



MINNESOTA ZOO™
Changing how you see the world

Food Webs Grades 4-6 Post-visit Activity

MN Graduation Standards supported:

Grade 5 Strand IV.E The student will know that biological populations change over time.

Grade 5 Strand IV.F The student will know that matter and energy flow into, out of, and within a biological system.

Vocabulary:

Habitat: place or type of place where an organism or community of organisms live and thrive.

Organism: any living thing, such as a plant, animal, fungus, bacteria, capable of growth and reproduction.

Introduction:

Animals do not make their own food; they are dependent on plants and/or other animals. A **Food Web** is how energy passes through an ecosystem. This activity is designed to initiate a discussion of two specific concepts regarding food interdependence: how all-living things are connected and how individual changes in an environment can affect the entire ecosystem.

Objectives:

At the end of this lesson, students will:

1. Describe the concepts of a food web
2. Identify the importance of an individual species' role in the community
3. Understand that organisms in an ecosystem are interdependent.

Procedure:

1. Gather the following materials: Various animal and plant pictures (one per student; include a wide assortment which includes herbivores, carnivores, trees shrubs, etc), 1 ball of yarn.
2. Hand out one animal or plant picture to each student.
3. Have the students stand in a circle holding their picture in front of them so each student can see each other's picture.
4. Pick a student to start the activity by giving them a ball of yarn.
5. The student who has the ball of yarn is to state the name of their plant or animal and the food relationship it has with one of the other pictures in the circle. For example "I am a deer and I eat grass" or "I am a tree and gibbons swing from me."

Food Chain: order in which energy is passed through a natural system.

(sunlight-green plant-herbivore-carnivore-decomposer.)

Food Web: Many interconnected food chains in a natural system

Herbivore: plant eater

Carnivore: meat eater

Omnivore: plant and meat eater

Producers: such as plants, create food energy and oxygen

Consumers: eat others, either producers or consumers.

Decomposers: eat dead plants and animals

Links:

www.sciencebob.com

www.nwf.org/kidzone
(Ranger Rick)

Procedure Continued:

6. The beginning student holds on to one end of the yarn while tossing the rest of the yarn to the other student.
7. Continue steps 4-5 until all the students in the circle are holding the yarn; creating a WEB!
8. Ask the students “Which animals would be affected by polluted water?” Answers may include: (all animals that depend on water to live, only the animals that live in the water). Have these students drop their yarn. How does this affect the web?
9. You can simulate many kinds of scenarios such as: overpopulation leading from animals becoming extinct or a virus attacking a certain species that could lead to overpopulation.
10. After you have completed this activity discuss other habitats and ask for ideas to create another type of web. While at the Minnesota Zoo discuss the habitats the animals are in and how they differ from a natural habitat.