



Ladybug Release

Overview: Learn how some garden insects are beneficial and others are detrimental to the garden. Explore this relationship with live ladybugs and aphids in the garden.

Subject area: Backyard Science

Grade level: K – 5th

Oregon Benchmarks/Common Core Standards:

- *K-LS1 From Molecules to Organisms: Structures and Processes*
LS1.C: Organization for Matter and Energy Flow in Organisms
- *1-LS1 From Molecules to Organisms: Structures and Processes*
LS1.A: Structures and Functions
LS1.B: Growth and Development of Organisms
LS1.D: Information Processing
- *2-LS4 Biological Evolution: Unity and Diversity*
2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats
LS4.D: Biodiversity and Humans
- *3-LS1 From Molecules to Organism: Structures and Processes*
LS1.B: Growth and Development of Organism
- *4-LS1 From Molecules to Organism: Structures and Processes*
4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction
4-LS1-2: Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.
- *5-LS2 Ecosystems: Interaction, Energy, and Dynamics*
5-LS2-1: develop a model to describe the movement of matter among plants, animals, decomposers, and the environment
LS2.A: Interdependent Relationship in Ecosystems
LS2-B: Cycles of Matter and Energy Transfer in Ecosystems

Objectives: Children will be able to identify one relationship between a beneficial and detrimental garden insect.

Prep time: 5-10 minutes

Lesson time: 20 minutes

Materials needed:

- 16 magnifying glasses

- 1 package of live ladybugs (purchase at your local garden store in spring and summer)
- Plants with aphids
- Scissors

Space needed: Garden

Staff needed: 1

Preparation steps:

Find a plant with aphids on it and pick one of its leaves. Note: aphids are commonly found on broccoli, Brussels sprouts, kale, cabbage, and roses.

Presentation steps:

1. Talk to children about the relationship between plants, aphids and ladybugs. Aphids are detrimental to plants because they pierce plant parts and suck out juices. Ladybugs are beneficial to plants because they eat insects such as aphids. Note: ladybug larvae are even more voracious eaters than the ladybugs themselves.
2. Aphids are small and can be all different colors (gray, brown, black, green, and yellow). Let children look at aphids on the collected leaf with their magnifying glasses.
3. Show children the package of live ladybugs and explain that we will be releasing them in the garden. Ask where the best spot for our ladybug release might be (e.g. on the plants with the aphids).
4. Cut open the ladybug package and gently shake ladybugs onto the plants.

Notes:

- If purchasing live ladybugs ahead of time, store in the refrigerator until you're ready to use them.
- Surprisingly, ladybugs can bite, but they are not harmful. Their bite feels like a small prick, which can startle children.