

Science 8 2023-2024

Quarter 1	Quarter 2	Quarter 3	Quarter 4
<p>Standard: Structure and Properties of Matter - MS-PS-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>State Investigation: All Mixed Up (October)</p> <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-PS-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: Cool It! (December)</p>	<p>Standard: Weather and Climate - MS-ESS2-4, 5, 6, MS-PS3-4, MS-ESS3-2, 4, 5</p> <p>Weather and Climate Systems (Smithsonian program ~46 days)</p> <ul style="list-style-type: none"> Warming Earth's surface The water cycle, cloud formation, 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?* (February)</p>	<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 Earth in space: seasons, day/night Features and phases of the moon Solar and lunar eclipses Space flight and exploration <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: 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 Earthquakes and seismic waves Epicenters and triangulation 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>Standard: Waves and Electromagnetic Radiation - MS-PS4-1, 2, 3</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 <p>State Investigation: It's Alive! (April)</p> <ul style="list-style-type: none"> Classification Heredity Human organ systems Topographic maps Rock cycle Mineral identification Reading graphs Using formulas