

New York State Common Core

English Language Arts Curriculum



GRADE 5 Module 2A

Unit 1

Student Workbook

Major Rainforests



Political Map of the World

Political Map of the World, September 2008



Produced by the US Central Intelligence Agency. Courtesy of the University of Texas Libraries. Public Domain.

Map of North and South America



Public Domain map produced by the Military Education Research Library Network (MERLN). Courtesy of the National Defense University Library.

What is your job description?

I am a biologist studying the behavior and ecology of two- and three-toed sloths. Right now I am studying biology and ecology at New College of Florida, and working in the rainforests of Panama with the Smithsonian Tropical Research Institute.

What do you study now?

Basically I am trying to understand why sloths move so slowly, as well as a few other weird things about them. We use radio-collars to track sloth movements in the algae that (exist) inside the hairs of sloths, something that normally does not occur in any other mammals. I am looking to see if maybe there is some benefit for the sloth to have algae.

What is the best thing about your job?

The best part of my job is getting to climb trees in the rainforest. Trees in the tropics are some of the biggest in the world, reaching over 150' tall. The view from the tops of the trees is amazing. A lot of times when I am up there troupes of monkeys come climbing by, sometimes stopping to look at me and wonder what I am doing up there with them.

What is the worst part about your job?

The worst thing, or hardest thing, is actually finding the sloths to start with. Sloths are very good at hiding. They usually live at the tops of trees, and can have greenish fur. We have to walk through the forest all day with our heads tilted up, looking for dark spots with hair. Sometimes it can take us weeks to find a single sloth.

What inspired you to first study science?

Ever since I was little, I was always fascinated with National Geographic magazine. I used to imagine I was one of the scientists in each issue, exploring unknown lands or catching wild animals. I always knew that was what I wanted to do.

What do you do in a typical day?

On a typical day working in Panama, I go out into the forest looking for sloths. I usually hike with someone else, and we use binoculars to look for the animals. When we find a sloth, I use my tree climbing gear to go up and catch it. Even though sloths are pretty slow animals, it can take hours to catch one once I am in the trees. They can move about as fast as you can walk fast, so in a tree 150' tall, it can be hard to catch them.

Interview with Sloth Canopy Researcher:
Bryson Voirin

What advice would you give to someone interested in becoming a biologist?

I would tell anyone interested in working in biology to go outside and explore things. Walk through parks and natural lands. The things you can find in your own backyard can be really cool. If you start exploring young, it will stay with you forever.

Journal Response Question
(Homework for Lesson 2)

“What did you learn about the rainforest from this interview? What text features in informational texts help you as a reader learn more about a topic?”

**Text-Dependent Questions for Interview
with Sloth Canopy Research: Bryson Voirin**

1. (Fourth interview question and answer) What does *greenish* mean? Why would having “*greenish* fur” make sloths difficult to find? What in the text makes you think so?

2. (Fifth interview question and answer) When the interviewer asks Bryson Voirin, “What *inspired* you to first study science?” Bryson Voirin says he was “always *fascinated* with National Geographic.” What does the word *fascinated* mean in that sentence? What in the text makes you think so?

3. (Sixth interview question and answer) What equipment, or tools, does Bryson Voirin say he uses for his research? How does each of these tools help him to study sloths?

4. Bryson Voirin tells readers “to go outside and *explore* things” if they are interested in biology. What feeling about being a biologist does the word *explore* create for someone reading this interview? How would the reader feel about being a biologist if he used the word *see* instead?

“Hawaii’s Endangered Happy Face Spider”



Author’s drawing of the “happy face spider”

#1	Meet <i>Theridion Grallator</i> , meaning “happy face spider.” This little <i>arachnid</i> , found in <i>Hawaiian</i> rainforests, is quite small. It measures only 5 millimeters in length, at most!
#2	The happy face spider’s name comes from the <i>unique pattern</i> found on its pale-colored back. The marks resemble two circles that look like eyes. There is a <i>curved shape</i> below, similar to a smile.
#3	Some scientists think the spider may have developed these <i>strange markings</i> as a way to warn <i>predators</i> , such as birds. However, not all scientists agree on this <i>theory</i> . Some believe the features may do nothing to help the spider avoid its enemies.
#4	The happy face spider generally tries to stay out of the <i>limelight</i> . It lives its life on the <i>undersides</i> of leaves, deep in the rainforest. This can make it difficult for scientists to <i>locate</i> and study.
#5	One scientist, Dr. Geoff Oxford, has studied the happy face spider for nearly twenty years. In an interview in 2009, Dr. Oxford said the spider is very <i>difficult</i> to find because it is in danger of <i>extinction</i> . He stated that the species was <i>under threat</i> from <i>non-native</i> animals brought to the islands.
#6	Because of the happy face spider’s <i>endangered</i> status, it has become a <i>symbol</i> for all of Hawaii’s <i>threatened</i> wildlife. In fact, <i>conservationists</i> have placed images of it on T-shirts, baseball hats, and even garbage trucks. They hope to use this as a way to bring <i>attention</i> to the loss of various <i>fauna</i> throughout Hawaii.

“Hawaii’s Endangered Happy Face Spider”

Citations

http://en.wikipedia.org/wiki/Theridion_grallator “Theridion grallator” last updated 9/19/12

<http://www.telegraph.co.uk/news/newstoppers/howaboutthat/5199409/British-scientists-study-Hawaiian-happy-face-spider.html>

“British Scientists Study Hawaiian Happy Face Spider”

<http://hbs.bishopmuseum.org/good-bad/spider.html>

Bernice Pauahi Bishop Museum – Hawai’i State Museum of Cultural and Natural History, Web site

http://photography.nationalgeographic.com/photography/photos/pod-best-of-2007/spider-guarding-eggs_pod_image.html

“Photo of the Day: Best of 2007” caption

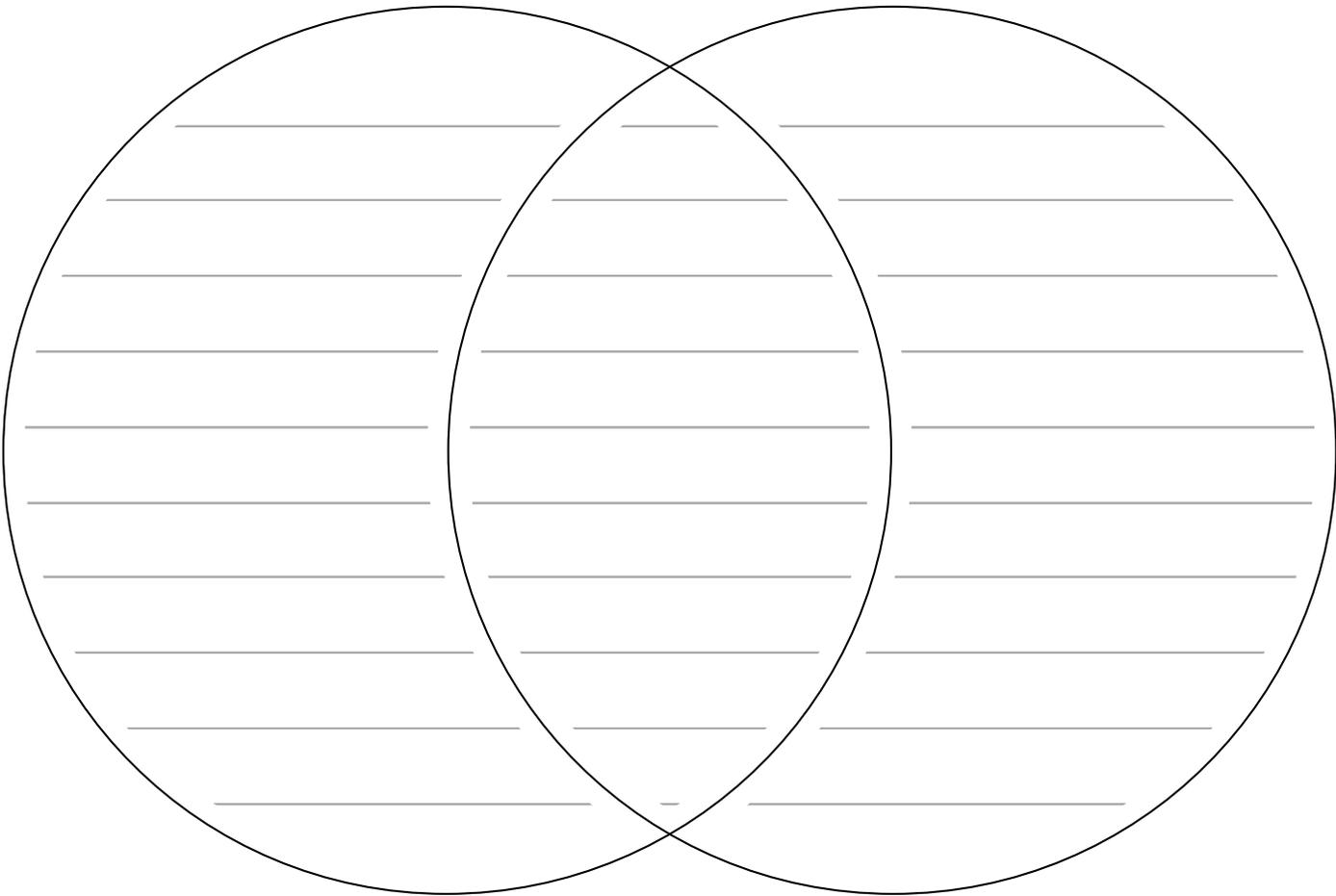
(All sites last accessed 10/07/12)

Hawaii's Endangered Happy Face Spider
Note-catcher

TEXT Paragraph Number	VOCABULARY Important words	GIST What is the main idea of what you read?
#1		
#2		
#3		
#4		
#5		
#6		

GIST
What is the main idea of what you read?

Text Features Venn Diagram



Assessment Text: “Live Online Interview with Eve Nilson”

Excerpts from Part 1 of the “Live Online Interview with Eve Nilson”

Thank you for joining Scholastic News Zone’s live interview with 15-year-old scientist Eve Nilson on Tuesday, April 23. The following is a transcript from that interview.

Q: What was your inspiration to study animals?

Eve: I have always had a fascination with animals and an interest in tropical rain forests and the tropics. Growing up in Alaska and studying whales with my mother, I spent a lot of time in nature and found them to be extremely interesting.

Q: Is it cool to be a scientist?

Eve: Yes, it has been an amazing experience waking up in the morning when I was in Brazil, waking up and seeing so many animals I’ve never seen before, and going out into the forest to study the frogs. Also, knowing that I’m making a difference, that’s amazing to me. The students of today are interested in biology, and by spreading the word about the danger rain forests are in, I feel I am making a difference, which is a really good feeling.

Q: Did you travel alone?

Eve: Yeah, I traveled for the first two and a half months. I stayed in the forest alone in my hut. The scientists lived about a mile further down the road, so I wasn’t completely alone.

Q: Where is the picture for the chat taken?

Eve: That is in front of the research station in Brazil, about 50 feet from my hut.

Q: Do you like snakes, tarantulas, reptiles, and turtles?

Eve: Yeah, I really like snakes. I like all of the animals except for mice. I’m really afraid of mice. Why? I don’t know, I guess the way they sneak up on you. That’s frightening. I had a bad experience as a kid when I reached into a cracker box and there was a mouse. I’ve been afraid ever since.



Eve Nilson displays a lizard she found sunning itself between two rocks by a stream in Brazil. The lizard was photographed so it could be identified later. Photo Courtesy Eve Nilson

Assessment Text: “Live Online Interview with Eve Nilson”

Q: Why did you want to study frogs?

Eve: I was offered a position studying frogs, but I also felt they were extremely important. They are an indicator species; they're extremely sensitive to the environment and its changes. Any rapid disappearance of frogs is a sign there's trouble in the environment. Also because frogs breathe through their skin. You're able to see more clearly the affects that pollution and acid have.

Q: Did you ever get lost? Were you glad to be home? Did you ever get homesick? Were you ever threatened by an animal?

Eve: The first week I was extremely homesick and I called home. It was wonderful talking to my family. After that I was okay. I found it was really peaceful. I was never lost. A few times in the beginning I would be walking out alone at night and I'd hear noises. There's only so much you can see with a small flashlight. I got used to it. I got used to sleeping in the jungle at night. An animal did not threaten me, but I was followed by a jaguar. Its tracks were really fresh. A ranger went up after me and saw that the tracks were following me down. That was really intimidating knowing that a jaguar was just a few minutes behind me.

Q: Did you bring any animals back with you?

Eve: A bots fly bit my mother, and her ankle swelled up. My mom came to visit the last few weeks of my trip and got bit by a bots fly. Bots flies commonly bite cattle. She was a host for the bots fly. When the doctors did an incision in her foot and brought out the larva it was an inch long and ready to hatch. So she brought back an insect with her by accident! We're not allowed to bring back any plant or animal species. It's against Brazilian and U.S. law.

Q: Would the fly have hatched inside of your mother?

Eve: No, when it hatches, it breaks the skin and flies away. It would have hurt when it broke the skin. She got sharp pains in her foot when it moved around. It was in there six weeks. Doctors weren't exactly sure what it was. It was the first bots fly found in California.

Q: Do you plan to go to college? What do you want to study?

Eve: I definitely plan to go to college. Absolutely. That's my number one priority right now since I'm a junior in high school. I plan to major in biology, but I also want to study zoology because I'm so interested in animals in the rain forest.

Assessment Text: “Live Online Interview with Eve Nilson”

Q: Why are you so interested in the rain forest over other regions of the world?

Eve: I’ve always had this fascination for the rain forest because of the high diversity of animals. When you are walking in the forest, you look up in the trees and see things you have never seen before in your life. I’m especially interested in the tropical rain forest. There are so many animals living in such a small region of the world. The rain forest can support such an extreme amount of diversity. I also like how pristine and beautiful the forest is when you are walking through and really appreciating nature.

Q: Why do they call the rain forest a rain forest?

Eve: Rain forests receive large amounts of rain every year. It’s very lush and green because of the rain, which makes it a hot spot for biodiversity.

Mid-Unit 1 Assessment: Analyzing an Interview with a Rainforest Scientist, Part 1

2. Part A:

Look at the picture, read the caption, and reread the first few interview questions and answers. In what country is the rainforest that Eve Nilson studied, and what did she study while she was living there?

- A. Alaska
- B. Amazon
- C. Brazil
- D. California

Part B:

Which sentence from the interview best supports the answer to Part A?

- A. Eve Nilson displays a lizard she found sunning itself between two rocks by a stream in Brazil.
- B. Growing up in Alaska and studying whales with my mother, I spent a lot of time in nature and found them extremely interesting.
- C. I stayed in the forest alone in my hut.
- D. Yeah, I traveled for the first two and a half months.

3. Explain what Eve means when she says that frogs “are an *indicator species*.” Why might that make frogs so important to study? Use quotes from the text in your answer.

Mid-Unit 1 Assessment: Analyzing an Interview with a Rainforest Scientist, Part 1

4. What inspired Eve to study animals in the rainforest? Cite examples from the text.

5. Part A:

Eve says that she believes it is important to study one particular animal. Which one is that?

- A. Snakes
- B. Frogs
- C. Jaguars
- D. Mice

Part B:

Which sentence from the passage helps the reader understand why it is important to study the animal that is the answer to Part A?

- A. Any rapid disappearance of frogs is a sign there's trouble in the environment.
- B. I've always had this fascination for the rain forest because of the high diversity of animals.
- C. An animal did not threaten me, but I was followed by a jaguar.
- D. Yeah, I really like snakes.
- E. I like all of the animals except for mice.

Tracking My Progress, Mid-Unit 1

Learning Target: I can identify the main idea of an interview.

1. The target in my own words is:

2. How am I doing? Circle one.

I need more help to learn this



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:

Tracking My Progress, Mid-Unit 1

Learning Target: I can determine the meaning of new words from context in an interview about research in the rainforest.

1. The target in my own words is:

2. How am I doing? Circle one.

I need more help to learn this



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:

Tracking My Progress, Mid-Unit 1

Learning Target: I can analyze the features of an interview and how they help readers.

1. The target in my own words is:

2. How am I doing? Circle one.

I need more help to learn this



I understand some of this



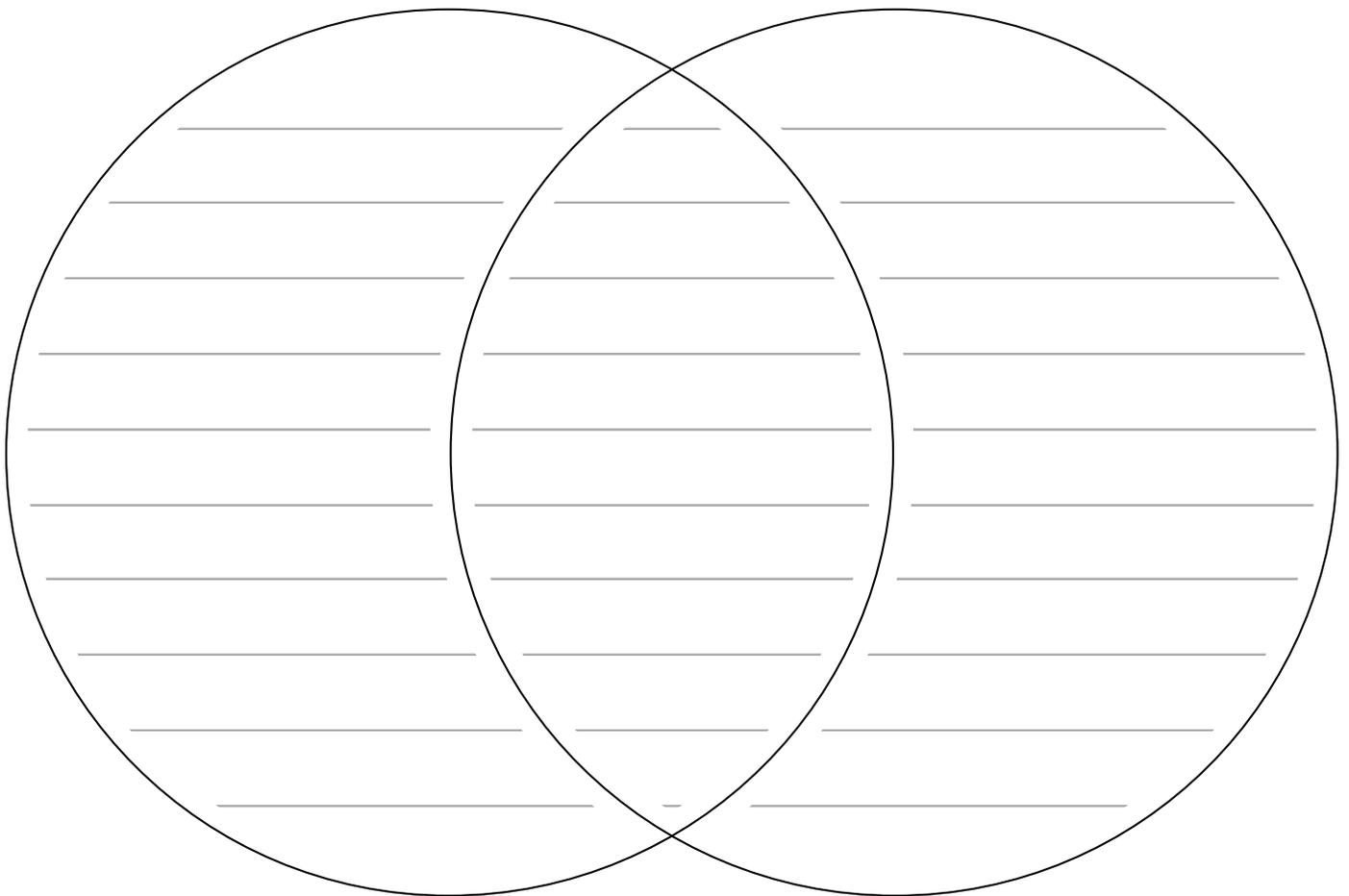
I am on my way!



3. The evidence to support my self-assessment is:

Homework: Venn Diagram Comparing the Features of Two Types of Informational Text

Directions: Choose two of the informational texts you have examined so far (interview, article, and/or video). Complete the Venn diagram, comparing and contrasting the features of these different types of informational text.



Note-Taking Note-catcher

	Facts	Quotes	My Thinking
Interview With Sloth Canopy Researcher Bryson Voirin			
Hawaii's Endangered Happy Face Spider			
Great Bear Rainforest Remote Camera Project Video Transcript			

Note-Taking Note-catcher

Include the following in your paragraph:

- Facts/key details about unique life in the rainforests, from each of the informational texts
- A quote that supports each fact/key detail, from each of the informational texts

Below are excerpts from Part II of the original interview, reprinted by permission of Scholastic Inc.:

Q: What made you move to the rain forest?

Eve: I don't live in the rain forest, I just spent three months studying there. I'm returning this summer for three months. I plan to conduct studies in the rain forest after I graduate from college. The rain forest is so appealing to me. It's so pure and natural. I really like being where there isn't the noise of the city. I love all the animals in the forest. I want more than anything to protect the rain forest because it is undergoing such change and is in such danger.

Q: Are you going to study frogs again next summer?

Eve: No, I'll be studying brown capuchin monkeys. They are extremely intelligent monkeys. I saw some last summer. They are highly endangered. I feel it would be very important to do research of these monkeys. I'll be doing a census of how many monkeys are in certain areas. I'll study the effects hunters will have on these groups.

Q: What do your friends think about your fascination with the rain forest? Do they really like science, too?

Eve: Some of them think I'm a little weird, actually. They really respect that I am so passionate about something that is in such critical condition. It is so important to the world. It affects everything. The depletion of the rain forest is occurring so rapidly. It's important that we do something about it. They have actually asked me about how they can get involved in rain-forest research as well.

Q: What kinds of dangers do rain forests face?

Eve: The effects of global warming and logging, too much logging, and urbanization. Urbanization is when the cities encroach on the land that was original forest to make houses for the people. Six percent of the original forest remains and that's just for the Atlantic rain forest. That's why my study was important. Scientists wanted to determine if they could reforest the areas cut down. I was studying whether there were any new frog species that adapted to the land. The results of my study were that they could reforest without replacing any original species, because all were common to the pond site.

Q: What did your family think about you going to the rain forest?

Eve: My mother was extremely supportive. She actually feels there's more danger in California as a teenager than in the rain forest for me. I was pretty comfortable in nature, because I was raised in Alaska. It seemed really natural for me to be in the jungle. She was sure that I was with safe people. My mother wasn't there, but the scientists were very trustworthy.

Q: When did you first start taking an interest in our environment?

Eve: I've always had an interest, because my mom is a whale biologist, and growing up in Alaska, I've always had an appreciation for nature. I'm just more comfortable in the wilderness. I've had this appreciation for nature ever since I was a young girl.

Q: Did you see anything you did not expect?

Eve: I came into a clearing one day and saw a lot of bullet holes in trees. There was litter everywhere. It really shocked me. It was traumatizing because I was walking through pristine forest, and then to come to this area where trash was thrown about like people didn't care about the forest. It was from the poachers who had been hunting the monkeys that we had been observing earlier that day.

Q: What scientists do you most respect?

Eve: I most respect Jane Goodall for her work. I really appreciate all the work she's done for the environment. I also respect my mother for the work she's done as a whale biologist. She has instilled this appreciation in me for animals and nature that I live by.

Q: Are poachers dangerous? Why do they poach?

Eve: I was actually afraid of poachers when I was walking alone at night, because I was afraid they would mistake me for an animal and shoot me. One of the rangers, who took hikes with me and became my friend, used to be a poacher. I asked him why. He said because he was very poor and he was doing it to feed his family. Some of them kill to eat them and use all the parts. But there are also some that just do it for the sport and that's shocking to me.

Q: Has your brother or any family members ever gone on any of these trips with you?

Eve: My brother grew up in Alaska with me studying whales. We both have this appreciation for nature. My mother came down to the rain forest in Brazil for a month and she also went some other places with me. We went to the Amazon, Pantanal, where there are more species of flora and fauna than anywhere else in the world. Those places are also highly endangered. The area is undergoing great destruction. There's also another area of Brazil that needs focus. My brother is 18. He's a musician, so this summer he's going to be performing in Macedonia. He plays all kinds of music: jazz, flamenco. He's a guitar player. Classical, blues, rock, everything.

End of Unit 1 Assessment:
Analyzing an Interview with a Rainforest Scientist, Part 2

Name:

Date:

Directions:

- Read the excerpts from Part 2 of the “Live Online Interview with Eve Nilson.”
- Consider the gist of the interview—what it is mostly about.
- Skim the assessment questions below.
- Reread the text in chunks. Think about the answers to the assessment questions.
- Answer the following questions in complete sentences.
- Be sure to cite evidence from the text to support your answers.

1. Part A:

What does the word *depletion* mean as it is used in this interview?

- A. destruction
- B. change
- C. reduction
- D. growth

Part B:

Which of the phrases from the interview best helps the reader understand the meaning of *depletion*?

- A. It is so important to the world.
- B. Urbanization is when the cities encroach on the land that was original forest to make houses for the people.
- C. Six percent of the original forest remains and that’s just for the Atlantic region.
- D. Scientists wanted to determine if they could reforest the areas cut down.

End of Unit 1 Assessment:
Analyzing an Interview with a Rainforest Scientist, Part 2

2. Part A:

What is one of the main ideas of the interview with Eve Nilson?

- A. Rain forests have many species of plants and animals.
- B. Scientists are trying to reforest some areas of the rain forest.
- C. Poachers cause harm to the rain forests.
- D. Rain forests are being destroyed.

Part B:

Which sentence from the article best supports the answer to Part A?

- A. I want more than anything to protect the rain forest because it is undergoing such change and is in such danger.
- B. There was litter everywhere.
- C. The results of my study were that they could reforest without replacing any original species, because all were common to the pond site.
- D. Those places are also highly endangered.

3. According to the interview with Eve Nilson, in what ways are the plants and animals of the rain forest in danger? Quote evidence from the text in your answer.

End of Unit 1 Assessment:
Analyzing an Interview with a Rainforest Scientist, Part 2

4. According to the articles we have read and the video documentaries we have viewed, what is a definition of the word *biodiversity*?

5. Write a paragraph that explains the three main informational texts read and analyzed during this unit: “Interview With Sloth Canopy Researcher: Bryson Voirin,” “Hawaii’s Endangered Happy Face Spider,” and the “Great Bear Rainforest Remote Camera Project,” about the rainforests of the Western Hemisphere.

Make sure to include:

The *type* of text each is;

The *features* in each type of text;

The *main idea* each scientist *communicated* about the rainforest.

End of Unit 1 Assessment:

Analyzing an Interview with a Rainforest Scientist, Part 2

6. Which type of informational text helped you learn the most about rainforests of the Western Hemisphere? What specific *features* in the text helped you the most?

Tracking My Progress, End of Unit 1

Learning Target: I can determine the main ideas in informational texts about rainforests of the Western Hemisphere.

The target in my own words is:

2. How am I doing? Circle one.

I need more help to learn this



I understand some of this



I am on my way!



3. The evidence to support my self-assessment is:

Tracking My Progress, End of Unit 1

Learning Target: I can compare and contrast the features of different informational texts about rainforests.

The target in my own words is:

2. How am I doing? Circle one.

I need more help to learn this



I understand some of this



I am on my way!

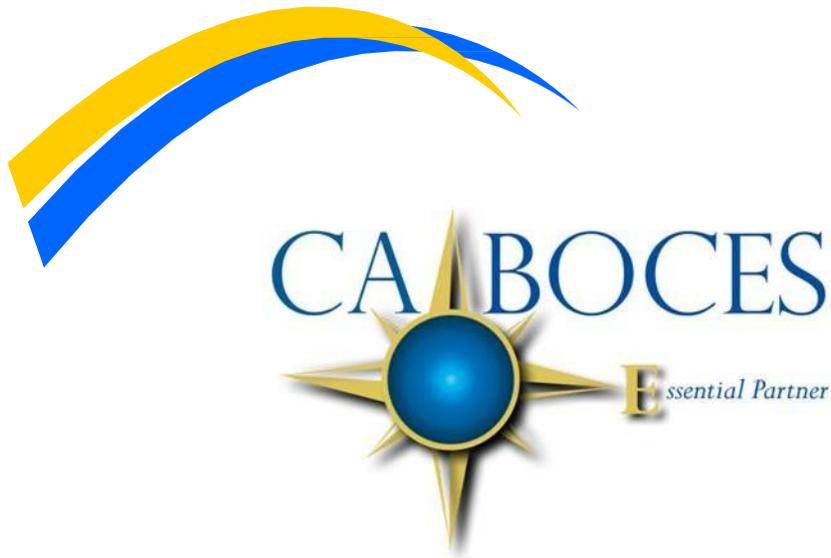


3. The evidence to support my self-assessment is:

Science Talk Note-catcher

Question:

QUOTES From informational texts	GIST What my partner said...



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