YCS Farm to School Committee

School Garden Curriculum

Insect Safari*

Overview

Gardens usually have more insect inhabitants than plants. In this lesson, students sharpen their observation skills by going on an insect safari to uncover the secret lives of these important garden residents.

Grade Level

PK-2

Objective Students will hunt for and identify insects in the school garden

Time

30 minutes to 1 hour

Materials

- Paper
- Pencils
- Clipboards or cardboard pieces
- Insect ID book or website
- Container to collect the bugs for further study in the classroom.
- Optional: hand lens, insect net

Background Information

There are over one million known species of insects in our world, making up nearly 75% of the animal kingdom. Unfortunately, we often give insects a bad rap by focusing on those we consider pests - those that cause damage to our food crops (such as aphids, whiteflies, and potato beetles), our homes (such as termites) and our bodies (like mosquitoes and ticks). But these pests are a very small percentage of the overall insect population. Most insects play unseen but important roles in our ecosystem, and some provide us with very obvious benefits such as useful products (honey from bees and silk from silkworms), protection from pest insects through predation and parasitism of pest species (ladybugs and lacewings), pollination of food crops (about 30% of our food crops depend on insect pollinators such as bees) and decomposition of dead organic materials (blow flies, dung beetles). We often call these important six-legged creatures beneficial insects.

Procedure
Ask students to share their thoughts about insects. As individuals or as a class, write descriptions of insects, create word webs, and/or draw insects using their current conceptions. Ask questions that prompt students to reflect in greater detail. If they mention that insects have legs, for instance, ask them how many and where they're found. This will give you and your students something to revisit as they later explore insects and plants up close.
1. Announce to students that they will be going on an insect safari in the school garden. Encourage them to wear comfortable clothing and shoes. For fun, students may enjoy crafting special safari hats.
2. Before going out on the safari, explain that their job is to observe, draw, and gather information about garden insects. They can work as individuals or in teams. You may want to provide flash cards of specific insects for them to search for or add equipment for more intense study such as hand lenses or insect collecting nets.
3. As students find insects, collect them in a container for further observation in the classroom.
4.. Remind them to look in the soil, under leaves, on flowers, and in the air. After all, many creatures carry on their lives out of sight. What is the largest insect they find? The smallest? The most interesting? Instruct them to write about and draw pictures of their findings. Encourage them to include as much detail as possible.

Evaluation
After you return to the class, create a list of all the insects observed and their characteristics. Use the insects that you have collected to aid in this. Refer back to the students' reflections before the safari. Did they find any differences between their original ideas about insects and what they observed in real life? What preconceptions were accurate and which were false? What new things did they learn about insects?

Use guide books or internet sites to help positively identify all insects observed. Next challenge students to group the insects based on similarities and differences. Be sure to release the insects that were collected back into the garden.

Extension Activity
Have the students draw pictures and label the insects they found in the garden. Hang these in the hallway so other students can look for them in the school garden as well.

Have students research an insect they found in the school garden and write a short report about it.

Virtual Options

- Instead of the Insect Safari taking place in the school garden, ask students to find and collect insects outside near their home. They can then share what they found with the class.

- Create a class bar graph of the insects the students found at home. What did they find the most of? The least? The same?

Resources:

Beneficial Insects in the Yard and Garden
http://lancaster.unl.edu/pest/resources/339_beneficialbugs.pdf

Natural Enemies Gallery http://ipm.ucanr.edu/PMG/NE/index.html

Beneficial Insects - Nature's Pest Control
http://idl.entomology.cornell.edu/files/2013/11/Beneficial-Insects-1sdvh6p.pdf

Twenty-Five Pests You Don't Want in Your Garden
http://extension.psu.edu/pests/ipm/pestproblemsolver/house/home-garden/insects/25pests

*lesson adapted from kidsgardening.org