may crystallize, meaning that it becomes solid in parts, but simply warming it slightly will melt the crystals and return the honey to its liquid form.

⁵ No one knows exactly how long honey has been used by humans, but Spanish cave paintings dated at 7000 BC show early evidence of beekeeping. Honey was also used by the ancient Egyptians as a sweetener, as a gift to the gods, and even as an element in embalming fluid used to create mummies. Honey has been found inside the Egyptian pyramids, and although that honey was more than 3,000 years old, you could dip your finger in it and take a lick. It would still taste like honey, and it would still be safe to eat. No other food has such lasting power!

⁶ In addition to its many uses as a sweetener, honey has been used for centuries as a medicinal remedy. Because it's very difficult for any kind of bacteria to survive in honey, it makes a perfect barrier on cuts and can prevent infection. Honey is also an effective remedy to soothe a sore throat. It has even been found to be as effective in suppressing coughs in children as an over-the-counter cough suppressant.

⁷ Another use for this remarkable natural substance is in skin and hair products. People have long known that honey is a humectant, which means that it attracts and retains moisture, in addition to being antimicrobial. This makes it a perfect ingredient in lotions, soaps, lip balms, and shampoos. You can purchase many personal products containing honey, or you can try your hand at making your own. Many recipes are available online, and some are as simple as blending together two ingredients, such as honey and olive oil, to make a deep conditioning treatment for your hair.

⁸ The next time a bee buzzes through your garden or you drizzle some honey on a piece of toast, think about the miracle of honey. It's one of the most perfect foods on the planet completely natural, made in exactly the same way for millions of years.

Ι.	How does the author of this selection feel about honey? Support your answer with examples from the selection.
2.	In the selection, what example does the author give of how you can make your own hair conditioner?
3.	Honey is the only food that humans eat that is made by an
4.	Give two examples of how honey was used in ancient times.
5.	Explain the relationship between the color of honey and its flavor.
6.	In what medicinal way can honey be useful?
7.	Honeybees gather nectar from about two thousand flowers in order to make a pound of honey. Is this statement true or false?
8.	After reading this selection, are you likely to try using honey in any new ways? Explain.

Summer of the Bees

How does a summer away from home change Catalina forever?

¹ Catalina stood in the open doorway at the back of the shop and stared across the wide green field of clover. At the farthest end of the field were the stacked beehives, looking like a line of sugar cubes running along the edge of the woods. The white hives were slightly blurry, but Catalina knew by now that it was clouds of bees swarming that made the hives look fuzzy, and not simply the distance. She sighed and turned to head back into the shop, hardly believing that the summer was already over.

² In the front room, Aunt Josefina was rearranging a display of beeswax candles and honey scented soaps. She looked up as Catalina came in and then frowned at the expression on her niece's face. "Oh, sweetheart," she said, "you look so sad. We've had such a beautiful summer working together, and you've been such an enormous help. Besides, your family missed you terribly, and they can't wait to see you."

3 Catalina nodded and managed a small smile, but she could feel the tears trying to escape from her eyes. Aunt Josefina was right; it had been a great summer. In fact, it had been the most fantastic summer of Catalina's life, and it couldn't have come at a better time. The end of the school year had been a disaster. She had gotten into a fight with another girl, and if it hadn't been so close to the end of the year, she probably would have been suspended. Catalina had been sure her parents would ground her for the entire summer, so she was incredibly surprised when they suggested a different idea: Catalina would spend two months in the country with her Aunt Josefina.

⁴ Instead of being stuck in her room all summer, Catalina's parents had driven her three hours north to the little town where her aunt lived, and she had spent the summer helping run Josefina's Candle Shop. Aunt Josefina kept her own bees—thousands and thousands of them and she gathered the honey and beeswax to make candles, soaps, lotions, candies, and other products she sold in the shop. Catalina learned how to roll beeswax candles, melt the wax to dip candles, use molds to make soaps, run the cash register, wrap gifts, and package up goods to be shipped all over the country. She had even gotten to dress in the beekeeper's outfit and gather the honey herself.

⁵ When she wasn't working, she had explored some of the other stores in town and befriended a couple of the other shopkeepers. She also loved exploring the trails through the woods circling the clover field behind the shop. It really had been a perfect summer—and now it was over.

⁶ Catalina knew she had changed. She had started the summer feeling like a troublemaker who couldn't handle life. But away from those troubles, Aunt Josefina had treated her like an adult for much of their time together. They had worked side-by-side, like two grown-up friends chatting away as they completed the day's chores. Catalina had even managed the shop by herself a few times when her aunt needed to run errands. Her confidence grew all summer, and now she would head into high school with a completely new attitude.

⁷ The little bell hanging on the shop's front door jangled, announcing a customer coming in, but when Catalina looked over to the entrance, it was her mom and dad who stood there smiling. Behind them, her brother, Luiz, held the hand of her baby sister, Valeria. Catalina stared in amazement: Valeria was walking!

⁸ Catalina ran over and hugged each of them. She suddenly realized that as great as the summer had been, she was ready to go home.

^a Her mom said, "Goodness, Cat! You look like you grew a foot taller!"

¹⁰ "Naw, I just feel like I did," Catalina replied, "and I guess it shows."



Spectrum Reading Grade 8

- I. Why did Catalina spend the summer with Aunt Josefina?
- 2. Catalina is sad that the summer is over, but by the end of the story, she is ready to go home. Why? 3. Which of the following statements best describes the story's theme? Place a checkmark on the line of the best answer. ____ Sometimes running away from a problem is the best solution. Hard work and a sense of responsibility can help build self confidence. _____ Before others can help you, you must first help yourself. Hard work is its own reward. **4.** Complete the sentence below to identify the simile in paragraph 1. ____ are compared to _____ 5. Personification is when an object or animal is described with human characteristics. Identify the example of personification in paragraph 3. 6. The author chose not to explain why Catalina got into a fight. Do you agree with this decision? Why or why not? 7. Do you think it was a good idea that Aunt Josefina left Catalina in charge of the store a couple of times? Why or why not?
- 8. Who are the adult friends in your life? What are the benefits of these friendships compared to friendships with your peers?

Reread the lines in paragraph I from "The New Colossus" that appear on the Statue	I. How are Chantale's and Mrs. Jean-Louis's feelings at the beginning of the story different?
of Liberty. If you were a new immigrant to this country, would this poem make you feel welcomed? Explain.	Chantale was uncomfortable because she had to translate
Answers will vary.	for her mother. Mrs. Jean-Louis was worried because
	she didn't believe that her son would ever be able to
	immigrate.
	How does Mrs. Jean-Louis change during the course of the story?
	· · · · · · · · · · · · · · · · · · ·
How are the backgrounds of immigrants today different than they were 50 years ago?	By the end of the story. Mrs. Jean-Louis has hope again.
Fifty years ago. most immigrants came from Europe. Today,	She believes she will be reunited with her son.
people immigrate to the U.S. from all over the world	3. If the story continued, what do you think would happen next?
What does the word controversy mean in paragraph 7? Possible answer: a long	Answers will vary.
discussion about an issue for which there are differing opinions	
Why would someone seek asylum in the U.S. as a refugee?	
A person might seek asylum in the U.S. if they were in	4. Which of these best describes the main idea of the story?
danger in their home country.	A Haitian-American girl named Chantale is bothered by having to translate for
Do you think the author does a good job of showing both sides of the controversy	her mother.
surrounding immigration? Use examples from the text to support your answer.	A young Haitian man loses his wife and son in an earthquake.
Answers will vary.	A Haitian woman and her daughter visit the Office of Immigration to find out how to help the woman's adult son immigrate to the United States.
	5. This story is told from the narrator's point of view. How do you think it would be different if it were told from Mrs. Washington's point of view?
	Possible answer: The reader might learn more about how
Do you know the immigration history of your family? Tell what you do know, including	she is feeling and what she is worrying about. The reader
where your family came from and when they arrived in this country. If you do not know anything about your family's immigration history, explain how you could find out.	might also get a better understanding of her character.
Answers will vary.	6. Do you think that immigrants should be allowed to petition for family members to come to the United States as permanent residents? Why or why not?
	Answers will vary.
3	5

 Name one way in which Alexander and Leonardo are different and one way in which they are similar. Possible answer: The boys speak different languages (Spanish and English), but they both love playing soccer. 2. Give two examples of ways that the boys found to communicate with one another. Possible answer: They used gestures to communicate, and they used a Spanish-Énglish dictionary. In paragraph 5, it says that "Alexander could strike up a conversation with a goalpost." What does this mean? What does it tell you about Alexander's personality? It means that Alexander finds it easy to have a conversation with anyone. Possible answer: It tells the reader that Alexander is friendly and outgoing. How do you think Leonardo feels when he first meets Alexander? Use examples from the story to support your answer. Possible answer: Leonardo feels shy and a little nervous. The author tells us that he "smiled shyly" and "shook his head" and "looked uncomfortable." 5. On the lines below, write a brief summary of paragraph 3. Alexander loved playing soccer more than anything, but he didn't have anyone to play with. 6. In paragraph 12, what does pantomimed mean? acted out Tell about a time when you used something other than spoken language to communicate with someone. Answers will vary.

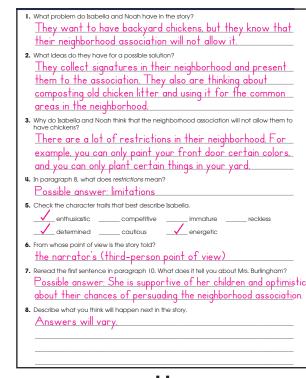
- I. In paragraph 1, what does the author mean by saying that Ellis Island was "a beacon of hope"? Possible answer: Ellis Island was a sign that immigrants had arrived in America and could start the new life they dreamed of.
- 2. How was the experience of third-class passengers different from first- and second-class passengers?
 <u>They often had to wait much longer onboard the boats</u>

once they arrived in America. They ended up having to go through longer, more in-depth processing.

 Do you feel that it was fair or just for officials to detain passengers who were thought to be weak or iii? Why or why not?
 Answers will vary.

- 4. What were Ellis Island and the Statue of Liberty a sign of for immigrants? Possible answer: They were a sign of freedom and opportunity.
- Even if a passenger did not pass the health inspection, he or she would not be sent home. Is this statement true or false?
 false
- 6. What was the author's purpose in writing this article? to inform the reader about the experience of immigrants who passed through Ellis Island

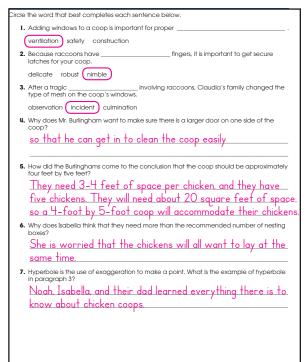
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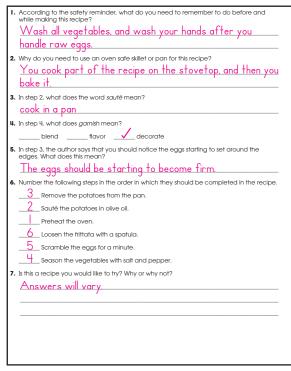
 What purpose would a reader have for reading this selection?
to form an opinion
for entertainment
to learn how to care for chickens
2. What is the climax, or high point in this story?
The climax occurs when the hawk dives toward the
chickens.
3. On the lines below, write one cause from the story and its effect. Possible answer:
cause: The Burlinghams put marbles in the waterer.
Effect: <u>The chicks don't drown</u>
4. Do you feel like the Burlinghams were well equipped to deal with their new chicks? Why or why not?
Answers will vary.
· · · · · · · · · · · · · · · · · · ·
 How did Isabella and Noah convince the neighborhood association to allow them to raise chickens?
They went to a neighborhood association meeting and
presented their petition.
6. On the lines below, write a brief summary of the story.
Possible answer: Noah and Isabella get their chicks and learn
how to raise them, but they have a scary run-in with a hawk.
 Based on the information you've learned in this story, do you think you would like to raise chicks? Explain your answer.
Answers will vary.

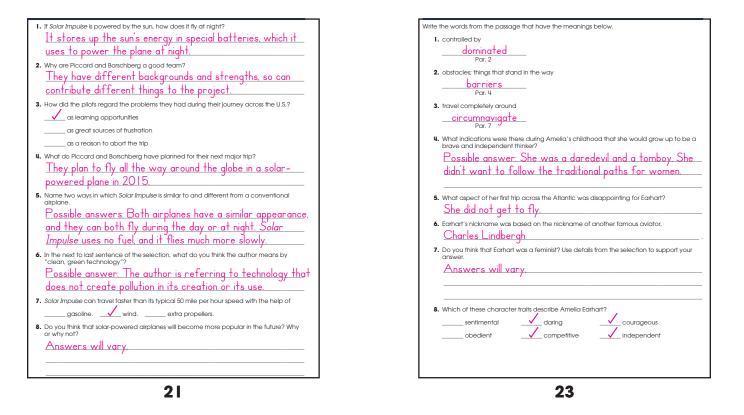
11.	In the first experiment, what causes the eggshell to dissolve?
	white vinegar
2.	In the first experiment, what holds the egg together after the shell has dissolved?
	the egg's membrane
3.	In the directions for the egg drop experiment, what does the word <i>devise</i> mean?
	<u>create</u>
4.	On the lines below, write o or sible answer: om the selection.
	cause: <u>Place an eqq in a bowl full of vineqar.</u>
	Effect: <u>The eggshell will dissolve completely. leaving a "naked"</u> egg.
5.	Describe what you need to do to prepare the experiment in which you walk on eggs.
	You need to place a garbage bag on the floor and then
	<u>arrange the egg cartons into two rows of three. Make</u>
	sure all the eggs are pointing in the same direction.
6.	What was the author's purpose in writing this selection?
	to persuade the reader to use eggs in new ways
	to instruct the reader in how to perform experiments with eggs
	to entertain the reader with funny uses for eggs
7.	On the lines below, summarize the directions for the Great Egg Drop.
	Possible answer: Try to create a system to protect an
	egg from a drop of four feet.
1	
	If you performed the egg drop experiment, describe what sort of a system you would create for keeping your egg from breaking.
	Answers will vary.
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1	



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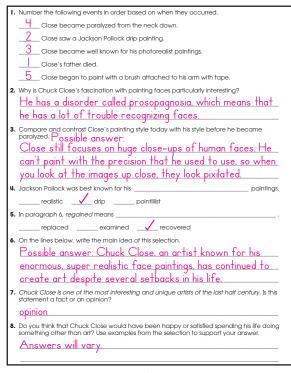


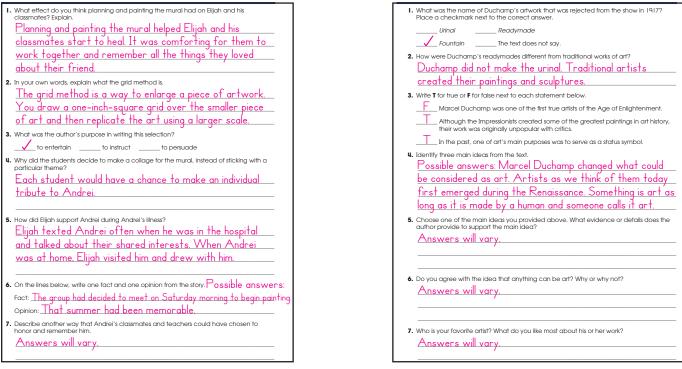
I. What is the main idea of this selection? Amelia Earhart was rumored to be spying on the Japanese at the time of her disappearance _____ The search for Amelia Earhart's plane and details of her disappearance has continued over seven decade Amelia Earhart may have been a castaway on Nikumaroro Island. 2. What signs of castaways have been found on Nikumaroro Island? Possible answer: There has been evidence of campfires, including many animal bones. Over one hundred artifacts have been found, including a jar that may have held freckle. cream Amelia used. 3. How is a rumor different from a fact? Possible answer: A rumor may or may not be true. A fact is known to be true 4. How has improved technology affected the search for Earhart's plane? Possible answer: Searchers have been able to use sonar <u>images to detect what they believe to be Earhart's plane.</u> <u>New technology offers a better chance of finding the plane</u>. 5. In paragraph 5, what does uninhabited mean? not lived in 6. Which of these is NOT one of the artifacts found on Nikumaroro Island? _buttons ____ a photograph __ ___ a jar Why do you think people continue to search for Earhart's plane so long after her disappearance? Answers will vary.

What problem does Savannah have in this selection, and how does she solve it? Provide two possible reasons why Victor and his father are attending the air show Savannah is going to have to fly on a plane with her family. Possible answers: They thought the air show would be entertaining. and she is frightened of flying. She solves her problem by Victor thinks he might someday like to try aerobatic flying. talking with a friend, who suggests that her mother might 2. Why do Victor and Mr. Robinson wait a few minutes before approaching the pilot? <u>be helpful in overcoming her fear.</u> They want to let the crowd die down before trying to talk to the pilot. 2. On the lines below, write one cause from the story and its effect. Possible answer 3. What three reasons are given by Stuart Tucker to explain why he does not feel sick after flying? cause: Savannah tells her friend Durya what she has been worrying about. He has a lot of experience flying. He is concentrating on flying Effect: <u>Effect</u>: <u>Durya suggests that Savannah talk to her mom, who h</u>as overcome a tear of flying **3.** In paragraph 9, what does *conquering m*ean? the plane and doesn't notice the motions of the plane. He knows where to look when he is flying upside down or spinning. winning the fight Complete the following sentences to identify a simile in the first paragraph and a metaphor in the second paragraph. 4. What does Savannah need in order to make her feel comfortable flying? How is this similar to the way she faced other challenges? In paragraph 1, <u>the smoke trail</u> is compared to <u>cursive writing</u>. <u>Savannah needs to understand how the plane works and</u> In paragraph 2, <u>the sky</u> is compared to <u>an ocean of blue</u>. what to expect on the flight. She has been able to face 5. What does Stuart Tucker compare aerobatics to? Why? other challenges in life when she knows what to expect. <u>He compares aerobatics to gymnastics, because both require</u> 5. What is the main idea of this passage? a lot of preparation. Every move is choreographed, and each Mrs. Das was fearful of flying before she moved from India to the United States step in the performance leads to the next step. Savannah is going to be spending time with her cousins in North Carolina over the 6. What does Victor want to do on his next birthday? Durya and her family help Savannah overcome her fear of flying before a He wants to fly with Stuart Tucker. summer trip to North Carolina 7. Why does Mr. Robinson think it would be best to serve cake after Victor gets his birthday 6. Do you think that Savannah will confide in Durya the next she has a problem? Why or why He thinks Victor might get sick during the flight. <u>Answers will vary.</u> Imagine attending an air show event. Write three adjectives that would describe the experience. Possible answers: ___exciting____ dangerous ____ 7. Describe a situation that made you feel fearful or anxious and what you did to overcome 9. Describe a performance you have attended in which the performers demonstrated Answers will vary. Answers will vary. 27

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crowded





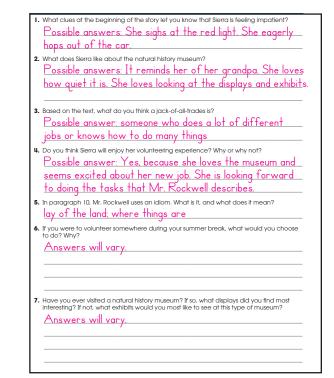
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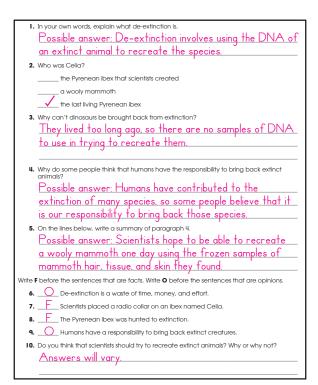
 Check the line beside the word or words that best describe what type of nonfiction passage this is.
how-to
informational text
persuasive text
 Is it likely that fossilized dinosaur bones will be discovered at the La Brea Tar Pits? Why or why not?
Possible answer: No, it's not likely because the fossils
found there are of animals that lived about 50,000
years ago, while dinosaurs lived 65 million years ago.
3. Paleontologists have found more remains than any other animal.
dire wolf saber tooth cat coyote
 Name one cause and its effect from the selection. Possible answers:
cause: <u>Small animals would become trapped in the tar pits.</u>
Effect: Larger animals would come to feed on them and become trapped, too.
5. Describe what Project 23 is.
Project 23 involves fossil remains that were found when
<u>a new parking garage was being built. There are 23 boxes</u>
that the scientists need to sort through, identify, and
catalog.
 Excavating fossils is very different today than it was 100 years ago. Is this statement true or false?
false
7. How do you think the author feels about the discoveries in the La Brea Tar Pits? Cite
examples from the selection to support your answer.
Answers will vary.

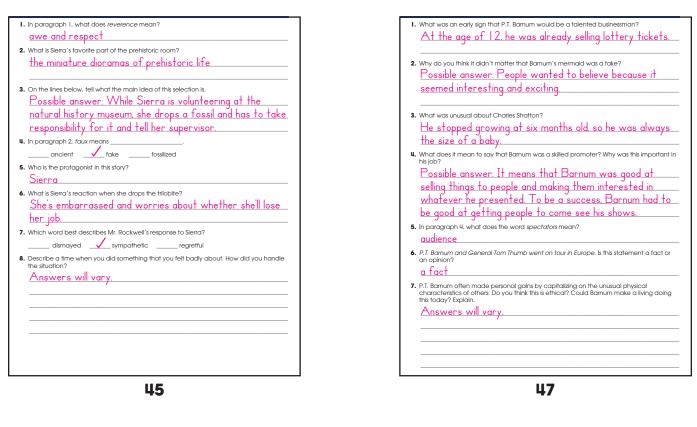
- I. Why do you think it is important to bring a notebook on a fossil hunt and record information about your find in it? <u>Possible answer: Experts may be able to learn more about</u> your find based on its location, the rocks around it, etc.
- In paragraph 5, the text says that quarties, cliffs, and road cuts are good places to look for fossils. Why do you think this is?
 Possible answer: These are places where layers of rock are exposed, so you may be able to see fossils that other wise would be hidden.
- Paleontologists work exclusively in the field. Is this statement true or false?
 false
- 5. Explain why the author says that paleontology can be both exciting and painstaking work. Possible answer: It is exciting because you always have the potential to find something new and interesting. It can be painstaking because uncovering fossils is often slow and precise work.
- 6. According to the selection, assembling a dinosaur skeleton can be like doing a puzzle.
- 7. How does knowledge of biology make the process described in question 6 easier? Possible answer: If a scientist is familiar with the biology and anatomy of other animals, that knowledge can help him/her figure out how to assemble a skeleton.
- 8. After reading this selection, do you think you'll ever try fossil hunting? Explain. Answers will vary.

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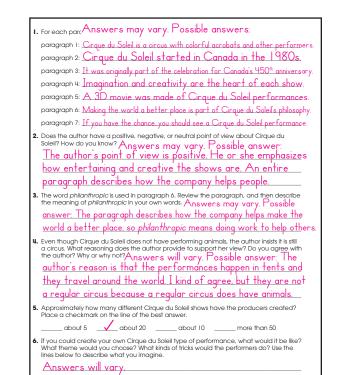




I. What acrobatic feats does Christian perform in the story?
He walks on a tightrope and juggles.
 Which of the following does NOT describe a possible theme for this story? Place a checkmark on the line of the best answer.
love and understanding among family members
the importance of traditions
the risks and dangers of a life in the circus
following your dreams where they lead you
3. Do you think Mr. Tennenbaum is disappointed in Christian? Why or why not? Include details from the story in your answer. Answers will vary. Possible answer: I do not think Mr. Tennenbaum is disappointed in his son. The story
describes him as looking sad, but I think that is because he can see
that Christian isn't happy. Mr. Tennenbaum is also the one who
gives Christian the chance to live in a place other than the circus, so he is trying to support his son. 4. At the beginning of the story, why is Christian staring up at the pernant waving above the main tent? He needs to look somewhere other than down at the tightrope because that helps him concentrate and keep his balance.
5. What does Christian juggle? Place a checkmark on the line of the correct answer.
knivesballspinsoranges
6. Why is the decision Christian must make so difficult for him?
Answers may vary. Possible answer: If he leaves the circus, he won't get to see his family very often; if he stays, he won't find out what it's like to do something other than be part of the circus. 7. Make a prediction about the choice Christian will make, and justify your prediction with
evidence from the text.
Answers will vary
 What traditions do you have in your family? Are they traditions you will continue following as an adult? Why or why not? Answers will vary.

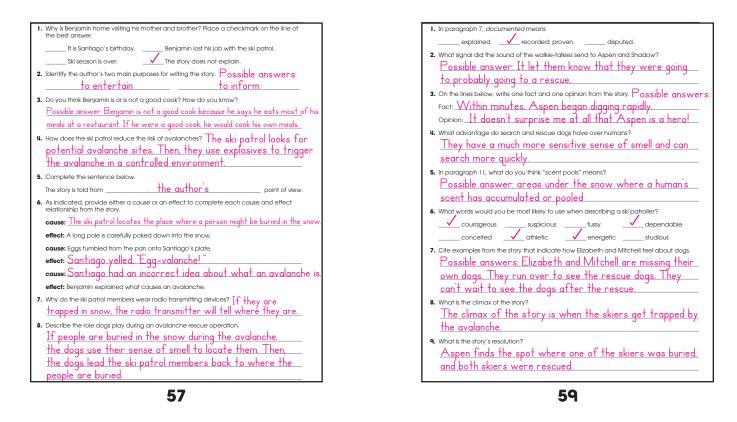
I. What is the purpose of an editorial piece in a newspaper?
Possible answer: It gives the author a chance to share his
or her views about a topic.
 How is what Franny expected to write for the paper different than what she actually ended up writing?
Possible answer: Franny thought she would just be reviewin
the circus, but she had no idea that she'd end up writing a
piece trying to persuade people to not attend the circus.
3. In paragraph 4, apprehensive means
anxious exhausted excited
4. Check the character traits that describe Franny.
compassionate reckless gullible
determined careless responsible
5. On the lines below, write a summary of paragraph 5. Animals tend to be mistreated in all the major circuses.
6. In paragraph 6, what does "Our dollars can be their voice" mean?
Possible answer: People can make their opinions known by
choosing what to support, or not support, with how they
spend their money.
 7 Do you think that Franny will want to continue writing editorials for the paper? Why or why not?
Answers will vary.
1
 Have your views about circuses changed as a result of reading Franny's editorial? Explain.
Answers will vary.
/

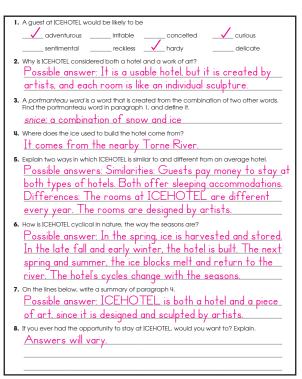
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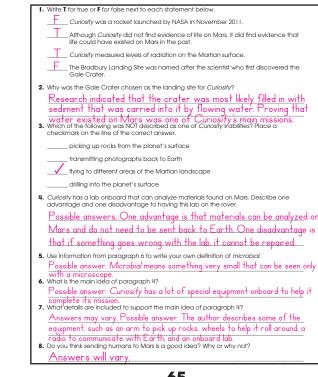
53

I. In the selection, the author uses an analogy to compare two things. What are they? an avalanche and the way accumulated snow slides down the windshield when it gets warmer inside the car 2. How does the analogy add to your understanding of avalanches? Possible answer: The analogy gives me something concrete and familiar to picture, which makes it easier to understand how an avalanche works. 3. The three elements necessary for avalanche formation are: <u>a sloped surface</u> <u>a trigger</u> snow 4. What is snowpack? Snowpack refers to layers of accumulated snow. 5. Where is an avalanche more likely to occur—in a wooded area or on open terrain? Why? An avalanche is more likely to occur on open terrain, because there are no trees to help buffer the snow and keep it anchored. 6. Is the author presenting a particular point of view in this selection, or does he or she just present the facts? Possible answer: The author just presents the facts. 7. What can create a weak layer in snowpack? Snow crystals that do not create a strong bond can create a weak layer, as can dramatic changes in temperature. 8. Do you think that skiing or snowboarding in avalanche-prone areas is too risky? Explain. Answers will vary.





L.	What is the hypothesis (or what she wants to prove) in Jessica's experiment?
Ľ	
L	Jessica's hypothesis is that foxglove will grow more
	quickly in a reduced-gravity environment.
2	How does Jessica's attitude about the contest change between the beginning and end of the story?
	At the beginning of the story, Jessica was excited but didn't
	think she would have a chance of designing an experiment in
	time. By the end of the story, she felt proud and confident
	that her experiment had a chance of winning the contest.
3	Why does Jessica decide to use foxglove in her experiment?
	Her mother grows it, and it is used in treating heart patients.
cle	the word or words that best complete each sentence below.
4	Jessica was a little some of the more technical words in her research.
	invigorated by appreciative of intimidated by
5	The goal of NASA's poster was to the contest.
	publicize eradicate eliminate
6	Jessica an experiment to test the rate of growth of foxglove plants in space.
	rejected duplicated designed
7	Why does Mrs. Butcher laugh when Jessica says, "You've given me the seed of a thought"?
1	<u>Jessica has made a play on words. A seed of a thought is the</u>
	beginning of an idea, and her experiment will use plant seeds.
8	Why is Jessica's experiment well suited to being performed in space?
ľ	Jessica's experiment requires an atmosphere of reduced
	gravity, so space is an ideal place to test it.

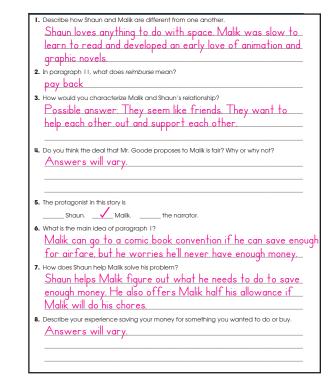


- 65
- According to Ms. Farrow, what should you study in college if you want to become an astronaut? Why? You should study whatever field you most enjoy because then you will be passionate about your work. Astronauts often have varied backgrounds in the sciences. 2. Who is the protagonist in this story? <u>Ms. Farrow</u> 3. Reread the second line of dialogue in paragraph 6. What does this line tell you about Ms. Farrow? Possible answer: It tells the reader that Ms. Farrow is thoughtful. She is also proud of the work she does and humans' progress in learning about the universe. 4. On the lines below, write a summary for paragraph 10. NASA has to carefully screen astronauts for health issues because of limited access to treatment in space. 5. This selection is written almost as an interview with Ms. Farrow. Did the author's choice of style work for this story? Why or why not? Answers will vary. 6. In paragraph 8, Ms, Farrow says, "It seems a bit arrogant to me to think that our sun and planet Earth are the only ones that can support life." What do you think she means by this? Possible answer: The universe is so big it seems unlikely that only Earth could support life. Maybe she thinks it would be arrogant because it implies that humans are so special that there could be nothing else like us. 7. If you were able to ask an astronaut one question, what would it be? Answers will vary.

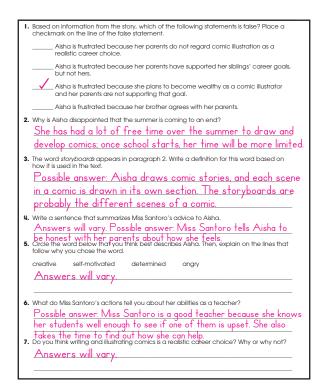
- I. What foods did explorers in the simulated Mars habitat most miss during their experiment? I. Write a short paragraph summarizing the plot of the story. Markus, his sister, and his fresh fruits and vegetables father are traveling to a colony on the Moon to be with their mother. Marku 2. Why do you think the seeds will not be planted directly on the moon? does not want to make the move, and he already misses Earth terribly. Possible answer: They would not have a chance of After arriving at the colony, Markus is surprised and happy to run into an old classmate who has lived at the colony for a while and will show him around. surviving in the moon's harsh atmosphere. How is the ability to grow plants on the moon related to the concept of humans someday living on the moon? 2. Identify two aspects of the story that are fantasy. Possible answers: Families traveling in space. People living Possible answer: Plants and humans need many of the on the moon. same things to live. If plants can survive, humans might one 3. Identify two aspects of the story that are realistic. day have a chance of living there too. Also, the plants can Possible answers: A family moving to a new place. provide food for humans living on the moon. Markus's feelings about leaving the home he knew best. 4. In what way do plants provide psychological comfort for humans? 4. Complete the sentence below to identify the simile in paragraph 5. They can remind people of home and the atmosphere on Earth ____ is compared to _ a jewel Earth. For most of the story, how does Markus feel about moving to the Moon? Identify words or phrases used by the author to show you how Markus feels. inform 5. The author's purpose in writing this selection is to _____ 6. What three main elements do the canisters contain? For most of the story, Markus is very unhappy about the move. The author uses words and phrases such as: grim, desolate, leaving Earth was nutrient-rich paper. air. and water 7. On the lines below, write a summary of paragraph 2. tough, breaking down into tears, emptiness of space, lifeless, and so on. Explorers living in a simulated Mars habitat missed fruits 6. How does Markus feel about the move at the end of the story? How does the author show you Markus's feelings at the end? and vegetables more than any other food. Markus is relieved to find someone he knows already living at the colony. The author shows how he feels by writing Markus smiled. 8. If this first lunar garden is successful, what do you think will happen next? 7. What does the main area inside the colony remind Markus of? Place a checkmark on the Answers will vary. line of the correct answe _____airport ______ mall ______office building ______ cafeteria 8. Describe a time when you were new to a place or an activity and someone helped you feel more comfortable Answers will vary. 69 71
 - I. What metaphor does the author use to describe how Penelope feels? The author describes a cloud hanging over her mood. 2. Why is this the last Spring Days festival Penelope will get to attend? She will be moving on to the high school in the fall. 3. Why is Penelope working at the bottle rocket booth? Penelope and her science classmates are manning the booth as part of a unit on rockets. 4. The school did not allow the students to launch the rockets they designed in class. However, they are allowed to launch the bottle rockets. Explain why. The rockets they designed in class were going to be launched using something flammable, like rocket fuel. The bottle rockets are launched using air pressure, so they are safer. 5. Why do you think students need permission slips to view Ms. Salamanca's rocket launch? Her rocket will be bigger and most likely launched using something like rocket fuel. There is some risk, so parents would need to give permission. 6. Why does Penelope's mood change at the end of the story? <u>She realizes someone else is going to the same high school, so she</u> won't be alone, and he assures her that they will hang out together What words does the author use to describe Emily's bear? Do these words have a positive or negative connotation? goofy and garish: negative 8. Write a sentence summarizing the text. Possible answer: During her school's Spring Days festival. Penelope feels some sadness about heading off to high school, but she feels better when she finds out an acquaintance will attend the same schoo 9. How do you or would you feel about starting at a new school? How could you make the transition easier for yourself? Answers will vary.

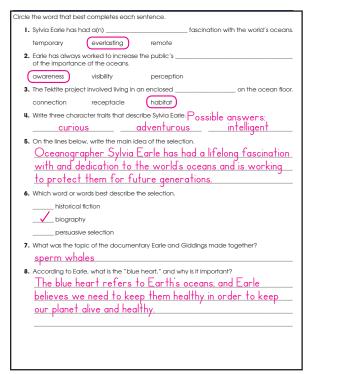
w do Japanese anime characters reflect Japanese culture?	
<u>They are flawed, but they strive for perfection, whi</u>	<u>ch rel</u> ates
<u>o the pressure to succeed in Japanese education ar</u>	nd culture.
w was manga different in the years leading up to World War II than it was in th lowing the war?	e years
n the years leading up to the war, the government	
vanted artists to show only positive aspects of Jap	oan.
<u>\fter the war, there was more freedom, and artist</u>	S
ould draw what they wanted to.	
e author's purpose in writing this selection was	
to persuade the reader that Japanese animation is superior to Western animation.	
to entertain the reader with humorous accounts of Japanese animation.	
to inform the reader about Japanese anime and its history.	
paragraph 8, what does exaggerated mean?	
nade larger or greater than normal	
nat is the significance of hair color in anime?	
lair color gives the reader information about the	
haracter's personality.	
ite T for true or F for false next to each statement below.	
${\sf F}_{\sf I}$ In anime, trustworthy characters are drawn with very small eyes.	
E Anime began years before manga did.	
Japanese anime was influenced by the style of Walt Disney.	
Anime is enjoyed by children and adults.	
ive you ever viewed any anime? If not, are you more likely to after reading this ection? Explain.	;
Answers will varv.	

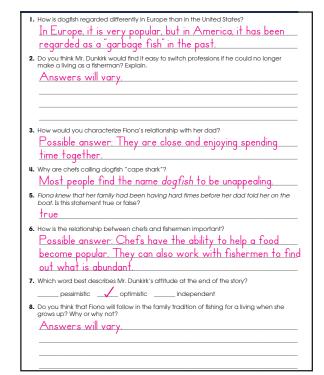
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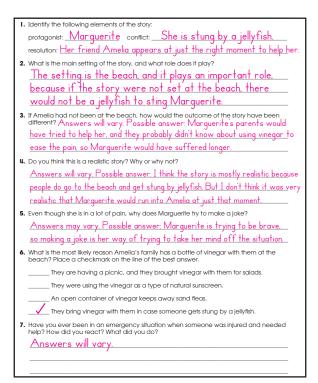
١.	How are a running marathon and a swimming marathon similar to one another?
	Possible answer: Both are long distance events, and they
	both require the athletes to have built up a great deal of
	endurance.
2	Why does Cameron wear a skin lubricant during a distance race?
	It keeps his body from chafing, keeps him warmer, and wards off jellyfish stings.
	wai as orri jeliyrish shings.
	Based on the selection, what are three character traits you could use to describe
3.	Cameron? Possible answers:
	athleticdeterminedfriendly
4.	Vijay is surprised to hear that live in Lake Erie.
	jellyfish sharks stingrays
5.	Sometimes, authors have more than one purpose in writing. For this story, entertainment is
	one purpose. What is the other?
	informing the reader about long-distance swimming
6.	Do you think that Vijay will train for a long distance swimming competition with Cameron next time? Explain.
	Answers will vary.
	/
7.	Have you ever participated in any kind of race? If you have, describe your experience. If you haven't, explain why you would or would not like to compete in a race in the future.
	Answers will vary.

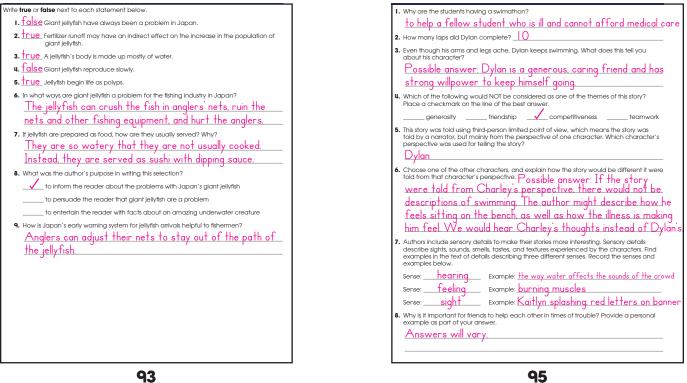
- I. What were Nyad's greatest problems during her attempted swims of the Straits of Florida? Possible answers: strong currents throwing her off course. an asthma attack. and jellyfish stings
- Nyad attempted to swim from <u>Cuba</u> to <u>Florida</u> four times before she was successful.
 Why do you think Nyad chose not to use the shark cage after her first attempt? <u>Possible answer: The waves kept tossing her against the cage during her first attempt. She might not have liked the feeling of being caged.</u>
- What are two of the messages Nyad wanted to communicate to people through her swimming? Possible answer: She wanted people to know that they can follow their dreams and they are never too old to try.
- to reach their goals. 5. What three adjectives could you use to describe Diana Nyad? Possible answers:
- persistent
 brave
 determined
- What sort of protective equipment all typed use during mersurins? <u>Her team used an electronic shark repellant. She used</u> <u>a nylon body suit, a mask, gloves, and booties to protect</u> <u>herself from jellyfish stings.</u>
- 7. Do you think that athletic heroes like Nyad are a useful inspiration to everyday people? Why or why not? Answers will vary.
- Tell about an experience you've had when you wished you could quit but instead you kept going.
 Answers will vary.

87

	ne word in each paragraph that matches the definition.
Ι.	an assignment, task, or job
	mission Par. 3
2.	systems made up of living things that interact with each other and their environment
	ecosystems Par. 4
3	a lessening
•	decrease
	Par. 5
4.	What causes "the bends"?
	the differences in pressure deep underwater and at the
	surface
	Aquarius is currently located off the coast of Florida
6.	What kind of research can aquanauts do on the nearby coral reef?
	Possible answer: They can closely observe the reef and
	its inhabitants over time. They can assess the damages
	pollution and determine ways to protect the reef.
-	Would you enjoy spending time in an undersea research station like Aquarius? Why or
<i>'</i> .	why not?
	Answers will vary.

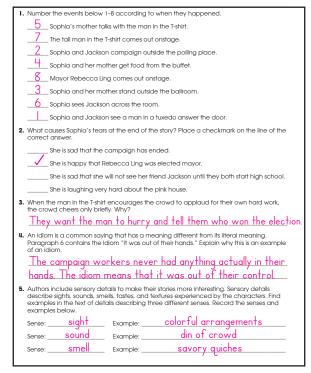






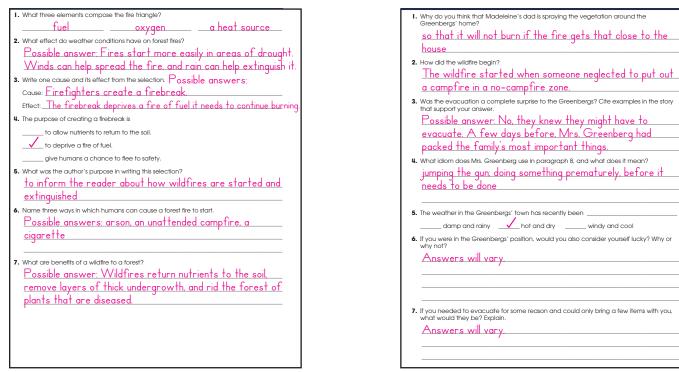






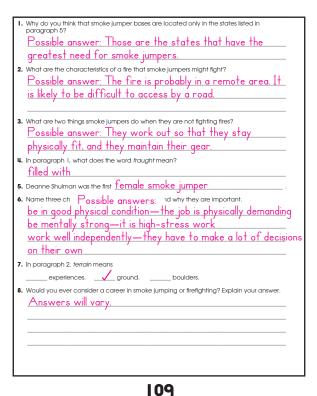
I. Number the following items in order based on when they occurred.	1. Label each statement below as O if it states an opinion or F if it states a fact.
Barack Obama and Joseph Biden ran on the Democratic ticket.	In general, Democrats care more about poor people than Republicans do.
Obama worked as a community organizer in Chicago.	Most Republicans opposed President Roosevelt's creation of government
	programs.
	Republicans are often known as the "right wing" of American politics.
2 Obama was elected to the U.S. Senate.	The Democratic Party supports ideas that are bad for business.
 Why were the Democratic Party nominations for 2008 an important moment in history? 	The best way to get elected is to combine ideas from both parties.
A woman and an African-American man were running for	Independent voters are the smartest citizens because they do not align themselves with either party.
the nomination, and neither women nor African Americans were allowed to vote 100 years ago.	 Which of the following statements is true? Place a checkmark on the line of the true statement.
were allowed to vote 100 years ago. 3. What financial troubles was America having when Obama became president?	The Republican Party was founded by people who opposed slavery.
America was in the midst of the areatest economic	Abraham Lincoln was the first Democrat elected to the presidency.
recession since the Great Depression.	The donkey was chosen as the symbol of the Democratic Party because of its intelligence.
4. In what two places was Obama raised?	Republicans believe the government should play a strong role in people's lives.
IndonesiaHawaii	3. Why did Republicans oppose the New Deal?
5. What political experience did Obama have before he ran for president? He served in the Illinois State Senate and the U.S	Roosevelt's New Deal programs greatly increased the size and scope of government. Republicans believe government should be smaller and
Senate.	limited in its power, so they opposed Roosevelt's ideas. 4. Reread the final two sentences in paragraph 2. Based on the information they contain,
Obara's second term in office began in 2012	4. Reread the final two sentences in pardgraph 2. Based on the information they contain, do you think Thomas Jefferson would be a Democrat or Republican today? What about Alexander Hamilton? Explain your answer.
7. Do you think that the 2008 presidential campaign has made it easier for women and	Possible answer: Jefferson's supporters believed that power should reside
people of color to run for office? Why or why not? Answers will vary.	more in local governments than in the federal government, and that aligns mor
7 (liswer's will vary.	with the Republican Party, so Jefferson would be a Republican. Hamilton's
	supporters believed in a strong federal government, and that aligns more with
	the Democrats ideas, so Hamilton would be a Democrat. 5. Jefferson and Hamilton opposed the idea of political parties because they thought
	 Solitical parties would divide the nation. Looking at American politics today, do you think their prediction was right or wrong? Explain your answer.
	Answers will vary.
99	101

I. From what point of view is this selection written?
first-person point of view
2. Which character traits best describe Ian?
mature sentimental disagreeable
gullible articulate concerned
 What is the purpose of Ian's letter?
Possible answer: He wants the president to know the
stories of the real people behind the issues.
4. Do you think Ian presents his case well? Why or why not?
Answers will vary.
· · · · · · · · · · · · · · · · · · ·
5. Why doesn't Ian's family have health insurance?
His mom works as an independent hair stylist, so she does
not have insurance. His dad was laid off and had trouble
finding work. His new job doesn't offer it.
 In paragraph 5, Ian uses an idiom. What is it, and what does it mean?
"We'll cross that bridge when we come to it." It means
that they won't worry about a problem until it actually
becomes an issue.
7. In paragraph 6, reform means
an excuse a plan for change a new presentation
8. In paragraph 5, Ian uses three rhetorical questions. Does he expect the president to answer them? If not, what purpose do they serve?
Possible answer: No. Ian does not expect the president to
answer those questions. They are questions that he is asking
himself, and they are also meant to help drive home his point.



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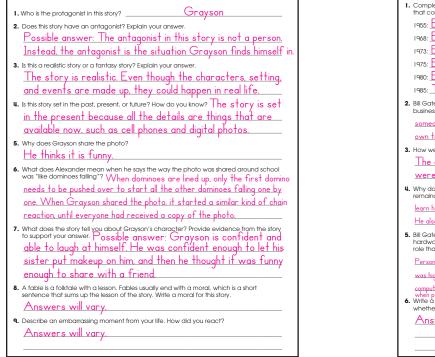
Spectrum Reading Grade 8

	graph 10, the word <i>unscathed</i> means .
	resentful harmed vinharmed
	graph I, what does <i>commiserate</i> mean?
sym	pathize
e F next to	the statements below that are facts and O next to statements that are opinions.
ч	$\ensuremath{^{\circ}\text{We}}$ need to start over someplace where we're not so likely to lose everything again."
5. <u> </u>	It had been exactly two weeks since the Greenbergs had evacuated their home.
6. 🔵	"I doubt that there's anything we'd want to save."
7F_	Neighbors and acquaintances picked through the charred remains of their belongings.
	graph 2, it says that Mr. Greenberg could "find the silver lining in just about any What does this mean?
	sible answer: Mr. Greenberg was good at finding the
posi	tive aspects of any situation.
 Would Explain 	you have made the same decision as the Greenbergs about whether to rebuild?
An	wers will vary.

 For each statement below, write O if it is an opinion and F if it is a fact.
The ARPANET was the most important development in communication to occur during the 1960s.
The introduction of the World Wide Web led to a massive increase in the number of people who used the Internet.
E-mail is a more efficient way to communicate compared to using a phone.
Sharing photos online is the riskiest of all Internet activities.
It is much easier to share a photo online than it is to print copies of the photo and mail them to everyone you know.
2. Describe two ways the ARPANET is similar to the Internet we use today.
Possible answers: The ARPANET and the Internet today both involve
computers sharing information. The ARPANET and the Internet today ar
both used for scientific research. 3. Describe two ways the ARPANET is different from the Internet we use today.
Possible answers: The Internet is used by just about everybody, while the
ARPANET was used mostly by researchers. The ARPANET did not
have Web pages, while the Internet does. 4. Which of the following best describes the author's point of view? Place a checkmark on the best answer.
If the ARPANET had not been developed, we would still be communicating mostly via radios and telephones.
The internet and social media sites provide certain conveniences, but we have also lost some of the privacy we had in the past.
The Internet and, in particular, social media sites are dangerous, and they should be used as little as possible.
If the World Wide Web had not been developed, the Internet would have remained a safer, more private place to exchange information.
5. The author states that the "history of social media is intertwined with the history of the intermet." What evidence does the author provide to support this idea? Is this evidence sufficient to support the author's idea? Possible answer: The author describes how the Internet was developed, and points out that even the earliest e-mails
could be used for social communications, and not just research. Without the
Internet and the World Wide Web, there would not be the kinds of social
media we know today. I think the author does provide sufficient evidence

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I. Write a sentence summarizing the author's purpose for writing this text. Possible answer: The author is sharing important rules for safe and responsible conduct on social media sites. Why do you think the author chose to organize the text as a list rather than a series of paragraphs linked together with transitional phrases? Do you think the author's choice was a good one? Why or why not? Possible answer: The author organized the text as a bulleted list because each section could stand by itself as a separate piece of information. I think this was a good way to organize the information because $\underline{it}\ \underline{isn't}\ \underline{necessary}\ \underline{to}\ \underline{link}\ \underline{the}\ \underline{sections}\ with\ \underline{transitions}.$ Each point the author is trying to make stands out more clearly when shown as a list. 3. Which of the author's suggestions is the most important? Why? Possible answer: I think the most important point is that nothing online is private. All the other examples boil down to this idea: whatever you post will be public, so be careful what you post 4. Why should you avoid writing emotional posts? Emotional posts can hurt others, but they can also hurt your own reputation. In paragraph 2, the author uses the word *navigate*. Provide a definition for *navigate* based on how it is used in the text. Possible answer: to know how to get around a place The author says that being positive and friendly online can have benefits in the real world. Describe a scenario that would support this idea. <u>Answers will vary.</u> Provide two more suggestions of responsible ways to act on social media sites that were not given by the author. Answers will vary



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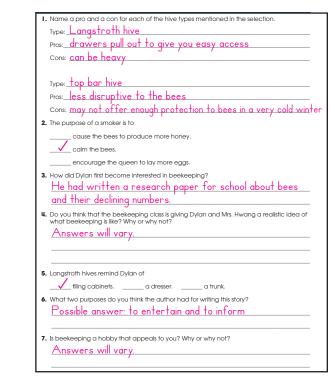
	Complete the time line below by including a description of an event from Bill Gates's life that corresponds to each date. Refer to the text as needed.
	1955: <u>Bill Gates was born.</u>
	1968: <u>Bill Gates was enrolled at Lakeside Preparatory School</u>
	1973: <u>Bill Gates graduated from high school and started at Harv</u> ar
	1975: <u>Bill Gates and Paul Allen founded Microsoft</u>
	1980: <u>Bill Gates developed the MS-DOS computer language</u> .
	1985: The first Windows operating system was introduced.
	Bill Gates did not finish college. Instead, he dropped out of Harvard to start his own business. What does this tell you about his character? Possible answer: Bill Gates was
	someone who was willing to take risk, especially when the risk was based on his
	own talents. He had self-confidence in his abilities as a computer programmer.
3.	How were the computers of the late-1960s different from the computers of today?
	The computers of the late-1960s were huge, and most of them
	were owned either by the government or large businesses.
	Why does the author write that Bill Gates's enrollment at Lakeside "set the course for the remainder of his life"?Possible answer: At Lakeside, Bill Gates had his first chances to
	learn how to program a computer, which would lead to the business that defines his life.
	He also met Paul Allen there, who would later be his founding partner of Microsoft.
	Bill Gates is highly intelligent, and he is a very hard worker. However, most intelligent and hardworking people do not achieve the kind of financial success as Bill Gates. Explain the role that being in the right place at the right time played in Bill Gates success.
	Personal computers were just being introduced to the public in the early 1970s. Bill Gates
	was highly skilled at computer programming and there was a great demand for his skills. Since
	computer software companies were mostly new. Microsoft was there to fulfil the demand when personal computers suddenly took off as a product. Write a short paragiraph describing what you are most passionate about doing in life and whether it is something you can do as a career someday.

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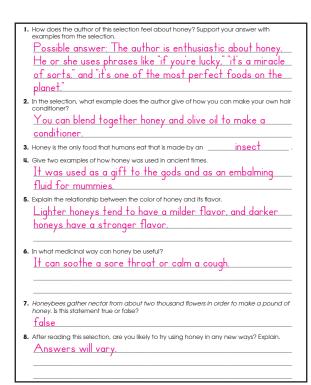
1. What is the conflict, or problem, that needs to be solved in this story? The students need to come up with ways to promote their art show 2. How do the students reach a solution? They work together to brainstorm ideas as a group. 3. Do you think the students' ideas are good ones? Why or why not? $\label{eq:possible answer: I think the ideas are good ones because everyone is online these$ days. Whenever I hear about something that I want to do, the first place I learn about it is almost always through a text or something shared by friend on my phone 4. Why do students need to get permission before displaying their posters? The posters may be taken down if they are displayed without permission 5. What do students plan to give away as part of the promotion for the art show? Place a checkmark on the line of the correct answer. _____a free poster _ a free painting _____ free tickets free art lessons Only four works of student art are shown on the poster. How do you think the class decided which pieces would be featured on the poster? Possible answer: The students might have voted to see which pieces of art were everyone's favorites. The top four pieces were then featured on the poster. 7. Describe one more way the class could promote the art show that was not mentioned in the storv <u>Possible answer: The students could pool their money and </u> buy a radio or TV ad. Make a prediction about attendance at the students' art show. Be sure to explain the reasoning behind your prediction. Answers will vary. 9. Choose a school event or activity, and describe how you would promote it if cost were Answers will vary.

- In paragraph I, the text says that bees are often viewed as a "barometer for the environment." What does this mean?
 Possible answer: Bees can give scientists an idea of how healthy or unhealthy the environment is.
 In paragraph 2, what does *fluctuated* mean?
 gone up and down
 On the lines below, write one cause from the selection and its effect. Possible answers: cause: Changes in weather can affect the growth of wildflowers. Effect: Without sufficient wildflowers, bees may have trouble finding enough nectar
 What makes a solution to the bee crisis difficult to find?
 Possible answer: Experts believe that there are several causes for the decline of the bee populations. Since it is probably not a single cause, it is more difficult to address.
 At the beginning of paragraph 7, the author asks several questions. What is the purpose of these questions?
 Possible answer: These are questions the author wants the reader to consider or thinks the reader may be
 - wondering about.
 What is the purpose of this article?
 to inform readers about the current bee crisis, its causes, and possible solutions
 - 7. Is it better for bees to have a single flowering plant to feed from or a variety? Explain. Possible answer: A variety of plants is better for bees. It offers them more choices, and a variety of plants is less likely to disappear than a single type.

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 Why did Catalina spend the summer with Aunt Josefina? Catalina got into a fight at school, and her parents decided to have
her spend the summer with Aunt Josefina rather than be arounded. 2. Catalink is dat that the summer is over, but by the end of the story, she is ready te go home. Why?
<u>When Catalina sees her family, she realizes how much she</u>
misses them and is ready to go home.
3. Which of the following statements best describes the story's theme? Place a checkmark on the line of the best answer.
Sometimes running away from a problem is the best solution.
Hard work and a sense of responsibility can help build self confidence.
Before others can help you, you must first help yourself.
Hard work is its own reward.
4. Complete the sentence below to identify the simile in paragraph 1.
<u>Beehives</u> are compared to <u>sugar cubes</u>
 Personification is when an object or animal is described with human characteristics. Identify the example of personification in paragraph 3.
<u>Tears are described as trying to escape Catalina's eyes.</u>
6. The author chose not to explain why Cataling got into a fight. Do you agree with this decision? Why or why not? Possible answer: I think the decision was fine, because it does not really make a difference to the rest
of the story. It might have been interesting to know, but the
story wasn't affected by not knowing.
7. Do you think it was a good idea that Aunt Josefina left Catalina in charge of the store a couple of times? Why or why not? Possible answer: I think it was a bad
<u>decision to leave someone so young in charge of the store by</u>
<u>herself. If the wrong person came into the store, what would_</u>
<u>Catalina have been able to do about it? It was not a safe decision.</u>
8. Who are the adult friends in your life? What are the benefits of these friendships compared to friendships with your peers?
Answers will vary.















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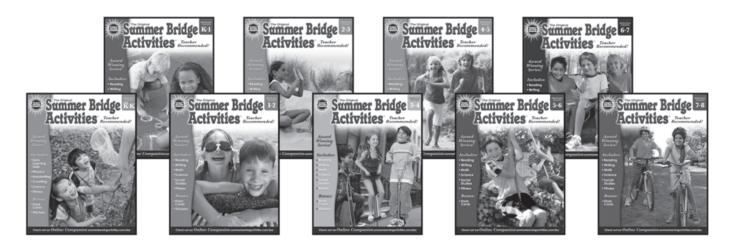
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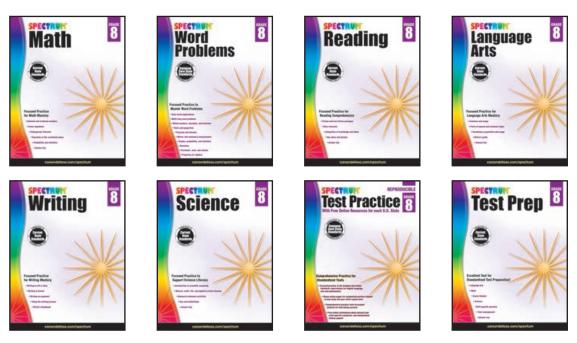
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