

GIPS 3rd 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 Ideas and Inventions	14 Days	<p>Physical Science: 2.1 Chemical & Physical Properties of Matter</p> <p>Describe and analyze the physical properties of water (Water Module)</p> <p>Compare and contrast patterns in different types of substances</p> <p>Identify features and patterns of textured objects</p> <p>Physical Science: 2.2 Motion & Forces</p> <p>Describe and analyze the physical properties of water (Water Module)</p> <p>Physical Science: 2.3 Matter & Energy</p> <p>Explain how sound and light travel through various mediums (Physics of Sound Module)</p>	<p>All matter is made up of relatively few kinds of basic materials combined in various ways.</p> <p>The way matter can be separated determines what type of matter it is.</p> <p>The interaction between energy and matter creates forces (pushes and pulls) that produce predictable patterns of change.</p> <p>Vibrations (waves) carry energy away from its source.</p> <p>Different wavelengths interact with matter in different ways.</p> <p>See strand one for full text.</p>	<p>How do scientists describe things?</p> <p>What causes a reaction? How do we predict reactions before they happen?</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>Where does energy come from? Where does it go?</p> <p>How does energy flow and how is it transmitted?</p>	<p>FOSS End-of-Module Assessment</p> <p>Structured Response (Multiple Choice & Short Answer)</p>	<p>patterns</p> <p>reflection</p> <p>refraction</p> <p>pigment</p>
Unit 2 Sound	13 Days	<p>Physical Science: 2.3 Matter & Energy</p> <p>Create vibrations using different objects to help explain how sound is produced</p> <p>Explain how sound and light travel through various mediums</p> <p>Demonstrate the variables that affect changes in pitch and volume</p>	<p>Vibrations (waves) carry energy away from its source.</p> <p>Different wavelengths interact with matter in different ways.</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>See strand one for full text.</p>	<p>How do scientists describe things?</p> <p>How do properties of an object determine its use?</p> <p>Where does energy come from? Where does it go?</p> <p>How does energy flow and how is it transmitted?</p>	<p>FOSS End-of-Module Assessment</p> <p>Performance</p> <p>Structured Response (Multiple Choice, Narrative, Short Answer)</p>	<p>vibration</p> <p>pitch</p> <p>volume</p> <p>mediums</p>

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Unit 3 Water	27 Days	<p>Physical Science: 2.1 Chemical & Physical Properties of Matter</p> <p>Describe and analyze the physical properties of water</p> <p>Physical Science: 2.2 Motion & Forces</p> <p>Describe and analyze the physical properties of water</p> <p>Physical Science: 2.3 Matter & Energy</p> <p>Describe and analyze the physical properties of water</p> <p>Earth and Space Science: 4.1 Structure, History, & Cycles</p> <p>Discuss and list methods of water conservation</p> <p>Explain the effect of temperature on the rate of evaporation</p>	<p>All matter is made up of relatively few kinds of basic materials combined in various ways.</p> <p>The way matter can be separated determines what type of matter it is.</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>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>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>The elements that make up the molecules of living things are continually recycled.</p> <p>See strand one for full text.</p>	<p>How do scientists describe things?</p> <p>What causes a reaction? How do we predict reactions before they happen?</p> <p>How do properties of an object determine its use?</p> <p>What makes objects move the way they do?</p> <p>What role do forces play here?</p> <p>How does energy/matter remain constant even as it changes form?</p> <p>What are the parts of this system? How do they work together?</p>	<p>FOSS End-of-Module Assessment</p> <p>Performance</p> <p>Structured Response (Multiple Choice, Narrative)</p>	<p>property</p> <p>surface tension</p> <p>capillary action</p> <p>evaporate</p> <p>density</p> <p>states of matter</p> <p>conservation</p>