

St. Leo School 6<sup>th</sup> Grade Earth Science Curriculum Map

Month	Content	Skills	Next Generation and KY and Louisville Stand
<b>August/ September</b>	Geologic Time	<ul style="list-style-type: none"> <li>• Develops a general concept Earth’s age</li> <li>• Understands fossils and how formed</li> <li>• Finds ways scientists use to determine age of rocks</li> <li>• Describes the geologic time scale and why it is used</li> <li>• Identifies characteristics of geologic time eras and periods</li> <li>• Identifies major events in Earth’s history</li> <li>• Describes the major developments of life on Earth</li> </ul>	MS-ESS1-4 SC-8-EU-U-1 SC-8-BC-U-1 SC-7-BC-U-3 AE 2.1 – 2.6
<b>September/ November</b>	Geology General Study	<ul style="list-style-type: none"> <li>• Describes the main characteristics of the earth’s layers.</li> <li>• Describes the activities of plate tectonics.</li> <li>• Interprets diagrams representing the earth’s interior structure.</li> <li>• Describes the theory of continental drift, including Pangaea.</li> <li>• The characteristics of continental plates and oceanic plates</li> <li>• Identifies and describes types of plate movement and structures that are formed</li> <li>• Describes the different forms of mountain building as related to plate tectonics and faults</li> </ul>	MS-ESS2-1 MS-ESS2-2 SC-7-EU-U-4 SC-7-EU-U-5 SC-8-EU-U-2 SC-8-EU-U-3 AE 2.1 – 2.6
<b>December</b>	Volcanoes	<ul style="list-style-type: none"> <li>• Identifies the three different types of volcanoes</li> <li>• Describes the different forms of eruptions and the lava associated with each</li> <li>• Lists the characteristics of volcanic materials</li> <li>• Describes the effects of volcanic activity on the environment.</li> <li>• Describes the relationship between volcanic activity, earthquakes and mountain building.</li> </ul>	MS-ESS2-2 SC-6-EU-U-3 AE 2.1 – 2.6
<b>December</b>	Earthquakes	<ul style="list-style-type: none"> <li>• Describes the main causes of earthquakes                             <ul style="list-style-type: none"> <li>• Describes the relationship between earthquakes and oceanic wave action.</li> <li>Identifies three types of seismic waves</li> </ul> </li> <li>• Describes how seismographs measure and record intensities of earthquakes</li> <li>• Knows ways of measuring the intensities of earthquakes</li> <li>• Describes how the study of earthquakes provides information about the structure of the earth’s interior.</li> </ul>	MS-ESS2-2 SC-8-EU-S-2 SC-8-EU-3 AE 2.1 – 2.6
<b>January</b>	Minerals	<ul style="list-style-type: none"> <li>• Describes characteristics and properties common to minerals.</li> </ul>	MS-ESS2-1

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		<ul style="list-style-type: none"> <li>• Knows structural characteristics by which minerals are classified and named.</li> <li>• Identifies minerals by testing their chemical and physical properties.</li> </ul>	AE 2.1 – 2.6
<b>January</b>	Rocks	<ul style="list-style-type: none"> <li>• Describes the rock cycle</li> <li>• Identifies main characteristics of igneous, sedimentary and metamorphic rocks</li> <li>• Describes how igneous, sedimentary and metamorphic rocks are formed.</li> <li>•</li> </ul>	MS-ESS2-1 SC-6-EU-U-2 AE 2.1 – 2.6
<b>February/ March</b>	Oceanography	<ul style="list-style-type: none"> <li>• Understands oceanography as the study of ocean life forms</li> <li>• Knows some historic and current contribution of oceanographers and institutions to the field of oceanographic research</li> <li>• Identifies topographical features on the ocean floor that are similar to those on land.</li> <li>• Describes the main characteristics of major structures of ocean basins (e.g., rises, abyssal plains, trenches, etc.)</li> <li>• Describes the relationships between currents, sediments, and structures of ocean basins</li> <li>• Describes the influence that oceans have on temperature and climate of the earth.</li> <li>• Describes the effects of the major ocean currents on the climate and topography of adjacent land masses</li> <li>• Describes the common characteristics, which distinguish seawater from fresh water.</li> <li>• Identifies the major layers of ocean water and ocean zones.</li> <li>• Describes characteristics of ocean zones and adaptations of life forms for different zones.</li> <li>• Defines a thermocline</li> <li>• Identifies the main causes of ocean waves.</li> <li>• Identifies the forces, which are responsible for tides on the earth.</li> </ul>	MS-ESS2-3 MS-ESS2-4 MS-ESS2-5 MS-ESS2-6 AE 2.1 – 2.6
<b>April/ May</b>	Seasons Day (rotation) Year (revolution) Tides Stars	<ul style="list-style-type: none"> <li>• The gravitational pull of the sun and moon on Earth's oceans are major cause of tides</li> <li>• Model how Earth's tilt on its axis and its revolution around the sun creates seasons.</li> <li>• Construct a model a constellation.</li> <li>• Investigate phenomena on Earth's surface caused by the sun's energy.</li> </ul>	MS-ESS1-1 MS-ESS1-2 MS-ESS1-3 MS-ESS1-4 MS-ESS2-4

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	Constellations Sun Galaxies	<ul style="list-style-type: none"> <li>• Design and conduct an experiment to show how seasons are caused by the tilt of the Earth’s axis.</li> <li>• Describe chemical composition of Sun</li> <li>• Identify characteristics of different types of stars</li> <li>• Explain the life of a star</li> <li>• Identify characteristics of different types of galaxies</li> </ul>	MS-ESS2-6 SC-6-EU-U-1 SC-7-EU-U-1 SC-7-EU-U-2 AE 2.1 – 2.6	
<b>September – December</b>	<b>Develops skills used in gathering, organizing, analyzing and applying information and or concepts</b>	<ul style="list-style-type: none"> <li>• Observes objects and phenomena</li> <li>• Identifies, describes and classifies the properties of objects and phenomena</li> <li>• Uses common materials appropriately for laboratory experiments or demonstrations</li> <li>• Knows the standard units of measurement in both the metric and English units</li> <li>• Measures the size, mass and volume of objects</li> <li>• Recognizes cause and effect relationships</li> <li>• Uses scientific method                             <ul style="list-style-type: none"> <li>- Makes inferences</li> <li>- Forms hypotheses</li> <li>- Determines procedures</li> <li>- Follows procedures</li> <li>- Control Variables</li> <li>- Collects and records data</li> <li>- Reports data graphically</li> <li>- Interprets data, graphs, tables etc.</li> <li>- Estimates results</li> <li>- Predicts outcomes</li> <li>- Draws conclusions</li> <li>- Makes deductions</li> <li>- Makes generalizations from obtained data</li> <li>- Organizes information in a written form</li> </ul> </li> </ul>	Completes and Science Fair project following the scientific method.  Completes various lab assignments.	MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4 AE 2.1 – 2.6

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