

Garden Lesson: Local Ecosystems

Season: Spring | Grades: 4th, 5th, and 6th

Ohio Science Concept

- 4th Grade: Earth's living history: environmental change
- 5th Grade: Interactions within ecosystems
- 6th Grade: Rocks, minerals and soil: common and practical uses

Next Generation Science Standard (Kentucky Academic Standards)

- 5-PS3-1: Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.
- MS-LS2-2: Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems

Science Inquiry and Application

- Communicate about observations, investigations and explanations
- Employ simple equipment and tools to gather data and extend the senses

Objectives

Students will...

- Use magnifying glasses and observational skills to identify signs of interactions among components in a food web.
- Identify components of the school garden habitat and explain how they are related to each other.
- Practice proper harvesting techniques and enjoy eating a salad composed of produce they played a role in planting and watering.

Materials

- Transition signal (bell, chime, etc.)
- *Observe Station*: Food web cards
- *Explore Station*: Magnifying glasses
- *Garden Station*: Bowls, scissors, dressing

Overview

This lesson guides students in investigating their school garden habitats and food web. At the observe station, students discuss the plants and animals that live in the garden and how they are all connected. At the explore station, students are guided in searching the garden for signs of interactions between components of the food web. At the garden station, students harvest spring crops. The lesson ends with a celebration of the students' hard work, garden knowledge and connection to their food as the group eats the harvested crops in a salad together.

Additional Resources: <http://scienceovereverything.com/2017/01/03/buzz-kill-bees-are-dying-and-why-it-matters-to-you/>

5 minutes Introduction

- Welcome & review expectations
- Group discussion about the garden habitat
- Break into three groups for station time

20 minutes Station Rotation (5 minutes per station + 1 minute for transition)



Observe: Who am I?

Materials: Food web cards, yarn

- Encourage students to think of plants and animals they've seen in the garden.
- Lead a discussion about how the organisms they named interact or live in the garden.
- Put a picture of a plant or animal that can be found in the garden on each students back.
- Have students ask each other "yes" or "no" questions to figure out their organism.
- Once students have guessed their organism, have them put it in front of them so everyone can see.
- Use yarn to create the connection of the food web.

Explore: Signs of Critters

Materials: Magnifying glasses

- Review ways in which plants and animals in a habitat could interact (food, homes, etc)
- As a group, have students look for signs of interactions between or among plants and animals.
- Show students a few examples and then encourage students to share interactions they see with the group.

Garden: Harvest

Materials: Bowls, scissors, dressing (optional)

- Walk around the garden and show students what is ready to be harvested.
- Demonstrate how to harvest properly so the plant can continue to grow.
- Give each student the chance to help harvest and put what they collect into a community bowl.

5 minutes Conclusion: What Can You Do?

- Share the harvested salad and celebrate the student's hard work, contributions and garden knowledge!
- Encourage students to garden with their families and in their future school years!

“Who am I” Cards



Sun



Eggplant



Grasshopper



Praying Mantis







Pumpkin







Robin



Blue Jay



Cardinal



Apple Tree



Bee

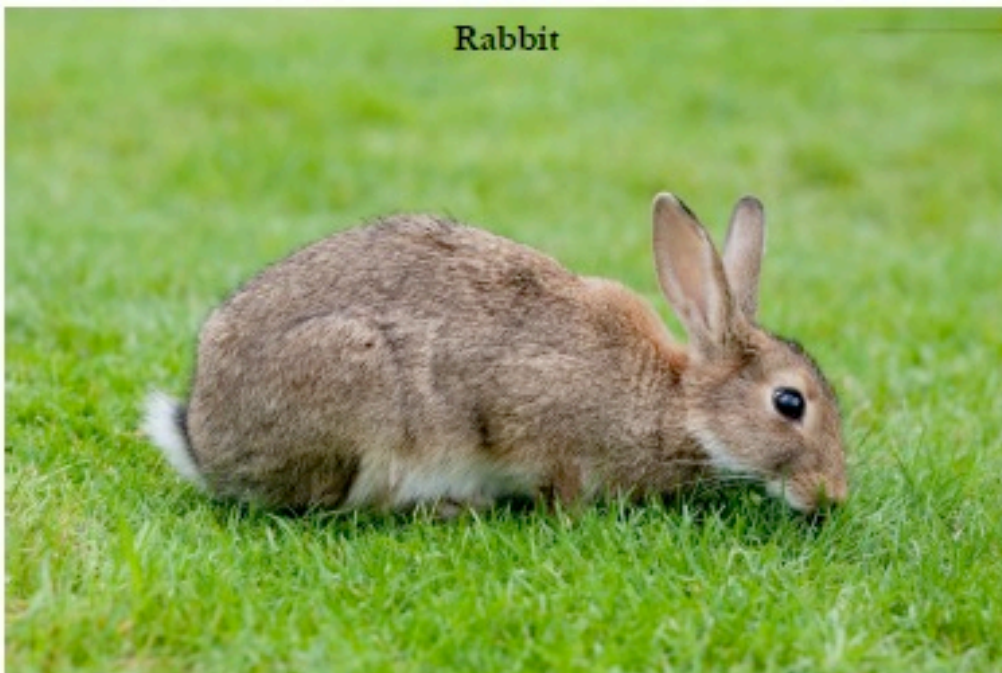




Frog



Worm





Squirrel



Acorn





Bat



Mushroom