

Teaching First Step Nonfiction

Animal Adaptations



K–2nd Grade Interest Level

1st Grade Reading Level

Titles in this series:

What Can Live in a Desert?

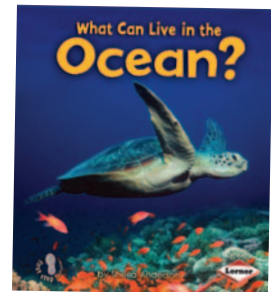
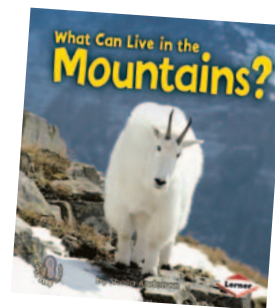
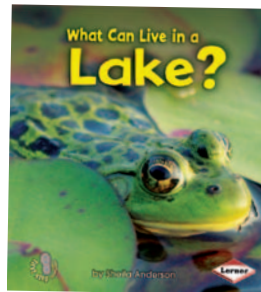
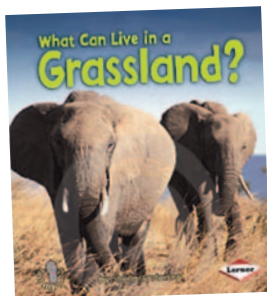
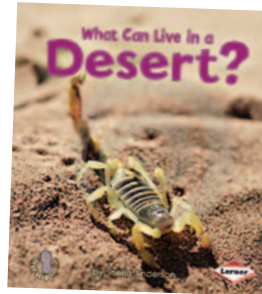
What Can Live in a Forest?

What Can Live in a Grassland?

What Can Live in a Lake?

What Can Live in the Mountains?

What Can Live in the Ocean?



Standards

Reading

- Uses the general skills and strategies of the reading process
- Uses reading skills and strategies to understand and interpret a variety of informational texts

Writing

- Gathers and uses information for research purposes
- Writes for different purposes

Thinking and Reasoning

- Applies decision-making techniques

Life Science

- Understands the relationships among organisms and their physical environment

Multiple Intelligences Utilized

Linguistic, spatial, naturalistic, logical-mathematical

Lesson 1

Who Lives There?

Purpose

Students will compare their knowledge of a habitat before and after reading about the habitat.

Materials

- Animal Adaptations series
- whiteboard
- marker
- drawing paper
- pencils
- crayons

Prepare

- Have enough copies of the chosen book available for each student or pair of students.

Pretest

- What is a habitat? What are some different kinds of habitats?
- Name a few animals that live in some of the habitats you named.

Model

- Choose one of the Animal Adaptations books to read together. Before reading, ask students what they know about that habitat. Guide them to describe the climate, the weather, and the plants and the animals that might live in this habitat. Write these on the whiteboard.

Read

- As a class, read the chosen Animal Adaptations book.

Practice

- Have students draw or list the plants and the animals that live in the habitat they read about.

Discuss

- Ask for volunteers to share their lists or drawings. Write the names of the animals they named on the whiteboard next to the list you created for that habitat before reading.
- What animals did you read about that were on the first list? What animals did you add that were not on the first list? What surprised you about some of these animals?

Evaluate

- Evaluate student work for accuracy and evidence of learning.

Lesson 2

Habitat Exploration

Purpose

Students will research and create a poster about a specific habitat.

Materials

- Animal Adaptations series
- additional books on one or more of the habitats named in the Animal Adaptations books
- poster board
- pencils
- markers
- lined paper

Prepare

- Create a sample poster that includes a drawing of a specific habitat and five labels describing its features.

Pretest

- Ask students to describe a specific habitat (desert, forest, grassland, lake, mountain, or ocean).
- What are its physical features? What is the climate like? What kinds of plants live there?

Read

- Read a book about a specific habitat.

Model

- As you read, do a think-aloud lesson in which you verbally comment on some features of that habitat. For instance, if you are reading about mountains, notice the steepness of the landscape, the rocky ground, and the cool climate.
- Ask students what features might help an animal survive in this habitat.
- Show students the sample poster you prepared. Talk about its features, and explain that students will be working in groups to create their own habitat posters.

Practice

- Have students work in small groups to research the following habitats (one habitat per group): desert, forest, grassland, lake, mountain, and ocean.
- Each group will create a poster that includes a drawing of the habitat and labels that describe its features. (Labels may be drawn

if necessary.) Post these posters in the classroom.

Discuss

- Each group will present its poster to the class. Encourage other students to ask questions.
- Ask group members to describe anything that was particularly interesting or surprising about the habitat they researched.

Evaluate

- On lined paper, ask students to write or draw what they liked most about another group's presentation.

Extension

- As your class reads the Animal Adaptations books, students may create animal drawings to be added to the posters.

Lesson 3

Animal Exploration

Purpose

Students will write a report about an animal's adaptations to its environment.

Materials

- Animal Adaptations series
- additional books about specific animals described in the Animal Adaptations books
- paper
- pencils
- whiteboard
- markers

Prepare

- Create a list of criteria for grading student animal reports. (What must the reports include? For example, three physical traits, one behavioral trait, and an explanation of how these help it survive in a particular habitat.)

Pretest

- Choose one book from the Animal Adaptations series. Ask students to name animals that live in the habitat. Why do they think these animals are able to survive in this habitat?

Model

- Define the word *adaptation* for students.
- Help students describe a habitat in your local area.
- Name an animal that lives in this habitat. Together, describe the features of the animal that help it survive here. For example, if the local habitat is a forest, describe the features of a squirrel that help it survive in this habitat (fur coloring, long tail, cheek pouches, and so on).

Read

- Read one of the Animal Adaptations books together.
- After reading, list on the whiteboard the animals described in the book.

Practice

- Assign each student or pair of students an animal from the list to research.
- Students will read several books about the animal and will

write a short report describing the animal's adaptations to its environment.

- Students will meet with another pair to tell them what they found out about their animal.

Discuss

- Ask for volunteers to tell the class about the adaptations of the animal they researched.

Evaluate

- Ask students to give a "thumbs-up" or "thumbs-down" to this activity and explain why they feel this way.
- Evaluate student reports for the criteria you outlined in the Prepare section.

Lesson 4

Adaptation Matching Game

Purpose

Students will play a game in which they match animals to their natural habitats.

Materials

- Animal Adaptations series
- animals worksheet p. 7
- white drawing paper
- crayons
- pencils
- scissors
- ziplock bags

Prepare

- Copy animals worksheet p. 7 for each student.
- Make sample habitats drawings (one for each habitat: desert, forest, grassland, lake, mountain, and ocean).

Pretest

- What is a mountain like? (Wait for student responses.) What animals live in the mountains?

Read

- Read each of the Animal Adaptations books as a class or in small groups. As you read each book, talk about the animals that live in each habitat.

Model

- Show students your sample habitats drawings. Explain that students will make drawings of their own.

Step 1: Fold a piece of drawing paper into quarters. Cut on each fold so students have four squares. Students who complete this step early may cut a second piece into squares. Each student will need a total of six squares.

Step 2: Write the name of one habitat (desert, forest, grassland, lake, mountain, or ocean) at the top of each square.

Step 3: Draw the habitat named on each square. (The square with "lake" at the top will have a picture of a lake and so on.)

- Show students how to color the animal pictures on p. 7 and cut on the dotted lines so they have squares of paper with one animal on each. (All pieces can be stored in a ziplock bag.)

Practice

- In pairs, have students play a matching game by mixing up the animal squares and taking turns placing the correct animal on the drawing of its habitat.
- Extend this activity by asking students to describe each animal's adaptation to its habitat.

Evaluate

- As students play the game, circulate to observe their accuracy in matching animals to their habitats and understanding of adaptations.

Discuss

- Did you have trouble matching any of the animals with their habitats? Which ones? Why were they confusing or hard to remember? Were there any animals whose adaptations would be helpful in more than one habitat?

Assessment Animal Adaptations

Purpose

Students will demonstrate knowledge gained from reading the Animal Adaptations series.

Materials

- Animal Adaptations series
- Adaptations p. 8
- pencils

Prepare

- Copy Adaptations p. 8 for each student.

Pretest

- Name an animal from one of the Animal Adaptations books. Identify its habitat. Ask students what adaptations help it survive in this habitat.
- Do the same for one animal from each of the books.

Model

- As you read one of the Animal Adaptations books, stop to identify several animals' adaptations. Describe how these help the animals survive in their environments.

Read

- Read each of the Animal Adaptations books over several class periods.

Practice

- As the students read each book, ask them to talk with a partner about each of the animals they read about and how its

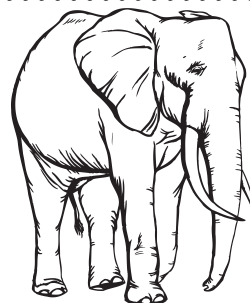
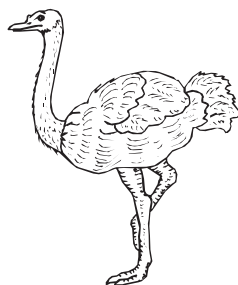
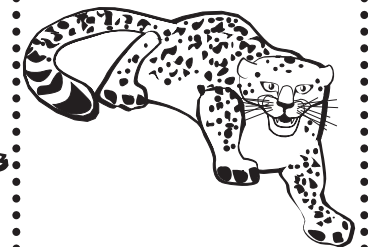
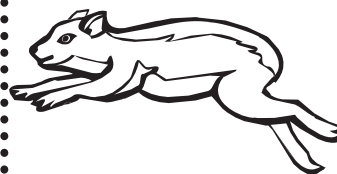
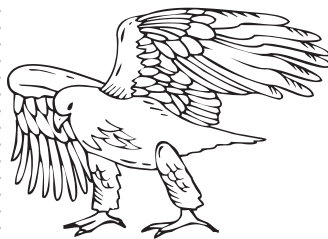
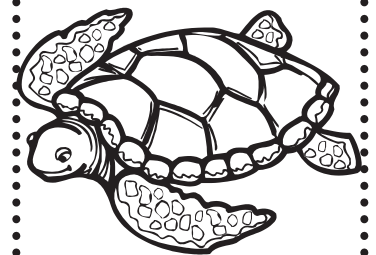
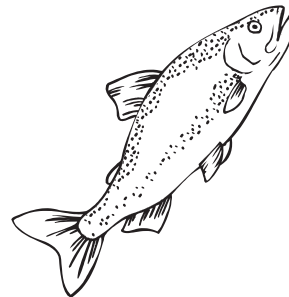
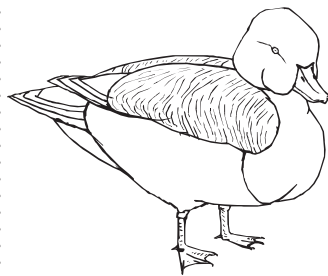
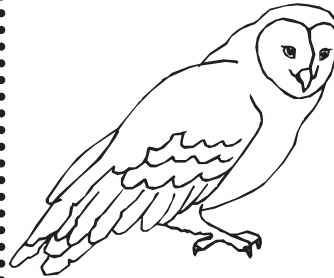
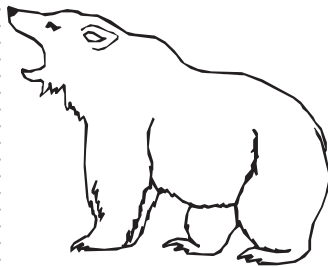
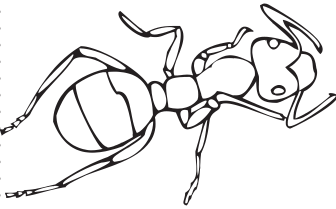
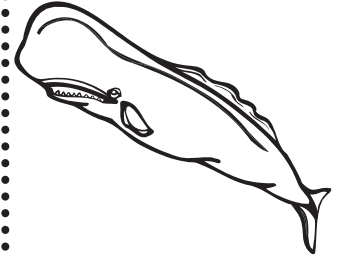
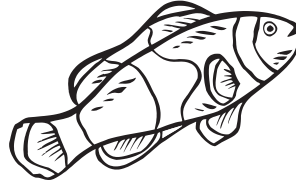
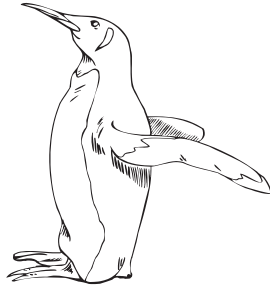
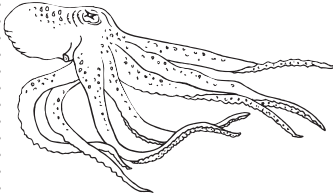
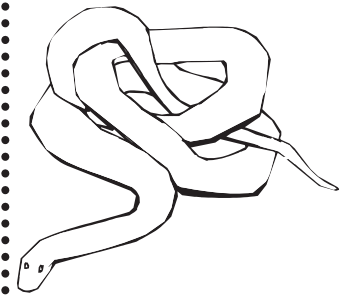
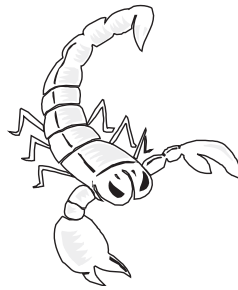
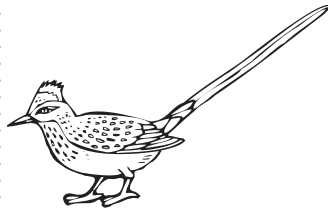
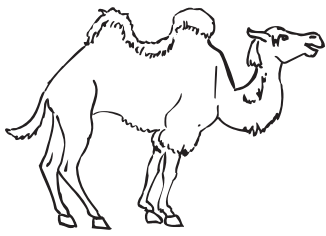
adaptation(s) help it survive in its specific habitat.

Evaluate

- Read the instructions at the top of Adaptations p. 8 to students. As a group, read the words in the boxes. Ask students to complete the worksheet individually or in pairs. Use this worksheet to evaluate student comprehension.

Discuss

- How did talking with a partner as you read help you remember the animals' adaptations?
- What did you like or dislike about this activity?



Name _____ Date _____

Adaptations

Directions: Fill in each blank below with the correct word or words from the boxes at the top of the page. Only one answer fits with each question.

long necks	split hooves	claws	thick fur coats	brown coats	bills
gills	flippers	quills	ears	long legs	webbed feet

1. Foxes have large _____ to help keep them cool.
2. Yaks have _____ to keep them warm.
3. Giraffes have _____ to reach leaves in tall trees.
4. Porcupines have sharp _____ to protect them from other animals.
5. Fish use _____ to breathe underwater.
6. Birds use _____ to open nuts and catch insects.
7. Lobsters use _____ to catch fish.
8. Lions have _____ to help them hide in dry, brown grass.
9. Penguins use _____ to swim in ocean waters.
10. Water striders use their _____ to skate on top of the water.
11. _____ help bighorn sheep walk on rocky mountainsides.
12. Desert geckos use _____ to walk on top of sand.