

**Project FOCUS
Best Lessons
FOURTH GRADE**

Title of Lesson:

Theme: Life Science

Unit Number: **Unit Title:** Ecology

Performance Standard(s) Covered (enter codes):

S4L1 a/b/c/d

Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

producers, autotrophs, heterotrophs, carnivores, omnivores, herbivores, food chain/web, ecosystems

Learning Activity (Description in Steps)

Abstract (limit 100 characters): Students will model how organisms are linked together in a food chain/web.

Details: Each student will get a picture of an organism in an environment. These will have details on what the animal needs to eat to survive.

- 1. Ask students what are producers, consumers, autotrophs, and heterotrophs. Explain food chains/webs and give an example on the board.**
- 2. Students will then decide whether their organism is an autotroph or a heterotroph. Once they have organized themselves in these two groups, the autotroph group will be asked what they need to survive. The heterotrophs will then be asked to split themselves into groups based on if they are herbivores, omnivores, and carnivores. Have all four groups stand up and actually divide themselves.**
- 3. Have the autotrophs stand in the front of the classroom. The herbivores will then be asked to stand facing a plant that they would eat. Omnivores and Carnivores will follow. As each group joins the web, ask questions about how many connections between the organisms and the types of organisms that join with each group.**
- 4. To demonstrate the effects of destruction of the environment on the food web, the plants will be asked to sit down. Students will then be asked what the consequences of the lack of plants will have on the animals. Ask everyone to stand back up. Then give the example of only some organisms**

disappearing from building development. Ask any student who's animal that eats that organism to sit down. See how far the chain will be affected.

5. Wrap-up questions will include: "What is a food web?", "What happens if one organism disappears from the food web?", "How are organisms dependent on one another?".

Materials Needed (Type and Quantity):

Organism Cards with foods listed on each card

Notes and Tips (suggested changes, alternative methods, cautions):

* It will be helpful if you ask one question at a time and keep each group separate until putting the food web together.

* It is easiest to do this in an open area, like outside.

* If the class is particularly well behaved and able, try making each connection between organisms with strands of yarn so students can see the many connections. Instead of having students sit down when asking the environment questions, have them just drop the strings.

Sources/References:

1) Referenced "Life Science Activities for the Elementary Classroom (Level 4-6)"

2)

3)