

# Science Curriculum Map

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NGSS (HMH Science Dimensions: Houghton, Mifflin, Harcourt)

Grade 3

22-23

<p><b>Unit 1</b>  <b>Engineering Design</b>  <b>Time Period: 22 days</b>  <i>*Also integrated into other topics</i></p>	<p><b>Units 2 &amp; 3</b>  <b>Forces and Motion</b>  <b>Force: Time Period: 22 days</b>  <b>Motion: Time Period: 17 days</b>    <i>*Also integrated into other topics</i></p>	<p><b>Unit 4</b>  <b>Life Cycles and Inherited Traits</b>  <b>Time Period: 22 days</b>  <i>*Also integrated into other topics</i></p>	<p><b>Unit 5</b>  <b>Organisms and Their Environments</b>  <b>Time Period: 27 days</b>  <i>*Also integrated into other topics</i></p>	<p><b>Unit 6</b>  <b>Fossils</b>  <b>Time Period: 17 days</b>  <i>*Also integrated into other topics</i></p>	<p><b>Unit 7</b>  <b>Weather and Patterns</b>  <b>Time Period: 27 days</b>  <i>*Also integrated into other topics</i></p>
<p><b>Assessments / Tasks</b></p> <hr/> <p><b>Formative:</b>            Apply What You Know            Lesson Check            Lesson Roundup            Self-Check            Asking Questions and Defining Problems            Language Smarts</p> <p><b>Summative:</b>            Lesson Quizzes            Unit Review            Unit Tests            Performance Tasks</p> <p><i>*Differentiate Instruction*</i>  <i>*Building on prior knowledge*</i>  <i>*collaboration*</i></p>	<p><b>Assessments / Tasks</b></p> <hr/> <p><b>Formative:</b>            Apply What You Know            Lesson Check            Lesson Roundup            Self-Check            Asking Questions and Defining Problems            Language Smarts</p> <p><b>Summative:</b>            Lesson Quizzes            Unit Review            Unit Tests            Performance Tasks</p> <p><i>*Differentiate Instruction*</i>  <i>*Building on prior knowledge*</i>  <i>*collaboration*</i></p>	<p><b>Assessments / Tasks</b></p> <hr/> <p><b>Formative:</b>            Apply What You Know            Lesson Check            Lesson Roundup            Self-Check            Asking Questions and Defining Problems            Language Smarts</p> <p><b>Summative:</b>            Lesson Quizzes            Unit Review            Unit Tests            Performance Tasks</p> <p><i>*Differentiate Instruction*</i>  <i>*Building on prior knowledge*</i>  <i>*collaboration*</i></p>	<p><b>Assessments / Tasks</b></p> <hr/> <p><b>Formative:</b>            Apply What You Know            Lesson Check            Lesson Roundup            Self-Check            Asking Questions and Defining Problems            Language Smarts</p> <p><b>Summative:</b>            Lesson Quizzes            Unit Review            Unit Tests            Performance Tasks</p> <p><i>*Differentiate Instruction*</i>  <i>*Building on prior knowledge*</i>  <i>*collaboration*</i></p>	<p><b>Assessments / Tasks</b></p> <hr/> <p><b>Formative:</b>            Apply What You Know            Lesson Check            Lesson Roundup            Self-Check            Asking Questions and Defining Problems            Language Smarts</p> <p><b>Summative:</b>            Lesson Quizzes            Unit Review            Unit Tests            Performance Tasks</p> <p><i>*Differentiate Instruction*</i>  <i>*Building on prior knowledge*</i>  <i>*collaboration*</i></p>	<p><b>Assessments / Tasks</b></p> <hr/> <p><b>Formative:</b>            Apply What You Know            Lesson Check            Lesson Roundup            Self-Check            Asking Questions and Defining Problems            Language Smarts</p> <p><b>Summative:</b>            Lesson Quizzes            Unit Review            Unit Tests            Performance Tasks</p> <p><i>*Differentiate Instruction*</i>  <i>*Building on prior knowledge*</i>  <i>*collaboration*</i></p>

<p><b>Objectives/I Can:</b></p> <p>3-5-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>3-5-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>3-5-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><i>DCI:</i>  <i>ETS1. A. Defining and Delimiting Engineering Problems</i>  <i>ETS1.B: Developing Possible Solutions</i>  <i>ETS1.C: Optimizing the Design Solution</i></p>	<p><b>Objectives/I Can:</b></p> <p>3-PS2-1. Plan and investigate to provide evidence of the effects of balance and unbalanced forces on the motion of an object.</p> <p>3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion</p> <p>3-PS2-3. Ask Questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.</p> <p>3-PS2-4. Define a simple design problem that can be solved by applying scientific ideas about magnets</p> <p><i>DCI:</i>  <i>PS2. A. Forces and Motion</i>  <i>PS2. B. Types of Interactions</i></p>	<p><b>Objectives/I Can:</b></p> <p>3-LS1-1: Develop models to describe that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction, and death.</p> <p>3-LS3-1: Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.</p> <p><i>DCI:</i>  <i>LS1.B: Growth and Development of Organisms</i>  <i>LS3.A: Inheritance of Traits</i>  <i>LS3.B: Variation of Traits</i></p>	<p><b>Objectives/I Can:</b></p> <p>3-LS2-1. Construct an argument that some animals form groups that help members survive.</p> <p>3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.</p> <p>3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</p> <p>3-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><i>DCI:</i>  <i>LS2.D: Social Interactions and Group Behavior</i>  <i>LS4.B: Natural Selection</i>  <i>LS3.B: Variation of Traits</i>  <i>LS2. C: Ecosystem Dynamics, Functioning, and Resilience</i>  <i>LS4.D: Biodiversity and Humans</i></p>	<p><b>Objectives/I Can:</b></p> <p>3-LS4-1: Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.</p> <p><i>DCI:</i>  <i>LS4.A: Evidence of Common Ancestry and Diversity</i></p>	<p><b>Objectives/I Can:</b></p> <p>3-ESS2: Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.</p> <p>3-ESS2-2: Obtain and combine information to describe climates in different regions of the world.</p> <p><i>DCI:</i>  <i>ESS2.D: Weather and Climate</i>  <i>ESS2.B: Natural Hazards</i></p>

<b>Vocabulary</b>	<b>Vocabulary</b>	<b>Vocabulary</b>	<b>Vocabulary</b>	<b>Vocabulary</b>	<b>Vocabulary</b>
Constraint Criteria Engineer Technology	Balanced forces Electricity Force Gravity Magnet Net force Static electricity Unbalanced forces Frame of reference Motion Position speed	Life cycle Metamorphosis Organism Pupa trait	Adaptation Camouflage Environment Habitat Mimicry population	Aquatic Extinct Fossil Terrestrial	Atmosphere Climate Hazard Precipitation Rain gauge Thermometer Weather Wind vane
<b>Resources</b>	<b>Resources</b>	<b>Resources</b>	<b>Resources</b>	<b>Resources</b>	<b>Resources</b>
HMH Science Dimensions BrainPOP and BrainPOP Jr. Generation Genius Mystery Science Super Science Flocabulary YouTube Sci Show Kids Nat Geo Kids Leveled Readers	HMH Science Dimensions BrainPOP and BrainPOP Jr. Generation Genius Mystery Science Super Science Flocabulary YouTube Sci Show Kids Nat Geo Kids Leveled Readers	HMH Science Dimensions BrainPOP and BrainPOP Jr. Generation Genius Mystery Science Super Science Flocabulary YouTube Sci Show Kids Nat Geo Kids Leveled Readers	HMH Science Dimensions BrainPOP and BrainPOP Jr. Generation Genius Mystery Science Super Science Flocabulary YouTube Sci Show Kids Nat Geo Kids Leveled Readers	HMH Science Dimensions BrainPOP and BrainPOP Jr. Generation Genius Mystery Science Super Science Flocabulary YouTube Sci Show Kids Nat Geo Kids Leveled Readers	HMH Science Dimensions BrainPOP and BrainPOP Jr. Generation Genius Mystery Science Super Science Flocabulary YouTube Sci Show Kids Nat Geo Kids Leveled Readers