## **CURRICULUM MAP**

## Subject: Science Grade Level: 6 (revised Summer 2018 to reflect NYSSLS)

FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
Disciplinary Core Ideas: Understanding Engineering Design Within the Practice of Science NYSSLS: MS ETS 1-1; MS ETS1-2; MS ETS 1-3; MS ETS 1-4 Scientific theories vs. laws Branches of Science Scientific Methods Lab safety Scientific Methods Lab safety Scientific models Communication of scientific data Accuracy, precision & rounding Tables & graphs Matter & its Changes NYSSLS: MS PSL-2: MS PS L-2: MS	Disciplinary Core Ideas: Atoms, Elements & the Periodic Table NYSSLS: MS PS1-1; MS PS1-5; MS PS 1-8 ➤ Atomic models ➤ Periodic Table ➤ Classification of elements ➤ Chemical Reactions ○ Endothermic vs. Exothermic ➤ Compounds vs. Mixtures Energy NYSSLS: MS PS 1-4; MS PS 1-6; MS PS 3-1; MS PS 3-2; MS PS 3-3; MS PS 3-4; MS PS 3-5; MS ETS 1-3; MS ETS 1-4 ➤ Potential Energy - chemical (stored	Disciplinary Core Ideas: Earth's Materials & Processes NYSSLS: MS ESS 2-1; MS ESS 3-1 ➤ Minerals ○ Formation ○ Properties; gems & ores ➤ Rocks ○ The Rock Cycle ○ Igneous, Metamorphic, & Sedimentary ○ Physical vs. chemical weathering ○ Soil formation ○ Agents of weathering & erosion	Disciplinary Core Ideas:         The Atmosphere in Motion         NYSSLS: MS ESS2-4; MS ESS2-5; MS ESS2-6; MS         ETS1-4         > Composition & structure         > The Water Cycle         > Earth's weather         > Air masses & fronts         > Wind formation, Coriolis effect         Rocket Building         NYSSLS: MS ETS 1-1; MS ETS1-2;MS ETS 1-3; MS         ETS 1-4         > Design, build, & test straw rockets         > Build and launch model rockets
<ul> <li>NTSLS: MS PS1-2; MS PS 1-3; MS PS 1-7; MS</li> <li>ETS 1-3</li> <li>Law of Conservation of Matter</li> <li>Physical &amp; chemical properties         <ul> <li>Measurement vs. estimation</li> <li>Use measuring tools safely &amp; appropriately</li> <li>Metric units (SI) &amp; conversions</li> <li>States of Matter (Phases)</li> </ul> </li> <li>Physical changes</li> <li>Chemical changes</li> </ul>	electrical), magnetic, & gravitational interactions ≻ Kinetic Energy-relationship among mass, speed, & kinetic energy ○ Energy transfor ○ Energy transformations > Law of Conservation of Energy > Thermal energy transfer Cross-Cutting Concepts: > Patterns	<ul> <li>erosion         <ul> <li>Effects of erosion</li> </ul> </li> <li>Earth's Resources         <ul> <li>NYSSLS MS PS 1-3; MS LS 2-1; MS ESS3-1; MS ESS3-3; MS ESS3-5</li> <li>Natural resources &amp; our use of them                <ul> <li>Impact on Society</li> <li>Impact on the environment</li> </ul> </li> <li>Resource Availability                 <ul> <li>Renewable vs non-renewable</li> <li>Pollution &amp; resource</li> </ul> </li> </ul> </li> </ul>	<ul> <li>Build and launch model rockets</li> <li>Final Exam Review</li> <li>Cross-Cutting Concepts:         <ul> <li>Patterns</li> <li>Cause &amp; Effect: Mechanism &amp; Prediction</li> <li>Scale Proportion &amp; Quantity</li> <li>Systems &amp; System Models</li> <li>Energy &amp; Matter: Flows, Cycles, &amp; Conservation</li> <li>Structure &amp; Function</li> </ul> </li> </ul>
<ul> <li>Signs of change</li> <li>Endothermic vs. Exothermic</li> <li>Law of Conservation of Matter</li> </ul> Cross-Cutting Concepts: <ul> <li>Patterns</li> <li>Cause &amp; Effect: Mechanism &amp; Prediction</li> <li>Scale Proportion &amp; Quantity</li> <li>Systems &amp; System Models</li> <li>Stability &amp; Change</li> </ul>	<ul> <li>Cause &amp; Effect: Mechanism &amp; Predictions</li> <li>Systems &amp; System Models</li> <li>Energy &amp; Matter: Flows, Cycles, &amp; Conservation</li> <li>Structure &amp; Function</li> <li>Stability &amp; Change</li> </ul> Science & Engineering Practices: <ul> <li>Asking Questions &amp; Defining Problems</li> <li>Developing &amp; Using Models</li> <li>Using Computational Thinking</li> </ul>	depletion         Protecting our environment         Cross-Cutting Concepts:         > Patterns         > Cause & Effect: Mechanism & Prediction         > Scale Proportion & Quantity         > Systems & System Models         > Energy & Matter: Flows, Cycles, & Conservation         > Stability & Change	<ul> <li>Stability &amp; Change</li> <li>Science &amp; Engineering Practices:</li> <li>Asking Questions &amp; Defining Problems</li> <li>Developing &amp; Using Models</li> <li>Planning &amp; Carrying Out Investigations</li> <li>Analyzing &amp; Interpreting Data</li> <li>Using Computational Thinking</li> <li>Constructing Explanations &amp; Designing Solutions</li> <li>Engaging in Argument From Evidence</li> </ul>
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