

Science Curriculum Map

Fifth Grade

Trimester One August-November Strategies/Skills covered	Key Standards	Assessments	Suggested Materials
<p>Unit 1: Engineering and Technology Engineering Design</p> <ul style="list-style-type: none"> Defining a problem Developing possible solutions Improving designs <p>Unit 3: Energy and Matter in Organisms</p> <ul style="list-style-type: none"> Investigate how living organisms get energy Explore how living organisms use energy and how they interact in their environment 	<p>ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time or cost</p> <p>ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem</p> <p>LS1-1 Support an argument that plants get the materials they need for growth chiefly from air and water</p> <p>PS3-1 Use models to describe that energy in animals' food (used for body repair, growth, and motion and to maintain body warmth) was once energy from the sun</p>	<p>Worksheets Lab Reports Lesson quizzes Simulations Projects STEM</p> <p>Worksheets Lab Reports Lesson quizzes Simulations Projects/test STEM</p>	<p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL Scienceflix Trueflix Science Spin Magazine</p> <p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL Scienceflix Trueflix Science Spin Magazine</p>

Trimester Two November-February Strategies/Skills covered	Key Standards	Assessments	Suggested Materials
<p>Unit 4: Energy and Matter in Ecosystems</p> <ul style="list-style-type: none"> Explore phenomena of predator-prey population interactions and native and invasive species interactions Use models to develop explanations of the energy inputs and energy and matter flows within ecosystems <p>Unit 5: Systems in Space Stars and the Solar System</p> <ul style="list-style-type: none"> Use evidence to explain that Earth’s orbit, the moon’s orbit and Earth’s rotation cause predictable patterns 	<p>LS2-1 Develop a model to describe movement of matter among plants, animals, decomposers, and the environment</p> <p>LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change</p> <p>PS2-1 Support an argument that the gravitational force exerted by Earth on objects is directed down</p> <p>ESS1-1 Support an argument that the differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth</p>	<p>Worksheets Lab Reports Lesson quizzes Simulations Projects/test STEM</p> <p>Worksheets Lab Reports Lesson quizzes Simulations Projects/test STEM</p>	<p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL Scienceflix Trueflix Science Spin Magazine</p> <p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL ScienceFlix Trueflix Science Spin Magazine</p>

<ul style="list-style-type: none"> ● Explain why the sun appears so large and bright from Earth ● Explain that Earth is a sphere and that gravity pulls objects toward Earth's center <p>Unit 6: Earth's Systems</p> <ul style="list-style-type: none"> ● Explore the hydrosphere, geosphere, biosphere, and atmosphere ● Learn how Earth's systems interact 	<p>ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in the length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky</p> <p>ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact</p> <p>ESS2-2 Describe and graph the amounts and percentages of water and freshwater in various reservoirs to provide evidence about the distribution of water on Earth</p> <p>ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment</p>	<p>Worksheets Lab Reports Lesson quizzes Simulations Projects/test STEM</p>	<p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL Scienceflix Trueflix Science Spin Magazine</p>
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Trimester Three February-June Strategies/Skills covered	Key Standards	Assessments	Suggested Materials
<p>Unit 2: Matter Structure and Properties of Matter</p> <ul style="list-style-type: none"> Discover the different states of matter and how to measure matter Explore the different properties of matter along with dissolving rates of certain matter Compare and contrast physical and chemical changes of matter <p>Review Science concepts</p> <ul style="list-style-type: none"> Forces and Motion Energy transfer Electricity and Magnetism 	<p>PS1-1 Develop a model to describe that matter is made of particles too small to be seen</p> <p>PS1-2 Measure and graph quantities to provide evidence the regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved</p> <p>PS1-3 Made observations and measurements to identify materials based on their properties</p> <p>PS3-1 Use evidence to construct and explanation relating the speed of an object to the energy of that object</p> <p>PS3-2 Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat and electrical currents</p>	<p>Worksheets Lab Reports Lesson quizzes Simulations Projects STEM</p> <p>ISA State assessment Nature of Science inquiry Worksheets</p>	<p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL</p> <p>ISBE Website ISA Website DC sample questions IXL Other resources as available</p>

<p>Unit 7: Earth and Human Activities</p> <ul style="list-style-type: none"> ● Explore how human activity affects the Earth and its systems ● Learn about ways to keep Earth and its systems healthy <p>Unit 1: Engineering and Technology</p> <ul style="list-style-type: none"> ● Discover how science and math are used in engineering ● Investigate a design process ● Explore how technology decisions affect society 	<p>ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment</p> <p>ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved</p>	<p>Worksheets Lab Reports Lesson quizzes Simulations Projects Unit test STEM</p> <p>Project-design prototype STEM</p>	<p>HMH Science Dimensions Generation Genius Mystery Science Science kit bins IXL Scienceflix Trueflix Science Spin Magazine</p> <p>Other Resources as available</p>
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