



Talk About Trees Primary Classroom Programs - Connections to Oregon Science and Social Studies Standards

Program	Program Topics	Oregon Science Standards Next Generation Science Standards (NGSS)*			Oregon Social Studies Standards
		<i>Science and Engineering Practices ("Doing" Science)</i>	<i>Disciplinary Core Ideas (Content)</i>	<i>Performance Expectations (Standards)</i>	
Tree Talk #1	<p>Trees are living things</p> <p>Types of trees</p> <p>Identify Douglas-fir tree</p> <p>Parts of a tree</p> <p>What trees need to make food and grow</p> <p>Benefits of trees</p>	<p>Analyzing and Interpreting Data. Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (Grades K-2)</p> <p>Modeling. Use a model to represent relationships in the natural world. [Models may include diagram, drawing, physical replica, diorama, dramatization, storyboard.] (Grades K-2)</p> <p>Developing and Using Models. Develop a simple model based on evidence to represent a proposed object or tool. (Grades K-2)</p> <p>Planning and Carrying Out Investigations. Make observations (firsthand or from media) to collect data that can be used to make comparisons. (Grades K-2)</p> <p>Constructing Explanations and Designing Solutions. Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. Use materials to design a device that solves a specific problem or a solution to a specific problem. (Grades K-2)</p>	<p>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.</p> <p>LS2.A: Interdependent Relationships in Ecosystems. Plants depend on water and light to grow.</p> <p>LS2.A: Interdependent Relationships in Ecosystems. Plants depend on animals for pollination or to move their seeds around.</p> <p>LS4.D: Biodiversity and Humans. There are many different kinds of living things in any area, and they exist in different places on land and in water.</p> <p>ETS1.A: Defining and Delimiting Engineering Problems. A situation that people want to change or create can be approached as a problem to be solved through engineering. Asking questions, making observations, and gathering information are helpful in thinking about problems. Before beginning to design a solution, it is important to clearly understand the problem.</p>	<p>K-EES2-2. Construct an argument supported by evidence for how plants & animals (including humans) can change the environment to meet their needs. [Examples of plants and animals changing their environment could include a squirrel digging in the ground to hide its food and that tree roots can break concrete.]</p> <p>K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. [Examples of relationships could include that deer eat buds and leaves and therefore usually live in forested areas and that grasses need sunlight so they often grown in meadows. Plants, animals, and their surroundings make up a system.]</p> <p>K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive. [Examples of patterns could include that animals need to take in food but plants do not, the different kinds of food needed by different types of animals, the requirement of plants to have light, and that all living things need water.]</p>	<p>Geography – Kindergarten K.10. Explain how people can care for the environment.</p> <p>Economics/Financial Literacy -- Kindergarten K.19. Distinguish between wants and needs.</p> <p>Geography – 1st Grade 1.11. Explain how seasonal changes influence activities in school and community. 1.12 Give examples of local natural resources and describe how people use them.</p> <p>Civics and Government – 2nd Grade 2.16. Identify ways students can have an impact in their local community.</p>

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Tree Talk #1	Trees are living things Types of trees Identify Douglas-fir tree Parts of a tree What trees need to make food and grow Benefits of trees			<p>1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. [Examples of human problems that can be solved by mimicking plant or animal solutions could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells, animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; and detecting intruders by mimicking eyes and ears.]</p> <p>2-LS2-1. Plan and conduct an investigation to determine if plants need sunlight and water to grow.</p> <p>2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.</p> <p>2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats. [Clarification Statement: Emphasis is on the diversity of living things in each of a variety of different habitats.]</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p>	

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Primary Paper Making	<p>Paper comes from trees.</p> <p>Paper making is an important industry in Oregon.</p> <p>Paper is used for many different things.</p>	<p>Planning and Carrying Out Investigations. Make observations (firsthand or from media) to collect data which can be used to make comparisons. (Grades K-2)</p> <p>Planning and Carrying Out Investigations. Make predictions based on prior experiences. (Grades K-2)</p> <p>Constructing Explanations and Designing Solutions. Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. Use materials to design a device that solves a specific problem or a solution to a specific problem. (Grades K-2)</p>	<p>PS1.A: Structure and Properties of Matter. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties.</p> <p>PS1.A: Structure and Properties of Matter. A great variety of objects can be built up from a small set of pieces.</p> <p>ETS1.A: Defining and Delimiting Engineering Problems. A situation that people want to change or create can be approached as a problem to be solved through engineering.</p>	<p>2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.</p> <p>2-PS1-3. Make observations to construct an evidence-based account of how any object made of a small set of pieces can be disassembled and made into a new object.</p> <p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p>	<p>Geography – 1st Grade 1.12. Give examples of local natural resources and describe how people use them.</p> <p>Economics/Financial Literacy – 2nd Grade 2.18. Identify local businesses and the goods and services they produce.</p>

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Tree Talk #2	<p>Trees have a life cycle that includes seed, sprout or seedling, sapling, adult tree, old growth tree, snag, rotting log, and soil.</p> <p>Different tree products are associated with different stages in a tree's life cycle.</p>	<p>Developing and Using Models. Distinguish between a model and the actual object, process and/or events the model represents. (Grades K-2)</p> <p>Developing and Using Models. Develop and/or use a model to represent amounts, relationships, relative scale (bigger/smaller), and/or patterns in the natural and designed world(s). (Grades K-2)</p> <p>Constructing Explanations and Designing Solutions. Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. Use materials to design a device that solves a specific problem or a solution to a specific problem. (Grades K-2)</p>	<p>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.</p> <p>LS1.B: Grow and Development of Organisms. Adult plants and animals can have young. Many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring survive.</p>	<p>1-LS3-1. Make observations to construct an evidence-based account that young plants and animal are like, but not exactly like their parents.</p>	<p>Geography – 1st Grade 1.12. Give examples of local natural resources and describe how people use them.</p>

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Primary Outdoor Program	<p>Oregon forests include broadleaved and conifer trees.</p> <p>Trees can be classified and identified.</p> <p>To learn about forests, we can take measurements, collect data, and make other observations.</p>	<p>Modeling. Use a model to represent relationships in the natural world. [Models may include a diagram, drawing, physical replica, diorama, dramatization, storyboard.] (Grades K-2)</p> <p>Analyzing and Interpreting Data. Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (Grades K-2)</p> <p>Planning and Carrying Out Investigations. Make observations and measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon. (Grades 3-5)</p> <p>Modeling. Develop a model to describe phenomena. (Grades 3-5)</p>	<p>LS4.D: Biodiversity and Humans. There are many different kinds of living things in any area, and they exist in different places on land and in water.</p> <p>LS1.A: Structure and Function. Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.</p> <p>LS4.C: Adaptation. For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.</p> <p>LS2.A: Interdependent Relationships in Ecosystems. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life.</p>	<p>2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.</p> <p>3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</p> <p>4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. [Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, and skin.]</p> <p>5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p>	<p>Geography – Kindergarten K.10. Explain how people can care for the environment.</p> <p>Geography – 1st Grade 1.12. Give examples of local natural resources and describe how people use them.</p> <p>Geography – 3rd Grade 3.10. Identify and compare physical features of Oregon and other Northwestern states.</p> <p>Geography – 4th Grade 4.8. Use geographical tools (e.g., maps, GIS, Google Earth) to identify absolute and relative locations and physical characteristics of places in Oregon.</p> <p>Geography – 6th Grade 6.12. Collect and analyze data to describe regions of the Western Hemisphere.</p>

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