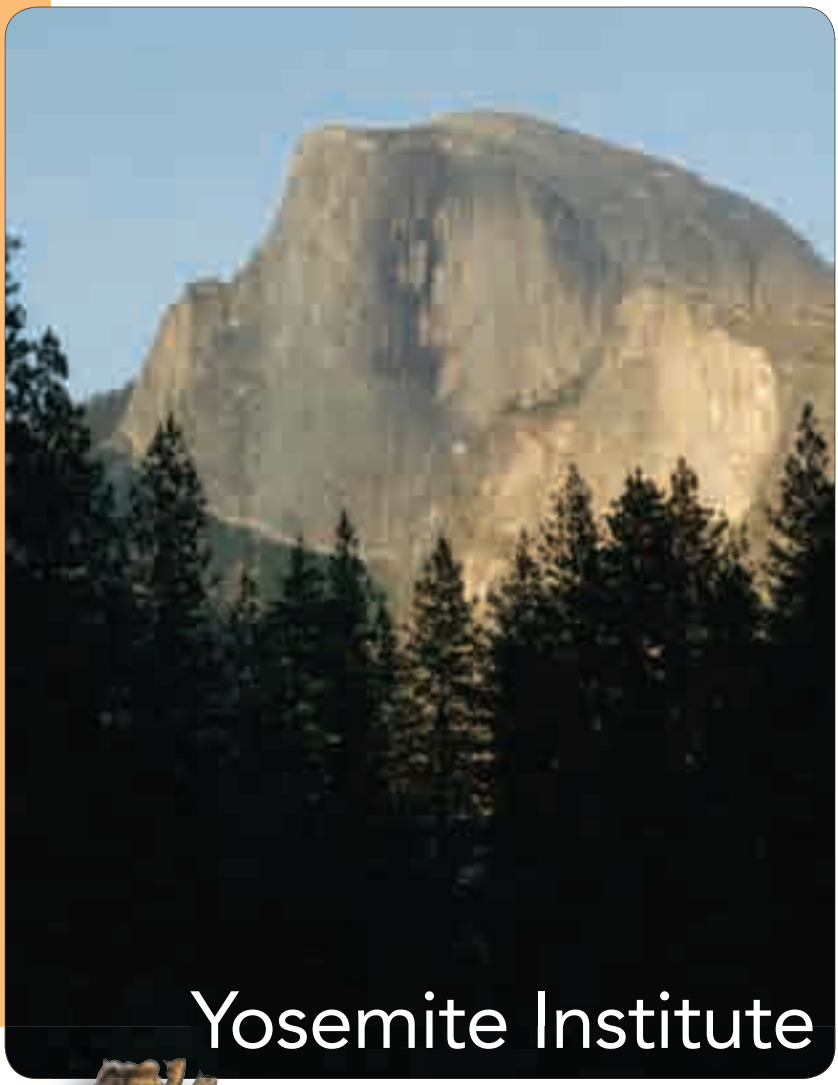

Yosemite Institute
Field Journal

YOSEMITE INSTITUTE

A CAMPUS OF NatureBridge™

Name: _____ School: _____ Date: _____

Yosemite Institute, a campus of NatureBridge, is a national park partner dedicated to providing educational adventures in nature's classroom to inspire a personal connection to the natural world and responsible actions to sustain it. We offer field science education, backpacking adventures and teen leadership programs. Located in majestic Yosemite National Park, we are a private, non-profit organization and winner of California's 2004 Governor's Environmental and Economic Leadership Award for Children's Environmental Education. For additional information, please visit www.yosemiteinstitute.org or call 209-379-9511.

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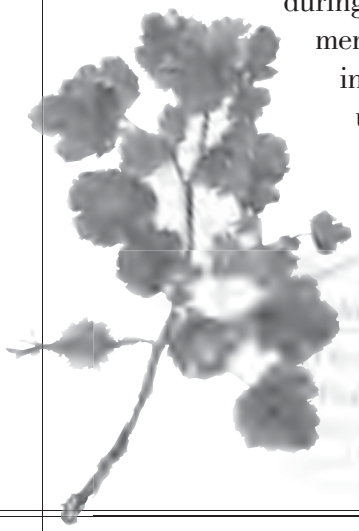
This journal has been printed on 100% post-consumer recycled paper.

Table of Contents

What is a Field Journal?

A field journal is any kind of notebook used to record your observations in the outdoors – the field. You can write or draw in your field journal. This field journal is for your use during your stay at YI. It's one way to save your memories and experiences. All kinds of people, including professional scientists and artists, use field journals to learn more about the outdoors. When you return home, you can create a field journal in your own style. You can use it to help you get to know the outdoors better in your own community.



Logistics

My Educator(s):

My Chaperone(s):

Backpack Checklist

Be prepared each morning by having the following items:

- ☐ Backpack
- ☐ Water bottle filled with water
- ☐ Raingear, warm layers when cold
- ☐ Sun protection, including sunscreen and hat
- ☐ Field journal along with pen or pencil
- ☐ Bandana (crumb catcher)
- ☐ Medication, if you take any
- ☐ _____

What's Happening Today?

Day 1:

Evening Program:

Day 2:

Evening Program:

Day 3:

Evening Program:

Day 4:

Evening Program:

Day 5:

Contract

Leave No Trace Trail Guidelines

An excellent motto for minimizing your impact when hiking is: **take only pictures, leave only footprints**. *Remember, the less we disturb an area, the more we can discover about it.*

- ## Be prepared for the day

  Wear and pack appropriate gear in your backpack as listed in the Backpack Checklist (see page 2). Check with your educator about additional items.

- ## Please stay on the trails

  If we limit our travel to existing trails, we protect the plants and animals alongside the paths. This also provides other people the chance to walk through an untrampled, wild place.

- ## Pick up natural objects only to observe them

  Once you've finished examining objects like rocks, twigs or feathers, return them to where you found them. Do NOT throw objects as you may harm others and disturb plants and wildlife.

- ## Dispose of waste properly

  Pack out everything you pack in. You can also help the environment by picking up litter that others have carelessly left behind. Your educator will inform you about the availability of restrooms and minimum-impact ways to go to the bathroom while on the trail.

- ## Respect wildlife

  Although it can be tempting to approach or follow wild animals, it may stress them out. Feeding them human food is not only unhealthy for animals, but can also transmit human diseases which may cause them serious illness or even death.

- ## Respect other visitors

  Follow the directions of your educator regarding noise level and what to do when meeting other groups of people on the trail.

At Home and In Yosemite National Park

How does your home community compare with the community of Yosemite National Park?

Where Am I Now?

My Map

Draw your own map here.

Geology

Scientists who study rocks, or *geologists*, recognize three major groups of rocks: *igneous, sedimentary, and metamorphic.* Each group of rocks is formed differently and so has different characteristics.

Igneous Rocks form when hot, liquid rock, or ***magma***, cools. When this magma cools slowly underground it forms ***intrusive*** igneous rock. Magma that cools quickly above ground becomes ***extrusive*** igneous rock.

Sedimentary Rocks result when various weathering processes break down other rock types into particles, or ***sediment***. With the help of time and external pressures, these sediments get compacted into sedimentary rock.

Metamorphic Rocks are created through the ***metamorphosis*** of other types of rock. This normally happens deep underground where heat, pressure, and chemical activity can actually alter the minerals inside rocks.

The Rock Cycle

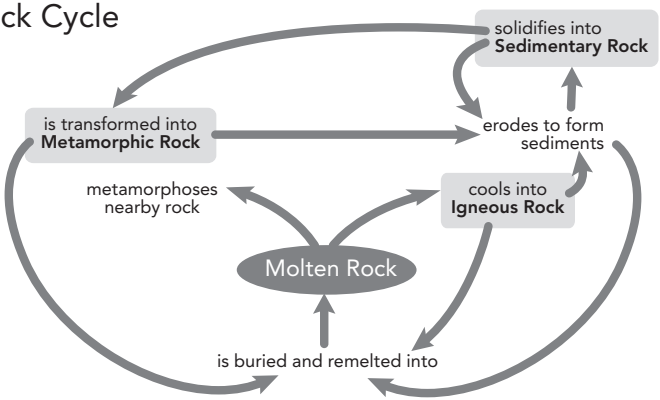
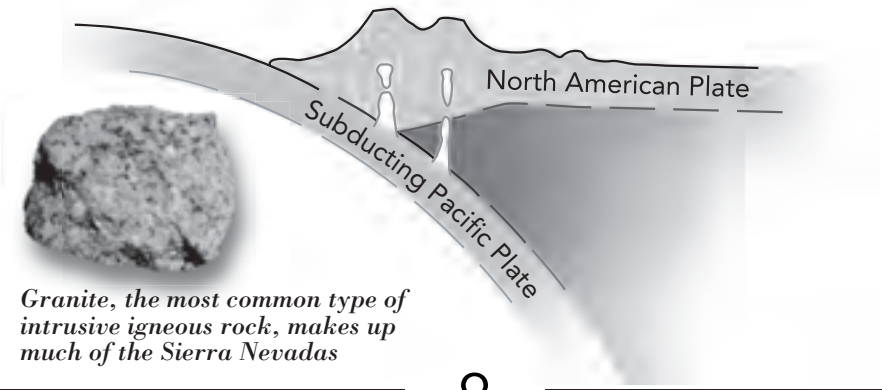


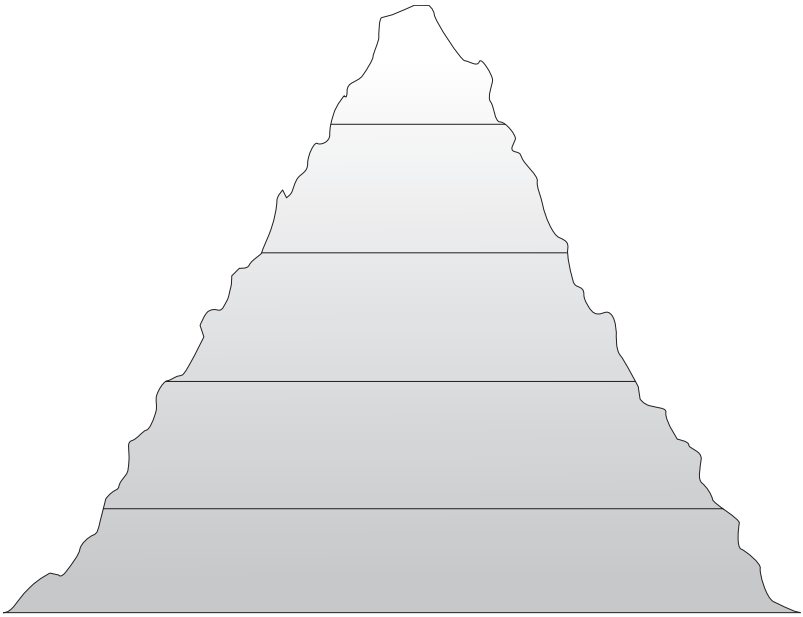
Plate Tectonic Formation of the Sierra Nevada Mountain Range

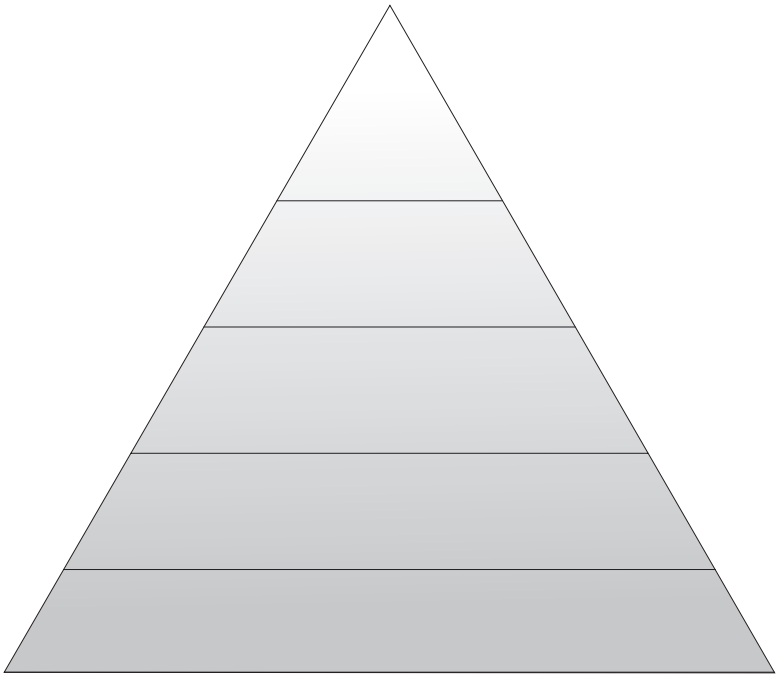
(125--80 million years ago)



Granite, the most common type of intrusive igneous rock, makes up much of the Sierra Nevadas

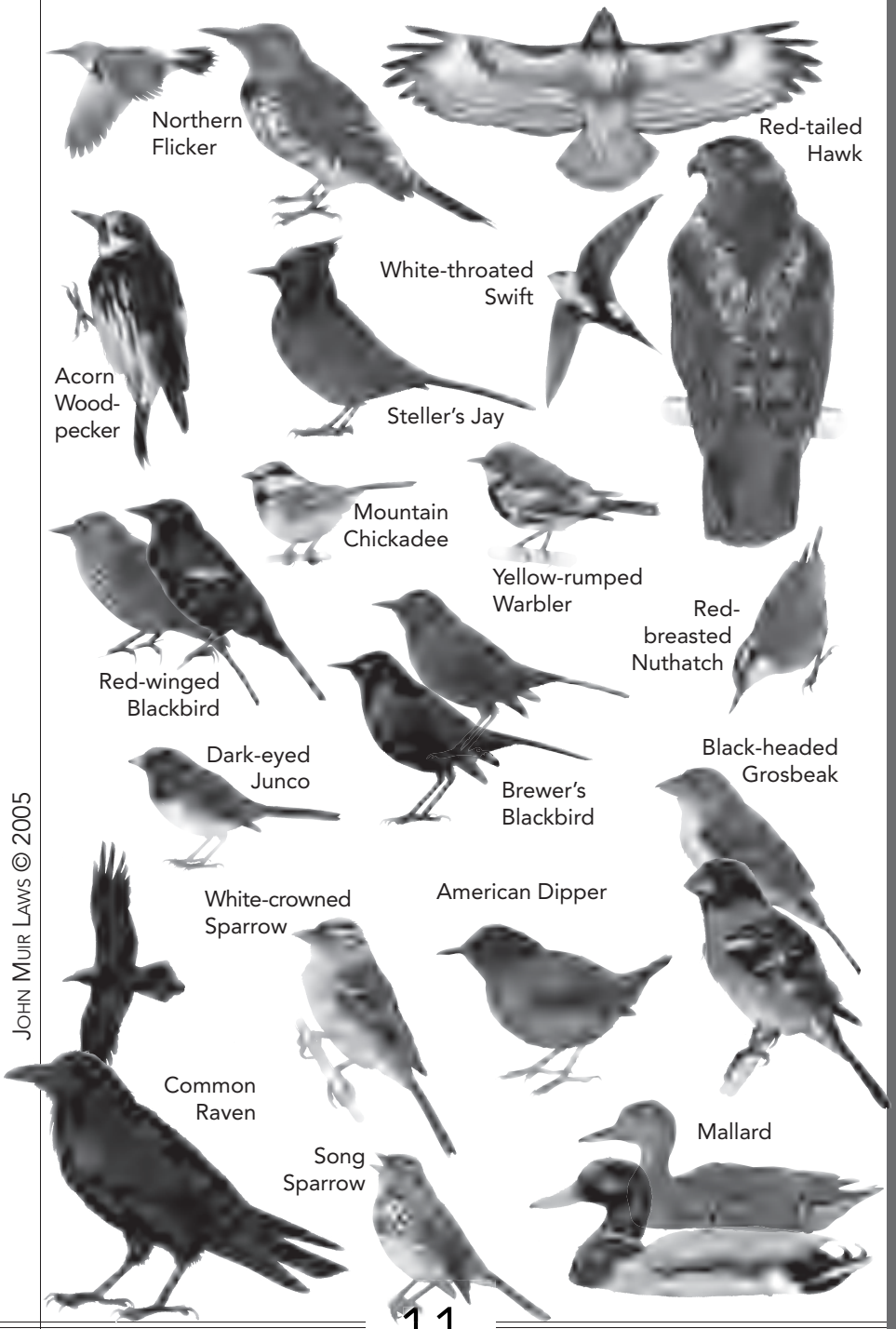
Life Zones





Common Plants of Yosemite

Common Birds of Yosemite



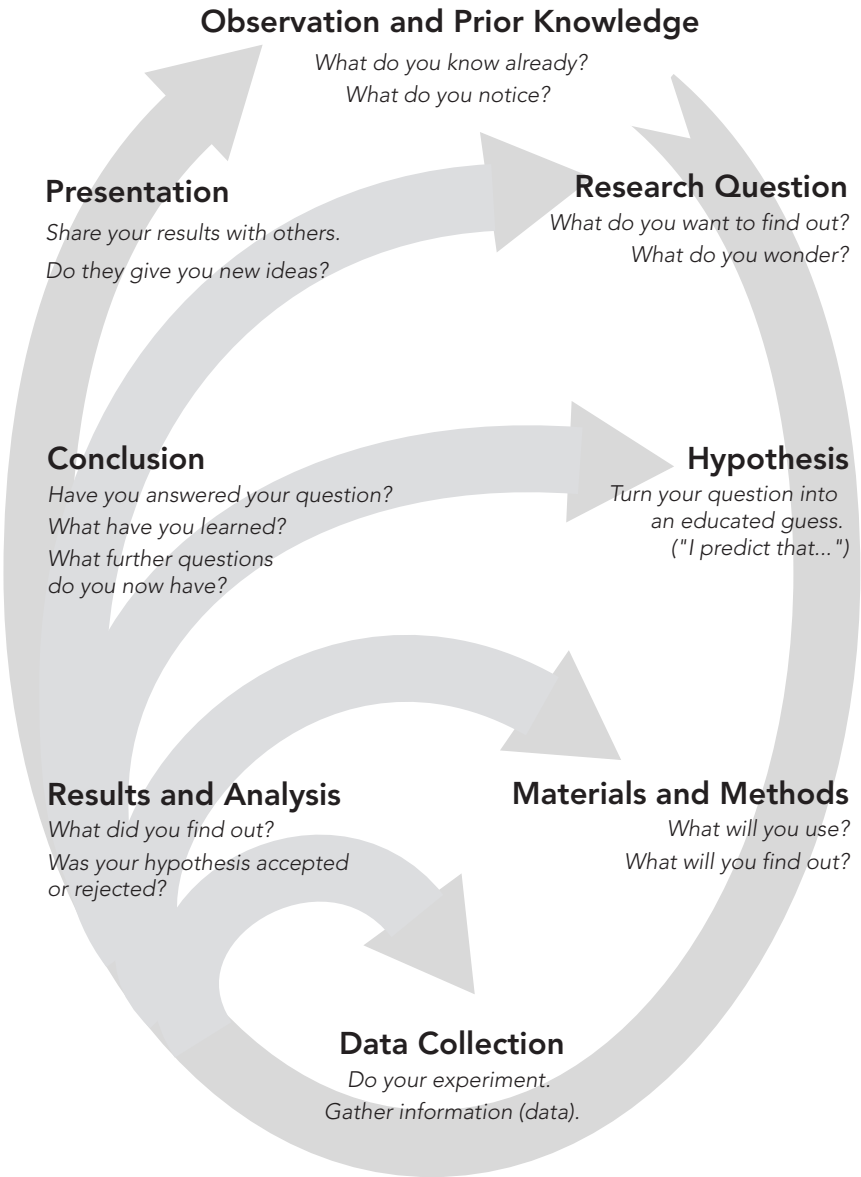
Common Mammals of Yosemite

(NOT TO SCALE)

Common Aquatic Macroinvertebrates

The Circle of Scientific Logic

There are many ways to find answers to questions you have about the world around you. The Circle of Scientific Logic is one of those ways.



My Notes

My Notes

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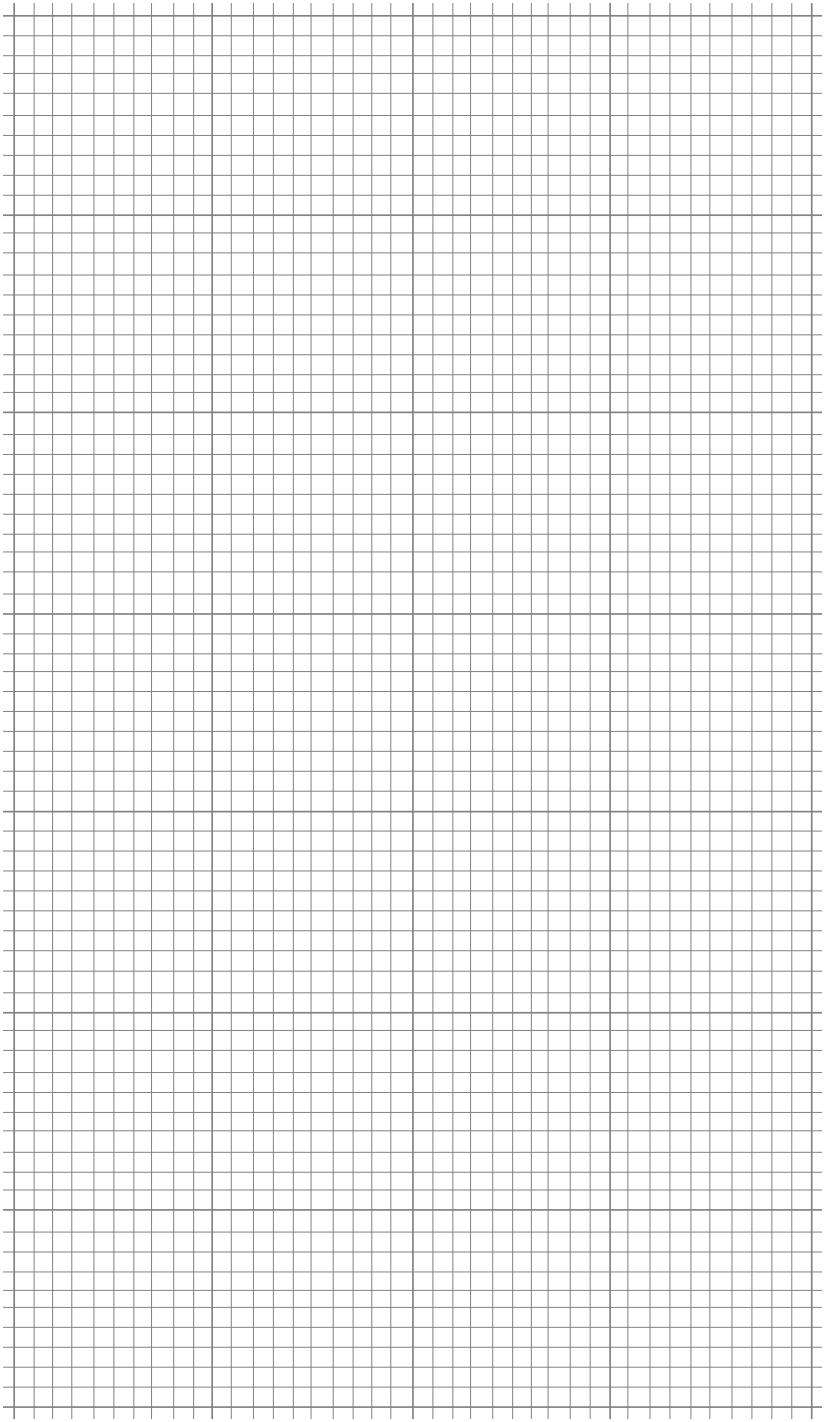

Ten Ways I Can Make a Difference

It's not necessary to turn your life upside down to make a difference in your community and in the world. Every step counts. It's a process that leads to different solutions for every person. Here are a few ideas. What are some others?

1. ***Turn Off Lights and Appliances When They Are Not in Use***
   Turning off lights and appliances when they are not being used helps conserve natural resources and saves money.

2. ***Use Both Sides of the Paper***
   Using both sides of the paper means you'll use less paper and help conserve energy and trees used in paper production.

3. ***Pick Up Trash Around Your School and Home***
   Birds and mammals frequently eat garbage lying on the ground and can become sick or even die as a result. Pick up trash to keep your community clean and to help animals stay healthy.

4. ***Ride a Bicycle or Walk***
   More than a quarter of all car trips are less than one mile. Riding a bike or walking is good for our planet and good for your health, too.

5. ***Use Cloth Bags for Groceries or a Lunch Box for Your Lunch***
   Using cloth bags or a lunch box can help save millions of trees each year and send less trash to landfills.

6. ***Get Outside and Experience Nature***
   You don't need to travel great distances to find nature. Nature can be found in your backyard, school playground, or community park. There is always something new to be discovered.

7. ***Share What You Learn with Friends and Family***
   Old habits can be hard to break, so role-model ways to make a difference and share cool facts you learn about the environment with your friends and family. You may be surprised how interested they are.

8. ***Start a Compost Pile or Worm Bin at School or Your Home***
   The average American family produces more than 1,200 pounds of food waste, wood, paper and yard scraps each year. These can be turned into garden soil with a compost pile or worm bin.

9. ***Learn More About What Interests You and Get Involved***
   If you're interested in an issue, there's probably an organization you can learn more from and get involved with. To connect with some of them, visit *www.yosemiteinstitute.org* and click on the *Links and Resources* button.

10. ***Share Your Opinions and Try to Understand Other Opinions***
    In order for communities to make changes, it's important to discuss issues. The best decisions are made when everyone's opinion is heard and understood.

Glossary

Abiotic: anything that is not alive or never was alive (e.g. air, water).

Adaptation: a body part or behavior that helps a living organism survive in its environment.

Biodiversity: many different living things in a particular environment.

Biomonitoring: the study of an ecosystem's overall health through surveying the presence of its living inhabitants.

Biotic: anything that is or once was living (e.g. birds, dead leaves).

Carnivore: an animal that eats mostly meat.

Consumer: an organism that needs to eat other organisms and cannot produce its own food.

Decomposer: an organism that eats dead or decaying material and turns it into a natural resource such as soil.

Ecology: the study of the natural environment and the relationship of organisms to one another within it.

Ecosystem: all the interconnected parts, abiotic, biotic, and cultural, of a particular area.

Erosion: the carrying away of land or soil by the action of wind, water or ice.

Extrusive: relating to magma hardening above the Earth's surface.

Food web: a way of representing various paths of energy moving through an ecosystem through the consumption of food.

Geology: a science that deals with the history of the earth and its life especially as recorded in rocks.

Habitat: the place where an animal or plant lives.

Herbivore: an animal that eats mostly plants.

Intrusive: relating to magma hardening below the Earth's surface.

Invertebrate: an organism without a backbone.

Life Zone: a region characterized by specific plants and animals.

Macroinvertebrate: invertebrates that can be seen with the naked eye, without magnification.

Magma: hot, liquid rock.

Migration: the seasonal movement of organisms which travel long distances to follow food sources or to find optimal weather conditions.

Moraine: an accumulation of earth and stones carried and finally deposited by a glacier.

Native: living or growing naturally in an area from where a given species originates.

Niche: the role of an organism within its habitat especially in regard to food consumption.

Omnivore: an animal that eats both plants and animals.

Producer: an organism that produces its own food with the help of sunlight, typically plants.

Riparian: relating to the area around a natural watercourse such as a river, lake or tidewater.

Saprophyte: a plant living on dead or decaying matter.

Stewardship: the careful and responsible management of something entrusted to one's care.

Subduction: the process of the edge of one crustal plate descending below the edge of another.

Succession: a change in an ecosystem as organisms and especially the plants respond to and modify the environment.

Watershed: the area surrounding a river or lake into which all water drains.

Wilderness: an uninhabited area of land left in its natural, untrampled condition, often covered by dense vegetation or forests.

About NatureBridge

NatureBridge, formerly Yosemite National Institutes, is committed to educating the next generation of leaders to respect the natural world and preserve it for future generations. We are the largest residential educational partner of the National Park Service, and currently operate three environmental education campuses: Headlands Institute in the Golden Gate National Recreation Area, Olympic Park Institute in Olympic National Park in Washington State, and Yosemite Institute in Yosemite National Park. Learn more at www.naturebridge.org.