Grade One Pre-Visit Activities

Let’s Learn About Plants and Animals!

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Filoli Education Department
Some activities adapted from “Web of Life” by the San Francisco Botanical Garden Society. Original artwork by Megan Gnekow.
Introduction

*Let’s Learn About Plants and Animals* is a Grade Level One activity booklet to use with your class before and after your Filoli Nature Hike to help your students get the most out of their trip. We encourage you to use these materials to prepare your students before their trip and to extend their learning when they return to the classroom.

Filoli is on 654 acres at the base of the Santa Cruz Mountains and has six miles of nature trails through six different ecosystems with a wide variety of plants and animals to observe. These activities help students learn to become nature investigators and are based on the California Life Science Grade Standards for Grade One. These include learning how to be a nature detective and using our senses, identifying parts of a plant and their uses and how they differ in different environments.

**Grade Standards & Learning Objectives**

- Students will examine how plants and animals meet their needs in different ways
- Students will learn how plants and animals inhabit environments and have adaptations which allow them to thrive in these environments
- Students will discuss how plants and animals have basic survival needs: water, light, nutrients and shelter
- Students will learn how animals eat plants or other animals to get their nutrients
- Students will review how animals may use plants or other animals for shelter or nesting
- Students will learn that plants have roots for the intake of water and nutrients from the soil
- Students will review how green plants make their own food from sunlight
- Students will discuss how animals have different teeth according to the type of food the animal eats; sharp/tearing teeth for meat eaters and flat/grinding teeth for plant eaters
Pre-Visit Activity 1

Parts of a Plant

What are the names for the parts of a plant?

PLANT WORDS AND PICTURES
Color this picture and say the words!

FLOWER
LEAF
FRUIT
STEM
ROOT
It's your turn to color and name the parts of a plant.

What do they do?

Flower

Fruit/Seed

Leaf

Stem

Root
School Yard Adventure

Are there plants in your school yard? What do they look like? Do you know their names? Draw what you see.

Pull up a weed and look at the roots. What do they look like? How do they feel? Do they have a smell?

Pull up a different weed. Do the roots look the same, feel the same, smell the same?
Vocabulary

Cone—a hard, woody seed holder that some plants make

Flower—the part of a plant that can make a fruit with seeds inside

Fruit—the part of the plant that holds a seed

Leaf—the part of a plant that makes food for the plant

Plant—a living, growing thing, usually green, which makes its own food from sunlight, water and air

Pollen—a special dust made by a flower which helps it make seeds

Root—the part of a plant that holds it in the ground and sucks up water and minerals

Seed—a tiny plant and its food, tucked in a seed coat, waiting to grow

Stem—the part of a plant that holds up the leaves and flowers and carries water and food

Tree—a large plant with a hard stem

Activity 2

An Oak of My Own

Why is an Oak Tree Important?

Find an oak tree in your schoolyard or neighborhood. Draw what you see. Remember to draw the trunk, the branches, the leaves and acorns (the seeds if there are any that you see). Trace a leaf.

Look at the trunk—is it rough, scratchy or smooth?

Look under the tree—do you see roots, insects, leaves or plants? Now, look at the drawing on the next page and compare.

Adapted from the California Oak Foundation “Investigating the Oak”
www.californiaoaks.org
An Oak of My Own

Who Lives in the Oak Community?

Many different animals and plants live together in an oak community. They depend on the oak trees—and on each other—to survive.
An Oak of My Own

Why do you think an oak is important? (Draw or write what you think.)
Pre-Visit Activity 3

Web of Life
Recyclers or Decomposers

Plants and animals living in Filoli’s Nature Preserve depend on each other in many ways. We call this “the web of life.” Animals rely on plants for food and also for shelter. At the same time, many plants rely on animals to help them live and grow. Many flowers need animals to move their pollen from flower to flower so they can create seeds. Bees, hummingbirds, and bats can all do this important job for plants. Some plants need the help of animals to move their seeds to good places to grow. Squirrels hiding acorns in the ground help new oak trees to grow. Still other plants depend on animals to eat pests which eat their plants. Ladybugs eat aphids which suck out plant’s juices.

Plants and animals perform many important jobs for each other. One big job in every habitat is the job of the recyclers. Some plants, animals, fungi and bacteria are able to break down dead material and recycle it into soil, water and air. This process is called decomposition and the organisms are called decomposers. They eat dead material and pass it through their bodies. Without these recyclers, the world would fill up with dead plants and animals! All kinds of organisms, from pillbugs to worms, slime molds to bacteria, act as recyclers. At Filoli our favorite decomposer is the banana slug. Perhaps you’ll see one.

The web of life is made up of many organisms doing many jobs for each other. We humans are part of the web too, and we make choices which affect the whole web of life. If we decide to cut down the trees which hawks nest in, there will be no hawks hunting to feed their babies, and the gopher population may grow as a result. Because we have chosen to cut down trees, we may find more gophers in our garden, eating the food we are growing for ourselves! The choices people make about how to live their lives affect the whole web of life, and so they affect plants, animals and other people, too.
Activity 3 Web of Life

Look below and see what animals and plants are doing to help each other.
Activity 3  Web of Life

Vocabulary

**Animal**—a living, growing thing which gets food by eating plants or other animals

**Decomposer**—an organism that breaks down dead plant or animal material, a recycler

**Habitat**—the place where an animal or plant lives

**Life cycle**—the stages of life of a plant or animal

**Nature preserve**—a place where plants and animals are protected

**Nest**—a safe place where animals live and raise their young

**Nutrient**—something a living thing needs to grow and stay healthy, its food and water

**Organism**—an individual living thing

**Plant**—a living thing that is different from animals. Plants have roots, stems and leaves and make their own food

**Predator**—an animal that eats other animals

**Prey**—an animal eaten by other animals

**Shelter**—a safe place where animals live and raise their young

For Spanish-language vocabulary see ucdavis website
Plants and Animals You Might See on Your Visit

Artwork by Megan Gnekow

Banana Slug

Poison Ivy

Coast Live Oak

Black-Tailed Deer & Tracks

Coast Redwood

Lace Lichen

California Newt

Common Buckeye Moth

Scrub Jay
**Post-Visit Activity**

**An Oak of My Own**

As students to look again at “Who Lives in the Oak Community?” How many animals and plants shown did they see on their visit to Filoli?

Ask students to return to the question “Why is this oak important?” After their visit, do they have things that would like to add to this discussion?

**Recyclers or Decomposers**

Did you get to see a banana slug? What did you think? How does it play its role in its habitat? Now, color the banana slug above.

What was the most interesting and fun thing that you did or saw at Filoli?
Resources

Books

Pre-visit

*Wildlife Habitats for Small Spaces* by Emily Stetson

*Newts* by Lola M. Schaefer

*Oaks of California* by Bruce M. Pavlik, Pamela C. Muick, Sharon G. Johnson and Marjorie Popper

**Available in English and Spanish**

*Banana Slugs: A close look at a giant forest slug of North America* by Alice Bryant Harper

*From Seed to Sunflower* by Gerald Legg

*Oak Tree* by George Morrison

Websites

California Oak Foundation [www.californioaks.org](http://www.californioaks.org)