

MCS Grade 6 Science Curriculum Map

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

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	January-February	March- April	May-June
Lab	<ol style="list-style-type: none"> 1. <i>Seasonal Changes</i> 2. <i>Lunar Phases</i> 3. <i>Orbital Movements</i> 	<i>Simple Machines & Forces</i>	<i>Solubility & Concentration Points</i>
Content	<i>Moon & Space</i>	<i>Simple Machines</i>	<i>Solutes & Solubility</i>
Skills & Topics	<ul style="list-style-type: none"> • discuss the causes of changes in day and night on the Earth • explain the causes of changes in seasons in the Northern and Southern Hemispheres • describe the different Lunar Phases • explain the causes of orbit of the planets around the Sun and the Moon and the Earth • explain the importance in maintaining the orbit of the planets and the Moon 	<ul style="list-style-type: none"> • explain how simple machines change the force needed to lift a load • distinguish how mechanical advantage relates to effort and load forces • explain how simple machines change the force needed to lift a load • distinguish the relationship between the fulcrum, effort and load & how it affects the force needed to lift a load • explain how mechanical advantage relates to effort and load forces and the lengths of effort and load arms • How can simple machines change the force needed to lift a load • How does the relationship between the fulcrum, effort, and load effect the force needed to lift a load • How does mechanical advantage relate to effort and load forces and the lengths of effort and load arms 	<ul style="list-style-type: none"> • describe what affects the solubility of a solute • distinguish the relationship between the concentration of a solution and saturation point of a solute • determine the rate of solubility of a solute and how it can be changed
Terms	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
Projects	<i>Lunar Observation Log</i>	<i>Vehicle Race</i>	