

Food Web

Integration: Science; Health (Nutrition)

Grade Levels: 3-6

Time: 2-3 class periods

Materials:

- Research materials (books, encyclopedias, internet, etc.)
- Index cards
- Poster board
- Drawing materials

Objectives:

Students will:

1. Investigate the concept of a food web.
2. Analyze the Antarctic food web.
3. Apply the food web concept to their daily lives.

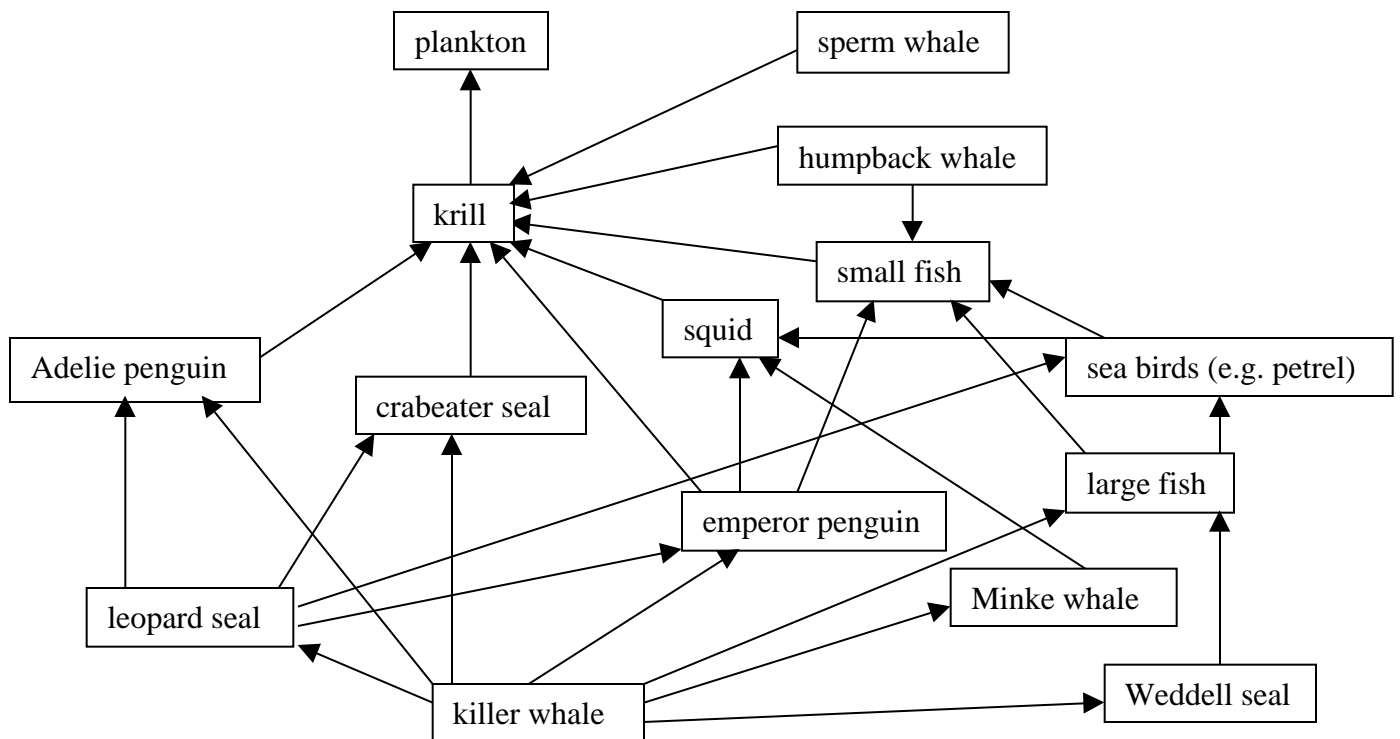
Lesson:

1. Ask students to name some of the animals that live in and around Antarctica (seals, whales, penguins, krill, mites, springtails, etc.).
2. Tell students that in some way all of the animals of Antarctica are dependent on one another. Some animals eat others and then become another animal's food.
3. The interdependency of the animals is called a food web. Food webs also include plants that are eaten by animals. Ask students what a web looks like (it has branches and does not follow one path like a chain does, different levels are interconnected).
4. Tell students that they will investigate the Antarctic food web.
 - a. Allow each student to choose a particular animal found in Antarctica. Ensure that a variety of animals have been chosen. Don't forget plankton!
 - Students will choose different species of animals
 - The following animals are most important: Weddell seals, leopard seals, crabeater seals, humpback whales, killer whales, sperm whales, Minke whales, Adelie penguins, emperor penguins, squid, krill, plankton, fish, birds (skua, petrel).
 - b. Students will research the animal they have chosen to find out what it eats and if it is eaten by any other animals.

- c. Each student will place the name of the animal along with an illustration on a 5' x 8' index card.
- d. The class will assemble a large food web based on their research by placing the cards on poster board. The connections between the animals can be drawn onto the poster board.

TEACHER REFERENCE:

Antarctic Food Web



5. Have each student describe his or her part of the web.
6. Ask, "What would happen if (a particular animal) no longer exists?"
 - a. The animal that lives by eating eat may not have any other food.
 - b. The animal that the extinct animal eats may become over abundant, which could also cause problems.

7. Tell students that there are many different food webs. Tell students that they belong to a food web. Ask them to describe their position in a food web. Allow them to respond.
 - a. Tell students that other animals may not eat them but they eat animals and plants on a daily basis.
 - b. The animals they eat, eat other animals and plants.
8. Instruct students to create their own food web. Give the following directions:
 - a. Place a picture or drawing of yourself as well as the animals and plants you consume.
 - b. Draw connections between the animals and plants and you.
 - c. Add any other animals or plants that are involved in the existence of the plants and animals that you consume.
 - d. Display your food web for the class to view.

Assessment:

Teachers will assess:

1. Student's understanding of the concept of a food web.
2. Student's ability to research.
3. Student's synthesis of information and construction of a personal food web.