## ☑ 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 temperate deciduous forest habitat
- Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest 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 temperate deciduous forest habitat with the Arctic, Sonoran, and East African savanna habitats (RI.1.9)
- ✓ With assistance, categorize and organize information about certain animals and the habitat in which they live (W.1.8)
- ✓ Ask and answer *what* questions orally, requiring literal recall and understanding of the details or facts from "Animals of the Temperate Deciduous Forest Habitat" (SL.1.2)
- ✓ Describe the temperate deciduous forest habitat with relevant details, expressing ideas and feelings clearly (SL.1.4)
- √ Identify new meanings for the word bark and apply them accurately

## **Core Vocabulary**

**climate, n.** The type of weather that a place has over a long period of time *Example:* The climate in the desert is very dry and very different from the climate in the tropical rainforest.

Variation(s): climates

**hibernate**, v. To sleep during the winter season for periods of time that are longer than just one night

*Example:* Some animals hibernate in the winter, while others remain active.

Variation(s): hibernates, hibernated, hibernating

**species,** *n.* A group of animals or plants that are alike in specific ways and have similar characteristics or features

Example: There are about seventy species of whales.

Variation(s): none

store, v. To save and put something away to be used later

Example: To prepare for the winter, some animals store food.

Variation(s): stores, stored, storing

**temperate**, *adj.* Not extremely hot or cold; a "middle" or moderate temperature

Example: Many places in the United States have a temperate climate.

Variation(s): none

**territory**, *n*. A space or an area in which an animal or group of animals live(s) and in which they often will not permit other animals to enter or live

Example: Many animals protect their territory.

Variation(s): territories

At a Glance	Exercise	Materials	Minutes
Introducing the Read-Aloud	What Do We Know?		10
	Where Are We?		
	Purpose for Listening		
Presenting the Read-Aloud	Animals of the Temperate Deciduous Forest Habitat		15
Discussing the Read-Aloud	Comprehension Questions		10
	Word Work: Store		5
Complete Remainder of the Lesson Later in the Day			
Extensions	Multiple Meaning Word Activity: Bark	Poster 3M (Bark)	20
	Image Card Sort	Image Cards 1–15; Habitat Posters 1–4	
Take-Home Material	Family Letter	Instructional Master 5B-1	*



# **Animals of the Temperate Deciduous Forest Habitat**



## **Introducing the Read-Aloud**

**10** minutes

#### What Do We Know?

Ask students what they know about forests. You may prompt discussion with the following questions:

- What is a forest? (You may need to explain that a forest is a large area of trees.)
- Have you ever seen or been in a forest? If so, where?
- What things are found in a forest?
- Are all forests the same, or are there different kinds of forests?

#### Where Are We?

Tell students that not all forests are the same. Share that the forest they are going to learn about today is a temperate deciduous forest.



Point to the highlighted portions of the map. Explain to students that all of these highlighted areas have temperate deciduous forests and that these kinds of forests exist all around the world. Tell students that they are going to hear about a temperate deciduous forest today in the United States, one that is part of the states of Tennessee and North Carolina.

#### **Show image 5A-2: Great Smoky Mountains**

This forest is also a national park called Great Smoky Mountains National Park and is one of the most visited national parks in the United States. The mountains are named for the blue-gray mist that surrounds the mountain peaks.





## **Purpose for Listening**

Tell students that the forest they are going to learn about today is a temperate deciduous forest. Tell students to listen carefully to learn what a temperate deciduous forest is.



1 or strange and fascinating

2 One acre is about as big as an American football field.



- 3 Even though these forests have a warm summer and a cold winter, temperate means it's not extremely hot or extremely cold like in other areas.
- 4 The climate of a habitat is what the weather is usually like over a long period of time.



5 Broadleaf trees have broad leaves, or wide leaves.

## **Animals of the Temperate Deciduous Forest Habitat**

#### ■ Show image 5A-3: Rattenborough in an oak tree

Rattenborough here with the next thrilling chapter in our habitat read-alouds. After looking at some very exotic, <sup>1</sup> faraway places, I thought we could visit a habitat that is quite common in many parts of the United States. This is a forest habitat. You know you're in a forest habitat when everywhere you look there are trees all around you!

You may be wondering why I'm up a tree. Well, I'm enjoying the wonderful view of a forest in North America! There are over five hundred thousand acres of forest in this national park. Many of you may have seen forests like this before, either in real life or in books. You may be familiar with some of the plants and animals that live here in the Smoky Mountains. A lot of them live in many other places all over the United States.

## **←** Show image 5A-4: View through the trees

There are many different kinds of forests in the world. The forests of the Smoky Mountains are called **temperate** forests. A temperate forest grows in an area that has four seasons, including a warm summer and a cold winter, and receives steady rainfall throughout the year. <sup>3</sup>

This forest is also called a deciduous forest because it is full of deciduous plants—trees, bushes, and shrubs that lose their leaves every fall, then grow leaves again when the temperatures start to rise in the spring. The temperate deciduous forest has a much friendlier **climate** than the other habitats we've learned about, and it can support many different kinds of plant and animal life. <sup>4</sup>

#### Show image 5A-5: Forest

A temperate deciduous forest is made up of broadleaf trees like oak, maple, beech, and elm. <sup>5</sup> These trees grow very tall and

are thickly covered with wide leaves that are better at collecting sunlight than trees like pine trees that have needles instead of leaves. Under these taller trees, there are saplings (young trees), as well as shrubs and bushes and plants that bear fruit. Closer to the ground grow shorter plants like grasses and wildflowers.



## Show image 5A-6: Oak tree

I'm going to start at the top and work my way down so I can show you this wonderful habitat. The tree I am standing in now is an oak tree. This oak is very tall and is covered with leaves and acorns. An acorn is a seed, and if it gets planted in the forest soil, it can grow roots and a shoot which will eventually turn into an oak sapling.

Like the saguaro cactus in the desert and the acacia tree in the savanna, oak trees provide shelter and food for many animals. Owls, woodpeckers, mice, and foxes make their homes in the branches or around the roots of the oak tree, and acorns are food for squirrels, birds, deer, and other animals.



#### **←** Show image 5A-7: Insect

Look at that tasty insect! Well, the oak tree is home for hundreds of different kinds of insects, like the stink bug and the weevil, which eat its leaves and acorns. Moths and butterflies lay their eggs in the tree. Other insects, like ants and timber beetles, live under the bark of the oak or in dead and fallen trees.

Just as insects are drawn to the oak as a source of food, so are animals that feed on insects. Spiders and all kinds of birds hunt for tasty bugs among the branches of the oak tree. Bears and other animals find food here, too. The oak tree is an amazing habitat in itself!



#### Show image 5A-8: Berry bushes

Down on the forest floor there are all kinds of shrubs, the fruits of which are food to many different **species** of animals, including rabbits, chipmunks, deer, and omnivores like bears. <sup>6</sup> Mmm, some

6 A species is a group of plants or animals that are similar or alike. The animals you just heard listed are all different species. of these blueberries are perfectly ripe, and they taste delicious. What a tasty treat!

Down here on the ground I can see wildflowers, grasses, and clover. These plants, which cover the forest floor, are home to many types of insects and are food to grazing animals such as deer and mice.

One interesting thing about the plants in a forest is that often they grow leaning in the same direction. Isn't that strange? Well, they have to do that because they are looking for sunlight. The leaves of the big trees get all the sun; only a small amount of sunlight gets through to the forest floor—that's why it's so shady in here. The plants down here have to grow toward the sun so they can get enough light to make the food they need to survive.

7 Why do you think the plants might be leaning in one direction?



◆ Show image 5A-9: Moss

You may have seen this fuzzy green stuff growing on rocks, trees, and the ground in the forest or countryside. <sup>8</sup> Mosses are small green plants which grow in clumps in damp and shaded places. They cover parts of the forest floor like a carpet and are home to many small animals and insects. It feels really soft to walk on—thick and spongy—and it tickles a bit!

Now we're going to take a look at some of the animals that live here. Great Smoky Mountains National Park is home to almost four hundred different kinds of animals. Animals that live in the temperate deciduous forest are adapted to living in a habitat with four seasons. <sup>9</sup>

9 Name the four seasons, and tell me what the weather is like in each

8 [Point to the moss in the picture.]



#### Show image 5A-10: Squirrel eating an acorn

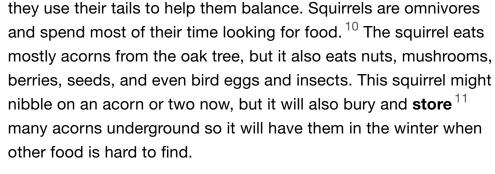
Let's start with the mighty oak tree again. This amazing tree is home to many animals, and I'm standing at the nest of one of them—the gray squirrel. This little animal is covered in warm, gray-brown fur with a white chest and a long, bushy tail. Squirrels live in holes in the trunks of trees or in nests high up in trees like this one. Their nests are built from twigs, leaves, moss, and grass. Squirrels use their strong back legs and sharp claws to help them leap from tree to tree and to run up and down tree trunks, and

10 What are omnivores? (animals that eat both plants and animals)

11 or save



12 What are carnivores? (animals that eat other animals)



## Show image 5A-11: Barred owl

A barred owl lives in a hole in this oak tree. I have to be careful, because owls are carnivores. <sup>12</sup> Unlike the elf owl in the desert, this owl happens to enjoy eating rats! This owl also eats other small animals like mice, insects, and even other birds. Owls have very good hearing and excellent eyesight, which allows them to find their prey easily in the thick forest. Owls are nocturnal, which means they only come out at night, so I have some time before this one is ready for a late-night snack.

## **←** Show image 5A-12: Black bear

Hold on, what's that scratching sound coming from below? It's a black bear! Black bears are common in North American temperate deciduous forests, and there are more than a thousand in this national park. They are large animals—they weigh as much as fourteen first graders would weigh all together—and when they stand on their hind legs, they can be taller than a person.

Bears are omnivores and **hibernate**, or sleep, during the winter in hollowed-out trees or caves. When they are hibernating, bears use less energy and do not need to eat any food for many, many days. This is a good thing, because during the winter the foods that bears eat are scarce and hard to find.

Bears are covered in thick, black or brown fur, and they have sharp claws to strip the <u>bark</u> off trees to uncover the insects that live there. <sup>13</sup> This bear will use its long, sticky tongue to get into every crack to hunt out the insects, and they'll make a delicious meal for him, I'm sure.



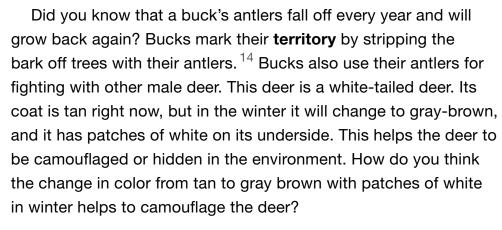
13 The word *bark* in this sentence means the outer covering of a tree. The word *bark* can also refer to the sound a dog makes.



#### Show image 5A-13: Buck

I just saw a deer through the trees. Deer often live in the temperate deciduous forest because it is such a good place to stay hidden, but they often hunt for food in neighboring meadows. This is a buck. A buck is a male deer, and we can tell because male deer have antlers.

14 A territory is an area in which an animal or group of animals lives. Animals often protect their territory and try to keep other animals out.





## Show image 5A-14: Doe running away

Deer graze on grasses and eat tree leaves, berries, and acorns, among other things. They mostly come out to feed at night when the light is low, and they rest during the day. This white-tailed deer has strong, long legs which are good for running and jumping and for escaping from predators like wolves, coyotes, and people.

The temperate deciduous forest's climate can support many different plants and animals because it has four seasons. It is called temperate because it never gets too cold, like the Arctic, or too hot, like the Sonoran Desert. There is a steady rate of rainfall throughout the year, so plants can grow and animals can have food and water to keep them alive. This is just one of the many kinds of forests in the world. Next we're going to take a look at another kind. It's going to be very different in a lot of ways. I'll see you on our next adventure.

## **Comprehension Questions**

**10** minutes

If students have difficulty responding to questions, reread pertinent passages of the read-aloud and/or refer to specific images. If students give one-word answers and/or fail to use read-aloud or domain vocabulary in their responses, acknowledge correct responses by expanding the students' responses using richer and more complex language. Ask students to answer in complete sentences by having them restate the question in their responses.

- 1. Literal Are all forests the same, or are there different kinds of forests? (different kinds)
- Inferential Describe the temperate deciduous forest habitat.
   (It has cold and warm seasons—winter and summer; gets a steady amount of rainfall throughout the year—not too much, not too little; plants lose their leaves in the fall and grow more in the spring; etc.)
- 3. Literal What kinds of plants might you see in a temperate deciduous forest? (broadleaf trees, bushes, shrubs, mosses, etc.)
- 4. Evaluative How is the temperate deciduous forest habitat of the Great Smoky Mountains like the other habitats that you have learned about? (Plants and animals live there.) How is it different? (The climate is different; different plants and animals are found there; etc.)

## **←** Show image 5A-10: Squirrel eating an acorn

5. Inferential What animal is this? (gray squirrel) Where does the gray squirrel find shelter in the temperate deciduous forest? (either in a hole or a nest in an oak tree) What food does the gray squirrel in a temperate deciduous forest eat? (It eats acorns, other small plants, and insects.) Is the gray squirrel a carnivore, herbivore, or omnivore? (omnivore)





#### Show image 5A-11: Barred owl

Inferential What animal is this? (barred owl) Where does the barred owl find shelter in the temperate deciduous forest? (usually in a hole in an oak tree) What food does the barred owl in a temperate deciduous forest eat? (It eats small animals.) Is the barred owl a carnivore, herbivore, or omnivore? (carnivore) The read-aloud said that the barred owl is nocturnal. What does that mean? (It rests and sleeps during the day and is active at night.)



#### Show image 5A-12: Black bear

7. Inferential What animal is this? (black bear) Where does the black bear find shelter in the temperate deciduous forest? (in hollowed-out trees or caves) In a temperate deciduous forest, what food does the black bear eat? (It eats plants and small animals.) Is the black bear a carnivore, herbivore, or omnivore? (omnivore) During the winter, the black bear hibernates. What does that mean? (sleeps during the winter)



#### Show image 5A-13: Buck

- 8. Inferential What animal is this? (deer or buck) What food does the deer in a temperate deciduous forest eat? (It eats plants.) Is the deer a carnivore, herbivore, or omnivore? (herbivore)
- 9. Inferential What adaptations do the gray squirrel, barred owl, black bear, and deer have in order to live in the temperate deciduous forest? (The gray squirrel has strong back legs, sharp claws, and a long tail to quickly climb trees and balance on branches. The barred owl has good hearing and excellent eyesight to hunt for food. The black bear has sharp claws and a long, sticky tongue that help it find food, and it hibernates during the winter so it doesn't have to eat. The deer has antlers and strong legs, and the color of its fur changes in winter to camouflage it.)
- 10. Evaluative How are the gray squirrel, barred owl, black bear, and deer alike? (They all live in the temperate deciduous forest; they all need food, water, and shelter; etc.) How are they different? (They may be carnivores, herbivores, or omnivores; they have different adaptations; etc.)

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

- 11. Evaluative What? Pair Share: Asking questions after a readaloud is one way to see how much everyone has learned. Think of a question you can ask your neighbor about the readaloud that starts with the word what. For example, you could ask, "What did you hear about in today's read-aloud?" Turn to your neighbor and ask your what question. Listen to your neighbor's response. Then your neighbor will ask a new what question, and you will get a chance to respond. I will call on several of you to share your questions with the class.
- 12. 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: Store**

**5** minutes

- 1. In the read-aloud you heard, "This squirrel might nibble on an acorn or two now, but it will also bury and *store* many acorns underground so it will have them in the winter when other food is hard to find."
- 2. Say the word store with me.
- 3. Store means to save and put away for future use.
- 4. When warm weather arrives, I store my winter hat and gloves in a box in the closet.
- Do you sometimes store food? Do you store other things? Try
  to use the word store when you tell about it. [Ask two or three
  students. If necessary, guide and/or rephrase the students'
  responses: "I store...")
- 6. What's the word we've been talking about?

Use a Making Choices activity for follow-up. Directions: I will name a place. I want you to think about what you might store in that place. For example, if I say, "kitchen cabinet," you might say, "I store peanut butter in the kitchen cabinet." Remember to use the word store when you answer. (Answers may vary for all examples.)

- the refrigerator
- 2. your desk (or wherever your students store supplies)
- 3. your pockets
- 4. under your bed
- 5. your backpack



Complete Remainder of the Lesson Later in the Day



# Animals of the Temperate Deciduous Forest Habitat

**Extensions** 20 minutes

## **△** Multiple Meaning Word Activity

**Associated Phrase: Bark** 

- [Show Poster 3M (Bark).] In the read-aloud you heard, "Bears are covered in thick, black or brown fur, and they have sharp claws to strip the *bark* off trees to uncover the insects that live there." [Have students hold up one or two fingers to indicate which image on the poster shows this meaning.]
- 2. Bark can also mean something else. Bark also refers to the sound dogs make. [Have students hold up one or two fingers to indicate which image on the poster shows this meaning.]
- 3. [Point to the bark on the tree.] With your partner, talk about what you think of when you see this kind of bark. I will call on a few partners to share what they came up with. Try to answer in complete sentences. (When I see this kind of bark, I think of trees, scratchy, covering, etc.)
- 4. [Point to the bark that is the sound a dog makes.] With your partner, talk about what you think of when you see this kind of bark. I will call on a few partners to share what they came up with. Try to answer in complete sentences. (When I see this kind of bark, I think of noise, dogs, howl, etc.)

## **Image Card Sort**

Display Habitat Posters 1–4 to quickly discuss the various habitats that have been studied. Then place the Habitat Posters in different locations around the room.

Pass out Image Cards 1–15 to students—either one card per student or one card per pair of students, depending upon the number of students in your class. As you pass out each card, ask the entire class to name the animal or plant depicted. Tell each

student to stand next to the Habitat Poster that depicts the habitat of the plant or animal card that s/he is holding.

Proceeding from one habitat to another, quickly ask each student to identify each plant or animal and name the habitat in which it lives. For example, "A gray squirrel lives in the temperate deciduous forest." Ask the rest of the class if they agree or disagree with each student's answer.

If time permits, conclude the extension by asking students to return to their desks and to get out a piece of paper or their writing journals. Have them think of one sentence about the plant or animal on their card. Tell them to use their sound/spelling knowledge to sound out and write their sentences. Help students who find this difficult by dictating the spelling of difficult words. You may need to use a shared writing activity with some students. (They dictate while you write.)

## Take-Home Material

## **Family Letter**

Send home Instructional Master 5B-1.



## **Pausing Point**



## **Note to Teacher**

You should pause here and spend one day reviewing, reinforcing, or extending the material taught thus far.

You may have students do any combination of the activities listed below, but it is highly recommended you use the Mid-Domain Student Performance Task Assessment to assess students' knowledge of animals and their habitats. The other activities may be done in any order. You may also choose to do an activity with the whole class or with a small group of students who would benefit from the particular activity.

## **Core Content Objectives Up to This Pausing Point**

#### Students will:

- ✓ Explain what a habitat is
- Explain why living things live in habitats to which they are particularly suited
- ✓ Identify the characteristics of the Arctic tundra habitat
- √ Identify the characteristics of the Arctic Ocean habitat
- Explain how Arctic animals have adapted to the Arctic tundra and Arctic Ocean habitats
- ✓ Identify the characteristics of the desert habitat
- ✓ Explain how desert animals have adapted to the desert habitat
- √ Classify animals on the basis of the types of food that they eat (herbivore, carnivore, omnivore)
- √ Identify the characteristics of the grassland habitat
- Explain how grassland animals have adapted to the grassland habitat
- ✓ Match specific plants and animals to their habitats

- ✓ Identify the characteristics of the temperate deciduous forest habitat
- Explain how temperate deciduous forest animals have adapted to the temperate deciduous forest habitat

## **Student Performance Task Assessment**

## (Instructional Master PP-1)

## Materials: Three sheets of paper per student, drawing tools

Give each student three sheets of paper and drawing tools. On one sheet of paper, have them draw the Arctic habitat; on the second sheet of paper, have them draw the desert habitat; and on the third sheet of paper, have them draw the savanna or grassland habitat. Ask students to include plants that might live in each habitat.

Next, hand out Instructional Master PP-1. Have students cut out the animals and place them in the correct habitat. If time allows, talk with each student about his/her work and why s/he placed certain animals in certain habitats.

## **Activities**

## **Image Review**

Show the Flip Book images from any read-aloud again, and have students discuss the read-aloud using the images.

## **Image Card Review**

## Materials: Image Cards 1-15

In your hand, hold Image Cards 1–15 fanned out like a deck of cards. Ask a student to choose a card but not show it to anyone else in the class. The student must then perform an action or give a clue about the picture s/he is holding. For example, for the Arctic fox, the student may describe the habitat in which the fox lives, what it eats, and what it looks like. The rest of the class will guess what animal or plant is being described. Proceed to another card when the correct answer has been given.

#### **Domain-Related Trade Book or Student Choice**

#### **Materials: Trade book**

Read a trade book to review animals from a particular habitat; refer to the books listed in the Introduction. You may also choose to have students select a read-aloud to be heard again.

## **Key Vocabulary Brainstorming**

## Materials: Chart paper, chalkboard, or whiteboard

Give students a key domain concept or vocabulary word such as *shelter* or *camouflage*. Have them brainstorm everything that comes to mind when they hear the word. Record their responses on chart paper, a chalkboard, or a whiteboard for reference.

#### **Riddles for Core Content**

Ask students riddles such as the following to review core content:

- I live in the Sonoran Desert, and I love to eat cactus fruit as well as insects. I make my home by pecking holes into cacti. What am I? (Gila woodpecker)
- I live in the Arctic and have a long, shaggy coat to keep me warm in freezing temperatures. I have wide hooves so I don't slip on the snow and ice. What am I? (muskox)
- I live in the Sonoran Desert. I look a little like the Arctic hare, but I have longer ears and longer back legs. I love to eat grass and even cacti. What am I? (desert cottontail)

You may also wish to make some of your own riddles, depending on your students' needs.

## **Venn Diagram: Cacti and Oak Trees**

## Materials: Chart paper, chalkboard, or whiteboard

Create a Venn diagram with two overlapping circles on chart paper, a chalkboard, or a whiteboard. Label the circles with simple drawings of a cactus and an oak tree. Ask students to think about how cacti and oak trees are alike. (Both provide shelter and food for many animals; both may grow to be very tall and old; etc.) Record students' responses in the overlapping part of the circles.

Next, ask students to think about cacti and how they are different from oak trees. (Cacti grow in the desert, wheras oak trees grow in a temperate deciduous forest; cacti do not lose their green color, wheras oak trees lose their green leaves; etc.) Record differences in each separately labeled portion of each circle.

### **Class Book: Habitats**

#### Materials: Drawing paper, drawing tools

Tell the class or a group of students that they are going to make a class book to help them remember what they have learned thus far in this domain. Have students brainstorm important information about the animals that live there. Have each student choose one idea to draw a picture of and to also write a caption for the picture. Bind the pages to make a book to put in the class library for students to read again and again. You may choose to add more pages upon completion of the entire domain before binding the book.

## The Arctic, the Sonoran Desert, and the Temperate Deciduous **Forest**

## Materials: World map or globe

Help students locate and identify the Arctic, the Sonoran Desert, and the temperate deciduous forest regions. Discuss with students the habitat of each area.

## You Are There: The Arctic, the Sonoran Desert, and the **Temperate Deciduous Forest**

Have students pretend that they have been transported to the Arctic, the Sonoran Desert, or the temperate deciduous forest. Ask students to describe what they see and hear. What is the weather like? What kinds of plants and animals do they see? Consider also extending this activity by adding group or independent writing opportunities associated with the "You Are There" concept. For example, ask students to pretend they are Rattenborough describing one of the habitats to their classmates and to write a group article about the habitat.