



Animals of the Tropical Rainforest Habitat

6

✔ **Lesson Objectives**

Core Content Objectives

Students will:

- ✓ Explain why living things live in habitats to which they are particularly suited
- ✓ Classify animals on the basis of the types of foods that they eat (herbivore, carnivore, omnivore)
- ✓ Identify the characteristics of the tropical rainforest habitat
- ✓ Explain how tropical rainforest animals have adapted to the tropical rainforest habitat

Language Arts Objectives

The following language arts objectives are addressed in this lesson. Objectives aligning with the Common Core State Standards are noted with the corresponding standard in parentheses. Refer to the Alignment Chart for additional standards addressed in all lessons in this domain.

Students will:

- ✓ Compare and contrast the tropical rainforest habitat with the temperate deciduous forest habitat (RI.1.9)
- ✓ Draft an informative text that presents information learned about animals in “Animals of the Tropical Rainforest Habitat” that includes mention of a topic, some facts about the topic, and some sense of closure (W.1.2)
- ✓ Describe the tropical rainforest habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)
- ✓ Add drawings to descriptions of animals in the tropical rainforest habitat to clarify ideas, thoughts, and feelings (SL.1.5)

✓ Use frequently occurring conjunctions, such as *but*

Core Vocabulary

canopy, n. The top layer of the forest formed by the branches and leaves at the tops of the trees

Example: The canopy of the forest shades the plants and animals below.

Variation(s): canopies

colonies, n. A group of the same kind of animals or plants living and growing together

Example: There were several ant colonies in his backyard.

Variation(s): colony

dense, adj. Thick

Example: The rainforest is very dense because of the many plants that grow and live close together there.

Variation(s): denser, densest

humid, adj. Wet and damp; containing a high amount of water or water vapor


Example: The air is often sticky and humid on a hot summer day.

Variation(s): none

patterns, n. Repeated shapes or designs

Example: It is fun to find patterns in artwork.

Variation(s): pattern

<i>At a Glance</i>	Exercise	Materials	Minutes
<i>Introducing the Read-Aloud</i>	Essential Background Information or Terms	globe	10
	Purpose for Listening		
<i>Presenting the Read-Aloud</i>	Animals of the Tropical Rainforest Habitat		15
<i>Discussing the Read-Aloud</i>	Comprehension Questions		10
	Word Work: Canopy		5
 Complete Remainder of the Lesson Later in the Day			
<i>Extensions</i>	Writing About the Read-Aloud	drawing paper, drawing tools	20
	Syntactical Awareness Activity: Conjunction <i>but</i>		



Animals of the Tropical Rainforest Habitat

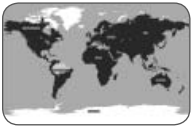
6A

Introducing the Read-Aloud

10 minutes

Essential Background Information or Terms

Using a globe, point to and use your finger to trace around the equator. As you do this, tell students that the equator is an imaginary line around the middle or center of the earth. Explain that the land and water near the equator stay very warm year-round. Ask students if a temperate deciduous forest would be found near the equator, and have them explain why not. (No, because it gets cold during the winter in temperate deciduous forests.)



← **Show image 6A-1: Map of the world with Amazon rainforest highlighted**

Tell students that the next read-aloud is about a different kind of forest that is located near the equator where it stays warm and wet all year long. This type of forest is called the tropical rainforest. The particular rainforest that Rattenborough will visit today is called the Amazon rainforest and is located on the continent of South America. Point to South America and the approximate location of the Amazon rainforest; it covers more than 1.4 billion acres in the following countries—Brazil (with sixty percent of the rainforest), Peru (with thirteen percent of the rainforest, second after Brazil), Colombia, Venezuela, Ecuador, Bolivia, Guyana, Suriname, and French Guiana.

Purpose for Listening

Tell students to listen carefully to learn about one example of a tropical forest, the Amazon rainforest.



Animals of the Tropical Rainforest Habitat

← Show image 6A-2: Rattenborough swinging through rainforest

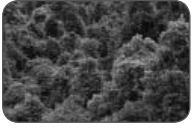
Hello there. Rattenborough reporting from a fascinating habitat—a habitat that has the greatest variety of plants and animals of any habitat on Earth. Welcome to the tropical rainforest. Tropical places are warm and wet. A rainforest is a thick forest of plants that stay green year-round. So, a tropical rainforest is a warm, wet, thick forest of plants that stay green year-round. There are tropical rainforests in many places around the world close to the equator, but the one we are visiting is called the Amazon rainforest. It is in South America and is the largest tropical rainforest on Earth. The Amazon rainforest is so **dense** that a rat like me could easily get lost.¹ It's hot and very **humid** here. The temperature is always very warm, and it rains heavily all year long.² My fur is feeling very wet and sticky, and it's a good thing that I brought my umbrella. There are between eighty and two hundred forty inches of rainfall here every year. That makes this one of the wettest places you can find on land.³

- 1 *Dense* means thick. The plants in the tropical rainforest are thick because there are so many growing closely together.
- 2 Because of the warm temperature and rain, the air feels wet, or humid.
- 3 [Provide students with an idea of the number of inches of rainfall yearly where you live— demonstrate the amount with your hands—to put the amount of rainfall in the Amazon in context.]



← Show image 6A-3: Dense jungle

Temperate deciduous forests, which you learned about last time, have broadleaf trees that lose all of their leaves in the fall. The Amazon rainforest also has broadleaf trees, but the main difference is that most of the trees here stay green all year long. The evergreen trees in this tropical rainforest replace their leaves gradually throughout the year as the leaves age and fall, so that the trees always look green and never have bare branches like the trees in a temperate deciduous forest. Because the climate here is the same all year round, plants do not need to slow down for cold winter weather, and the animals that live here always have a good supply of food all year, too.



← **Show image 6A-4: Rainforest canopy**

4 or as tall as very, very tall buildings or skyscrapers in large cities

5 A canopy is something that blocks out the sunlight. In a tropical rainforest, the canopy is the highest layer of plants formed by the tallest trees' leaves.

Take a look around. The trees in the rainforest are so tall that they grow as tall as thirteen-story buildings,⁴ and some grow much taller than that! I'm standing in a tree right now, and as you can see, the trees grow so thickly and so close together here that, from above, you can see only a **canopy** of thick, green leaves. You can't see the forest floor at all.⁵

Because the sun's light can't get through this canopy of leaves, everything under them is really dark. I've brought a flashlight to help me see down there.



← **Show image 6A-5: Rain drop**

The plants in the Amazon rainforest have adapted to this climate in many ways. Because it's so dark in the rainforest underneath the canopy, most plants have large leaves so they can catch as much light as possible. Many of the plants have waxy leaves with ends that are tapered to help the water drip off them, like the water running off my umbrella.



← **Show image 6A-6: Vines in the rainforest**

Many types of vines grow in the rainforest. Vines are climbing plants that grow on trees or wind themselves around tree trunks. Many animals use the vines growing among the trees almost like sidewalks and ladders to cross from one tree to another.

The rainforest floor is a very shady place, which means it is a good habitat for mosses and fungi that don't need much sunlight. If you can believe it, there are even some plants that don't need any light at all to grow! They grow on the forest floor and get their energy from the rotting leaves instead of sunlight.



← **Show image 6A-7: Kapok tree**

I'm way up in a particular type of tree found in the Amazon rainforest called a kapok (KA-pok) tree, so high that you won't be able to see me! The kapok tree is one of the tallest trees around. The kapok has a very long trunk, and its branches and leaves form

a canopy over the plants and animals below, making it a good shelter for animals like birds, snakes, and monkeys.



← **Show image 6A-8: Toucan, macaw, poison arrow frog**

There are also many different kinds of animals that call the Amazon rainforest home. Many types of interesting and colorful birds, frogs, insects, reptiles, and other animals live in the trees and other plants of the tropical rainforest. These huge toucans use their large beaks to cut fruit from branches and to eat lizards, as well as other birds.⁶ Macaws, which are a kind of parrot, travel in groups and use their hooked beaks to break into hard nuts and fruits.⁷ And you don't want to get too close to the poison arrow frog, which has poisonous skin to protect it from its predators.

6 [Point to the toucan on the right side in the image.]

7 [Point to the macaws.]



← **Show image 6A-9: Squirrel monkey**

I'm back in the kapok tree, one of the very tallest trees in the forest, to see what kinds of animals call this habitat home.⁸

Over there I can see a squirrel monkey. The squirrel monkey is a very friendly little animal, and it shares a lot of things in common with the squirrels that live in the temperate deciduous forests. The squirrel monkey is very small and has a very long, thin tail that it uses to help balance. It has strong legs that it uses to jump and run, and claws which help it climb up and down trees and vines. In fact, squirrel monkeys are so good at traveling by leaping and running along branches that they hardly ever touch the forest floor.

8 What is a habitat?



← **Show image 6A-10: Squirrel monkey eating**

The squirrel monkey is an omnivore. It eats insects, fruits, and flowers, and spends most of its time during the day moving around the forest to find food. The squirrel monkey has excellent eyesight, which is useful for finding small insects, fruit, and berries growing among the green leaves of the tropical rainforest trees. Squirrel monkeys live in large groups, making it harder for their predators—eagles and snakes—to get them. Now, this monkey is acting a little strange, and experience has told me that this kind of behavior

usually means there's trouble on the way. Aha, yes, look who's coming—some kind of snake. Snakes also tend to eat rats, so I'm going to climb a bit higher and take a look from a distance.



← **Show image 6A-11: Boa constrictor**

9 [Provide students of an example of something that is thirteen feet long, using an example from your classroom or school.]

10 Patterns are repeated shapes or designs.



← **Show image 6A-12: Boa constrictor showing jawline**

Wow, look at the size of this snake! It's a boa constrictor, one of many kinds of snakes that live in the Amazon rainforest. It's a pretty big snake; this one is about thirteen feet long!⁹ Boas can have slightly different coloring and **patterns** on their skin,¹⁰ but they are well camouflaged in the trees, plants, and vines of the forest.

This boa constrictor, like all snakes, is a carnivore. It eats other animals such as bats, which are its favorite food, rodents (yes, rats included!), lizards, birds, and even the small squirrel monkeys. The boa constrictor is mostly nocturnal, so it comes out to hunt when it's getting dark, like now.

Snakes can eat animals that are much bigger than they are. This boa's jaws open very, very wide, so that when it finds an animal to eat, even animals such as birds and squirrel monkeys, it will be able to swallow it whole.



← **Show image 6A-13: Jaguar**

The boa constrictor is not the only carnivore in the rainforest. In fact, it will have to watch out that it doesn't become dinner for a hungry jaguar, like this one. Jaguars look a lot like leopards—they have tan fur with dark spots—but they are bigger than leopards, with shorter tails and legs, and bigger heads and paws. This jaguar is about seven feet long and probably weighs around two hundred pounds.



← **Show image 6A-14: Jaguar hunting**

Jaguars are very well adapted to living in the rainforest. They have very sensitive hearing and an excellent sense of smell. A jaguar can see very well during the day and at night. All these things make it easier for it to find, stalk, and catch its prey.¹¹

11 *Stalk* means to follow.

I can barely hear the jaguar moving through the forest. That's because its paws are covered with very thick fur with pads on the bottom. Because they can travel so quietly, jaguars don't have to run far to catch their prey. So, instead of having long legs for running, they have short, strong legs that are good for pouncing on other animals from the ground, from trees, or in the water.

A jaguar spends most of the day resting and goes out to hunt at night. It's also very good at climbing trees, which means I should get out of here before it's able to sniff me out!

I've moved to the bottom of the kapok tree onto the forest floor, because there's one last, very interesting animal I want to show you. We'd better hurry—it's getting dark, and I may have to use my flashlight to show you.



← **Show image 6A-15: Leafcutter ants**

These are leafcutter ants. These ants burrow underground and make nests in groups called **colonies**. Different ants in the colony have different responsibilities. There are worker ants, soldier ants, and their queen. The worker ants are traveling to the kapok tree nearby where they will use their sharp jaws to bite off pieces of the leaves to bring back to the nest.

Did you know that ants can carry up to ten times their own body weight? That's pretty amazing, isn't it? The soldier ants are there to protect the worker ants on their way to and from the nest. These ants spend most of their lives working for food! Nature is amazing, isn't it?

Well, it's really quite dark now, and my fur has been sticking to me since we got here, so I think it's time to leave the hot and humid Amazon rainforest. We've learned a lot about this exotic habitat, its climate, and the plants and animals that have their homes here. Now for somewhere really different.

Comprehension Questions

10 minutes

1. *Literal* What is a tropical rainforest? (a forest that stays warm, wet and green all of the time and has many different types of plants and animals)
2. *Inferential* Why is it dark on the ground or floor of a tropical rainforest? (The canopy made by the leaves of the tall trees blocks most of the sunlight.)
3. *Inferential* How have the plants adapted to live in the tropical rainforest? (They reach for the sunlight or need little sunlight; they have large leaves to collect the sunlight; they have waxy leaves to allow runoff of water; the trees have large roots.)



← **Show image 6A-9: Squirrel monkey**

4. *Inferential* What animal is this? (squirrel monkey) What food does a squirrel monkey eat in the tropical rainforest? (It eats insects, fruits, and flowers.) Is the squirrel monkey a carnivore, herbivore, or omnivore? (omnivore) Where do you think the squirrel monkey might find shelter in the tropical rainforest? (in the trees)



← **Show image 6A-11: Boa constrictor**

5. *Inferential* What animal is this? (boa constrictor) What food does a boa constrictor eat in the tropical rainforest? (It eats small animals.) Is the boa constrictor a carnivore, herbivore, or omnivore? (carnivore) Where do you think the boa constrictor might find shelter in the tropical rainforest? (in the trees, under plants on the forest floor)



← **Show image 6A-14: Jaguar hunting**

6. *Inferential* What animal is this? (jaguar) What food does a jaguar eat in the tropical rainforest? (It eats small animals.) Is the jaguar a carnivore, herbivore, or omnivore? (carnivore)
7. *Inferential* What adaptations do the squirrel monkey, boa constrictor, jaguar, and leafcutter ants have in order to live in the tropical rainforest? (The squirrel monkey has strong back legs to run and jump, sharp claws to quickly climb trees, and a long tail

to help it balance as it runs along branches. The boa constrictor has jaws that open wide so it can eat its prey whole and is camouflaged so it can sneak up on its prey. The jaguar has sensitive hearing and an excellent sense of smell, and its paws are covered with thick fur so that it can effectively and quietly hunt its prey. Leafcutter ants can carry up to ten times their weight so they can bring food back to the colony.)

[Please continue to model the *Think Pair Share* process for students, as necessary, and scaffold students in their use of the process.]

I am going to ask a question. I will give you a minute to think about the question, and then I will ask you to turn to your neighbor and discuss the question. Finally, I will call on several of you to share what you discussed with your partner.

8. *Evaluative Think Pair Share:* How is a tropical rainforest similar to a temperate deciduous forest? (They both have trees; are home to many plants and animals; etc.) How is it different? (A tropical rainforest stays warm, wet, and green all year.)
9. After hearing today's read-aloud and questions and answers, do you have any remaining questions? [If time permits, you may wish to allow for individual, group, or class research of the text and/or other resources to answer these questions.]

Word Work: Canopy

5 minutes

1. In the read-aloud you heard, “[T]he trees grow so thickly and so close together here that, from above, you can only see a *canopy* of thick, green leaves.”
2. Say the word *canopy* with me.
3. A canopy is a covering above an object that blocks out sunlight.
4. There is a canopy over the front doors of the store.
5. Have you ever seen a canopy? If so, where? What did the canopy cover? Can you think of times that it might be helpful to have a canopy? Try to use the word *canopy* when you tell about it. [Ask two or three students. If necessary, guide and/or rephrase the students’ responses: “I saw a canopy at...”]
6. What’s the word we’ve been talking about?

Use a *Making Choices* activity for follow-up. Directions: I will name two things. You will decide which one is similar to a canopy. Remember, a canopy is above a person or an object in order to cover it. Remember to use the word *canopy* when you answer.

1. the roof of a house or the floor of a house (The roof is like a canopy.)
2. a tent or a door mat (A tent is like a canopy.)
3. a tree’s roots or a tree’s branches and leaves (A tree’s branches and leaves are like a canopy.)
4. an umbrella or rain boots (An umbrella is like a canopy.)



Complete Remainder of the Lesson Later in the Day



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6_B

Extensions

20 minutes

Writing About the Read-Aloud

Ask students to think about the read-aloud that they listened to earlier in the day. Give each student a piece of paper, and ask each to draw a picture of an animal from the tropical rainforest. You may need to review some of the Flip Book images with students before they begin drawing. Direct each student to write a sentence with one important fact about the animal in their drawing. As you circulate, make sure that each student is representing an animal from the day's read-aloud, and encourage students to represent the sounds they hear in words on their paper. You may also want to take dictation for any student who is unable to use plausible spelling to represent his or her ideas.

When students have completed their drawings and sentences, tell them that they are going to group the animals in their drawings as herbivores, carnivores, or omnivores. As students group the animals, encourage the use of increasingly complex sentences and domain-related vocabulary.

↔ Syntactic Awareness Activity: Conjunction *but*

The purpose of these syntactic activities is to help students understand the direct connection between grammatical structures and the meaning of text. These syntactic activities should be used in conjunction with the complex text presented in the read-alouds.

1. Conjunctions are a kind of word we use to connect words and phrases.
2. We use the conjunction ***but*** to join words and phrases that are different, or opposite.

3. Listen to this selection about the jaguar from the read-aloud. I will emphasize the word **but** as I read the selection to you:

Jaguars look a lot like leopards—they have tan fur with dark spots—but they are bigger than leopards, with shorter tails and legs, and bigger heads and paws. This jaguar is about seven feet long and probably weighs around two hundred pounds.

4. Notice that in this paragraph, Rattenborough uses the word **but** when he talks about the differences between leopards and jaguars.
5. You hear the word **but** a lot when talking about differences: Drawing and painting are both fun, but painting is a little messier. The word **but** tells us that we are talking about differences, or opposites.
6. Let's listen to another example:
My sister and I look a lot alike, but she is shorter.
7. The word **but** tells us that we are talking about differences, or opposites.

Use a *Discussion* activity for follow-up. Directions: The following sentences talk about two objects. Work with your partner to talk about how the two objects are different using the word **but**. Use complete sentences, and explain how the two objects are different.

1. Dogs and cats are both animals, but dogs are . . .
2. Apples and bananas are both fruit, but apples are . . .
3. Kindergarteners and first graders are both students, but first graders are . . .