

Science Curriculum Map
Grade: 5
Food and Nutrition

Enduring Understanding: Students work with various foods to explore chemical properties, nutritional value and how they relate to personal health.

| Priority EALRs/GLEs | | Materials/Resources | Assessment |
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| <p>1.1 Understanding properties PR 1.1.1 Understand how to use properties to sort natural and manufactured materials and objects. Identify, describe, and sort objects and materials using observed physical properties such as hardness, shape, state of matter, smell, temperature, texture, weight, and magnetic properties. Sort and classify natural and manufactured materials and objects according to various physical properties (e.g., length, weight, hardness, temperature, color, shape, texture, and smell). Identify and describe the state of water as solid, liquid, or gas in different situations. Identify which states of matter (solid, liquid, or gas) can change shape and which can expand to fill a container.</p> <p>PR1.1.4 Understand that energy comes in many forms. Describe the forms of energy present</p> | <p>Teacher vocabulary</p> <p>Classify Identify Describe Sort Categorize Explain Predict Determine Illustrate Observe</p> <p>What forms of energy? (many forms)</p> | <p>FOSS Kit</p> <p>www.k12.wa.us www.marcopolo.wednet.edu www.teachersdomain.org www.nettrekker.com www.fossweb.com</p> <p>See Grade Level Vocabulary List in Teachers Guide</p> | <p>FOSS Kit End of Module Written and Performance assessment</p> <p>Key Concepts</p> <p>Acid, calorie, carbohydrate, chemical reaction, energy, indicator, metabolism, nutrient, nutrition, relationship</p> |

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| <p>in a system (heat energy and food energy).</p> <p>1.2 Understanding Structures ST1.2.2 Understand that energy can be transformed from one form of energy to another. Identify where or when a part of a simple system has the greatest or least energy (e.g., a toy car has the greatest energy when released from the top of a ramp). Describe transfers of energy (e.g., heat energy is transferred from hot water to a cup). Identify sources of energy in systems (e.g., battery for a flashlight, spring for a toy). Describe transformations of energy (e.g., energy of motion of hands clapping changing into sound energy).</p> <p>ST1.2.3 Know that substances are made of small particles. Identify small parts of a substance as still being that substance (e.g., a drop of water is still water; a speck of sugar is still sugar). Observe and describe that some particles can only be seen with magnification. Describe objects that are made of only one kind of material and objects made of several kinds of material.</p> | <p>Transfer/Transform of energy greatest of least amount</p> <p>Teacher Vocabulary</p> <p>Describe Determine Explain</p> <p>Substances are common materials made of smaller parts/particles</p> <p>Teacher Vocabulary Know Sort Identify Observe Describe</p> <p>States of matter</p> | | |
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| <p>1.3 Changes in systems</p> <p>CH1.3.3 Understand that a substance remains the same substance when changing state. Understand that two or more substances can react to become new substances. Observe and describe how a substance is the same substance before and after heating or cooling (e.g., solid candle wax can be heated to become liquid candle wax then cooled back to the same solid candle wax). Describe how two different substances can form a simple chemical reaction to produce new substances (e.g., baking soda and vinegar react to form a gas).</p> <p>CH1.3.8 Understand that living things need constant energy and matter. Identify sources of energy and matter used by animals to grow and sustain life (e.g., air, water, light, food, mineral nutrients).</p> <p>2.1 Investigating Systems</p> <p>IN2.1.2. Understand how to plan and conduct simple investigations following all safety rules. Make predictions of the results of an investigation. Generate a logical plan for, and conduct, a simple controlled investigation.</p> | <p>Source of energy for plants and animals Consumer-producer</p> <p>Plan and conduct a safe experiment</p> <p>Explain using evidence</p> | | |
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| <p>DE3.1.2. Understand how the scientific design process is used to develop and implement solutions to human problems. Propose, implement, and document the scientific design process used to solve a problem or challenge: define the problem scientifically gather information and collect measurable data explore ideas make a plan list steps to do the plan scientifically test solutions document the scientific design process</p> <p>Describe possible solutions to a problem (e.g., preventing an injury on the playground by creating a softer landing at the bottom of a slide). Describe the reason(s) for the effectiveness of a solution to a problem or challenge.</p> <p>DE3.1.3. Analyze how well a design or a product solves a problem. Identify the criteria for an acceptable solution to a problem or challenge. Describe the reason(s) for the effectiveness of a solution to a problem or challenge using</p> | | | |
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| <p>scientific concepts and principles.</p> <p>Describe the consequences of the solution to a problem or challenge (e.g., sharpening a crayon results in using up crayons faster).</p> <p>Describe how to change a system to solve a problem or improve a solution to a problem.</p> <p>Test how well a solution works based on criteria, and recommend and justify, with scientific concepts or principles and data, how to make it better (e.g., sharpen a crayon using sandpaper; one grit is better than another).</p> | | | |
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