

JSD 3D Learning Activity Template

Grade: 6th

Title: Weaving the Web

Utah Science with Engineering Education Standard (SEEd): 6.4.3 **Develop a Model** to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. Emphasize food webs and the role of producers, consumers, and decomposers in various ecosystems. Examples could include Utah ecosystems such as mountains, Great Salt Lake, wetlands, or deserts.

Key crosscutting concept(s) (CCC): Patterns

Key science and engineering practice(s) (SEP): Developing a model.

Materials: http://www.primaryresources.co.uk/science/pdfs/food_chain_game.pdf ,
or <http://forces.si.edu/ltop/pdfs/2-5-WeavingTheWeb.pdf> , twine or rope

Time: About 15 to 20 minutes

Teacher background, key content information and hints: None

Prior knowledge that students need: Food Webs

Learning Activity Plan

These three aspects of a lesson should be identified in your learning activity.

Gathering: Obtain Information

Reasoning: Evaluate Information

Communicating: (Communicate Information)

Phenomenon: We are all part of an ecosystem

Learning Activity: Give each student a picture card, start with one, find a predator or prey to go with that card. Continue until there is a web and all cards have been linked to another.

Have we made food chains? (Yes, lots of them!)

What do all of our food chains together look like? (A food web.)

What is the difference between a food chain and food web? (A food web is made up of several food chains. A web is more complicated than a chain because it has connections among the chains.)

Who is holding the most pieces of yarn? (The sun.)

Why? (Because each food chain starts with the sun.)

Who else is part of many food chains? (Green plants)

What would happen if all the green plants died? (Nothing else in the food web could survive.)

How could we show what could happen if one kind of plant, such as all the clover died? (The student representing clover could pull out his or her pieces of yarn and sit down.)

If all the clover is gone, who may have trouble getting enough food?

(Identify all the animals that were in food chains that included clover.)

Whoever had yarn pulled out of their hands might have trouble getting enough food without the clover.)

What happened to our food web? (It is much thinner, less complex, and less strong.)

Why should we be concerned about each kind of plant or animal?

(Because other plants and animals in the food web may depend on it.)

Assessment of student learning Informal assessment is the discussion, after the activity. Students will understand the interdependency of plants and animals in ecosystems.