

Flora & Fauna Field Guide to your Schoolyard

Action Project Lesson Plan

Purpose

Students will create a field guide that represents their schoolyard biodiversity.

Overview

Students will investigate the different types of critters and plants that live in their schoolyard. The first part of this lesson will be spent outside making observations. Once students have a good idea of what is around, they can begin to identify and categorize the different species. The final step will be to research and produce a field guide for their schoolyard. The guide can be used by other students, as a mentoring tool, or for fundraising.

Getting Organized

Level: Grade 6

Curriculum Connections:

Science- Biodiversity & Classification

Language- Reading & Writing

Length: 1 hour for observation, 2 hours+ for research and creation of the guide

Materials:

- ☐ *Eco Adventure Guides (Action Project planning pages)*
- ☐ Flora and fauna identification guide books and/or the Internet.
- ☐ Trowels, bug containers, binoculars, camera (*optional*)
- ☐ Paper
- ☐ Pencils, erasers
- ☐ What's in my Schoolyard Activity Sheet (*attached*)
- ☐ Art materials such as markers, pencil crayons etc. or computer design program (*optional*)

Teacher Background

Biodiversity is the variety of species found on our planet. It's important to protect biodiversity, as it is our safety net. Every species has a right to be here and if one is taken away, it disrupts the balance of nature. Imagine if mosquitos disappeared! There would be many other species affected, such as frogs and bats, as they rely on mosquitos as a food source. It's estimated that 35% of our food crops are pollinated by bees; think of the consequences if bee populations dramatically declined globally!

Before we can protect biodiversity, it's important to know what we are protecting. This lesson will help your students gain an appreciation for the life forms that call your schoolyard home.

To see an example of a school that has created a schoolyard field guide, take a look at Herb Campbell P.S.'s field guide – the web link is found in the resources box below. This school published their field guide and sells them in the school community to raise funds for future environmental projects.

Activity

1. As an introduction to this activity, talk about what biodiversity is, why it's important, and see what your students think they can find in their schoolyard or what they might have already observed throughout the year. Ask them how they should approach looking for different species and what types of evidence could be left behind, such as scat or tracks.

2. The first stage of this project is to figure out what can be found in your schoolyard. Plan to have your students spend some time observing nature in your schoolyard to see what they can find. You may choose to provide them with some observation tools, such as trowels for digging in the dirt, bug containers for observation, or binoculars for bird watching. You can choose to do one larger study time outside or observe for a few minutes at a time, spread out over a few weeks. Students can take photos or draw pictures of their findings. This will help them identify the species later on.
3. Give students some time to use identification guide books, keys, apps, and the internet to identify their species. Check out the online resources below for some great links.
4. For each creature or plant they find, have them fill out the *What's in my Schoolyard Activity Sheet* attached.
5. Once the species are identified, have students organize their findings by categorizing them into plants, animals and insects. Make sure there are no duplicates.
6. As a class, prepare a design template and layout for your field guide pages.
7. Have each student choose a species to research and create their page for the field guide. If there are not enough species, have students work in small groups.
8. The final stage in this project is to put your field guide together. Have students design a cover page, index etc. You can photocopy them or have a printing company produce a nice copy.

Extension

Here are some ideas to build on this activity and promote your field guide:

- As an extension to this project, your school could plant or enhance a garden, introducing more biodiversity and habitat to your schoolyard. After it has been established, have your students make further observations to see if there are any new species that have been attracted to your schoolyard. You can apply for the **\$350 Schoolyard Biodiversity Grant**, offered through the *Environmental Leaders of Tomorrow* program, to help increase the biodiversity in your schoolyard. See the **Increasing Biodiversity in your Schoolyard** lesson plan for more details.
- You may also consider extending this project beyond your schoolyard boundary by including species found in a nearby park or greenspace. It's important for students to realize that everything is connected, including habitat, and that many species like us move between various areas and regions.
- Another great idea: produce a number of copies of the guide and sell them as a fundraiser to build your garden or to raise money to support other environmental projects in your school.

Online Resources

Canadian Wildlife Federation: Wild About Gardening | www.wildaboutgardening.ca

Evergreen Native Plant Database | <http://nativeplants.evergreen.ca/search/guided.php?province=ON>

Herb Campbell P.S. Nature Guide | www.youtube.com/watch?v=387TgFoDzjM

Ontario Nature | www.ontarionature.org

The Cornell Lab of Ornithology: All About Birds | www.allaboutbirds.org


Toronto Entomologists' Association | www.ontarioinsects.org

Toronto and Region Conservation (TRCA), Healthy Yards Program | www.trca.on.ca/yards



What's In My Schoolyard?

Choose a plant, insect or animal that you found evidence of in your schoolyard. Sketch it in the box below.



Where in the schoolyard did you find it? _____

Describe what its habitat looks like:

How many of the same species did you find? _____

What do you think it is? _____