

# MCS Grade 6 Science Curriculum Map

	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
<b>Lab</b>	<ol style="list-style-type: none"> <li>1. Calculate Mass &amp; Volume</li> <li>2. Chemical Reactions</li> <li>3. Compounds &amp; Elements</li> <li>4. Acids &amp; Bases</li> </ol>	<ol style="list-style-type: none"> <li>1. Physical &amp; Chemical Weathering</li> <li>2. Erosion</li> <li>3. Soil Formation</li> </ol>	<ol style="list-style-type: none"> <li>1. Law of Conservation of Energy</li> <li>2. Converting Energy</li> </ol>	<ol style="list-style-type: none"> <li>1. Air Movement</li> <li>2. Air Pressure</li> <li>3. Atmospheric Pressure &amp; temperature</li> </ol>
<b>Content</b>	<i>Properties of Matter</i>	<i>Weathering &amp; Erosion</i>	<i>Kinetic &amp; Potential Energy</i>	<i>Atmosphere</i>
<b>Skills &amp; Topics</b>	<ul style="list-style-type: none"> <li>• explain the difference between an element and a compound by measuring mass and volume</li> <li>• determine the identity of an unknown substance by observing its mass &amp; volume</li> <li>• distinguish between an element &amp; a compound by calculating density &amp; observing chemical reactions</li> <li>• identify properties of elements</li> <li>• explain how the pH scale works in compounds</li> </ul>	<ul style="list-style-type: none"> <li>• explain how physical &amp; chemical weathering are different</li> <li>• explain how physical/chemical weathering combine to weather rocks</li> <li>• distinguish between mechanical and chemical weathering</li> <li>• discuss the following agents of erosion: gravity, glaciers, wind, and water</li> <li>• determine what factors increase or decrease erosion</li> <li>• distinguish the different components of soil &amp; how they differ from each other</li> </ul>	<ul style="list-style-type: none"> <li>• discuss the transfer of potential energy to kinetic energy &amp; how it relates to the Law of Conservation of Energy</li> <li>• explain how one form of energy be converted to another</li> </ul>	<ul style="list-style-type: none"> <li>• discuss the impact of air as it is heated and cooled</li> <li>• explain changes in the temperature of air &amp; its density</li> <li>• explain causes of air movement</li> <li>• distinguish the differences in the temperature of the Earth's atmosphere &amp; its' affect of the movement of air</li> <li>• explain causes of areas of high and low pressure</li> <li>• explain the cause of wind</li> <li>• weather tools</li> <li>• describe factors that are necessary for precipitation to form along fronts</li> <li>• explain changes in atmospheric pressure that occur with the passing of a cold or warm front</li> </ul>
<b>Terms</b>	matter; element; compound; physical property; density; solubility; miscibility; pH	Physical weathering; chemical weathering; rocks; minerals; erosion; soil	Law of Conservation of Energy; kinetic energy; potential energy; gravitational potential energy; electrical potential energy; chemical potential energy	Density; atmosphere; Charles Law; Troposphere; atmospheric pressure; high/low pressure; barometric pressure; barometer; pressure gradient force; isobar; wind; air mass; front; cold/warm front; evaporation; condensation; precipitation
<b>Projects</b>		<i>Plant Experiment Project</i>		

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	<b>January-February</b>	<b>March- April</b>	<b>May-June</b>
<b>Lab</b>	<p>1. <i>Seasonal Changes</i></p> <p>2. <i>Lunar Phases</i></p> <p>3. <i>Orbital Movements</i></p>	<i>Simple Machines &amp; Forces</i>	<i>Solubility &amp; Concentration Points</i>
<b>Content</b>	<i>Moon &amp; Space</i>	<i>Simple Machines</i>	<i>Solutes &amp; Solubility</i>
<b>Skills &amp; Topics</b>	<ul style="list-style-type: none"> <li>discuss the causes of changes in day and night on the Earth</li> <li>explain the causes of changes in seasons in the Northern and Southern Hemispheres</li> <li>describe the different Lunar Phases</li> <li>explain the causes of orbit of the planets around the Sun and the Moon and the Earth</li> <li>explain the importance in maintaining the orbit of the planets and the Moon</li> </ul>	<ul style="list-style-type: none"> <li>explain how simple machines change the force needed to lift a load</li> <li>distinguish how mechanical advantage relates to effort and load forces</li> <li>explain how simple machines change the force needed to lift a load</li> <li>distinguish the relationship between the fulcrum, effort and load &amp; how it affects the force needed to lift a load</li> <li>explain how mechanical advantage relates to effort and load forces and the lengths of effort and load arms</li> <li>How can simple machines change the force needed to lift a load</li> <li>How does the relationship between the fulcrum, effort, and load effect the force needed to lift a load</li> <li>How does mechanical advantage relate to effort and load forces and the lengths of effort and load arms</li> </ul>	<ul style="list-style-type: none"> <li>describe what affects the solubility of a solute</li> <li>distinguish the relationship between the concentration of a solution and saturation point of a solute</li> <li>determine the rate of solubility of a solute and how it can be changed</li> </ul>
<b>Terms</b>	Rotation; orbit; revolution; gravitational force; Newton's First Law of Motion; force; Lunar phases; new moon; crescent moon	Force; Load force; Load distance; Effort force; Effort distance; Work; Joule (J); Mechanical advantage; Effort arm; load arm	Solution; Solute Solvent; dissolve; Soluble; Concentration; Solubility; Saturation point
<b>Projects</b>	<i>Lunar Observation Log</i>	<i>Vehicle Race</i>	