

CURRICULUM MAP

Subject: Science

Grade Level: 5

revised Fall 2018 to reflect NYSSLS

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FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
<p>Disciplinary Core Idea : Engineering Design <i>NYSSLS: 3-5-ETS1-1; 3-5-ETS1-2; 3-5-ETS1-3</i></p> <ul style="list-style-type: none"> ➤ Define problems reflecting a need or a want; including specified criteria for success and constraints on materials, time, or cost. ➤ Generate and compare multiple possible solutions to a problem based on the criteria and constraints of the problem. ➤ Plan and carry out fair tests in which variables are controlled; identify aspects of a model or prototype that can be improved. <p>Cross-Cutting Concepts:</p> <ul style="list-style-type: none"> ➤ Influence of Science, Engineering, and Technology on Society and the Natural World <p>Science & Engineering Practices:</p> <ul style="list-style-type: none"> ➤ Asking Questions & Defining Problems ➤ Planning & Carrying Out Investigations ➤ Constructing Explanations & Designing Solutions <p>Space Systems: Stars and the Solar System <i>NYSSLS: 5-PS2-1; 5-ESS1-1; 5-ESS1-2</i></p> <ul style="list-style-type: none"> ➤ Support an argument that Earth's gravitational force is directed down. ➤ Support an argument that differences in apparent brightness of the Sun compared to other stars is due to their relative distances from Earth. ➤ Graph data to reveal patterns of change in length and direction of shadows, day & night, seasonal appearance of stars 	<p>Cross-Cutting Concepts:</p> <ul style="list-style-type: none"> ➤ Scale, Proportion & Quantity ➤ Cause & Effect ➤ Patterns <p>Science & Engineering Practices:</p> <ul style="list-style-type: none"> ➤ Analyzing and Interpreting Data ➤ Engaging in Argument from Evidence <p>Disciplinary Core Idea : Earth's Systems <i>NYSSLS: 5-ESS2-1; 5-ESS2-2; 5-ESS2-3</i></p> <ul style="list-style-type: none"> ➤ Develop a model to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. ➤ Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. ➤ Obtain and combine information about ways individual communities use science ideas to protect Earth's resources and environment. <p>Cross-Cutting Concepts:</p> <ul style="list-style-type: none"> ➤ Scale, Proportion & Quantity ➤ Systems and System Models ➤ Empirical Evidence <p>Science & Engineering Practices:</p> <ul style="list-style-type: none"> ➤ Developing and Using Models ➤ Using Mathematics and Computational Thinking ➤ Obtaining, Evaluating, and Communicating Information 	<p>Disciplinary Core Idea: Measurement <i>NYSSLS: 5-PS1-2; 5-PS1-3</i></p> <ul style="list-style-type: none"> ➤ Measure and graph quantities to address scientific and engineering questions and problems. ➤ Describe and graph quantities to address scientific questions. ➤ Represent data in graphical displays to reveal patterns that indicate relationships <p>Disciplinary Core Idea: Structure and Properties of Matter <i>NYSSLS: 5-PS1-1, 5-PS1-2; 5-PS1-3, 5-PS1-4</i></p> <ul style="list-style-type: none"> ➤ Develop a model to describe that matter is made of particles too small to be seen. ➤ Measure and graph quantities to provide evidence to support the Law of Conservation of Matter ➤ Make observations and measurements to identify materials based on their properties. ➤ Conduct an investigation to determine whether the mixing of two or more substances results in new substances. <p>Cross-Cutting Concepts:</p> <ul style="list-style-type: none"> ➤ Scale, Proportion & Quantity ➤ Cause & Effect ➤ Patterns <p>Science & Engineering Practices:</p> <ul style="list-style-type: none"> ➤ Developing & Using Models ➤ Using Mathematics & Computational Thinking ➤ Planning and Carrying Out Investigations 	<p>Disciplinary Core Idea: Matter and Energy in Organisms and Ecosystems <i>NYSSLS: 5-PS3-1; 5-LS1-1; 5-LS2-1</i></p> <ul style="list-style-type: none"> ➤ Use models to describe that energy in animals' food was once energy from the Sun. ➤ Support an argument that plants get the materials they need for growth chiefly from air and water. ➤ Develop a model to describe the movement of matter among plants (producers), animals (consumers), decomposers, and the environment. <p>Cross-Cutting Concepts:</p> <ul style="list-style-type: none"> ➤ Systems and System Models ➤ Energy and Matter <p>Science & Engineering Practices:</p> <ul style="list-style-type: none"> ➤ Developing & Using Models ➤ Engaging in Argument from Evidence ➤ Mechanisms for Natural Events <p>Final Exam Review & Preparation</p>