

SCHOOL-HOME CONNECTION

Date

Dear Families,

Breakfast, lunch, dinner, snacks—there's no doubt about it—humans are food consumers! And every bite we take links us to a food chain. Our next science unit, *Food Chains and Webs*, looks at who eats what. First, we will study specific plant and animal relationships. Then we will learn about the complex connections that exist between predators and prey in nature.

Studies show that children learn science best by firsthand exploration. The hands-on activities in this unit will bring science alive! In addition, a *Food Chains and Webs* reader will build communication and vocabulary skills, vital parts of science education.

All living things are interwoven in a great web of life. Green plants produce food, certain animals eat those plants, and other animals eat those animals. When plants and animals die, the nutrients in their bodies are returned to the soil by the actions of decomposers, such as bacteria and mushrooms. A food chain connects an organism to the organisms it eats. All the overlapping food chains in an ecosystem make up a food web. Humans interact with, and often interrupt, food chains and the habitats in which they exist. Therefore, learning about our role in the global food web is very important.

The cornerstone of our unit will be classroom terrariums that small groups of students will set up and maintain. We will stock our terrariums with plants and animals so we can observe ecosystems in action. In particular, we may:

- ▶ Test soil samples for sand, clay, and silt composition.
- ▶ Plant ryegrass and discover what green plants need to grow.
- ▶ Conduct experiments to determine what crickets and chameleons eat.
- ▶ Examine earthworm castings to find out how decomposers work.
- ▶ Apply knowledge of producers and consumers in a food-chain game.

You can help at home by letting your child take part in food shopping and meal preparation. This will show your child the great variety of foods we eat and the great number of food chains we depend on. Try this food challenge at the dinner table: Try to figure out where every item on the menu came from. You will find that every food, eventually, can be traced to a plant source.

Here's hoping your child always has a good appetite for learning!

Sincerely yours,

Permission granted to purchaser to photocopy for classroom use.

Food Chains and Webs © Delta Education

DeltaScienceModules™

AT HOME



▶ Food Chains and Webs

Parent involvement in a child's education contributes to school success. Delta Science Modules offer many opportunities for parents to learn about and participate in their child's science education.

Use these features in the DSM Teacher's Guide to help you develop and encourage parent participation:

A School-Home Connection Copymaster

This letter for the family should be sent home a few days before you begin the unit. It explains the upcoming science unit, gives some science background information, and offers a suggestion for discussing food chains and webs at the dinner table. The copymaster appears on page 4.

Science at Home

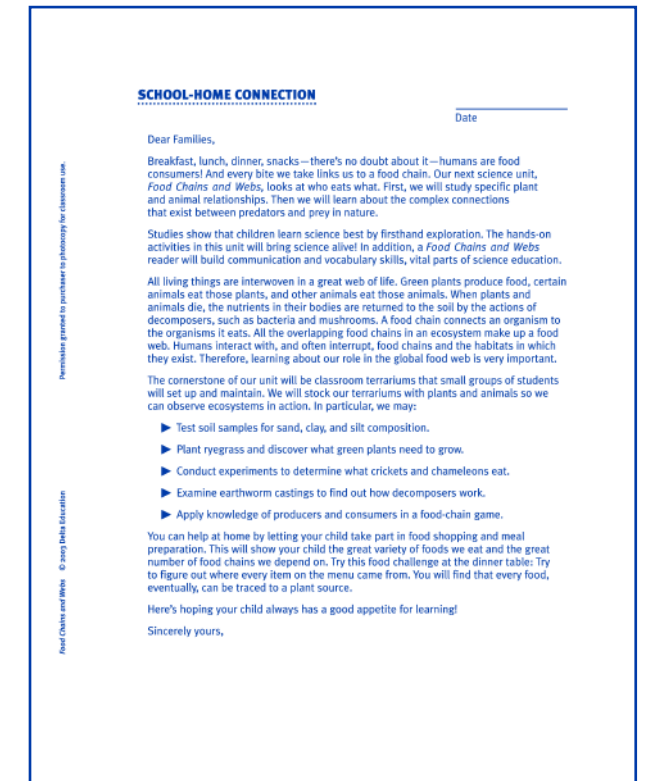
Ideas for at-home activities that extend and enrich the classroom experience are provided in the guide on pages 36, 44, 57, 65, 78, and 100.

p. 36

Have student cut a 3-cm × 3-cm (1.25-in. × 1.25-in.) piece of black construction paper into a distinctive shape, then use a paper clip to cover part of a leaf of a house plant with the black paper. After 4 days, remove the paper. A similarly shaped part of the house plant leaf should be pale and lacking in chlorophyll, demonstrating again that without sunlight, chlorophyll is lost.

p. 44

Have students look for crickets around their homes, if climate and location allow. Good places to find crickets are in tall grasses, under logs, boards, or rocks, or in the grass alongside the foundations of buildings.



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p. 57

If weather and conditions are right, students can dig for earthworms in areas of rich soil, and compare the worms they find at home to the ones in the classroom.

p. 65

Have students observe behavior of household pets and describe their predictable behaviors, including favorite resting locations, response to student coming home, behavior when hungry, and so on. Challenge students to decide if their pets are primary consumers or secondary consumers.

p. 78

If possible, have students look through soil near their homes for earthworms and earthworm castings.

p. 100

Have students look in their refrigerators and cupboards to research the food webs of which they are part. They may want to draw a diagram of these and bring them to class to discuss.

Connections

The last page of every activity includes several ideas for further discussion, investigation, or research. Many of these suggestions are also good family activities. Cross-curricular suggestions for language arts, math, social studies, health, and the arts are featured. Connections also include Science Challenges; Science Extensions; Science, Technology, and Society; and Science and Careers.

Student Sheets

As they work through a hands-on activity, students complete a student sheet that may show their predictions, observations, recordings, or responses. Students should bring these sheets and/or science notebooks home to discuss with their families. Student sheets are found in the copymaster section of the teacher's guide.

References and Resources

Recommended books and websites for the unit are listed on pages 123–124. You may want to share this information with parents so they can obtain library books or supervise Internet research.

Community Resources

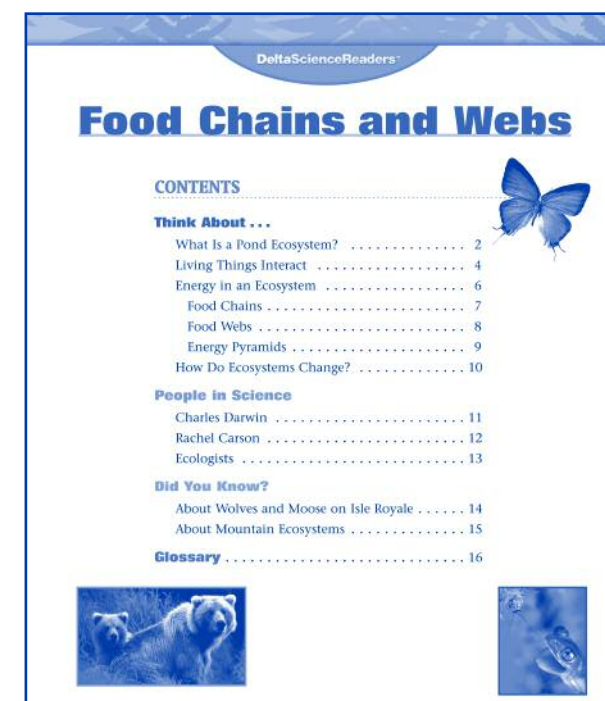
Whether you live in an urban area or a small town, encourage parents to take advantage of local resources with a link to the science unit you are studying. Ask your school librarian or a parent volunteer to compile a list of appropriate science museums, natural history museums, zoos, planetariums, parks (local, state, or national), state divisions of wildlife, local departments of agriculture, or cooperative university extensions.

As well as opportunities for school field trips for your class, they provide a rich experience for family field trips. Contact these community sites ahead of time to see what information they offer about the science unit you are studying.

Delta Science Readers™

These 16-page nonfiction books for students are a core part of every DSM kit and can also serve as a home-school link. They promote reading in the content area, present key science concepts and vocabulary, and support and extend the experiences of hands-on activities.

Parents can ask students to walk them through a section of the book and to point out the various features (table of contents, glossary, etc.), explain some of the bold words, or describe what the illustrations show. Suggest that parents supervise a website research of one of the scientists mentioned in People in Science or of another scientist the child is interested in.



Food Chains and Webs

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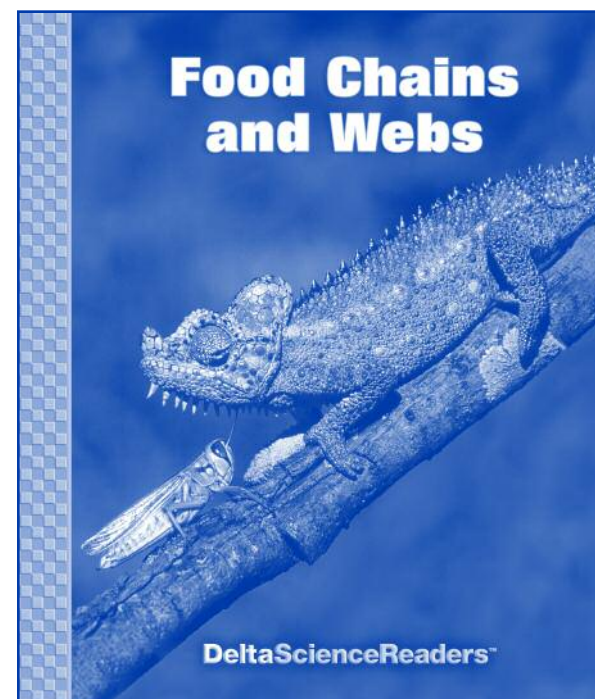
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Glossary

- adaptation** special body feature or behavior that helps an organism stay alive
- camouflage** adaptation that helps an organism blend in with its surroundings
- carnivore** consumer that eats only animals
- community** all the populations living in one area
- consumer** organism that eats other organisms in a food chain
- decomposer** organism that feeds on and breaks down dead organisms
- diversity** the number of different species in an area
- ecosystem** all the interacting living and nonliving things in one area
- endangered** in danger of becoming extinct
- energy pyramid** shows how energy moves through a food web
- environment** everything around a living thing
- extinct** species that has disappeared from Earth
- food chain** shows how organisms get food and energy
- food web** all the food chains in an ecosystem
- adaptation** special body feature or behavior that helps an organism stay alive
- habitat** the area in which an organism lives
- herbivore** consumer that eats only plants
- host** organism that a parasite lives in or on
- interact** to act with each other
- mimicry** adaptation in which an organism looks like another organism or thing
- nutrients** things in food that organisms need to live
- omnivore** consumer that eats either plants or animals
- organism** living thing
- parasite** organism that lives in or on another organism and gets its food from it
- population** all the members of a species living in one area
- predator** animal that kills and eats other animals
- prey** animal that is killed and eaten by other animals
- producer** organism that makes its own food and serves as a source of food for other organisms
- scavenger** consumer that eats dead plants or animals
- species** group of organisms that are the same