

## Hands on Ecology Activity 2

**Topic:** Food Webs

**Learning Objective:** Students will learn about the classification of biotic parts of an ecosystem: producers, consumers, and decomposers. Students will learn about what producers need to survive and start the process of growing their own producers in the EIS garden. Students will compare and contrast the macroinvertebrates found in soil samples taken from the garden, the compost, and landscaped areas at EIS.

### Alignment with NGSS Grades 3-5

Performance Expectations and Disciplinary Core Ideas for Grade 5

- 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Science and Engineering Practices

Developing and Using Models

- Develop and/or use models to describe and/or predict phenomenon.

Engaging in Argument from Evidence

- Construct and/or support an argument with evidence, data, and/or a model.

### Materials:

- PCD posters
- Petri dishes
- Microscopes
- Gloves
- Slides
- Recording sheets
- Pencils
- Markers

### Detailed Description

- Activity
  - Checkin
    - Have students re-introduce themselves and answer question of the day
  - PCD Lesson
    - Recap abiotic and biotic factors learned yesterday.
    - Review new terms (P,C,D). Ask students to brainstorm and act out a mini food web showing at least one producer, consumer, and decomposer.

- If time, have students complete the “Web of life” activity to discuss energy transfer between different organisms in an ecosystem
- Macroinvertebrate Investigation
  - Collect soil, water, and plant samples outside
  - Overview microscope use (use gently, how to adjust eyepiece, light switches, magnification and focusing)
  - Working in pairs, students will observe a sample and record their observations. Samples will rotate around the room so each pair can see similarities and differences in the macroinvertebrate species and soil texture.

**How will you conclude the lesson to enforce the learning objective:**

Have students return their samples to their space outside or to the compost. Wash hands and return to classroom. Ask students to share around the circle one thing they learned today to conclude our learning.

**What science process skills will this lesson exercise?**

Sorting and classifying, Communicating

**Safety precautions**

None