6th Grade Language Arts Home Packet

Directions: Follow the directions for each day.

- Reread the text as needed to complete the tasks.
- Write in complete sentences and proofread carefully.
- Use the organizers on pages 2 and 3 to summarize text on Days 2, 3, 6, and 7.
- Use annotation symbols from your ELA class or use the following:
 - ! for surprising
 - o ? for question
 - ✓ = important.

Note: If the text is too difficult, partner with a caregiver or family member who can read the text and questions to you.

 Day 1 □ Read The Industrial Revolution - An Introduction to the Industrial Revolution □ Annotate the text as you read. □ Answer the questions at the end of the article. 	 Day 2 □ Read Could the Futuristic Traveling Tube Become a Reality? □ Annotate the text as you read. □ Write a summary in the organizer below the article. 		
Day 3 ☐ Read Predicting the Future ☐ Annotate the text as you read. ☐ Write a summary in the organizer below the article.	Day 4 ☐ Proofread the summaries written on Days 2 & 3. Revise as needed. ☐ Answer the questions that follow the text and organizer on Day 3.		
 Day 5 □ Read <u>Blue Lightning</u>. □ Annotate the text as you read. □ Answer the questions that follow the story. 	 Day 6 □ Read Pythons Invade the Florida		
Day 7 ☐ Read All the Pieces Matter. ☐ Annotate the text as you read. ☐ Write a summary of the text in the organizer that follows the article.	 Day 8 □ Proofread the summaries written on Days 6 & 7. Revise as needed. □ Answer questions that follow the text and organizer on Day 7. 		
Day 9 ☐ Read Wings in the Dark. ☐ Annotate the text as you read. ☐ Answer the questions that follow.	 Day 10 □ Read <u>Drip-Tips and Other Adaptations in the Rainforest</u>. □ Annotate the text as you read. □ Answer the questions that follow. 		

H	Parent/Guardian s	ignature:	

The Industrial Revolution - An Introduction to the Industrial Revolution

Day 1

Directions Read and
annotate the
article then
complete the
questions at the
bottom of the
article.
Use complete
sentences and
proofread the
written
response
questions.



Leed's Flax Mill during the Industrial Revolution

From about 1750 to around 1830, a revolution started in England and spread to other parts of the world. The revolution had nothing to do with war or revolting against an unjust ruler. Instead, it was a revolution of ideas and industry. The invention of machines instantly changed the way people made goods. It also changed the way people lived and thought. This time of rapid change is known as the Industrial Revolution.

Before the Industrial Revolution, most items people needed were made by hand. Things like clothes, dishes, or furniture, were handcrafted one by one. This took a lot of time and skill. Most craftsmen worked out of their homes. Many lived in the countryside. Towards the end of the 18th century all of this began to change. Machines took the place of skilled labor done by craftsmen. Factories were created to bring together machines and the workers needed to operate them.

One of the most important machines invented during the Industrial Revolution was the steam engine. This machine used steam to power its work. Steam was cheap and much more

ReadWorks®

powerful than horses. It revolutionized transportation and industry. Steam engine trains made it possible to ship products quickly across the country. Machines powered by steam also made goods quickly. All of this reduced the price of products. It became cheaper for people to buy the things they needed to live.

But industrialization also had a negative side. Large factories sprung up in cities. Many people left their farms and rural homes to work in the factories. This movement from the countryside to the cities is called *urbanization*. Industrial cities grew very quickly. In some cases, the population more than doubled. They often didn't have homes for all the new people. Some workers crowded into little shacks near the factories. The quarters were cramped and unsanitary. Diseases spread easily from one person to another.

Workers suffered in other ways, too. Skilled craftsmen who lost their jobs to machines weren't always able to find a new factory job. When they did, they worked long hours and weren't paid well. Women and children were paid even less. They worked up to 14 hours a day, six days a week for pennies a day. There was barely ever time to rest. Factory machines never stopped running. Often, the machines were unsafe. Many workers were crippled and desperately poor. As time went by, however, workers organized into unions. They fought back and forced their employers to improve working conditions and pay.

The Industrial Revolution was a major turning point in history. As it spread to other areas of the world, life in the countryside was replaced by life in new industrial cities. As industry grew and more goods were produced, people's standard of living improved. Today, workers earn more and live longer than before the revolution. Industrialization also caused new problems, however. Factories have polluted the air, land, and water. Most industrialized nations will face these challenges for years to come.



Name:	Date:	

- **1.** All of the following are examples of a Revolution *except for*
 - A. a war revolting against a ruler
 - B. rapid changes in industry
 - C. voting for the U.S. president
 - D. the American Revolutionary War
- 2. How did people make clothes, dishes and furniture before the Industrial Revolution?
 - A. They made them in factories.
 - B. These items were made by hand, one by one.
 - C. Machines were used to create them.
 - D. There weren't any clothes, dishes or furniture before the Industrial Revolution.
- **3.** Which of the following was a change that occurred because of the Industrial Revolution?
 - A. People moved from the countryside to the city.
 - B. The health of factory workers improved.
 - C. More goods were created by hand.
 - D. Goods became more expensive.
- 4. Which of the following is the main idea of the passage?
 - A. Factory workers worked long hours and weren't paid well.
 - B. Large factories sprung up in cities.
 - C. Many people lived in the countryside
 - D. The invention of machines changed people's way of life.
- 5. The invention of the steam engine caused all of the following effects except
 - A. goods were produced more quickly.
 - B. the price of products was reduced.
 - C. goods were shipped more quickly.
 - D. skilled craftsmen created more products.

- **6.** How might factory conditions have prevented workers from taking steps to improve their lives?
- 7. Why were unions successful in the fight for workers' rights?
- **8.** The question below is an incomplete sentence. Choose the word that best completes the sentence.

After the Industrial Revolution, goods were produced mainly by machines _____ of by hand.

- A. instead
- B. because
- C. with
- D. rather

Could the Futuristic Traveling Tube Become a Reality?

by ReadWorks



=

Day 2 Directions - Read and annotate the article below then complete the summary in the organizer at the bottom of the article.

It sounds like something straight out of a science fiction movie or a silly cartoon: a futuristic traveling tube that can quickly shoot people wherever they want to go, inside a tiny pod. But this may be just around the corner for people looking for a faster, easier, and cheaper-than-ever way to travel.

South African-American inventor and billionaire Elon Musk, who, in the past, has worked on both private space flight and electric cars, recently announced he has been working on the design of this traveling tube, which could forever change the way we travel the world.

In an interview, Musk described the new tube as a fifth kind of transportation.

"We have planes, trains, automobiles, and boats," he explained. "What if there was a fifth mode? I have a name for it, [it's] called the Hyperloop."

The Hyperloop would have the power to cut back on travel time between major cities like Los Angeles and San Francisco, which is what inspired Musk to design the Hyperloop in the first place.

Musk stated in an interview that he actually came up with the idea for the Hyperloop while thinking about the train that takes people between Los Angeles and San Francisco-it is known for being one of the slowest in the country.

"This system I have in mind...can never crash, is immune to weather, it goes three or four times faster than the bullet train...it goes an average speed of twice what an aircraft would do," explained Musk.

"You would go from downtown L. A. to downtown San Francisco in under 30 minutes," he added. "It would cost you much less than an air ticket [and less] than any other mode of transport."

People using the Hyperloop would shoot around in pods, which are each just over six-and-a-half feet across, and the pods would travel through tubes located either above ground or under water, though Musk has not yet released his final design drawings.

Additionally, Musk believes the Hyperloop could be completely powered by the sun-making it more environmentally friendly than cars, airplanes, or train systems. Someday it could possibly move people between the East and West Coasts of the United States in less than an hour, which is faster than any other mode of transportation that exists. Eventually, the Hyperloop would be able to move people around the world.

The Hyperloop could even run 24/7, be cheap, and allow people to travel on their own schedule. People could show up at the Hyperloop station whenever they want and be quickly sent on their way.

Musk is not the first person outside of science fiction novelists to dream up vacuum tube technology for moving people. The idea has been around for some time, and inventors in other countries, including China, are reportedly working on similar technology.

Day 2 5W's and H Summary 1. Read the text. 2. Complete the organizer o complete sentences.	r: n the right to answer questions about the text. Use
W ho or what was the text about?	
What happened? (What was the problem or discovery?)	
When did this happen? (In the past, present, or future? Was there a specific date or time?)	
Where did it happen?	
Why did it happen? How was the problem resolved?	

ReadWorks® Predicting the Future

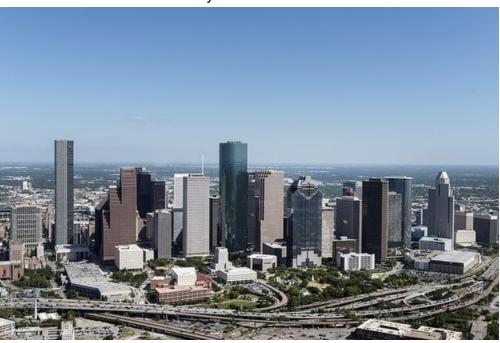


Day 3

Directions Read and
annotate the
article below.
After reading
the article, use
complete
sentence to
complete the
summary chart
that follows
the article.

Predicting the Future

by ReadWorks



Houston, Texas

Garry Golden sits in a small cafe in Brooklyn, New York. In front of him, sheets of paper with diagrams litter the table. He rapidly sketches trains, cars and highways as he explains his ideas. Garry Golden has one passion: transportation. The science of how to move people from place to place fascinates him. He spends his days studying the relationships between cars, subways, and trains. But he's most excited about imagining the way these relationships will change in the next 20 years.

Golden is a futurist. Futurists are scientists who analyze the way the world is today and use that information to make predictions about what the world will be like in the future. In this way, they are the opposite of historians, who try to better understand the present through studying the past. Futurists hope that by making scientific predictions about the future, we can make better decisions today.

Some futurists study the environment. Some study human society. Golden focuses on the study of transportation. He earned his graduate degree in Future Studies from the University of Houston. Living in Houston for those two years changed the way he viewed transportation in the United States.

Many public transportation advocates dislike Houston. They argue the city is too sprawling (it can take more than three hours to drive from one side of the city to the other during rush hour) and that there aren't enough buses and subways. However, Houston was a source of inspiration for Golden.

"Houston is a really interesting place, and their transportation is a fascinating story-it's worth watching. When you think about it, what is the U.S. like? It's more like Houston. So you need to understand how Houston approaches things to understand the country as a whole. New York City is the exception." said Golden in an interview with *The New York Times*

Golden points out that people in New York City own fewer cars and walk much more than anywhere else in the United States. "It's a unique environment," says Golden. "Very different from the rest of the country."

However, Golden believes American cities will become more similar to New York City in several ways over the next 20 years. He sees a trend toward fewer cars in the future. He explains, "Cities have a cost of car ownership that is a challenge. All these vehicles cost the city: in services, in having to repair roads and all of the other things." Cars also take up a lot of space. Houston, for example, has 30 parking spaces for every resident. That's 64.8 million parking spaces in only one city.

Golden points out that having so many parking spaces is inefficient. Much of the time the parking spaces sit empty. At high-use times-for example, Saturday afternoon when everyone is running errands-every parking space at a shopping center is full. But at 3 a.m. on a Monday, no one is at the shopping center. What is the solution? "I think cities are going to start to legislate cars in very new ways," says Golden. He explains that cities will make new laws to limit the number of cars people can have within city limits. Instead, people will use taxis, subways and buses. New technology, like smartphones, can make these forms of public transportation even better.

Buses have the same problem of inefficiency as parking spaces, explains Golden. Sometimes they are full, and sometimes they are empty. But imagine if everyone had a smartphone and used them to signal when they wanted to ride the bus. Buses could change their route, depending on who wanted to ride.

How soon would these changes come? Golden admits that it will take several years. Cities can be slow to change. Also, new systems of transportation can be expensive. "But it's coming," he says. "The trend of the empowered city will be here soon."

The other trend that excites Golden is electric cars. "We need to reduce the amount of fuel we consume," says Golden. "Everyone agrees on this. The question is how to do it." Golden especially believes in the future of electric cars that have sensors to understand the world around them. "If we have cars that can communicate with one another, they can adjust speeds to eliminate traffic jams," he says. Rush hour in Houston would suddenly be much less painful.

One challenge related to the production of electric cars is that it is hard to cheaply produce batteries that are strong enough for these cars. This is partially because cars are so heavy. But Golden argues you could also make cars out of strong plastic composites. The cars would then be much lighter and much cheaper to make. "This could revolutionize the highways," he says. When could electric smart cars become the norm? Golden argues as soon as 2030.

As a futurist, Golden shares his predictions with other scholars at conferences across the country. He also provides advice to companies that want to know what the future will be like so that they can make better strategies. Golden remains optimistic about the future. "There are so many exciting developments," he says. "In thirty years we will live a very different world."

 Day 3 5W's and H Summary: Read the text. Complete the organizer on the right to answer questions about the text. Use complete sentences. 		
W ho or what was the text about?		
W hat happened? (What was the problem or discovery?)		
When did this happen? (In the past, present, or future? Was there a specific date or time?)		
W here did it happen?		
Why did it happen? How was the problem resolved?		

Day 4 Directions -

- 1. Proofread the summaries written on Days 2 & 3. Revise as needed.
- 2. Answer the questions about the two article on the next page. Reread as needed to answer questions. Use complete sentences when writing responses.

ReadWorks°

-

Day 4 Directions- Answer the questions from the passages read on Days 2 & 3.

Reread the text as needed. Use complete sentences and proofread carefully for written responses.

Use the article "Predicting the Future" to answer questions 1 to 3.

- **1.** What is one change that Golden expects to see in cars?
- 2. What is one change that Golden expects to see in public transportation?
- **3.** Does Golden view the changes he expects as good or bad? Support your answer with evidence from the article.

Use the article "Could the Futuristic Traveling Tube Become a Reality?" to answer questions 4 to 5.

- 4. What is the Hyperloop?
- **5.** What is one advantage the Hyperloop would have over other types of transportation?

Use the articles "Could the Futuristic Traveling Tube Become a Reality?" and "Predicting the Future" to answer questions 6 to 7.

- 6. Contrast the Hyperloop with the changes in transportation that Golden expects.
- **7.** What might Golden think of the Hyperloop? Use evidence from both texts to support your answer.

Blue Lightning

by A.P. Raj



Day 5 Directions Read and annotate the
article then complete
the questions at the
bottom of the article.
Use complete
sentences and
proofread the written
response questions.



Sondra loved cars more than anything else. When she was a kid, she begged her dad to let her join the Boy Scouts, just so she could build a car to race in the Pinewood Derby. Her car was a jagged spike of pinewood painted a glittery, electric shade of blue. She named that car "Blue Lightning."

Blue Lightning didn't win the Pinewood Derby, but it did come in 2nd place. Sondra had been so proud, and her dad was proud of her, too. She had doodled drawings of Blue Lightning all over her notebooks. She sometimes dreamt that Blue Lightning became a real car sitting out in her driveway, and she would get in and take it out for a drive. Even though she was too young, and had never driven a car, in those dreams she always knew exactly what to do. Driving Blue Lightning made her feel powerful and free.

Then one lazy Saturday in spring, Sondra was flipping through a car magazine she liked, when an ad caught her eye:

AMATEUR GO-KART RACERS, START YOUR ENGINES!

Do you LOVE cars? Do you have a passion for racing? Build your very own go-Kart and enter the Go-Go Derby! All experience levels welcome! Racers ages 13 and up may enter with parental supervision.

Sondra had just turned 13 that fall. She screamed with delight and immediately ran to her dad to beg him for permission to enter. She was ready to build Blue Lightning, Mark II.

Her dad read the magazine ad and frowned.

"I don't know, Sondra," he said. "Building a car for the Pinewood Derby was one thing, but a go-kart? That's a whole new level. It sounds kind of dangerous."

"Not if you help me!" she said.

"That's true. It could be a fun project. And we'd both learn a lot," he said.

"Exactly! So we can do it?" Sondra said.

"Well, I'll ask your mother what she thinks. And I want to know that you're serious about it. So how about this: you do some research into how we're actually going to build this thing, and come back to me in a week with a design."

Sondra jumped with joy. "You got it, Dad!" she said. She gave him a big hug and a kiss on the cheek, and went straight to her computer to start researching go-kart designs.

In a week, Sondra had a notebook full of drawings and notes about her project, from spending hours after school researching, thinking and planning. Blue Lightning, Mark II looked ready to go. Sondra's design was a lot like the original Blue Lightning, except instead of pinewood, it would be made of steel. And of course, it would be a real vehicle that she could drive. Thrilled at the thought of building it, Sondra brought her sketches and notes to her dad.

He put on his glasses and looked over her work, thinking. "These are some interesting ideas, honey," he said. "I see you've designed this a lot like your Pinewood Derby car from a few years ago, even down to the lightning bolt shape you love so much."

"That's right!" Sondra said, beaming.

"Well, it will certainly look unique," he said. "But how will it drive?"

"What do you mean?" Sondra asked.

"Well..." Her dad stopped to think. It seemed like he had something to say, but decided against it. "Tell you what. Instead of telling you what I think, why don't we build Blue Lightning, Mark II the way you've designed it?"

Sondra was a bit confused, but she wanted to build the go-kart more than anything, so she agreed.

They took a trip to the hardware store to buy all the parts they needed: a lot of metal, engines, cables, brackets, bolts and screws. They had to stop at a specialty hobbyist store to pick up the steering wheel and the materials they needed to build the steering block-the accelerator and brake pedals, and, of course, a comfy seat for Sondra to sit in. Finally, they stopped at a sporting goods store to buy a helmet and pads for her to wear when she was driving.

Back at home, they brought all their new stuff into the garage and went to work. Over two weekends of hard work, they turned Sondra's sketches and notes into a real, working go-kart. When they finally mounted the seat on Blue Lightning, Mark II, Sondra felt more proud than she had ever felt in her whole life.

"She looks great!" Sondra said. "All we have to do now is the paint job!"

"Before we do, why don't we take it for a test drive?" her dad said.

Sondra thought she heard some mischief in his voice and thought about how he had almost said something about her design, but had decided not to. What was he up to?

"Okay," she said. "Let's do it!"

So they took the second Blue Lightning out to a nearby parking lot, and Sondra took it for a spin. Her dad made sure she wore her helmet and pads, and watched her as she drove the go-kart around the lot. She noticed that when she tried to go fast, she felt a lot of resistance from the wind. When she slowed down, she didn't notice it as much.

After she had her fun, she drove back to where her dad was standing. He was smiling like he expected something from her.

"Well, that was fun!" she said. "But I think I know why you wanted me to take it for a test drive."

"Oh, do you?" he said. "Please share."

"I noticed that there was a lot of push-back when I would drive it fast," she said.

"Yes, and?"

"And I think it's because of the lightning bolt shape. The wind pushes in and kind of gets caught in the zigzagging part of the frame," she said.

"Very good!" her dad said.

"So, why didn't you tell me about that problem in the first place?" Sondra said. She was a little bit annoyed.

Her dad laughed. "Where's the fun in that? Didn't I ever tell you the story about teaching someone to fish?"

"'If you give a man a fish, he'll eat for a day," Sondra said, mimicking a very wise tone her parents used when they were teaching her lessons. "'But if you teach a man to fish, he'll eat for a lifetime."

"Exactly, kiddo," he said. "You may be annoyed now, but I promise, you'll thank me when you're older."

Sondra rolled her eyes. "You always say that!"

"It's always true," her dad said, laughing.

"So, now what?" she said.

"Now, we get ice cream. But after that, it's back to the drawing board for you."

Sondra smiled. "Sounds good to me. Designing is half the fun anyway!"

So Sondra went back to researching, sketching and taking notes. Her dad emailed her an article about aerodynamics: the science of how air interacts with solid objects. After she read it, she felt silly about her lightning bolt design. But her dad told her that sometimes, the only way we learn how to do something right is by doing it a few times first, and making silly mistakes along the way.

"You know who makes more mistakes than anybody?" he said. "Great inventors!"

That inspired Sondra and she worked harder than ever. Her next design wasn't shaped like a lightning bolt at all, but more like a Formula One racecar. She started to understand why they were designed the way they were.

She showed her dad her new design, and he nodded with pride. Once again, they went to work, taking apart the first go-kart they'd built and putting it back together again. When Sondra test-drove the newest Blue Lightning, it came a lot closer to living up to its name.

"What do you think, Dad?" she asked. "Do we need to go back to the drawing board again?"

"You can always make improvements on a design," he said. "But the race is in two weeks!"

So they decided that Blue Lightning, Mark II was in racing condition, and painted it with the electric blue paint Sondra loved. When the time came to race in the Go-Go Derby, Sondra wasn't worried about whether she came in first place - in her mind, she had already won, by building something better than she had ever built before.

- 1. What does Sondra build with the help of her dad?
 - A. a garage where her family can keep its cars
 - B. a go-kart named Blue Lightning, Mark II
 - C. a racetrack where she can test her go-kart
 - D. a hardware store that sells cables and brackets
- **2.** Sondra notices a problem when she takes her go-kart for a test drive. The problem is that when she drives fast, she gets a lot of push-back from the wind. How does she solve this problem?
 - A. Sondra gets annoyed at her dad.
 - B. Sondra eats ice cream.
 - C. Sondra rebuilds her go-kart in a different shape.
 - D. Sondra designs her go-kart in the shape of a lightning bolt.
- **3.** Read this sentence from the story: "When Sondra test-drove the newest Blue Lightning, it came a lot closer to living up to its name."

What can be concluded from this sentence?

- A. Sondra does not like her second go-kart design as much as her first go-kart design.
- B. Sondra hopes to finish in first place at the Go-Go Derby.
- C. Sondra is upset with her dad.
- D. Sondra's go-kart becomes a lot faster after she rebuilds it.
- **4.** Why does Sondra's dad not tell her about the problem with the lightning-shaped design for her go-kart?
 - A. He does not notice the problem until it is too late.
 - B. He does not want Sondra to take part in the Go-Go Derby.
 - C. He is mad at Sondra and does not want her go-kart to work.
 - D. He wants Sondra to discover the problem on her own.

- 5. What is a theme of this story?
 - A. Parents should not let their children try new things.
 - B. Making mistakes can help you learn.
 - C. Females are better at building things than males.
 - D. People should always share their feelings with each other.
- **6.** Read the following sentence: "'So how about this: you do some research into how we're actually going to build this thing, and come back to me in a week with a **design**."

What does the word **design** mean in this sentence?

- A. a very dangerous idea
- B. a place where people go to do research
- C. a plan for building something
- D. a company that sells cars
- **7.** Choose the answer that best completes the sentence below.

Sondra learns from her mistake with the first go-kart, _____ her second go-kart is faster.

- A. so
- B. namely
- C. initially
- D. specifically
- 8. What mistake does Sondra make when designing her first go-kart?
- 9. What does Sondra do to fix this mistake when rebuilding her go-kart?
- **10.** Read these sentences from the passage: "'If you give a man a fish, he'll eat for a day,' Sondra said, mimicking a very wise tone her parents used when they were teaching her lessons. 'But if you teach a man to fish, he'll eat for a lifetime.'" Explain how the idea of teaching a man to fish relates to the events of the story.

Pythons Invade the Florida Everglades

by ReadWorks



Day 6

Directions - Read and annotate the article below then complete the summary in the organizer at the bottom of the article.



When Tommy Owen, a tour guide in the Everglades National Park, saw the animal, he immediately went after it. Owen was giving a tour of Florida's famous national park wetlands. He and a group of tourists were floating in a boat through the shallow water that makes up the Everglades. One of the women in the boat he was steering saw a snake in the water. She got Tommy's attention and pointed the snake out to him. When Tommy saw the snake, he acted fast. He reached into the water and grabbed the animal by the head. He got a good grip and didn't let go. Tourists in the boat were worried when the snake wrapped itself around Tommy's arm. After several minutes, he got control of the animal and removed it from the water. The snake was a ten-foot-long Burmese python. It was a snake not native to Florida and, quite simply, it didn't belong there.

* * *

The Florida Everglades teems with life. Situated at the southern end of the state, between Lake Okeechobee and the Gulf Coast, the Everglades is the largest wilderness east of the Mississippi River. Migratory and wading birds tiptoe through marshy grasslands. Orchids and ferns dot the hardwood forests. Alligators lounge in the shallows and on muddy riverbanks. Mangrove leaves rustle in the wind as the brackish water laps at their roots.

All of this life is made possible by the presence of water. The Everglades is a natural region of subtropical wetlands. Water flows from the Kissimmee River into the wide, shallow Lake Okeechobee. From there the lake drains south, into the Everglades marsh and the Florida flats. The Everglades is sometimes called the "River of Grass" after a book of the same name by author Marjory Stoneman Douglas. The phrase illustrates the fact that the Everglades is basically a very wide and shallow river.

The Florida Everglades once covered 11,000 square miles across the southern end of the state. Wetlands are an important ecosystem. For centuries, however, humans thought of wetlands as unhygienic swamps. Draining the Everglades was suggested in the late 19th century. As soon as Florida became a state in 1845, its legislature asked permission from Congress to drain the Everglades. Canals were dug to remove or redirect the water. Land that dried out was reclaimed for agriculture or building purposes. This reclamation allowed for significant development in south Florida. Sugar farmers moved into the area and prospered. The city of Miami took root.

Approximately 50% of the Everglades was reclaimed for agricultural or urban use. Much of the northern area was polluted with phosphorus. This phosphorus was agricultural runoff from the farms near the Everglades.

Concerned Floridians began advocating for saving the area in the 1930s. Their efforts paid off in 1947 when Congress created the Everglades National Park. Starting in the late 1970s, environmental concerns at both the national and international levels refocused attention on the Everglades. The area was designated as one of the world's most important wetland areas.

Since then efforts have been underway to safeguard the park and return the Everglades to health. Water levels are monitored, as are nutrient levels in both water and soil samples.

Much of the conservation project was designed to reverse-engineer the canal system that was built in the 19th and mid-20th centuries. By the mid-2010s, ecological indicators showed some improvements. For example, the crayfish population was up. Wading and migratory birds improved their nesting habits.

Despite conservation efforts, the Everglades ecosystem began facing another threat in the early 2000s.

* * *

Burmese pythons were breeding in the Everglades, and they reached numbers that designated them as an invasive species. They were classified as an invasive species when

ReadWorks®

their population swelled to a large size.

Pythons are eating machines. They can eat animals of different sizes, from mice to deer. They especially enjoy dining on small mammals and birds. Studies have shown that since the appearance of Burmese pythons in the Everglades, the numbers of small mammals in the area dropped significantly. This population loss was not observed in areas where the Burmese python had not established itself.

The Burmese python is native to tropical and subtropical zones in Southeast Asia. In their native habitat, Burmese pythons are nocturnal carnivores. When they live close to human habitations, Burmese pythons eat rats, mice, and rabbits that are attracted to human dwellings and farms. They can also eat small farm animals like chickens. When they live away from human habitations, Burmese pythons eat birds and small wild mammals. The Burmese python is a solitary animal. It kills by constricting its body around its prey. Python eggs and hatchlings are a food source for other animals. In the wild, Burmese pythons grow to be on average 12 feet long. (Habitat loss and the exotic pet trade in Asia are depleting the Burmese python's numbers in the Asian wild.)

The first Burmese python was found in the Florida Everglades in 1979. It's presumed the animal was originally kept as a pet and then released by its owner. It was removed, but that wasn't the last of Burmese pythons in south Florida. It's thought that numerous Burmese pythons escaped pet stores and cages damaged in Hurricane Andrew in 1992. Since then, the numbers of Burmese pythons grew at a fast rate. The escaped Burmese pythons weren't the only cause of the most recent population increase of Burmese pythons.

In the United States the Burmese python was a popular exotic pet. Docile and beautifully patterned in brown and gold diamond shapes, these snakes could be purchased at pet stores or reptile shows. Owners kept them in cages or tanks and fed them rats or mice. Most people bought Burmese pythons when they were small. Burmese pythons grow very quickly. For many pet owners, the pet Burmese pythons became too big to manage. So they released them into the wild.

When the Burmese python was designated as an invasive species, many agencies and individuals began trying to put a stop to the python invasion. The National Park Service started a program to study these animals in the Florida Everglades. Park Service scientists implanted tracking devices into seventeen large pythons that were later re-released into the wild. They provided scientists with information regarding python behavior.

In January 2013 to February 2013, the Florida Fish and Wildlife Conservation Commission ran a contest called the 2013 Python Challenge. The Commission issued permits to hunt the

snakes within state wildlife-managed areas of the Everglades. Sixty-eight Burmese pythons were captured.

Later in 2013, Jason Leon was driving in a rural area near Florida City when he spotted a Burmese python's head protruding from the brush. The man was a biologist, and he was familiar with pythons. He approached the snake and pulled it out of the bush. The animal was bigger than he expected. After a struggle with the animal, Leon killed it. The Burmese python was 128 pounds and longer than 18 feet. Leon contacted the Florida Fish and Wildlife Conservation Commission, which agreed to pick up and examine the snake. The snake was found to be the largest ever in the state of Florida.

The state later issued a statement:

Jason Leon's nighttime sighting and capture of a Burmese python of more than 18 feet in length is a notable accomplishment that set a Florida record. The Florida Wildlife Commission is grateful to him both for safely removing such a large Burmese python, and for reporting its capture.

Despite these efforts, the population of Burmese pythons continued to grow. The Florida Fish and Wildlife Conservation Commission held another contest in 2016 called the 2016 Python Challenge.

Day 6 5W's and H Summary: 1. Read the text. 2. Complete the organizer of complete sentences.	on the right to answer questions about the text. Use
W ho or what was the text about?	
W hat happened? (What was the problem or discovery?)	
When did this happen? (In the past, present, or future? Was there a specific date or time?)	
Where did it happen?	
Why did it happen? How was the problem resolved?	

All the Pieces Matter

by A.P. Raj



Day 7

Directions- Read and annotate the article below then complete the summary below the article.



Jason stared at the whiteboard at the front of the classroom, trying to make sense of what he saw there. Mr. Freamon had drawn a complicated diagram of all the creatures living in the nearby Ho Tep Wildlife Reserve. Every type of living thing, from trees and insects to mammals and birds, was written down and circled on the board. Arrows snaked around the board, connecting the circles, showing which creatures depended on which other creatures to survive.

Though he had been hiking out in Ho Tep plenty of times, Jason had never given much thought to the animals and other wildlife he had seen out there. He'd never thought about how the amount of rainfall affected the amount of moisture in the soil, which affected how well plants could grow, which affected the ability of the animals that ate those plants to survive. It was enough to make his head swim a little.

Jason wasn't the only one who was confused. Mr. Freamon could tell that his students were all struggling to make sense of the mess of connections drawn out on the board. He smiled and stopped drawing for a moment to speak to the class.

ReadWorks® All the Pieces Matter

"Take a deep breath," Mr. Freamon said. "You don't need to memorize what's on the board. If you're going to take away one thing from this lesson, let it be this: All the pieces matter. Every ecosystem on Earth depends on a delicate balance among all of the different forms of life within it."

Adriana raised her hand and asked why that was.

"Well," Mr. Freamon said, "in any ecosystem, all of the creatures within it are competing for the same resources: food, water and shelter-the basic needs of every living thing. There's only so much to go around, so creatures have to compete with other creatures to get what they need. And since they all go about it in a unique way, all of the creatures in an ecosystem end up depending on one another. Let me give you an example.

"Remember that video we watched last week? With the wolves killing the elk at Yellowstone National Park?"

Everyone nodded.

"And how many of you thought that the wolves were mean for killing those elk?"

About half the students raised their hands, but Jason kept his hand down. Wild animals will do what they do, he thought. The idea of meanness never enters into it. They act on instinct.

"Consider this, then," Mr. Freamon continued. "Without the wolves in the park to keep the elk population in check, the elk would have eaten all of the aspen and willow in the park. Not only would those plants be gone, but the other animals that depend on them to survive, would have been out of luck too. All the pieces matter."

After class that day, Jason went home and looked up "ecosystem resilience" on the Internet. He found a lot of interesting links about different ecosystems that had changed rapidly because one of the pieces had been taken out of the puzzle, as Mr. Freamon would have put it.

In Africa, people hunted lions and leopards and reduced their population, leading to higher populations of a certain type of baboon. That had led, somehow, to higher rates of parasites in baboons and people. And along some coasts, human activity had reduced the sea otter population. The sea otters ate sea urchins that ate kelp from massive kelp forests. Without the sea otters to keep them in check, the kelp started to disappear.

The whole idea was starting to make sense to Jason. It was basically like dominoes-all the pieces lined up, and if you knocked one down, it would knock down the next one, which would

ReadWorks® All the Pieces Matter

knock down the one after that, until they all went down. Of course, it was a lot more complicated than that, but that was the basic idea.

The next time Jason went to Ho Tep Wildlife Reserve, on a camping trip with his dad, he made a point of observing the wildlife. He spent twenty minutes watching a copperhead snake slither across the forest floor, wondering about its role in the larger system. Through his binoculars, he watched a robin build its nest near the top of an oak tree. He imagined the robin catching insects to bring back to the nest to feed her chicks. He thought about how the roots of the tree reached way down into the soil to drink the moisture there. It really was fascinating how everything fit together.

Later, when he was back at school, he asked Mr. Freamon about the ecosystem at Ho Tep. He mentioned how he thought about the trees and how they were rooted in the soil.

"It's funny you should mention that, Jason," Mr. Freamon said. "You know, without those trees to anchor the soil, Ho Tep would still be a desert, like it was thousands of years ago."

"You mean Ho Tep hasn't always been a forest?"

"No, it hasn't. For a long time it was a desert-a totally different ecosystem. But over time, things changed," Mr. Freamon said.

"What things?" Jason asked.

"Weather patterns, for one. There probably wasn't a lot of rain falling on that area for a long time. But as that changed, there was more moisture in the soil. Enough for flowering plants to begin to take root, and eventually trees," replied Mr. Freamon.

"And once there are trees, there's shelter for birds and other animals," Jason said.

"Exactly right," Mr. Freamon said. "You've got the idea."

"Does that mean that we can deliberately change an ecosystem? Turn a desert into a forest, or something like that?"

Mr. Freamon smiled. "Well, it isn't that simple. Nature has a way of changing itself, but it takes a very long time, and it doesn't have an end goal in mind. Ecosystems fall apart, and then eventually find a new way to rebuild. But that's not quite the same as planning out a change.

"There are so many variables to consider- not only things like trees and birds, but the bacteria and other creatures you can only see with a microscope. Not to mention, we haven't exactly figured out how to change the weather."

"So we've never changed an ecosystem?" Jason asked.

"Oh, I wouldn't say that," Mr. Freamon said. "We've changed plenty of ecosystems all right. Except when humans change an ecosystem, it's usually not deliberate. Usually it's because clearing out land to build things drives out other creatures."

"Well, it's like you always say: humans are a part of nature too, right?"

"Exactly right, Jason," Mr. Freamon said. "That's exactly right."

Day 7 5W's and H Summary: 1. Read the text. 2. Complete the organizer of complete sentences.	on the right to answer questions about the text. Use
W ho or what was the text about?	
W hat happened? (What was the problem or discovery?)	
When did this happen? (In the past, present, or future? Was there a specific date or time?)	
Where did it happen?	
Why did it happen? How was the problem resolved?	



lacktriangle Directions- Answer the questions below from the passages read on Days 6 & 7. Reread the text as needed. Use complete sentences and proofread carefully for written responses.

Use the article "Pythons Invade the Florida Everglades" to answer questions 1 to 2.

- 1. What kind of animal had a population increase in the Florida Everglades in the early 2000s?
- 2. What effect has the release of these animals have on the number of small mammals in the Everglades? Support your answer with evidence from the text.

Use the article "All the Pieces Matter" to answer questions 3 to 4.

- **3.** What caused higher populations of a certain type of baboon in Africa?
- **4.** What effect has the higher population of this type of baboon had on baboons and people? Support your answer with evidence from the text.

Use the articles "All the Pieces Matter" and "Pythons Invade the Florida Everglades" to answer questions 5 to 6.

- 5. Think about the process of cause and effect involving Burmese pythons in the Everglades. How is it similar to the changes in Africa described by "All the Pieces Matter"?
- **6.** Explain why understanding the process of cause and effect might be important to someone studying the environment. Support your answer with evidence from the articles.

□ Day 9

Directions - Read and annotate the article then complete the questions at the bottom of the article.

Use complete sentences and proofread the written response questions.

Wings in the Dark



U.S. Fish and Wildlife Service

U.S. Fish and Wildlife Service- The number of bats worldwide is in serious decline.

Some people might think Geraldine Griswold is batty. Some say she has bats in her belfry.

Griswold doesn't mind the jokes. She loves bats. All types of bats: big bats, small bats, brown bats, fruit bats, even vampire bats. In fact, she currently has about 20 bats hanging around at her home.

She doesn't live in a bat cave. Griswold, who is a traffic reporter for a radio station by day, runs a "bat hospital" at her house in Connecticut by night.

You won't find these little creatures stretched out on gurneys or in wheelchairs, but you might find one or two of them snuggling up to Griswold.

Hardly Winging It

At her home, Griswold cares for bats that are sick, injured, or orphaned. She has taken care of bats with injuries, such as a broken wing, as well as baby bats that have lost their mothers.

She has also cared for bats that have become stranded for the winter because they didn't travel south before cold temperatures set in. With the help of a veterinarian, Griswold nurses these winged mammals back to health and then sets them free.

Griswold is no stranger to bats. She grew up on a farm where bats were a common sight. So it was no surprise how quickly she took to an orphaned baby bat she found squeaking on the ground outside her house ten years ago. She took in the bat and fed it milk from a goat on her farm.

To her delight, the little creature survived the night. Today, the bat-which she named Poppy-still lives with her. Griswold didn't release Poppy back into the wild because the bat is used to living with people.

A Bat Rap

ReadWorks® Wings in the Dark

Griswold doesn't keep Poppy all to herself. Poppy is one of the winged creatures that she takes with her on school visits. This Halloween she is speaking at a school in Connecticut. Griswold teaches kids about bats. She is on a mission to change the animal's bad reputation.

Many people associate bats with Dracula, the evil vampire who transforms himself into a bat before sucking the blood from unsuspecting victims. Bats aren't evil, however.

Despite what many people believe, bats don't get tangled in people's hair, and they are not blind. "Bats are so misunderstood," Griswold told *Weekly Reader*.

Many people, she says, are afraid of bats, but they are actually gentle creatures that are important to the environment.

Bats pollinate plants, spread seeds, and, most important, eat insects-including pesky, disease-carrying mosquitoes. "There is no animal worldwide that eats more bugs at night than bats do," said Griswold, who is full of bat trivia.

For example, the 20 million to 50 million bats that live in Bracken Cave near San Antonio eat 250 tons of insects a night. Griswold said that's equal to all those bats eating the weight of about 12 Asian elephants!

The Bracken bats, which can fly up to 10,000 feet high and at speeds of 60 miles per hour, have boomerang-shaped wings.

On the Decline

The number of bats worldwide is in serious decline. They often lose their homes when people cut down trees or destroy their roosts in caves. That's why Griswold tries to educate kids about bats.

After she spoke to a local Brownie troop, the group's members built bat houses in their town. The project turned into a community effort. Bat houses sprung up all over town, providing homes, or habitats, for these creatures.

"The kids are making such a huge difference," she said.

The Many Faces of Bats

Vampire bats can be found in Mexico, Central America, and South America. They drink blood, but it's usually from cattle and horses. A sensor on the bat's nose helps it find blood close to the surface of its victim's skin.

Egyptian fruit bats live mainly in Asia, and Africa. They eat fruit and nectar. Their long noses help them locate ripe fruit. Fruit bats use their sharp teeth to chew fruit and extract the seeds.

The spotted bat's ears are almost as long as its head and body. It uses its ears to detect insects. The spotted bat, which is found in parts of North America, feeds mainly on moths.

Name:	Date:	
1 What does Caraldina Gris	swold run at her house in Connecticut by ni	

- 1. What does Geraldine Griswold run at her house in Connecticut by night?
 - A. a bat cave
 - B. a radio station
 - C. a "bat hospital"
 - D. the traffic report
- 2. The author divides the text into sections using subheadings. What does the author describe in the section with the subheading "A Bat Rap"?
 - A. the decline in the number of bats worldwide
 - B. Griswold's experience with caring for bats
 - C. correct information people generally believe about bats
 - D. incorrect information people generally believe about bats
- 3. Read this sentence from the text:

"Bats pollinate plants, spread seeds, and, most important, eat insects--including pesky, disease-carrying mosquitoes."

What inference about bats does this information support?

- A. Bats can be very helpful to other species, including humans.
- B. Bats can be very harmful to other species, including humans.
- C. The number of bats worldwide is in serious decline.
- D. The 20 million to 50 million bats that live in Bracken Cave near San Antonio eat 250 tons of insects a night.
- **4.** What will probably happen to the populations of insects bats normally eat as the bats' habitats are threatened?
 - A. The populations of insects will probably decrease.
 - B. The populations of insects will probably increase.
 - C. The populations of insects will probably stay the same.
 - D. The populations of insects will probably disappear.

- **5.** What is this text mostly about?
 - A. Griswold's "bat hospital"
 - B. bats and Griswold's efforts to help them
 - C. dangers bats face
 - D. incorrect information people believe about bats
- **6.** Read these sentences from the text:

"Griswold is no stranger to bats. She grew up on a farm where bats were a common sight. So it was no surprise how quickly she took to an orphaned baby bat she found squeaking on the ground outside her house ten years ago. She took in the bat and fed it milk from a goat on her farm."

What does the phrase "took to" mean in this sentence?

- A. moved to another place
- B. became afraid of
- C. grew to hate
- D. grew to like
- **7.** Read these sentences from the text:

"Many people associate bats with Dracula, the evil vampire who transforms himself into a bat before sucking the blood from unsuspecting victims. Bats aren't evil, however."

What word could replace "however" in the final sentence without changing its meaning?

- A. therefore
- B. though
- C. thus
- D. then
- **8.** List two pieces of infomation about bats people generally believe are true, which are actually incorrect.

9. Bats often lose their homes when people cut down trees or destroy their roosts in caves.

How did the Brownie troop that Griswold spoke to work towards solving this problem?

10. What might Griswold be hoping to accomplish by educating kids about bats? Include at least two pieces of evidence from the text in your answer.

Drip-Tips and Other Adaptations in the Rainforest

by Mimi Jorling

Day 10

Directions - Read and annotate the article then complete the questions at the bottom of the article.
Use complete sentences and proofread the written response questions.



Tropical rainforests have ideal climates for plant growth. Tropical rainforests are hot, humid, and wet. They have abundant rainfall and are warm year-round. Temperatures range from about 85 degrees Fahrenheit during the day to 70 at night. Tropical rainforests get at least 80 inches of rainfall each year. (Compare that to how much your town or city gets each year.) These two factors also create challenges for the plants that live there. As a result, plants in tropical rainforests have adapted to these conditions by making adjustments in how they grow.

The perfect conditions for plant life-warm temperatures and plenty of water-cause plants to grow quickly. One consequence of rapid plant growth is the depletion of nutrients in the soil. It also creates a thick layer of leaves in the upper part of the forest (the canopy) that blocks sunlight from reaching the forest floor.

Most plants get their nutrients, water, and oxygen from soil. However, in the rainforest, where soil is not nutrient-rich, many plants don't rely on it for their source of food. Some plants called epiphytes, or air plants, have learned to get water and nutrients from the air. Some examples of epiphytes in rainforests are mosses, lichens, and orchids. Although they often live on other plants, they don't take any nutrients from the other plant-they get what they need straight from the air with special root systems.

Other plants that grow on plants actually DO take nutrients from that plant. They are called

ReadWorks[®]

parasitic plants, and the plant they grow on is called a host plant. Instead of getting food and water from the soil, parasitic plants have developed roots to cling to a host plant, pierce through its leaves, stem, or trunk, and suck the nutrients out of the host. An example of a parasitic plant you might know is mistletoe. Parasitic plants can kill their host plant if they grow too rapidly. However, they tend to *not* kill their host plant because without a host, the parasitic plant will also die.

Another condition created by rapid plant growth is a lush canopy that shades out plants living below. Large trees grow quickly, reaching for sunlight. They create a dense shade that prevents sunlight from reaching the forest floor. In fact, only about 1 to 2% of sunlight reaches the ground in a tropical forest. Since plants depend on sunlight for growth, very few plants live on the ground. Instead, they find ways to live on other plants by climbing them, as vines do, or by growing very large, dark green leaves to absorb as much sunlight as possible.

Hot, humid, and wet conditions are also ideal for bacteria and fungi to grow. Water trapped in the crevices of a plant, in combination with warm temperatures, is a breeding ground for bacterial and fungal growth, which can harm plants. One adaptation many plants have made in the tropical forest is to develop smooth bark so that water runs off quickly. Another adjustment plants have made to shed water efficiently is to grow leaves with 'drip tips.' This shape prevents water from collecting on leaves. Look at the shape of leaves of plants around you. If possible, and after checking with an adult, gently pour water on the plant and watch where it goes. It may be channeled toward the stem of the plant or far away from it. These observations can give you clues to how a plant lives.

The environments plants and animals live in provide useful and harmful conditions for living. As a result, all living things must learn how to adapt to the challenges of where they live. The adaptations that plants in a tropical rainforest have help them survive in their particular environment.

Name:	Date) :

- 1. What are the climates of tropical rainforests ideal, or perfect, for?
 - A. building roads
 - B. raising cattle
 - C. extreme sports
 - D. plant growth
- **2.** One effect of rapid plant growth is the depletion of nutrients in the soil. What is another effect of rapid plant growth?
 - A. the depletion of animal life in the lower part of the rainforest
 - B. the creation of a thick layer of leaves in the upper part of the rainforest
 - C. an increase in temperature from 70 degrees Farenheit to 85 degrees Farenheit
 - D. a decrease in rainfall from 80 inches each year to 65 inches each year
- 3. Read these sentences from the text:

"There are also some plants called parasitic plants. They grow on other plants, their host plants. Parasitic plants actually DO take nutrients from their host plants. Instead of getting food and water from the soil, parasitic plants have developed roots to cling to a host plant, pierce through its leaves, stem, or trunk, and suck the nutrients out of the host. An example of a parasitic plant you might know is mistletoe. Parasitic plants can kill their host plants if they grow too rapidly."

Based on this evidence, how might a rapidly growing parasitic plant kill its host plant?

- A. by sucking too many nutrients out of its host plant
- B. by sucking too few nutrients out of its host plant
- C. by preventing the host plant from taking in food and water from the soil
- D. by trying to help the host plant take in food and water from the soil

4. Read these sentences from the text:

"Another condition created by rapid plant growth is a lush canopy that shades out plants living below. Large trees grow quickly, reaching for sunlight. They create a dense shade that prevents sunlight from reaching the forest floor. In fact, only about 1% to 2% of sunlight reaches the ground in a tropical forest. Since plants depend on sunlight for growth, very few plants live on the ground. Instead, they find ways to live on other plants by climbing them, as vines do, or by growing very large, dark green leaves to absorb as much sunlight as possible."

Based on this information, what can you conclude about the connection between a leaf's size and the amount of sunlight it absorbs?

- A. The smaller a leaf is, the more sunlight it absorbs.
- B. The larger a leaf is, the more sunlight it absorbs.
- C. The connection between the size of a leaf and the amount of sunlight it absorbs cannot be predicted.
- D. Large leaves and small leaves aborb about the same amount of sunlight.

5. What is the main idea of this text?

- A. Some plants, such as mosses, lichens, and orchids, have learned to get water and nutrients from the air.
- B. Instead of getting food and water from the soil, parasitic plants have developed roots to cling to a host plant, pierce through its leaves, stem, or trunk, and suck out nutrients.
- C. Plants in tropical rainforests have adapted to their warm and wet conditions by making adjustments in how they grow.
- D. Water trapped in the crevices of a plant, in combination with warm temperatures, is a breeding ground for bacterial and fungal growth.

6. Read these sentences from the text:

"Some plants called epiphytes, or air plants, have adapted to get nutrients from the air. Some examples of epiphytes in rainforests are mosses, lichens, and orchids. Although they often live on other plants, they don't take any nutrients from the other plants-they get what they need straight from the air with special root systems.

There are also some plants called parasitic plants. They grow on other plants, their host plants. Parasitic plants actually DO take nutrients from their host plants."

Why might the author have capitalized the word "DO"?

- A. to point out a similarity
- B. to make a contrast
- C. to summarize a process
- D. to make an argument

7. Read these sentences from the text:

"Some plants called epiphytes, or air plants, have adapted to get nutrients from the air. Some examples of epiphytes in rainforests are mosses, lichens, and orchids. Although they often live on other plants, they don't take any nutrients from the other plants-they get what they need straight from the air with special root systems."

How could the last sentence best be broken in two?

- A. Although they often live on other plants, they don't take any nutrients from the other plant. As an illustration, they get what they need straight from the air with special root systems.
- B. Although they often live on other plants, they don't take any nutrients from the other plant. For example, they get what they need straight from the air with special root systems.
- C. Although they often live on other plants, they don't take any nutrients from the other plant. Third, they get what they need straight from the air with special root systems.
- D. Although they often live on other plants, they don't take any nutrients from the other plant. Instead, they get what they need straight from the air with special root systems.

ReadWorks®

8. Describe the climate conditions of a tropical rainforest.

Include at least three pieces of information from the text.

9. Read these sentences from the text:

"Hot, humid, and wet conditions are also ideal for bacteria and fungi to grow. Water trapped in the crevices of a plant, in combination with warm temperatures, is a breeding ground for bacterial and fungal growth, which can harm plants. One adaptation many plants have made in the tropical forest is to develop smooth bark so that water runs off quickly."

Explain how the adaptation these plants have made might help them.

Support your answer with evidence from the text.

10. Plants in tropical rainforests have adapted to their conditions by making adjustments in how they grow. Support this conclusion with evidence from the text.