

Topic: Science, food chains (producer, consumer, herbivore, omnivore, carnivore, decomposer)

Overview

In this lesson, students will create food chains using three different websites and Kidspiration software. This should be used as a culminating activity for a food chain unit or as a review for 4th grade.

Grade 3

Time Allotment

Four 30-minute periods

Learning Objectives

On completion of this lesson students will be able to:

- Create and interpret a model of a food chain showing producers and consumers.
- Explain how a change in one part of a food chain may affect the rest of the food chain.
- Distinguish among producers, herbivores, carnivores, and decomposers.
- Identify sequences of feeding relationships in a food chain.
- State that all food chains begin with the sun and a green plant.

This lesson addresses Va. Science SOL 3.5.

Media Components

- LCD Projector
- SmartBoard
- Laptop/computer with Internet access
- Lab with Internet access
- Kidspiration software
- Website:
 1. http://www.harcourtschool.com/activity/food/food_menu.html - Fun With Food Webs (Harcourt). This interactive website allows students to create food webs that can be found in a meadow, the artic or a pond.
 2. Website: http://www.gould.edu.au/foodwebs/kids_web.htm - Food Webs (Gould League). This interactive website allows students to classify artic, grasslands, or marine animals as carnivores, herbivores, omnivores, decomposers, or producers.
 3. Website: <http://www.vtaide.com/png/foodchains.htm> - Create a Food Web (Parenting the next generation). This interactive website allows students to create a food chain or web by dragging animals, plants and arrows.

Materials and Student Handouts

- All SmartBoard student creations should be printed out for class discussion and display.
- Students will print their food web that they create from (<http://www.vtaide.com/png/foodchains.htm>) as well as print their food web from Kidspiration.

Teacher Preparations

- Set up teacher demonstration technology (computer, LCD projector, and SmartBoard).
- Bookmark the websites listed under media components for easy access.
- Reserve lab

Introductory Activity

Focus: We are going to create food webs. Be watching for which animals are carnivores, omnivores and herbivores. Also, pay attention to where we find producers and consumers in the food chain.

Activity: Set up the LCD projector, computer/laptop and the SmartBoard. Open the website: http://www.harcourtschool.com/activity/food/food_menu.html

Have students come up to the SmartBoard to create Food Webs for the three different habitats.

Follow-up: After completing each food web for each habitat, talk about each animal's job (producer or consumer). Print each web for further discussion and display.

Learning Activities

Focus: We are going to classify animals as carnivores, omnivores, herbivores and decomposers.

Activity: Open the website: http://www.gould.edu.au/foodwebs/kids_web.htm

Have students come up the SmartBoard and drag & drop the plants/animals into the appropriate category.

Follow-up: Look at the difference between the numbers of the different categories. Discuss what type of teeth each animal may have because of what it eats. Print each web.

Culminating Activities

1. Focus: You are going to create a food web using a resource on the Internet. Before we go to the lab, I will demonstrate how this site works.

Activity: Set up the LCD projector and the SmartBoard to demonstrate how to use the website (<http://www.vtaide.com/png/foodchains.htm>).

Follow-up: Are there any questions about how to use the site?

2. Focus: You need to keep in mind that all food chains must begin with a green plant. Next an herbivore or omnivore will eat the green plant. An omnivore or carnivore will then eat that animal. There are many possible food webs. When you have created your food web, you may put all the other plants and animals into the "recycle bin" and print

your web. (Note: If webs will not print, students should draw the webs they created to share with the class. Pictures can be drawn or words can be used.)

Activity: In the computer lab, students create their own food web.

Follow-up: Once students have completed their food webs, have students share their webs. It is unlikely that any webs will be completely alike, so talk about all the different food webs that can be formed from the same animals. Have students color and display their webs.

Assessment

- Students will create a food web using Kidspiration software. They will label all the plants and animals using the following vocabulary: producer, consumer, herbivore, omnivore, carnivore, and decomposers.

Community Connections

- Collect many pictures of producers and consumers that would be found in a food chain in your community. Have children create food chains using these pictures. Talk about what happens when one animal or species is no longer involved with the food chain (for example, a new shopping mall is built and one animal has lost its habitat, so it moves somewhere else. How does building a shopping mall affect food chains in our community?). You can come up with several situations relative to your community.
- Invite a speaker from the Virginia Wildlife Center to talk about animals they care for that may have been affected by problems with the food chain.

Cross-Curricular Extensions

Language Arts

- Read and discuss Who Eats What: Food Chains and Food Webs by Patricia Lauber. Use the book as an introduction or extension to your food chain or food web unit.
- Create poems that talk about food chains.
- Write a story about life in the food chain. You could be the sun giving energy to all the green plants, or you could be a top-level carnivore that eats animals that have eaten other animals, that have eaten other animals.

Science



- Dissect owl or raptor pellets obtained from the Wildlife Center to determine what each animal has eaten.

Social Studies

- Look at food chains that could be found all over the world. Identify different oceans, continents, or countries that may have the same or different food chains.

Music

- Sing songs about food chains. Some songs can be found at <http://www.songsforteaching.com/teacherrockbots/foodchain.htm>

	Who Eats What? Kelly L. Rooney Rockingham County Public Schools	
---	--	---

Adaptations (optional)

If you have the resources, some students would benefit from actually seeing these animals in person. You can do this by visiting a local zoo or by using skulls and teeth of dead animals. Student can look at the teeth of various animals to infer whether they were a carnivore, omnivore or an herbivore.

About the Author

Kelly Rooney is a 3rd grade teacher at Pleasant Valley Elementary in Rockingham County, Virginia. She began teaching in the fall of 2003. In the spring on 2005, she completed her NETS*T certification and attended her first NTTI conference in the fall of 2005.

This lesson was written as part of the Fall 2005 WVPT NTTI for the Virginia Enhancing Education Through Technology Ed Tech Grant awarded to the Shenandoah Valley Technology Consortium (SVTC).