

Grade Levels: 2 - 7

Time: 45 Minutes



Web of Life

Goal: Provide an introduction to food chains and food webs through hands-on animal interaction.

Objectives:

- Students will understand that plants use energy from the sun to make their own food.
- Students will understand animals cannot make their own food and instead utilize the energy stored in their food source(s).
- Students will understand the need for diversity to ensure balance of ecosystems.
- Students will understand the delicate relationship of living organisms in an ecosystem.
- Students will understand that invasive plants and animals, and human action can impact the balance of ecosystems.

PLANNING YOUR RESERVATION

*Fall and spring fill quickly
PLEASE REGISTER EARLY

*Groups must register
2 WEEKS IN ADVANCE

*Programs require a
MINIMUM OF 15 PEOPLE

*Programs are available
ON AND OFF-SITE

*Visit our website for
EDUCATIONAL RESOURCES

*Proper adult supervision
REQUIRED AT ALL TIMES

Living things of every habitat need energy to live and grow. But where does this energy come from? From plants, to prey, to predator, students will learn how animals depend upon their relationships to each other and their environment to survive. There are many strings that balance the web of life.

Curriculum Alignment:

SC.2.N.1.3, SC.2.L.17.1, SC.2.L.17.2, SC.3.L.17.2, SC.4.L.17.2, SC.4.L.17.3, SC.4.L.17.4, SC.5.L.15.1, SC.7.L.17.1, S.7.L.17.2, SC.7.L.17.3

Where education and conservation collide!

This program, presented by Brevard Zoo Education staff, is an enhanced experience of the distinct and unique wildlife habitats found at Brevard Zoo. Students delve into the concept through fun, interactive activities, questions and participatory responses, hands-on animal encounters, and animal meet and greets. Programs are designed to supplement in-class learning. Depth and structure vary depending on grade and age range.

Keywords: carnivore, consumer, ecosystem, energy, food chain, food web, herbivore, invasive species, omnivore, photosynthesis, plant, primary consumer, producer, secondary consumer, tertiary consumer

How do plants and animals impact the environment?

A food chain is a group of organisms linked together by the order of energy flow from producer to consumer. The energy flows from the sun to the producer, producer to prey, and prey to predator. The producer relies on the sun for energy to produce its own food. The consumer (prey or predator) relies on producers to provide it with energy as it cannot make its own. Food chains show only one path of energy for an organism based on a specific energy flow. In an ecosystem, each organism may have more than one food chain based on its available resources, thereby creating a food web.

Healthy ecosystems are made up of multiple food chains, which when interconnected, create a food web. Food webs begin with plants who produce their own energy from the sun. Plants are then consumed by herbivores (plant eaters), who will then be consumed by carnivores (meat eaters) who may also consume other carnivores. Scavengers and decomposers play a part as well, feeding on dead organic matter to complete the food web by returning nutrients to the ground for the plants.

Humans are a part of the food web and can easily impact the health of an ecosystem. Humans compete for resources and the space in which other consumers live, often outcompeting the native species. Humans can also affect an ecosystem by introducing invasive species intentionally or by accident which can outcompete native animals and plants, removing them from the food web.

An invasive species is any non-native living organism (animal, plant, or bacteria) introduced to an ecosystem that causes harm. They consume resources and space utilized by native species and may eat them as well. Invasive species typically have no predators where they invade and will grow and spread rapidly which can hurt the economy, environment, and human health. Invasive species have the ability to destroy an existing food web within an ecosystem by outcompeting and removing the integral native species that give it balance.

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