WEEK 5 Lesson 2

Science and Engineering: Life Sciences

Ecosystems: Looking for Evidence of Insects

adapted from FOSS *Insects*

Big Idea	Organisms in an ecosystem are interdependent.
Guiding Question	What can we understand about how organisms benefit each other?
Content Objectives	I can collect data about the insects and other small creatures that live around our school. (2-LS2-3(MA), Practice 3) I can discuss how the organisms in an area depend on one another to survive (2-LS4-1, Practice 6)
Language Objective	I can use my observations to explain what insects and other small creatures do and how they are interdependent with plants. (SL.3.2.a)
Vocabulary	**insect**: a small animal whose body is divided into three parts, with three pairs of legs and usually one or two pairs of wings
Materials and Preparation	This lesson occurs outdoors. Review outside learning and safety expectations. Identify an area outdoors with a good amount of vegetation. Before the lesson, conduct a safety check of the area. ● 5 or 6 small containers with air holes ● spoons ● tweezers and magnifiers (optional) ● Parts of a Flower poster ● Science and Engineering packets ● writing and drawing tools, including pencils, colored pencils, and erasers, in one or more containers to carry outdoors
Opening	*We have been spending a good deal of time discussing plants and*

2 minutes	*pollinators. Today, we'll go outside to look for evidence of insects and other small creatures living around our school. An **insect** is an organism that has six legs, three distinct body parts, antenna, an exoskeleton, and usually wings. We might find other small creatures outside that do not have all these body parts.* *The evidence we find might be actual organisms; it could also be bites taken out of plants, or something else. When we find them, we'll collect some of these organisms by carefully scooping them into containers. If it is safe for them and for us, we can keep and observe them in the classroom for the day—then we'll bring them back to the spot where we collected them.*
Investigation 20 minutes	Bring children outside to the chosen area. *Where do you think we might find some evidence of insects or small creatures out here?* Gather ideas from the children. Invite children to disperse in small groups. Circulate among these groups as children look for evidence of insects or other small creatures. Point out a leaf that has been eaten; gently turn over a rock to see what is underneath; check under leaves and bushes; look on the sides of trees. Affirm children's discoveries and give clues for evidence they may be missing. Help children distinguish between insects and other kinds of organisms. If children find insects or other small creatures that are safe to handle, help them carefully scoop them into small containers to bring into the classroom for further observation. Remind them to include anything that the organism might need to survive, such as leaves or a spritz of water. Give children time to draw and write observations in their Science and Engineering packets.
Discussion 7 minutes	Bring the group back together outdoors, or move back into the classroom. Invite a few children to share their observations and anything they collected. Facilitate a conversation about how the organisms children observe depend on one another. Questions to guide the conversation include: ● *What evidence did you see?* ● *What does this insect or small creature need to live and grow?* ● *How might this organism help the plants live and grow?* ● *Why do you think this organism lives here?*

	• *What might happen if we removed this plant or animal from this ecosystem?* • *What else might depend on this organism?* • *Do you think this organism is a pest? Why or why not?*
Closing 1 minute	*Looking at both plants and animals—in this case, insects—helps us understand how all the organisms in an ecosystem are interdependent.*
Standards and Practices	**SL.3.2.a** Describe people, places, and things, tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences. **2-LS2-1** Plan and conduct an investigation to determine if plants need sunlight and water to grow**.** **2-LS2-2** Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
Ongoing assessment	Reflect on the class discussions. What connections do children make among the plants and animals they observe? How do children describe the interdependence of organisms in an area?

Notes