Solomon Family Insectarium

BACKGROUND FOR EDUCATORS

Overview of Student Worksheets: EXPLORE ECOLOGICAL ROLES

Using worksheets, students explore the ecological roles of insects and how these roles affect other organisms in their ecosystems.

- **Things to Know (p. 1):** Students use the map to find four live insects and the areas that explain ecological roles that insects typically perform (builder, decomposer, herbivore, pollinator, predator).
- **Worksheet (p. 2):** Students use this worksheet to sketch the four live insects and to collect information about each one, such as insect names, ecological roles, ecosystems, traits that help the insects perform their roles, and how the roles affect other insects in their ecosystems.

These observations help students experience a **natural phenomenon**—that insects have a variety of different physical traits. This phenomenon can serve as an anchoring point in exploration and discussion as the students explore the **investigation question**: How does an insect's ecological role affect other organisms in their shared ecosystem?

Extension Ideas

Back in the classroom, students research an insect in their school's environment that performs the same ecological role as an insect on their worksheet (builder, decomposer, herbivore, pollinator, predator). Additionally, students can research insect decline to investigate what would happen if that insect disappeared: How would the absence of the insect affect other organisms in their school's environment? How would it affect humans? What could be done to protect insects? Students can then construct an argument for the importance of maintaining biodiversity.

Correlation to Standards

This activity supports the following Next Generation Science Standards:

Disciplinary Core Ideas	**LS2.A: Interdependent Relationships in Ecosystems** Organisms are dependent on their environmental interactions both with other living things and with nonliving factors.
Crosscutting Concepts	**Stability and Change** Small changes in one part of a system might cause large changes in another part.
Science and Engineering Practices	**Obtaining, Evaluating, and Communicating Information** Critically read scientific texts to determine the central ideas and/or obtain scientific information to describe patterns in and/or evidence about the natural world.