Five Senses Nature Walk

Youth Science Institute

First-Grade Teacher Resource Guide

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Five Senses Nature Walk:
Lesson Summary and Vocabulary

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

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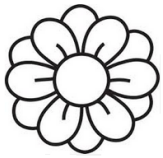
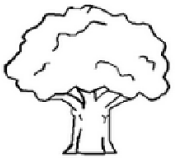
Name_____

Five Senses Nature Walk
Activity Page

Find which senses you use with each object!





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.
http://www.raftbayarea.org/ideas/Guess%20What.pdf

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.
http://www.raftbayarea.org/ideas/Nature%20Book.pdf

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.
http://www.raftbayarea.org/ideas/The%20Germinator.pdf

Five Senses Nature Walk:
Education Standards

The following pages cite California Science Content Standards, Common Core Standards, and Next Generation Science Standards which students will be exposed to during the program.

California Science Content Standards First Grade:

Life Sciences: 2. Plants and animals meet their needs in different ways. As a basis for understanding this concept:

- **a.** *Students know* different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.
- **b.** *Students know* both plants and animals need water, animals need food, and plants need light.
- **c.** *Students know* animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.
- **e.** *Students know* roots are associated with the intake of water and soil nutrients and green leaves are associated with making food from sunlight.

Earth Sciences: 3. Weather can be observed, measured, and described. As a basis for understanding this concept:

- **c.** *Students know* the sun warms the land, air, and water.

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:

- **d.** Describe the relative position of objects by using two references (e.g., above and next to, below and left of).
- **e.** Make new observations when discrepancies exist between two descriptions of the same object or phenomenon.

Excerpted from CA State Standards: http://www.cde.ca.gov/

Common Core First Grade:

Speaking and Listening Standards: Students will…

1. Participate in collaborative conversations with diverse partners about grade 1 topics with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions.
    b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
    c. Ask questions to clear up any confusion about the topics under discussion.
2. Ask and answer questions about key details from information presented orally.
3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Five Senses Nature Walk: Education Standards

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

Next Generation Science Standards First Grade:

Structure, Function, and Information Processing

- **1-LS3-1:** Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
  - **Science and Engineering Practices:**
    - **Constructing explanations and designing solutions:** Builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems.
    - Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (1-LS3-1)
  - **Disciplinary core ideas:**
    - **LS3.A: Inheritance of Traits:** Young animals are very much, but not exactly, like their parents. Plants also are very much, but not exactly, like their parents. (1-LS3-1)
    - **LS3.B: Variation of Traits:** Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. (1-LS3-1)
  - **Crosscutting Concepts**:
    - **Patterns:** Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-LS3-1)

Other topics covered

- **Disciplinary core ideas:**
  - **LS1.A: Structure and Function:** All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)
  - **LS1.D: Information Processing:** Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1)
- **Crosscutting Concepts**:
  - **Structure and Function:** The shape and stability of structures of natural and designed objects are related to their function(s). (1-LS1-1)

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