

Purpose & SOL

- Students will learn about different insects commonly found in a garden, and how they fit into the ecosystem.
- Science 1.5 (c), 2.5 (a), 3.4 (a,b), 3.5 (a,b,c), 3.10 (a), 4.5 (a,c,d,e), 5.5 (b,c)

Materials

- Magnifying Glass
- Small jars for collecting and one observation jar
- Insect diagram

Engage

- What is an insect? What do insects eat? What eats insects?
- What kinds of insects have you seen in the garden?
- What's a "beneficial" insect vs. "harmful" insect?
- What are some adaptations insects use to live in our food gardens?

Procedure

1. Students will collect and identify insects in the garden
 - Divide students into groups of 3 or 4 and give each group a jar, groups will work together to find and collect one or two insects
 - Using a magnifying glass, students can closely examine the insects and identify various parts of an insect (head, thorax, abdomen), number of legs, presence of antennae, etc.
 - Using the chart, students will identify their insects as beneficial or harmful for the garden and describe why
2. Discuss with students how different insects use different parts of the plant. Squash insects lay eggs on the underside of leaves for extra protection; cabbage moths lay eggs on the inside whorls of brassica (mustard, cabbage, broccoli) so hatchlings can have quick access to food.
3. Ask students how they think insects fit into the food web.
 - Are they producers or consumers?
 - Are they carnivores or herbivores? (it depends on the insect!)
 - Insects are also a primary food source for birds, moles and other animals
4. Have students observe the garden and see if they can identify evidence of insect activity (chewing damage vs. sucking damage; different types of insect waste, ect.)
 - Some insects eat our plants (caterpillars, aphids, squash insects)
 - Some insects eat the insects that eat our plants (lady bugs eat aphid babies, soldier flies eat fly larvae, praying mantis eat EVERYTHING)
5. Review with students the importance of insects to the garden and the ecosystem
 - What would happen if there were no insects? (reduced pollination, many animals would lose an important food source, etc.)

Did You Know? In many parts of the world, people eat insects as meals or snacks! Yum!

Classroom Extension

Have students describe and insect they observed in the garden either through drawing or writing.

