

Curriculum Alignment of Skinner Elementary Montessori and Washington State EALRs

Physical, Life and Social Sciences: Grade 2 – Age 7

Using manipulatives/ equipment, your child will be introduced to:

EALRs	Skinner Elementary Montessori
<p>EALR 1 – SYSTEMS: The student knows and applies scientific concepts and principles to understand the properties, structures, and changes in physical, earth/space, and living systems.</p> <p>Component 1.1 Properties: Understand how properties are used to identify, describe, and categorize substances, materials, and objects and how characteristics are used to categorize living things.</p> <p>Physical Systems-Properties of Substances 1.1.1 Understand simple properties of common, natural, and manufactured materials and objects.</p> <p>Earth and Space Systems — Nature and Properties of Earth Materials 1.1.5 Understand physical properties of Earth materials</p> <p>Living Systems-Characteristics of Living Matter 1.1.6 Understand characteristics of living organisms.</p> <p>Component 1.2 Structures: Understand how components, structures, organizations, and interconnections describe systems.</p> <p>Systems Structure-Structure of Physical Earth/Space and Living Systems 1.2.1 Understand that things are made of parts that go together.</p> <p>Physical Systems-Structure of Matter 1.2.3 Know that common materials are made of smaller parts.</p> <p>Living Systems-Structure and Organization of Living Systems 1.2.6 Know that living things are made of small parts.</p> <p>Molecular Basis of Heredity 1.2.7 Understand that plants and animals have life cycles.</p> <p>Component 1.3 Changes: Understand how interactions within and among systems cause changes in matter and energy.</p> <p>Physical Systems-Conservation of Matter and Energy 1.3.3 Know that water can exist in different states: solid and liquid.</p> <p>Earth and Space Systems-Processes and Interactions in the Earth System 1.3.4 Know that rocks break down to form pebbles and sand.</p> <p>History and Evolution of the Earth 1.3.5 Know that fossils provide evidence of plants and animals that existed long ago.</p> <p>Living Systems-Biological Evolution 1.3.9 Know that fossils show how organisms looked long ago.</p> <p>EALR 2 – INQUIRY: The student knows and applies the skills, processes, and nature of scientific discovery.</p> <p>Component 2.1 Investigating Systems: Develop the knowledge and skills necessary to do scientific inquiry.</p>	<p>Physical Science</p> <ul style="list-style-type: none"> • Creation story <p>Examining the Nature of Elements</p> <ul style="list-style-type: none"> • Composition of the earth • Geography nomenclature • States of matter • Attraction and gravity <p>The Sun and the Earth</p> <ul style="list-style-type: none"> • Rotation of the earth • A.M. and P.M. • The time zone chart • Earth as a sphere and its result • Tilt of the axis • Zones • Seasons work chart • Protection of the atmosphere and the rains <p>Work of Air</p> <ul style="list-style-type: none"> • Qualities of air • The winds • Land and sea breezes <p>Work of Water</p> <ul style="list-style-type: none"> • Erosion • River model • Rains • Ocean waves • Ice <p>Life Science</p> <p>Plant</p> <ul style="list-style-type: none"> • Needs of a plant • Plants grow to light <p>Leaf</p> <ul style="list-style-type: none"> • Main function of the leaf • Stomata and evaporation • Plants give off oxygen • Parts of a leaf • Different kinds of veins • Simple classification <p>Roots</p> <ul style="list-style-type: none"> • Main function • Parts of the root • Collaboration between leaves and roots

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<p>Investigating Systems-Questioning 2.1.1 Understand how to ask a question about objects, organisms, and events in the environment.</p> <p>Planning and Conducting Safe Investigations 2.1.2 Understand how to plan and conduct simple investigations following all safety rules.</p> <p>Explaining 2.1.3 Understand how to construct a reasonable explanation using evidence.</p> <p>Modeling 2.1.4 Understand that models represent real objects, events and processes.</p> <p>Communicating 2.1.5 Understand how to record and report investigations, results, and explanations.</p> <p>Component 2.2 Nature of Science: Understand the nature of scientific inquiry.</p> <p>Nature of Science-Intellectual Honesty 2.2.1 Understand that all scientific observations are reported accurately even when the observations contradict expectations.</p> <p>Limitations of Science and Technology 2.2.2 Understand that observations and measurement are used by scientists to describe the world.</p> <p>Evaluating Inconsistent Results 2.2.3 Understand that similar investigations may not produce similar results.</p> <p>Evolution of Scientific Ideas 2.2.5 Know that ideas in science change as new scientific evidence arises.</p> <p>EALR 3 – APPLICATION: The student knows and applies science concepts and skills to develop solutions to human problems in societal contexts.</p> <p>Component 3.1 Designing Solutions: Apply knowledge and skills of science and technology to design solutions to human problems or meet challenges.</p> <p>Designing Solutions- Identifying Problems 3.1.1 Know and understand problems that can be solved or have been solved by using scientific design.</p> <p>Designing and Testing Solutions 3.1.2 Understand how to construct and test a solution to a problem. Evaluating Potential Solutions 3.1.3 Understand how well a design or a product solves a problem.</p> <p>Component 3.2 Science, Technology, and Society: Analyze how science and technology are human endeavors, interrelated to each other, society, the workplace, and the environment.</p> <p>All People Contribute to Science and Technology 3.2.1 Know that science and technology are practiced by all peoples around the world.</p> <p>Relationship of Science and Technology 3.2.2 Know that people have invented tools for everyday life.</p> <p>Environmental and Resources Issues 3.2.4 Understand how humans depend on the natural environment.</p>	<ul style="list-style-type: none"> • Other functions of roots: <ul style="list-style-type: none"> -Holding the plant to the ground -Roots prevent erosion • Other sensitivities of roots <ul style="list-style-type: none"> -Roots dislike light -Roots grow towards the ground • Varieties of roots <p>Stem</p> <ul style="list-style-type: none"> • Main function • Two main kinds of stem • Parts of a woody stem • Other parts of a woody stem • How water is moved up the stem • Varieties <p>Flowers</p> <ul style="list-style-type: none"> • Main function • Parts of the flower • Varieties in the parts • Flowers which invite one and all to come • Specialization of flowers to ensure pollination <p>Fruits</p> <ul style="list-style-type: none"> • Main function • Two kinds of fruits • Parts of a succulent fruit • Kinds of succulent fruits based on parts/flowers • Kinds of dry fruits <p>Seeds</p> <ul style="list-style-type: none"> • Main function • Parts of the seeds • Two main kinds • Simple classification • Seed dispersal <p>Zoology</p> <ul style="list-style-type: none"> • Story material • Activities parallel and preparatory to body function material <p>Life Science</p> <ul style="list-style-type: none"> • Interdependencies • Ecosystems <p>Social Studies/ Sciences</p> <ul style="list-style-type: none"> • Coming of life • Black strip • Coming of human beings • Fundamental needs of human beings • Hand timeline • The clock of eras • First timeline • History question charts • Three phases of history