

In Search of Life



Overview

In this activity students explore the school grounds as scientific explorers in search of living things. Students make a survey of living things present in different habitats, count the different examples they find, and compile their results.

Objectives

Students will:

- learn about habitats and what living things need in them.
- observe and investigate for living things in different habitats.
- count and divide different types of living things into categories.

Subjects

science, math

Materials

hula hoops or rope/tape to lay out different areas to look in, clipboards (optional), pencil, student worksheet

Duration

1 hour

Background

A habitat provides a living thing (organism) with everything it needs to survive. Habitats vary tremendously in terms of size and appearance. Regardless of size or location, a habitat needs to include food, water, shelter, protection, light and air.

School grounds, even in a city, can provide many small habitats that we can observe and discover. Discovering what is living within a habitat requires careful inspection and observation. This activity provides hands-on experience using these skills.

Getting Ready

Select distinct areas of the school grounds that provide different habitats. For example, good choices may be near woodchips or plantings, under

a tree, in a damp area, or in the shade. Try to select places that will have different living things. Place a hula hoop or rope circle in the chosen places. This will be where the groups of students will survey for different living things.

It is always a good idea to check the outdoor study areas prior to the activity. Remove any hazards or caution students about them. It helps to have parents, volunteers, aides, or older students as helpers in this activity.

Doing the Activity

Step 1: Discussion. There are many different living things all around us. Ask: *What are some groups of living things we might find outside?* Answers might include insects, birds, mammals (squirrels, chipmunks, dogs, cats, etc.), plants, worms, fish, algae, fungi (mushrooms, mold), etc. *Do they all live in the same place?* As age

appropriate, discuss what living things need to survive in a habitat: food, water, shelter, air, protection, space. Discuss how these needs are a little different for every living thing. For example, plants need soil to get water, food, and to stay upright (without blowing away or falling over.) Humans don't need soil in the same way. One place can be a habitat for many different living things. In just one tree, many animals and other organisms can live. Insects can live in the bark. Other insects eat the leaves. Fungi can live on the trunk. Birds can have nests in the branches. Squirrels can collect acorns. When we look very closely, we can find a lot of living things in a small area.

Step 2: Outdoor Activity. Tell the students that they are scientific explorers looking for signs of life. Their mission is to find as many different types of things living in different habitats at the school as they can. Explain that when they go outside they will change into scientists who are very careful to look for things and write or draw what they see. Tell the students that in addition to looking for plants and animals, they should look and listen for signs of animals. Ask: *How do we know an animal has been there if we don't see it.* Ask the students for suggestions of examples that animals can leave behind. Answers could include: insect egg masses, animal tracks, holes or burrows, droppings, sounds, nibbled leaves or wood chips, tunnels in bark, candy wrappers and garbage (signs of people.) Remind students that humans are living things too, and we leave a lot of signs behind.

Divide the students into small groups and lead them to their different locations. Ask them to write or draw the types of things they find, counting all of the examples for each. For younger students, plants, insects, birds, etc. may be the level of detail you expect. Older students can break these categories into smaller groups. Give the students a set amount of time to do this. Encourage the students to really dig around. Ask them to look under things and examine everything very carefully. If they don't see an actual plant or animal do they see signs that it has been there?

Closure/Assessment: Bring the students back together. Give the students time to draw and/or write what they found. Have each group report on what they found. On the board, write the number of living things in each category (bird, insect, etc.) that the groups counted. Add the numbers for the whole class together. Remind the students that if they kept looking, these numbers would probably be even higher.

Discussion: *Did each group find the same exact things? Why not? How do many different living things live in the same area or habitat? Answers can include: they find different food to eat; they become food for other living things that live there; they are small enough to share the space with others; they live in different parts of the habitat (one might live above the soil, another might live below the soil). Are there things people do to make it better or worse for other living things? What are some examples?*

Focus Questions

What are three things all living things need to survive?

Name four examples of things animals can leave behind to show that they were there.

Name four types of living things we see all the time outside.

Name: _____ Date: _____

We Found Signs of



Birds



Number	



Insects



Number	



Mammals



Number	



Plants



Number	



Other



Number	