

Walla Walla School Garden Lesson

Title: 4th Grade Food Webs (adapted from Carrie Reinhart's lesson, Whitman College 2010)

Standards addressed: EALR 4 LIFE SCIENCE

- 4-5 LS1B *Plants and animals have different structures and behaviors that serve different functions*
- 4-5 LS2A An ecosystem includes all of the populations of living organisms and nonliving physical factors in a given area. Living organisms depend on one another and the nonliving physical factors in their ecosystem to help them survive.
- 4-5 LS2C *Plants and animals are related in food webs with producers (plants that make their own food), consumers (animals that eat producers and/or other animals), and decomposers (primarily bacteria and fungi) that break down wastes and dead organisms, and return nutrients to the soil.*

Unit connections: Science Animal Habitats Unit

Description: In this lesson, students will observe organisms and learn to classify them as producers, consumers, or decomposers and how they benefit the garden.

Objective:

- The students will draw organisms that they observe in the school garden.
- The students will categorize the organisms they observed as producers, consumers, or decomposers.
- The students will construct a food web using their organism drawings.

Time Required: Pre-garden time: 20 minutes, Garden time: 20 minutes, Post-garden time: 40 minutes

Date: Coordinate with the teacher to find out when they teach their Animal Habitats unit.

Materials:

- Computer with Internet to watch YouTube video: <http://youtu.be/WLk-9ib0OVA> (search “decomposer song”)
- Butcher paper/markers – Use color coding on the chart.
- the school garden with a compost area or a sample of compost
- post it notes (a few for each child)

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- Construction paper

Preparation: There will be producers in the garden (plants). Look for consumers in the garden or surrounding area, but if there are none around, help the students generate their own ideas and draw them. Look for decomposers in compost or under leaves or mulch. Prepare the butcher paper for the poster (see below). Talk to the teacher about using the computer to play the YouTube video.

Class Discussion: Write the word “Organisms” at the top of the butcher paper and discuss the definition. Guide the students to name some organisms and write them in the box with the word organisms (see below)

Action:

1. **Watch You Tube video:** Have the students listen for the names of the three kinds of organisms. Show the You Tube video and discuss the song.
2. **Teach the students about consumers, producers, and decomposers:** Briefly discuss the definition of consumers, producers, and decomposers. Write the definitions on the chart. Discuss how each organism relates to the garden.

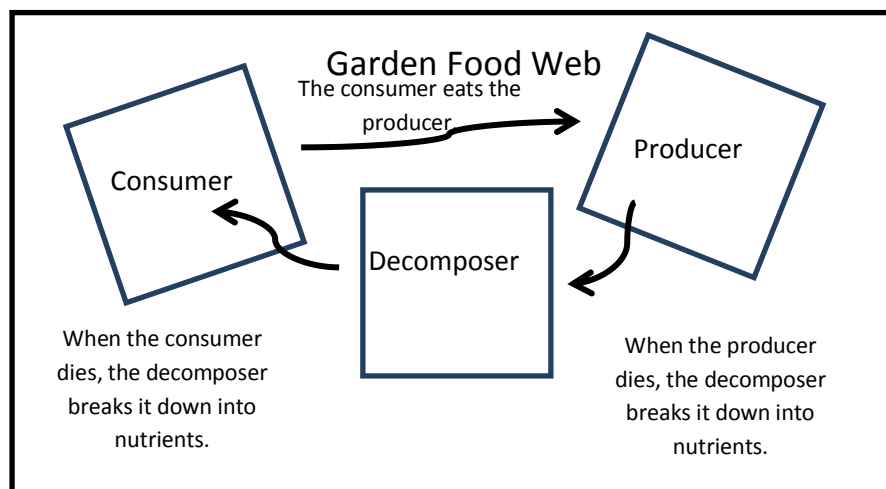
cow	chicken	flowers	Organisms – Living things	Jessica	tree	my cat
Producers – plants produce their own food		Consumers – animals eat animals or plants		Decomposers – fungi and bacteria break things down		

3. **Go to the garden to observe and draw:** Use the post its to draw organisms. Remind the students to draw only one organism per sticky note.
4. **Categorize organism drawings on the chart:** When you return to the classroom, give the students time in small groups or with a partner to put their organism drawings in groups of consumers, producers, and decomposers. When most students finish, choose a few students to bring

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up an organism drawing and stick it to the chart in the appropriate column. Have them explain how they know that organism belongs in that category. Then call up groups of students at a time to attach their post its to the chart.

- 5. Correct and Clarify:** If you need to, move post its that are in the wrong place. Discuss any interesting organisms that they observed and how they are important to the garden.
- 6. Garden Food Web Posters:** Teach the students that **all organisms are connected in what are called food webs or food chains.** In front of the students, create a food web. Use a piece of construction paper and write “Garden Food Web” at the top. Arrange your three post its (or a student’s) on the construction paper. Draw arrows between the organisms to show how they are connected. See example below.



Instruct the students to work together in partners or small groups to create their own food webs. Have some students pass out the post it notes from the chart and one piece of construction paper per group. Tell them they can use more than one of each type of organism if they would like to.

Wrap Up: When the groups are finished, have them discuss their food webs and how each type of organism is important in the garden. They can say, “A (producer/consumer/decomposer) is important in the garden because_____”

Vocabulary Words:

organism- a living thing

producer- an organism that produces its own food

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consumer- an organism that feeds on plants or other animals

decomposer- an organism that breaks down dead plants or animals