

Science 8
2024-2025

Quarter 1	Quarter 2	Quarter 3	Quarter 4
<p>Standard: Earth's System - MS-ESS1-4; MS-ESS2-1, 2, 3 and MS-ESS3-1, 2</p> <p>Plate Tectonics</p> <ul style="list-style-type: none"> • Earth's layers incl. lithosphere and asthenosphere • Seafloor spreading • Continental drift • Mid-ocean ridge • Pangaea <p>Earthquakes</p> <ul style="list-style-type: none"> • Faults • Seismic waves • Epicenters • Richter and Modified Mercalli scales • Plate boundaries <p>Volcanoes</p> <ul style="list-style-type: none"> • Types of volcanoes • Magma, lava, tephra • Ring of Fire <p>Clues to Earth's Past</p> <ul style="list-style-type: none"> • Fossils & fossil formation • Relative ages • Superposition • Absolute dating <p>Geologic Time</p> <ul style="list-style-type: none"> • Eons, eras, periods, epochs • Divisions in geologic time • Precambrian time • Paleozoic, Mesozoic, Cenozoic Eras <p>Standard: Space Systems - MS-ESS1-1, 2, 3</p> <p>The Sun-Earth-Moon Systems</p> <ul style="list-style-type: none"> • Hydrosphere and atmosphere • Seasons, day/night • Features and phases of the moon • Eclipses • Space flight and exploration 	<p>Standard: Weather and Climate - MS-ESS2-4, 5, 6; MS-PS3-4, MS-ESS3-2, 4, 5; ETS1-1, 2; PS3-4</p> <p>Weather and Climate Systems (Smithsonian program ~46 days)</p> <ul style="list-style-type: none"> • Warming Earth's Surface • Water cycle • Air masses • Wind and air pressure • Ocean currents • Storms • Predicting weather* • Tracking severe storms • Climate and climate change <p>State Investigation: How's the Weather Up There? (December)</p> <p>Standard: Space Systems - MS-ESS1-1, 2, 3</p> <p>The Solar System</p> <ul style="list-style-type: none"> • Geocentrism and heliocentrism • Features of inner and outer planets • Asteroids and comets • Meteoroids, meteors, meteorites 	<p>Standard: Structure and Properties of Matter - MS-PS1-1, 3, 4, 7, 8</p> <p>Inside the Atom</p> <ul style="list-style-type: none"> • Subatomic particles • Atomic structure and theory • Atomic number, mass number, and atomic mass • Radioactive decay <p>The Periodic Table</p> <ul style="list-style-type: none"> • Atoms & energy • Organization • Metals, nonmetals, metalloids • Lanthanides and actinides • Noble gases <p>Atomic Structure and Chemical Bonds</p> <ul style="list-style-type: none"> • Physical and chemical changes • Electron models, energy levels, diagrams • Ionic and covalent bonds <p>Standard: Chemical Reactions - MS-PS1-2, 5, 6</p> <p>Chemical Reactions</p> <ul style="list-style-type: none"> • Synthesis and decomposition • Speed of reactions • Endothermic and exothermic reactions • Solubility <p>State Investigation: All Mixed Up (April)</p>	<p>Standard: Waves and Electromagnetic Radiation MS-PS4-1, 2, 3; MS-PS3-6</p> <p>Electricity</p> <ul style="list-style-type: none"> • Electric charges and currents • Circuits • Ohm's Law <p>Magnetism</p> <ul style="list-style-type: none"> • Magnetic fields • Geologic and magnetic north • Electricity and magnetism <p>Waves</p> <ul style="list-style-type: none"> • Types and behavior of waves • Amplitude and frequency • Reflection and refraction <p>Review for NYS Assessment</p> <ul style="list-style-type: none"> • Microscopes • Classification • Heredity • Human organ systems • Rock cycle • Mineral identification • Reading graphs • Using formulas