

Every organism needs food, water, shelter, and space. A place that meets all these needs is called a habitat. Students will explore a nearby habitat—their backyard, schoolyard, or other outdoor setting—to look for signs of animals living there.

BACKYARD SAFARI



SUBJECTS

Science, English Language Arts, Visual Arts

PLT CONCEPTS

2.1, 3.2

STEM SKILLS

Investigation, Organization, Technology Use

DIFFERENTIATED INSTRUCTION

Hands-on Learning, Personal Connections, Student Voice

MATERIALS

Optional: Clipboards or writing surfaces, drawing paper, colored pencils or markers, magnifying glasses, camera

TIME CONSIDERATIONS

Preparation: 20 minutes

Activity: 50 minutes

OBJECTIVES

Students will

- Identify signs of animals living in an outdoor site.
- Describe how this habitat meets the needs of the animals living there.

BACKGROUND

A habitat is the place where an organism lives. A suitable habitat provides an organism with everything it needs to survive, including food, water, shelter, space, and whatever it needs to reproduce. Since the requirements of plants and animals can vary widely (think of a penguin, versus a tiger), suitable habitat for different animals or plants can differ tremendously in size and appearance. For example, a field is a suitable habitat for many types of grasses and forbs, as well as mice and rabbits that live among those plants; a single tree can be the entire habitat for many tiny animals that live in its bark and among its leaves; and a crack in a sidewalk provides habitat for the dandelions and ants that live there.

FOREST FACT

An important aspect of sustainable forestry is ensuring that there is appropriate habitat for a variety of animal species. Prairie warblers, for example, require a very young forest to survive, while red-cockaded woodpeckers require older and larger trees for nesting. Harvesting and replanting trees can create a diversity of conditions over time, enabling a richer mix of species to thrive across the landscape.



Even in the most concrete environment, you can usually find some signs of animal life. Most of the animals and animal signs that your students find will likely be insects and other small creatures. In an urban schoolyard, students may find spider webs, ants underneath rocks, or insects buzzing around. Students need to understand that all animals, large and small, need food, water, and shelter in order to survive. Remind students that people are animals too. Around the schoolyard they will find plenty of signs of “people life.”

While most students enjoy looking for animals, some may be afraid of certain animals, such as spiders or worms. Be prepared for some students to act timid or scared during the activity. You might help by briefing students in advance on the kinds of animals they are likely to see, and by assuring them that most animals will be scared of them and are not dangerous to them. However, tell them it is smart to be cautious and warn them about animals they should not touch or pick up. (See Appendix B: Tips for Teaching Outdoors or more suggestions on teaching outdoors).

GETTING READY


- You may want to do the activity at a time of year when students are most likely to see animals outdoors, such as spring or fall.
- Collect any of the optional materials you choose. If desired, make copies of the Safari Count student page (or Safari Site Survey student page if you are doing the Variation).



SAFETY CHECK! Always check the outdoor study site before taking students out. Look for potential hazards and risks. Either remove potential dangers or caution students about them. For younger students, arrange to have one or more parents, aides, or older students to help with the safari.





DOING THE ACTIVITY

- 1**  **PERSONAL CONNECTIONS** Ask students whether they have ever heard the word “safari,” and ask what kinds of things they might see on a safari. Point out that a safari doesn’t have to be in a faraway place, and that they can even take a safari in their own backyard. Ask, “What might you see on a backyard safari?”
- 2** Tell students that they are going on a safari at your site. They will look and listen for signs of animals living or visiting there. Explain that students will need to search carefully to find animals, and that they will be more likely to find an animal if they are quiet. Ask students for ideas about where they might look and list their suggestions where all can see. Their suggestions might include on the bark and leaves of trees, in the cracks of sidewalks, among blades of grass, on utility wires, in the soil around plants, along the edges of buildings, under leaves, and on walls and fences. You might stimulate their imagination by having them pretend that buildings are mountains and cliffs, that the lawn is a jungle, or that the sewer is an underground river.
- 3** Point out to students that in addition to looking for actual animals, they should look and listen for signs of animals. Ask what kinds of signs they might find. Possibilities include insect egg masses, spider webs, leaves that have been nibbled, feathers, nests, animal tracks, bird or insect sounds, candy wrappers, or cigarette butts. Remind students that people are animals too, and they can record signs of “people life.”



SAFETY CHECK! Discuss appropriate outdoor behavior. All living things, including plants, should be respected and not injured in any way. Talk with students about following this rule: look, learn, leave alone. This includes leaving alone animals and their food, water, and shelter. (See Appendix B: Tips for Teaching Outdoors for more information about teaching outdoors.)

4  **HANDS-ON LEARNING** Divide students into pairs or small teams and hand out the Safari Count student page. Take them outside and give them a few minutes to find animals or signs of animals. Set boundaries so that students don't roam too far.


5  **STUDENT VOICE** Bring the group together and have students share their experiences and compare their findings. Focus them on the following questions:

- What animals did you observe living in the yard or outdoor site?
- What evidence did you find of other animals?
- What do these animals need to live? (food, water, air, shelter, space)
- How do these animals get food and water?

VARIATION: GRADES 3-5

1 As in the activity, invite students to observe animals and signs of animals at the site. Have students use the Safari Site Survey student page for recording their observations.

2 Discuss students' findings, focusing on how the animals living at the site get the food, water, shelter, and space they need.

3  **STUDENT VOICE** Ask students whether there are any animals they would like to see—or see more of—at the site (for example, birds, bees, butterflies, or squirrels). Have student teams research the habitat needs of those animals and possible ways to attract them to the site, such as providing feeders for birds or squirrels, or planting flowers for pollinators.

4 Assist the group in developing a plan for attracting the animals, based on their research. Their plan should include the benefits of attracting the animals, how they would address any potential problems, the steps they propose, the materials needed, and costs. Help them get any necessary permission and then put their plan into action.





ACADEMIC STANDARDS

SCIENCE

Practices

- Constructing explanations and designing solutions

Concepts

- Biodiversity and humans
- Natural resources
- Systems and system models

ENGLISH LANGUAGE ARTS

Practices

- Speaking and listening: presentation of knowledge and ideas

ASSESSMENT

Ask students to

- Draw a picture or diagram, write a story, or make a diorama showing an animal that lives in the yard or other site and how it gets food, water, or shelter.
- Inventory animals living in an area other than the one in the activity, such as their own backyards, the local park, a different part of the playground, or a nearby forest. You may want to assign some of the questions in Step 5 for them to answer.

ENRICHMENT

- Extend the safari to a larger outdoor setting, such as around the block or neighborhood. Students might focus their investigations by looking for birds and tallying the numbers of different kinds of birds, looking for evidence of animals eating or being eaten by something else, looking for evidence of animals using water, or sketching trees and looking for evidence of how trees help animals (including people).
- Give students a hula hoop to place on the ground and then count how many kinds of plants or animal species they find within it. Repeat in different places around your site to compare different microhabitats.
- Compare the local site you chose with a local forest. Do these two locations have any of the same animals or trees?

NAME _____ DATE _____

Look for animals and signs of animals. Write down each kind of animal or draw a picture of it. Count how many of each kind you see.

| Animal or Animal Sign | How Many? |
|-----------------------|-----------|
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CAREER CORNER

WILDLIFE BIOLOGISTS (buy-ALL-uh-jists) study animals to find out what they need to live. They may watch birds, mammals, or reptiles in forests and other habitats.

I LOVE MY
GREEN JOB!

NAME _____ DATE _____

Look for animals and signs of animals. Write down each kind of animal or draw a picture of it. Count how many of each kind you see.

| WHAT What animals or signs of animals do you see? List them or draw a picture. | WHERE Where do you see each animal or sign of an animal? | HOW How might that animal get the food, water, and shelter it needs to live here? |
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CAREER CORNER

WILDLIFE MANAGERS keep track of the animals that live in a natural area to make sure there is enough of the right habitat. They conduct surveys—like this one—to find out the types and numbers of animals in the area.

