



## Eighth Grade Science Scope & Sequence

Grading Period	Focus TEKS (R) Readiness (S) Supporting	Learning Targets
<b>Throughout the School Year</b>		<ul style="list-style-type: none"><li>● Demonstrate safe practices during laboratory and field investigations.</li><li>● Design investigations.</li><li>● Collect &amp; record data.</li><li>● Summarize data in writing, and/or using tables and graphs.</li><li>● Develop valid conclusions based on evidence.</li><li>● Analyze and use models to represent aspects of the natural world.</li></ul>
<b>First Grading Period</b>	<ul style="list-style-type: none"><li>● Ecology</li><li>● Sun, Earth Moon System</li><li>● Weather/Climate</li></ul>	<ul style="list-style-type: none"><li>● Interdependence between living organisms and the environment. Human dependence on living systems (ocean). Affect of human activities on the environment</li><li>● Explain the role of gravity in the sun, earth, moon system. Explain how the Earth's revolution and tilt causes the seasons. The role of the moon and sun in causing the tides. Explain the cause of solar and lunar eclipse. How the Earth's rotation causes the day/night cycle. Explain the moon phases.</li><li>● Role of convection currents &amp; coriolis effect in forming major air and ocean currents. Read weather maps and use them to predict weather. Analyze different pressure systems and explain the role of fronts in causing weather. Describe the factors that shape global and regional climate (El Nino/La Nina).</li></ul>

<p><b>Second Grading Period</b></p>	<ul style="list-style-type: none"> <li>● Plate Tectonics</li>   <li>● Atomic Structure</li> </ul>	<ul style="list-style-type: none"> <li>● Evidence of the theory of plate tectonics. Land features and catastrophic events associated with plate boundaries. Role of convection currents in plate movement. Use and interpret topographic maps and satellite images. Explain and predict how erosion shapes land features.</li> <li>● Describe the structure of atoms – masses, charges, and location of subatomic particles. Identify that protons determine an atoms identity, and valence electrons determine an atoms chemical properties.</li> </ul>
<p><b>Third Grading Period</b></p>	<ul style="list-style-type: none"> <li>● Chemistry</li>   <li>● Force &amp; Motion</li> </ul>	<ul style="list-style-type: none"> <li>● Interpret the arrangement and trends of the periodic table. Use and interpret chemical formulas. Identify balanced equations, and relate to the law of conservation of mass. Investigate evidence of chemical reactions that indicate that new substances are formed. Identify that products of chemical reactions have new properties.</li> <li>● Newton’s 3 Laws. Calculate speed. Demonstrate and calculate how unbalanced forces affect motion. Differentiate between speed, velocity and acceleration.</li> </ul>
<p><b>Fourth Grading Period</b></p>	<ul style="list-style-type: none"> <li>● Electromagnetic Spectrum</li>   <li>● Astronomy</li> </ul>	<ul style="list-style-type: none"> <li>● Use knowledge of the EMS to evaluate properties of the universe.</li> <li>● Use the HR Diagram to classify stars. Describe the evolution of stars. Classify the different components of he universe. Cite evidence related to the big bang theory. Explain the historical development of theories of the universe. Explain our solar system and its location in the milky way galaxy.</li> </ul>