

explore your


ENVIRONMENT


K-8 ACTIVITY GUIDE


A FREE SAMPLE ACTIVITY FOR
GRADES K-2: BACKYARD SAFARI

EXPLORE YOUR ENVIRONMENT

Project Learning Tree's *Explore Your Environment: K-8 Activity Guide* includes 50 hands-on, multidisciplinary activities to connect children to nature and increase young people's awareness and knowledge about their environment. Activities include detailed step-by-step instructions, time and material requirements, background information, academic correlations, assessments, and student worksheets with green career connections.

This supplementary curriculum is designed to develop students' critical thinking and problem-solving skills. The activities suggest ways to connect students to the outdoors, no matter if you live in a rural or urban area.

Backyard Safari is one example of a K-2 activity found in the guide that presents students with real-world opportunities to focus and observe using their senses and apply STEM skills. Students observe habitats nearby—whether it's the school playground, a local park, or their backyard. Students will go outside, look for signs of animal life, and consider how animals in their area get food, water, and shelter.

BE SURE TO VISIT PLTCANADA.ORG/EN/RESOURCE FOR MORE

ACCESS ONLINE RESOURCES

This guide is supported by a free online toolkit and resource hub. For each activity, you'll find links to curated resources, downloadable student pages, recommended reading, correlations to academic standards, suggested Units of Instruction, and much, much more!

Download these resources at plt.org/myk8guide

ATTEND A PROFESSIONAL DEVELOPMENT WORKSHOP

PLT offers online and in-person workshops tailored for specific grade levels, curriculum connections, environmental topics, and formal and nonformal teaching situations.

During PLT's hands-on training you will:

- Learn new teaching skills and become comfortable teaching outdoors.
- Receive PLT's instructional materials and supplements tailored to your provincial standards.
- Practice modeling PLT activities and get tips for lesson planning specific to your educational setting.
- Establish access to a professional network and support system.

Contact pltcanada@forests.org to find out about professional development near you.



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

FOREST LITERACY CONCEPTS

1.C.1

STEM SKILLS

Investigation, Organization, Technology Use

DIFFERENTIATED INSTRUCTION

Hands-on Learning, Personal Connections, Student Voice

MATERIALS

Optional: Clipboards or writing surfaces, drawing paper, coloured 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.
- Identify species in the local environment.

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. Golden-winged warblers, for example, require a very young forest to survive, while-wood thrushes require interior forests with larger trees. 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 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 not want to be touched by 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 life.



SAFETY CHECK! Discuss appropriate outdoor behaviour. 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

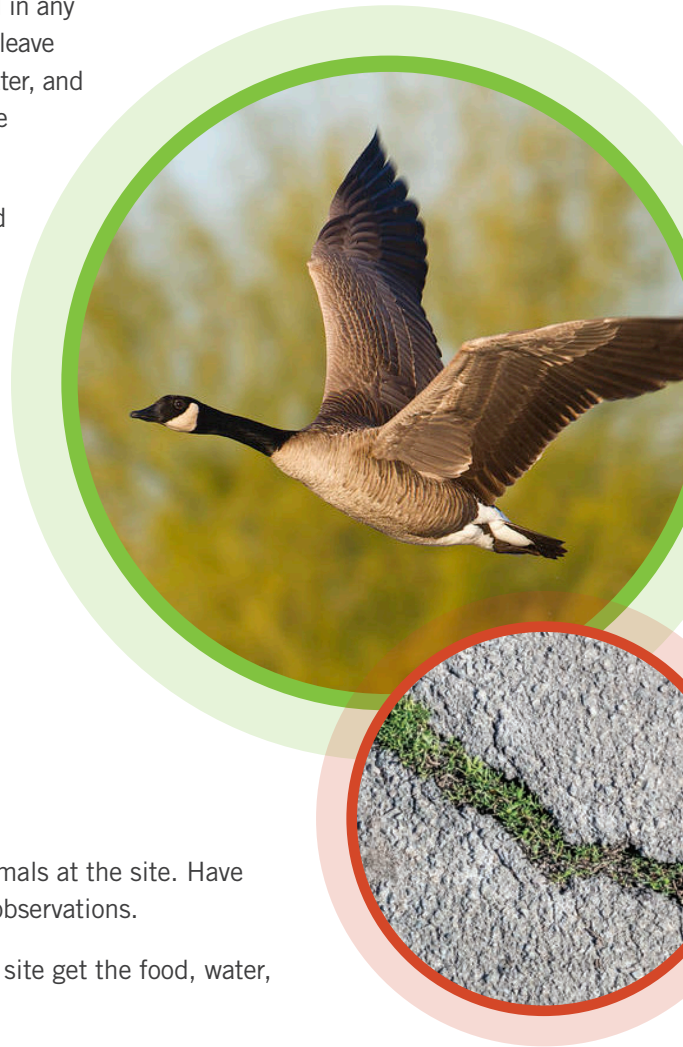
1 As in the activity, invite students to observe animals and signs of animals at the site. Have students use the Safari Site Survey student page for recording their observations.

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.

5  **TAKE IT OUTSIDE School Yard Bird Blitz** Go birding! Look on the internet for a short list of the most-common birds in your area. Familiarize the students with their pictures and even their songs and calls before going out on your bird census. Choose any day in the spring to conduct your bird count. Bird counts can be as short as 15 minutes, or up to a full day. Designate one student to record group observations on the Bird Tally form. Travel around your schoolyard or neighbourhood as a large group, or separate into smaller groups. Try to reach all the different habitats that make up your schoolyard. Encourage students to be observant, using eyes and ears to find birds. Identify and count all the birds you see at your schoolyard or surrounding neighbourhood. Try not to double-count moving birds! Use the Bird Tally sheet to help keep track of your observations.





INTEGRATED LEARNING

UN SUSTAINABLE DEVELOPMENT GOAL CONNECTIONS

Goal #15: Life on Land. 15.1

- By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

CMEC GLOBAL COMPETENCIES CONNECTION

Learning to Learn / Self-Awareness

- Self-regulate in order to become lifelong learners and reflect on their thinking, experience, values, and critical feedback to enhance their learning. They also monitor the progress of their own learning.

Communication

- Communicate effectively in different contexts in oral and written form through a variety of media

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 neighbourhood. 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?
- Indigenous relational worldviews can be characterized by the concept of the circle, interconnectedness, and connection to place based on the four R's: respect, reciprocity, responsibility, and relationships. The recognition that local and indigenous people have their own ecological understandings, conservation practices and resource management goals has important implications. It transforms the relationship between biodiversity managers and local communities. While previously they were perceived simply as resource users, Indigenous people are now recognized as essential partners in environmental management.
- To help Indigenize this activity, print out a medicine wheel circle and label each of the four quadrants based on the four seasons of the year (i.e. spring, summer, fall, and winter). Invite your students to record their backyard safari findings by adding animals to each of the four seasonal quadrants based on what they see during the time of each season. This activity can easily be adapted into an on-going scientific backyard safari activity throughout the school year. See student page handouts for a student worksheet template.



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?



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.





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?

CAREER CORNER

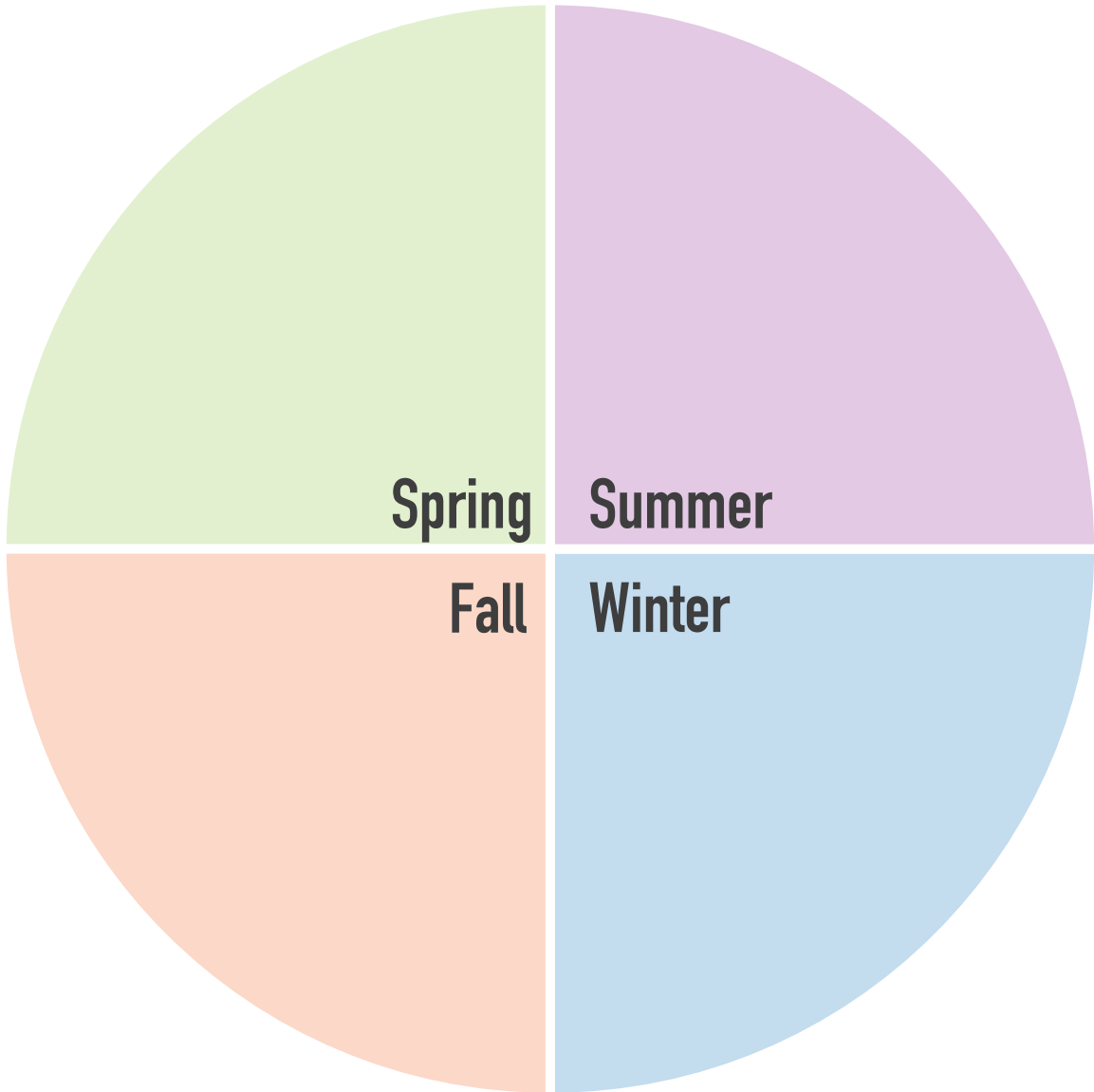
WILDLIFE MANAGERS keep track of the animals that live in a natural area to make sure there is enough of the right habitat. They conduct surveys—like this one—to find out the types and numbers of animals in the area.

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 based on the season that you see them.



Resources:

<https://www.un.org/sustainabledevelopment/cities/>

http://www.ontariodirectors.ca/CODE-TLF/docs/tel/PanCanadian_Global_Compencies_Backgrounder_EN.PDF



FOREST LITERACY FRAMEWORK

To translate the complex language of forests, trees, forest practices, and sustainable forest management into concepts that are appropriate for K–12 learners, PLT has developed the Forest Literacy Framework. This document presents a learning pathway for educating K–12 students about forests, with the goal of a forest-literate future.

PLT's Forest Literacy Framework promotes education that empowers learners to apply critical thinking and innovation to make decisions about forests and forest resources, understand the role forests play in addressing local and global environmental challenges, and grow up to be stewards of the forest.

It has applications for K–12 youth, teachers, and nonformal educators across the United States and Canada. It also incorporates diverse voices and perspectives, which enhance our collective ability to understand the forest and each other.

The Forest Literacy Framework offers 100 forest concepts organized into four themes, each with topics and concepts that address its central question:

THEME 1: What is a forest?

THEME 2: Why do forests matter?

THEME 3: How do we sustain our forests?

THEME 4: What is our responsibility to forests?

Explore the Forest Literacy Framework at pltcanada.org/en/forest-literacy.

Find PLT Canada's newest resources at pltcanada.org/en/shop/

ABOUT PROJECT LEARNING TREE CANADA

Project Learning Tree Canada is committed to advancing environmental education, forest literacy, and green career pathways, using trees and forests as windows on the world. Our award-winning resources offer a lifetime of learning from early childhood through adulthood, and our wide and diverse network provides professional development for educators and opportunities for young adults to explore forests and green careers. Together, we are growing future forest and conservation leaders. PLT is an initiative of the Sustainable Forestry Initiative®, a non-profit charitable organization with the mission of advancing sustainability through forest-focused collaboration.



ABOUT THIS SERIES

PLT Canada's Activity Collections provide content to support an identified theme for a particular grade level. Each collection offers hands-on activities for teachers and nonformal educators, youth group leaders and home schoolers to connect youth to nature and the outdoors.

COMING SOON 2023

For Grades K-2

SENSATIONAL TREES: Uses sensory exploration to help students understand objects, spaces, people, and interactions.

For Grades 3-5

BIODIVERSITY BLITZ: Invites learners to investigate variability among species in an ecosystem, and how this variability—or biodiversity—helps sustain life on Earth.

TRILLIONS OF TREES: Introduces students to the identifying features that distinguish different trees and explores how to care for trees in our communities.

For Grades 6-8

DISCOVER YOUR URBAN FOREST: Invites learners to explore their urban environment and investigate environmental issues that affect their urban community.

NATURE OF FIRE: Examines the role of fire and other disturbances in forest ecosystems, including the relationship between climate change and fire.

Sign up for our education newsletter at <https://pltcanada.org/en/environmental-education/#teachers> and visit us on social media



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