

“WEB OF LIFE”

Teacher Resource Guide



Virginia Living Museum’s Natural Science Education Program

- **Grade:** 3 & 4
- **Length of Session:** 45 minutes
- **Number of Students:** 60 maximum
- **Fee:** (includes self-guided tour of exhibits)
 - Contract schools: Please call for information
 - Non-contract schools: \$9.75 per student (\$360 minimum)

For more information or to make a reservation, call the Reservations Coordinator at 757-595-9135 Monday-Friday, 9 a.m. - 4:30 p.m. or fill out the on-line request form.

Program Description

Using our over-sized “Life Web”, students piece together an ecological puzzle that highlights the basics of photosynthesis, food chains and food webs. They’ll meet the “living links” that form nature’s chain of energy and learn about fascinating adaptations that help them survive. The important roles of *herbivores*, *carnivores* and *omnivores* are reinforced.

Virginia Standards of Learning Correlations

Science: 3.1 3.4 3.5 3.10 4.5

Program Objectives

The Student will:

- Describe the flow of energy from the sun into green plants (photosynthesis) and from green plants to animals by food consumption;
- Construct a simple food chain and/or food web;
- Provide examples of how animals and plants are dependent on each other for survival.

Exhibit Tie-ins

The Museum’s indoor and outdoor exhibits provide a wide variety of ways to connect your students to important SOL-correlated learning opportunities. Here are just a few examples:

Virginia’s Piedmont and Mountains Gallery:

Chipmunk/Corn Snake: What things do chipmunks need to do to survive in the wild. For each of those “survival” needs, what are the adaptations that chipmunks have that help them meet those needs? Make a similar list of survival needs and adaptations for corn snakes.

On the Outdoor Trail

Red Wolves: What factors caused the near-extinction of the Red Wolf? Where can Red Wolves still be found in the wild?

Virginia Garden

How did the first colonists affect the diversity of plant and animal life in the “New World”?

(Continued)

Vocabulary used in Program

Population: a group of organisms, all of the same species, which lives in the same area.

Environment: all the living and non-living conditions under which an organism lives.

Energy: internal or external power, which does some kind of work. For example, energy obtained from food allows an organism to survive by enabling its body to work.

Pollution: when some human activity causes a change in the environment that affects the lives of other organisms. The changes can include noise, temperature or chemicals.

Ecology: the study of the interrelationships between the living and non-living parts of the environment.

Photosynthesis: the chemical reactions occurring in producers that are powered by sunlight and use carbon dioxide and water to make sugars and oxygen.

Chlorophyll: the green pigment in plants that directs the process of photosynthesis.

Producer: an organism that is able to manufacture food from simple non-living materials (for example, plants).

Consumer: an organism that feeds on producers or other organisms.

Herbivore: an organism that feeds on plants.

Carnivore: an organism that feeds on animals.

Omnivore: an organism that feeds on plants and animals.

Decomposer: organisms that feed on dead and decaying plants and animals, converting them to soil and releasing nutrients.

Scavenger: an organism that feeds on dead plants or animals.

Predator: an animal that catches and kills other animals.

Prey: an animal caught and killed by another organism.

Food chain: the transfer of energy from green plants through a series of organisms that eat and are eaten, assuming that each organism feeds on only one other type of organism.

Food web: the interaction of many food chains in a community.

Recommended Websites

Build your own food web

http://www.gould.edu.au/foodwebs/kids_web.htm

Food Chain Game

<http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.htm>

Chain Reaction Game

http://www.ecokids.ca/pub/eco_info/topics/frogs/chain_reaction/index.cfm

Food Chain Interactive Movie

<http://www.kidsknowit.com/interactive-educational-movies/free-online-movies.php?movie=food%20Chains>