Table of Contents

Lesson summary ......................................................... 1
Vocabulary ................................................................. 1
Activity Page .............................................................. 2
Extension Activities ...................................................... 3
Education Standards .................................................... 4-5
Lesson Summary: YSI’s *Five Senses Nature Walk* takes students outdoors for a chance to physically explore nature in the Bay Area. Students will discuss their five senses and go over trail rules with their YSI instructor before heading off to see, hear, touch, smell, and taste their way through a short hike. Just under an hour will be spent on the trail. Natural features vary strongly by program site, but an emphasis is placed on native plants and animals, wilderness safety, and experiencing nature in ways that are often overlooked. Students will learn to avoid poison oak, identify common uses of their local flora, and understand the way a landscape changes over time. All hikes will focus on observation and critical thinking skills and use group discussion to share and build on student discoveries.

Vocabulary: Below are words and concepts that relate to the YSI *Five Senses Nature Walk* program.

- **Adaptation**: In biology, a change in an organism over time that better enables it to survive and multiply. An adaptation can be structural, physiologic, or behavioral.
- **Camouflage**: blending in with an environment
- **Creek**: a flowing body of water smaller than a river; stream
- **Deciduous**: a type of tree that loses its leaves at a certain time of year
- **Decomposer**: an animal that feeds on dead matter and breaks it down into simpler compounds
- **Ecosystem**: a community of living things, together with their environment
- **Environment**: the sum of everything that surrounds animals and humans in the natural world, including the air, the water, and the soil
- **Evergreen**: a type of plant that keeps its leaves or needles all year round
- **Habitat**: the natural environment of a plant or animal
- **Niche**: the part of an ecological system occupied by a particular organism, or the functions of that organism in the system
- **Oak Tree**: a tree belonging to the beech family that has acorns as its fruit
- **Poison Oak**: a common West Coast plant that causes itching and has leaves in groups of three
- **Redwood**: an extremely tall species of tree with red bark; any tree in the *Sequoia* genus
- **Senses**: the parts and functions of our body that make us keenly aware of our environment; seeing, hearing, smelling, touching, and tasting
- **Trait**: a distinguishing feature or characteristic, as of one's appearance, personality, or nature

Definitions based on [www.dictionary.reference.com](http://www.dictionary.reference.com)
Find which senses you use with each object!

Eye
Ear
Nose
Tongue
Hand
Flower
Bird
Apple
Tree
Cloud
Five Senses Nature Walk:  
Extension Activities

The extension activities listed below are from RAFT (Resource Area For Teaching). RAFT educational content is available online (www.raftbayarea.org) at no cost and is aligned to California Science Standards and Next Generation Science Standards. Below is a selection of post-visit activities from RAFT to extend student learning about the five senses and their local ecosystems.

RAFT Idea: Guess What - Resource Area For Teaching - RAFT Bay Area  
**Grades Covered:** Pre-K through 3  
**Subjects Covered:** Physical Science, Language Arts  
**Curriculum topics:** Senses, Physical Properties, Descriptive Words  
A fun way for kids to practice description and communication while learning about physical properties.  

RAFT Idea: Nature Book - Resource Area For Teaching - RAFT Bay Area  
**Grades Covered:** K through 12  
**Subjects Covered:** Life Science, Earth/Space Science, Language Arts, Art  
**Curriculum topics:** Journaling, Bookmaking, Observing  
Create this artistic and outdoorsy book from easily found materials.  

RAFT Idea: The Germinator - Resource Area For Teaching - RAFT Bay Area  
**Grades Covered:** K through 8  
**Subjects Covered:** Life Science  
**Curriculum topics:** Botany, Plant Growth, Scientific Method  
Create a reusable germinator that gives students an unobstructed view of sprouting seeds.  
Our Five Senses Nature Walk program will contribute to students’ ability to meet the California Science Content Standards, Common Core, and Next Generation Science Standards listed on the following pages.

California Science Content Standards Kindergarten:

Physical Sciences: 1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:
   a. *Students know* objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).

Life Sciences: 2. Different types of plants and animals inhabit the earth. As a basis for understanding this concept:
   a. *Students know* how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).
   b. *Students know* stories sometimes give plants and animals attributes they do not really have.
   c. *Students know* how to identify major structures of common plants and animals (e.g. stems, leaves, roots, arms, wings, legs).

Earth Sciences: 3. Earth is composed of land, air, and water. As a basis for understanding this concept:
   a. *Students know* characteristics of mountains, rivers, oceans, valleys, deserts, and local landforms.
   b. *Students know* changes in weather occur from day to day and across seasons, affecting Earth and its inhabitants.
   c. *Students know* how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.

Investigation and Experimentation: 4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
   a. Observe common objects by using the five senses.
   b. Describe the properties of common objects.
   c. Describe the relative position of objects by using one reference (e.g. above or below)
   d. Compare and sort common objects by one physical attribute (e.g. color, shape, texture, size, weight).
   e. Communicate observations orally.

Excerpted from CA State Standards: [http://www.cde.ca.gov/](http://www.cde.ca.gov/)
Common Core Kindergarten:

Speaking and Listening Standards: Students will…
1. Participate in collaborative conversations with diverse partners about kindergarten topics with peers and adults in small and larger groups.
   a. Follow agreed-upon rules for discussions.
   b. Continue a conversation through multiple exchanges.
2. Confirm understanding of information presented orally by asking and answering questions and requesting clarifications.
3. Ask and answer questions about what a speaker says in order to seek help, gather additional information, or clarify something that is not understood.

Excerpted from Common Core Standards: http://www.corestandards.org/

Next Generation Science Standards Kindergarten:

Interdependent Relationships in Ecosystems
- K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- K-ESS2-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.


Weather and Climate
- K-PS3-1: Make observations to determine the effect of sunlight on the Earth’s surface.

Disciplinary Core Ideas: PS3.B: Conservation of Energy and Energy Transfer

Excerpted from NGSS: http://www.nextgenscience.org/