

Science Curriculum Map

Grade: 2

Balance and Motion/ Physical Science

Enduring Understanding: Students understand that weighting affects the stability or balance of systems. They develop an understanding of variables through experiments with spinning and rolling.

Priority EALRs/GLEs	Big Ideas	Materials/Resources	Assessment
<p>1.3 Changes in systems (CH) CH 1.3.1. Know that a push or a pull is a force on an object but some forces can act without touching an object. Observe and show that a push or a pull on an object is a force on that object. Observe and show that a magnet can push or pull some objects without touching the objects.</p> <p>CH 1.3.2. Know that pushes and pulls can change the motion of common objects. Observe and show that objects fall toward the ground because of the pull of Earth's gravity. Observe and show that magnets can make some objects move without touching the objects.</p> <p>2.1 Inquiry (IN) IN 2.1.1. Understand how to ask a question about objects, organisms, and events in the environment. Wonder and ask questions about objects, organisms, and events based on observations of the natural world.</p> <p>IN 2.1.2. Understand how to plan and conduct simple investigations following all safety rules. Make observations and record characteristics or properties. Make predictions of the results of an</p>	<p>*Changes/Types of forces</p> <p>*How forces effect objects</p> <p>*Questioning</p> <p>*Plan and conduct a safe experiment</p>	<p>FOSS Kit</p> <p>www.k12.wa.us www.marcopolo.wednet.edu www.teachersdomain.org www.nettrekker.com www.fossweb.com www.enchantedlearning.com www.discoverykids.com www.BillNye.com</p> <p>See Grade Level Vocabulary List in Teachers Guide</p>	<p>FOSS Kit</p> <p>Key Concepts</p> <ul style="list-style-type: none"> • Axle • Balance • Counterbalance • Balance point • Disk • Mobile • Motion • Rotate • Slope • Sphere • Spin • Stability • Wheel

<p>investigation. Plan and conduct an observational investigation that collects information about characteristics or properties. Collect data using simple equipment and tools that extend the senses (e.g., magnifiers, rulers, balances, scales, and thermometers). Follow all safety rules during investigations.</p> <p>IN 2.1.3. Understand how to construct a reasonable explanation using evidence. Categorize and order observational data from multiple trials. Explain an event or phenomenon using observations as evidence (e.g., shape, texture, size, weight, color, motion, and/or other physical properties).</p> <p>IN 2.1.5. Understand how to record and report investigations, results, and explanations. Report observations of simple investigations using drawings and simple sentences. Describe and/or draw the materials used in the investigation (e.g., numbers, shapes, colors). Report safety procedures used during the investigation. Report the process used and results of the investigation (e.g., verbal, visual, written and/or mathematical formats).</p> <p>2.2 Inquiry in Science (IN)</p> <p>IN 2.2.1. Understand that all scientific observations are reported accurately even when the observations contradict expectations. Record what is observed and explain how it was done accurately and honestly. Keep records and explain that the records</p>	<p>*Explain using evidence</p> <p>*Record observations accurately</p> <p>*New learning leads to new inquiry</p> <p>*Scientific facts are verifiable</p>		
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<p>have not been changed even when they did not match initial expectations.</p> <p>IN 2.2.2. Understand that observations and measurement are used by scientists to describe the world. Raise questions about the natural world and seek answers by making careful observations and trying things out.</p> <p>Make observations and measurements about natural phenomena.</p> <p>IN 2.2.3. Understand that similar may not produce similar results. Observe the procedures of two similar investigations and explain that they produce different results.</p> <p>IN 2.2.4. Understand how to make the results of scientific investigations reliable. Describe how the method of investigation insures reliable results (i.e., reliability means that repeating an investigation gives similar results). Identify and describe ways to increase the reliability or the results of an investigation (e.g., multiple trials of an investigation increase the reliability of the results).</p> <p>IN 2.2.5. Know that ideas in science change as new scientific evidence arises. Tell how scientific inquiry results in facts, unexpected findings, ideas, evidence, and explanations.</p> <p>3.1 Application (DE) DE 3.1.2. Understand how to construct and test a solution to a problem. Propose, construct, and test a solution to</p>	<p>*Evaluate results</p> <p>*Evaluate your investigation</p> <p>*Understand scientific method</p> <p>*Design and test solutions</p>		
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a problem. Give examples of possible solutions to the problem Select and construct a solution to the problem Test a solution to the problem			
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