

GIPS 5th Grade Science Design Map

Units (in sequence)	Estimated Time Frame (days)	K-12 Program Strands With Corresponding Course/Grade Level Standards	K-12 Program Enduring Understandings (for content only)	K-12 Program Essential Questions (for content only)	Unit Assessments (note if optional)	C/GL Key Vocabulary Concepts
Unit 1 Nutrition	11 Days	<p><u>Life Science:</u> 3.1 & 3.2 Classification & Diversity of Life</p> <p>Investigate the food pyramid and identify the importance of nutrients</p> <p>Investigate and explain how personal choices can directly affect a person's health</p>	<p>Although the various forms of energy seem very different, each can be measured in a way that makes it possible to keep track of how much of one form is converted into another</p> <p>The level of classification systems is on ongoing effort within the science community so that there are meaningful ways to study groups.</p> <p>Living things have certain structures that serve necessary functions for growth, response to stimulus, reproduction and use of energy.</p> <p>Each part of a system is only fully understandable in relation to the rest of the system.</p> <p>Systems are not mutually exclusive; they may be so closely related that there is no way to separate all parts of one from all parts of another.</p> <p>See strand one for full text.</p>	<p>How does energy cause change?</p> <p>Where does energy come from? Where does it go?</p> <p>What are living things made of?</p> <p>What are the parts of this system? How do they work together?</p>	Structured Response (Narrative Assessment)	calorie nutrient
Unit 2 Variables	25 Days	<p><u>Physical Science:</u> 2.2 & 2.3 Motion and Forces & Matter and Energy</p> <p>Identify and control variables in an experiment</p> <p>The motion of an object can be described by its position, direction of motion and speed</p>	<p>An object's motion is the result of the combined effect of all forces acting on the object.</p> <p>The interaction between energy and matter creates forces (pushes and pulls) that produce predictable patterns of change.</p> <p>The total amount of matter and energy remains constant, even though their form and location undergo continual change.</p> <p>Each part of a system is only fully understandable in relation to the rest of the system.</p> <p>See strand one for full text.</p>	<p>In what ways can objects move and what makes objects move the way they do?</p> <p>What role do forces play here?</p> <p>How does energy cause change?</p> <p>Where does energy come from? Where does it go?</p> <p>What are the parts of this system? How do they work together?</p>	FOSS End-Of-Module Assessment Performance Page 7 Structured Response (Multiple Choice Page 9-10; Short Answer Page 11-15)	variable system two coordinate graph

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Unit 3 Landforms	15 days	<p><u>Earth & Space Science:</u> 4.1 Structure, History, & Cycles</p> <p>Interpret a topographic map and some of the techniques used to create it</p> <p><u>Earth & Space Science:</u> 4.2 Energy</p> <p>Recognize and identify concepts of erosion and deposition</p> <p>Describe the effect of water on surface features of the land using stream tables</p> <p><u>Earth & Space Science:</u> 4.3 Origin and Evolution</p> <p>Compare processes observed in the stream table models to processes that created famous landforms</p>	<p>Each part of a system is only fully understandable in relation to the rest of the system.</p> <p>Any part of a system may itself be considered a system with its own internal parts and interactions.</p> <p>Energy is responsible for changes to the Earth's/ Universe's structure and systems.</p> <p>The interaction between energy and matter creates forces (pushes and pulls) that produce predictable patterns of change.</p> <p>Evidence gathered from the past is used to explain origination of an event, phenomenon, species, system and help predict the future.</p> <p>See strand one for full text.</p>	<p>What are the parts of this system? How do they work together?</p> <p>What role do forces play here?</p> <p>How does energy cause change?</p> <p>Where does energy come from? Where does it go?</p> <p>How does energy cause change?</p> <p>How do scientists work to figure out how the world began and how it continues to change?</p>	<p>FOSS End-Of-Module Assessment</p> <p>Performance Page 1-4</p> <p>Structured Response (Multiple Choice)</p>	<p>module</p> <p>elevation</p> <p>cartographer</p> <p>deposition</p> <p>erosion</p>
Unit 4 Levers & Pulleys	25 days	<p><u>Physical Science:</u> 2.2 Motions and Forces</p> <p>Describe the concept of force and the application of force to do work</p> <p><u>Physical Science:</u> 2.3 Matter & Energy</p> <p>Investigate and explain and advantages and disadvantages of levers and pulleys</p> <p>Analyze real world tools and machines in terms of the simple machines that make them work</p> <p><u>Earth and Space Science:</u> 4.1 Structure, History & Cycles</p> <p>Diagram and label three lever systems</p>	<p>An object's motion is the result of the combined effect of all forces acting on the object.</p> <p>The total amount of matter and energy remains constant, even though their form and location undergo continual change.</p> <p>Although the various forms of energy seem very different, each can be measured in a way that makes it possible to keep track of how much of one form is converted into another.</p> <p>Machines do not reduce the amount of work that is done, they only change the direction of the force, multiply the force or multiply the distance through which the force is applied.</p> <p>Each part of a system is only fully understandable in relation to the rest of the system.</p> <p>Any part of a system may itself be considered a subsystem with its own internal parts and interactions.</p> <p>Systems are not mutually exclusive; they may be so closely related that there is no way to separate all parts of one from all parts of another.</p> <p>See strand one for full text.</p>	<p>In what ways can objects move and what makes objects move the way they do?</p> <p>What role do forces play here?</p> <p>How does energy cause change?</p> <p>Where does energy come from? Where does it go?</p> <p>What happens when a machine is used to do work? Does using this machine make my work easier?</p> <p>How is this machine designed to do work? What are the parts of this system? How do they work together?</p>	<p>FOSS End-Of-Module Assessment</p> <p>Structured Response: (Multiple Choice) Pages 1-3; Narrative Page 3 [item 9] and Pages 4- 5)</p>	<p>lever</p> <p>fulcrum</p> <p>pulley</p> <p>simple machine</p> <p>force</p>