

CURRICULUM MAP

Subject: Science Grade Level: 6 (revised Fall 2024)

FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
<p>Disciplinary Core Ideas: How Scientists Work <i>NYSSLS: MS-ETS 1-1, 2, and 3</i></p> <ul style="list-style-type: none"> ➤ Science skills- <ul style="list-style-type: none"> ○ Observing phenomenon and making Inferences ○ Collecting data-qualitative and quantitative ○ Using tools properly- ruler, digital scale, thermometer, graduated cylinder ➤ Lab safety ➤ Scientific Methods <ul style="list-style-type: none"> ○ Testable questions ○ Writing Hypotheses ○ Identifying variables in an experiment <ul style="list-style-type: none"> ■ Independent ■ Dependent ■ Constants ○ Creating a lab procedure ○ Analyzing results and making conclusions 	<ul style="list-style-type: none"> ➤ When the Earth Shakes <ul style="list-style-type: none"> ○ Watching Earthquakes happen ○ Models & Simulated Earthquakes ○ Designing Earthquake Resistant Structures ➤ Analyzing Earthquake Data <ul style="list-style-type: none"> ○ Testing the Motion of Waves ○ Recording Model Earthquakes ○ Reading a Seismogram ○ Locating the Epicenter ➤ Investigating Plate Movement <ul style="list-style-type: none"> ○ Plotting Earthquake Patterns ○ Examining Earth's Interior ○ Models of Plate Movement ○ Investigating Faults w/ Model 	<ul style="list-style-type: none"> ➤ Analyzing the Fossil Record <ul style="list-style-type: none"> ○ Molds, Casts & Excavating Models ○ Relative Ages of Fossils ○ Radioactive Dating ○ Organism Complexity ○ Fossil Storyline ➤ Distribution of Resources on Earth <ul style="list-style-type: none"> ○ Mapping Copper Deposits ○ Drilling for Resources ○ Researching Mineral Resources on Earth ➤ Evidence of a Dynamic Earth <ul style="list-style-type: none"> ○ Mountaintop Fossils ○ Interpreting Strata ○ Putting the Pieces Together ○ Mapping the SeaFloor ➤ Assessment: Earth's Dynamic Systems 	<ul style="list-style-type: none"> ➤ Magnetic Forces <ul style="list-style-type: none"> ○ Factors that Affect Magnetic Forces ○ Magnets at a Distance ➤ Newton's First and Second Laws <ul style="list-style-type: none"> ○ Observing the Motion of a Car ○ Observing the Acceleration of a Car ➤ Newton's Third Law <ul style="list-style-type: none"> ○ Kinetic & Potential Energy ○ Observing Gravitational Potential & Kinetic Energy ○ Analyzing Potential & Kinetic Energy ➤ Collisions <ul style="list-style-type: none"> ○ Observing Force Pairs ○ Applying Force Pairs to Move an Object

FIRST QUARTER (cont'd)	SECOND QUARTER (cont'd)	THIRD QUARTER (cont'd)	FOURTH QUARTER (cont'd)
<ul style="list-style-type: none"> ➤ Reviewing Science and Engineering Practice ➤ Reviewing Cross Cutting Concepts ➤ Assessment: How Scientists Work <p>Disciplinary Core Ideas: Matter & its Changes Review <i>NYSSLS: MS-PS1-2, 5 & 7; MS-PS 3-4; MS-ETS 1-3</i></p> <ul style="list-style-type: none"> ➤ Physical changes ➤ Chemical changes <ul style="list-style-type: none"> ○ Signs of change ○ Endothermic vs. Exothermic ➤ Law of Conservation of Matter <p>State Investigation: Cool It! (Late October)</p>	<ul style="list-style-type: none"> ➤ Cycling Matter & Energy <ul style="list-style-type: none"> ○ Plate Tectonics ○ The Rock CycleRock Classification ➤ Volcanoes: Building Up <ul style="list-style-type: none"> ○ Volcanic vs. Seismic Activity ○ Magma & New Landforms ○ Volcano Monitoring ○ Volcano Types ➤ Volcanoes: Eruption <ul style="list-style-type: none"> ○ New Landforms ○ Submarine Volcano ○ Investigating Ash Fall ○ Evaluating Volcanic Explosivity ➤ Changing Earth's Surface <ul style="list-style-type: none"> ○ Modeling Lahars ○ Slow Change: Modeling Wind Erosion ○ Modeling Water Erosion ○ Modeling Glacial Erosion 	<p>Disciplinary Core Ideas: Energy, Forces and Motion (Smithsonian Program ~ 50 Days) <i>NYSSLS: MS PS 2-1, 2-4; MS PS 3-1, 2 and 5; MS ETS 1, 2, 3 and 4</i></p> <ul style="list-style-type: none"> ➤ Pre-Assessment: Let's Get Moving <ul style="list-style-type: none"> ○ Colliding Objects ○ Construct & Use a Graph to Explain Motion ○ Model Energy in a Moving System ○ Down the Ramp ○ Design a Simple Rocket ➤ Force, Velocity, and Acceleration <ul style="list-style-type: none"> ○ Motion of a Ball ○ Investigating Forces ○ Mass & Speed ○ Listening for Speed ○ Measuring Gravitational Force 	<ul style="list-style-type: none"> ➤ Transforming Energy <ul style="list-style-type: none"> ○ Testing a Roller Coaster ○ Optimizing a Design Solution ➤ Assessment: Energy, Forces, and Motion <p>Final Exam Review</p>

Disciplinary Core Ideas:

Earth's Dynamic Systems

(Smithsonian Program ~90 Days)

NYSSLS: MS-ESS 1-4, MS-ESS

2-1, 2, and 3 ; MS ESS 3-1, 2;

MS-LS 4-1, MS-ETS 1-1, 2, 3, & 4

- **Pre-Assessment–Using models & data to identify locations of geologic processes & phenomena**

- Krakatau

- Burgess Shale

