

Food Chain Mobile

Students will be able to design and build a food chain mobile.

Objectives:

Students will build a four part food chain and discuss and demonstrate what happens when one link is removed (an animal or plant becomes extinct).

Materials:

Each student needs a paper or yellow plastic plate, 4 lengths of 12" string, 1 length of 12" yarn or colored cord, crayons, scissors, and copies of alphabet cards from this guide. Also needed: hole punch. Optional: poster board and glue or paste.

Methods:

Build mobiles, then have students remove a part of the mobile to observe and discuss the effect.

Subjects:

Math, Art, Science

Duration:

2 sessions, 30 and 45 minutes, respectively

Location:

Classroom

Related Activities:

Finding Home: Everglades Habitats, Food Chain Gang, Everglades ABC's

Florida Sunshine State Standards:

SC.G.1.1.2 SC.G.2.1.2



Background

Plants support all forms of life, including people, either directly or indirectly. Thus plants are **producers**. Producers make their own food through a process called photosynthesis. **Consumers** depend on other plants or animals for their energy. Consumers include herbivores, carnivores, and omnivores. **Herbivores**, including deer and rabbits, only eat plants. **Carnivores**, such as bobcats and panthers, only eat meat. **Omnivores**, including raccoons, opossums, and many humans, eat plants and meat. Consumers provide carbon dioxide which plants need to produce food. **Decomposers** such as fungi cause decay and return nutrients and minerals back to the earth. By designing a food chain mobile, this activity will help students to see how producers and consumers are connected and what happens when that connection is broken.

Procedure

1. Spend one 30 minute session discussing the terminology listed in the background section of this activity. Write down five words on the chalk board with a brief definition: producer - plants, consumer - animal, herbivore - plant eater, carnivore - meat eater, omnivore - plant and meat eater; leave enough space for answers underneath each word. Give each student an alphabet card. Have students identify whether their card picture is a producer or consumer, listing them in their appropriate column on the chalk board. Have students who are consumers further identify whether they have an herbivore, omnivore, or carnivore. If the student isn't sure, let other students help.
2. For the second session, have students color paper plates the

color of the sun or provide yellow plastic plates. Have each student color four food chain pictures (**copies of the originals**), and cut them out. To make the pictures sturdier, have students glue or paste pictures on pieces of poster board.

3. Using scissors, punch 5 small holes in each plate, for each string/cord. Put one hole in the center (for the colored cord) and space the other holes an equal distance apart around the edge of the plate, (see picture on the previous page).

4. With the hole punch, punch a hole in each of the pictures so that they will hang balanced. Tie one end of each string to a picture. Push the other end of the string through the plate. Make either a loop or plain knot on the end of the strings.

5. When the mobiles are finished, pair students. Have them examine each other's mobile, looking for producers and consumers. While one student holds their own mobile by the colored cord, have the other student cut one of the strings. Have the students discuss what happened. Have students switch places and repeat the experiment. Then have them remove a second and a third string to see what results they get. Discuss the differences.

Extension

Have students sit at their desks. Ask students what happened when they removed a picture from the mobile. Write their responses on a chart or a chalk board. Ask them what happens when an organism is removed from the food chain. Record responses. Discuss with students what they can do to help protect wild places (i.e. conserve water, don't litter, recycle, reuse, teach others about wild areas etc.). Again record responses. To end the discussion on a positive note explain that some animals which have been protected have made or are making a comeback. In Florida, the alligator and the bald eagle have increased in numbers since the 1940's. Finally, have students repair their mobiles and hang them around the classroom.



Important Words

Mobile
Food Chain
Producer
Consumer
Decomposer
Herbivore
Carnivore
Omnivore
Organisms
Photosynthesis
Extinct

