



LESSON SUMMARY

Students will investigate and compare a schoolyard habitat and a forest habitat, as well as the species found in each location.

Activity Information

Estimated Duration:	One class period (for discussion and research; homework/group work may be required)
Materials:	<i>Investigative Log Sheet</i> (optional: flip chart, selection of natural and non-natural items for “Mini-Acclimatization Trail”)
Setting:	Outdoors
Key Vocabulary:	Habitat, vertebrates, invertebrates, ecosystem, species

Teacher Background

Both plants and wildlife are very resilient. Think about raccoons: they prefer the forest, but we find them adapting to urban environments more and more. Other kinds of wildlife have learned to live closely with humans. Fox have been seen running across soccer pitches and deer leaping across fence lines, close to urban environments.

You will find species on your school ground, but you will likely find more diversity in a forest ecosystem. There is more variety in terms of food, water, shelter and space to support a larger number of animal, tree and plant species.

In any habitat you will find invertebrates, those animal species that do not have a backbone (e.g. worms, common house flies). They actually make up almost 72% of all living animal species! Vertebrates are those animal species that have backbones (e.g. raccoons, fox, deer).

Students will explore and compare the various species found in the school ground habitat versus those found in a forest ecosystem.

Teacher Preparation

Photocopy the *Investigative Log Sheet* (page 6) – one per student. Find a local forested area, woodlot or ravine to give students the opportunity to observe an ecosystem. Prepare permission forms if necessary.

Optional Teacher Preparation

Set up a “Mini-Acclimatization Trail” for your students, to help them learn observation skills. Find a small area in your schoolyard where you can set out a small trail of natural and non-natural items. These items could include:

- Feathers
- Sticks
- String
- Leaves/needles
- Stones
- Eggshells
- A magazine picture of an animal or insect

Ask each student to walk along the trail and record or remember all the things that he or she sees. When you return to the classroom, record on the blackboard or flip chart all the natural or non-natural items that the students have seen. This will be good observation skills preparation for the rest of the activity.

ACTIVITY

Step 1 Briefly discuss the importance of habitats – all species, including humans need a habitat to survive. Believe it or not, there are many species – vertebrates and invertebrates – which live on the school ground, whether you are in a rural or urban setting. Ask the students to think of any living species that they could find living on the school ground. As they are making suggestions, list them on a flip chart or blackboard. Ensure your students understand the terms vertebrate and invertebrate, then ask them to identify whether the species are plants, vertebrate or invertebrate animals. Some suggestions might include:

- Shrub
- Garden fly
- Chipmunk
- Worm
- Squirrel
- Maple tree
- Oak tree
- Grass
- Raven
- Pine tree
- Chickadee
- Robin

Step 2 If you have set up the “Mini-Acclimatization Trail,” take your students to it and have them walk through. Ask them to try to remember and/or record as many clues and signs of living species as they can find. Return to the classroom and make a list of what they have observed. (If you have not set up the trail, move on to Step 3.)

Step 3 Divide your class into teams of two students each. Give each team two copies of the *Investigative Log Sheet*, on which they will write down their observations of two different habitats. Provide the students with boundaries within which they can seek out all of their species. Tell them to look everywhere – up in the sky, in the treetops, beneath the shrubs, along the edge of the driveway and so on.

Step 4 Tell your students that they need to prepare a map of the school ground and the things they find within the delineated boundaries. This map can be a simple line drawing, outlining the school or forest boundaries and any buildings. Ask the students to create a legend for each of the species found. The map and legend can be drawn on the back of the *Investigative Log Sheet*.

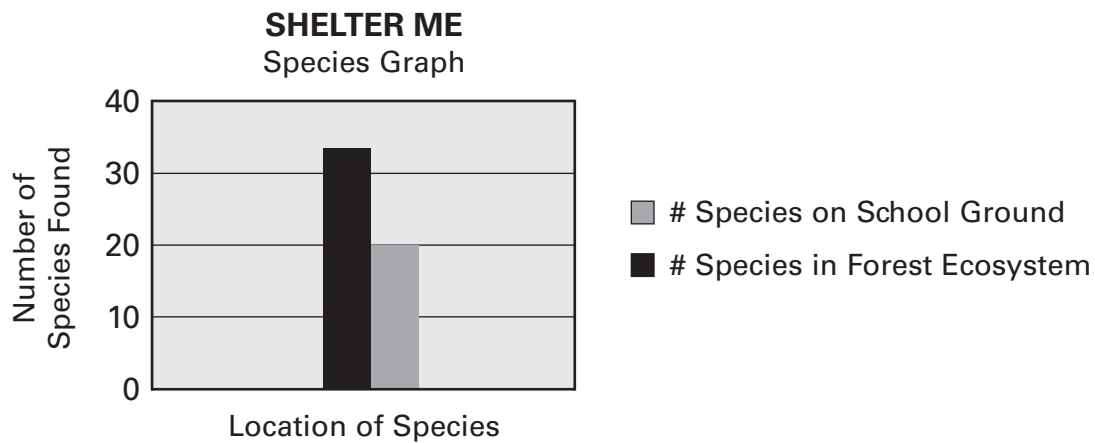
Step 5 Take your students to a forested ecosystem or park area and repeat the same activity. Search for trees and plants and try to identify them. Search for signs of wildlife, which can include: tracks, chewed cones, gnawed stumps or buds on trees, scratch or tear marks on tree bark, pellets or droppings (scat), nests, trails, feathers, hair, bones, antlers, dens, etc.

Step 6 Ask each pair of students to compare findings from the two ecosystems.

Evaluation

Ask the pairs to graph the total number of species found on the school ground versus the number of plants found in the forest ecosystem.

A graph could look something like this:



Extension

During a group discussion, ask your students to explain why one bar on the graph is higher or lower than the other. Alternatively, have students prepare a brief article for the school newsletter that discusses what they have found on their journeys and that explains the chart data.

INVESTIGATIVE LOG SHEET**Setting: School Ground / Local Forest Ecosystem** (circle one)**Animals**

Invertebrates (no backbone) (include evidence if noted)	Vertebrates (backbone) (include evidence if noted)

Trees, Shrubs and Plants

If you don't know their names, please describe them in detail.
Add any evidence you see of animals feeding upon any of these.

Trees	Shrubs	Plants