

Earth and Space Science * Quick Reference Pacing Guide * 2024-2025

***Note: This document is meant to be a quick reference of the standards covered each nine weeks.**

For a complete description of the course, standards and detailed performance objectives,

see the [MS College and Career Readiness Standards for Science](#)

1st Term: Aug. 1 - Oct. 4 <i>July 25-26;29-31 - Staff Development Aug. 1 - First Day of School Sept 2 -Labor Day/Holiday Oct. 7-11 - School Holiday/Fall Break Oct. 14 - Staff Development</i>	2nd Term: Oct. 15 - Dec. 20 <i>Nov. 25-29 - Thanksgiving Break Dec. 16 - 20 - Exams Dec. 20 - Reduced Day Dec. 23 - Jan. 3 - Christmas Break</i>	3rd Term: Jan. 7 - Mar 7 <i>Jan. 6 - Staff Development Jan. 7 - Students Return Jan. 20 - MLK Day/Holiday Feb. 17 - Presidents' Day/Holiday March 10 - 14 - Spring Break</i>	4th Term: March 17 - May 23 <i>April 18, 21 - Easter/Holiday *STATE TESTING Window opens mid-April* May 19-23 - Exams May 23 - Reduced Day May 23 - Last Teacher Day</i>
<p>Scientific Method Science and Engineering Practices Lab Safety; Tools of Science Measurement/Graphing <i>* These scientific skills and concepts should be incorporated into units throughout the year and not just taught in isolation.</i></p> <p>Earth and the Universe</p> <p>ESS.1A Students will develop an understanding of the universe, its development, immense size, and composition. <i>(Big bang theory, formation of the universe, Herzprung-Russell diagram, stars, star life cycle, nuclear fusion in stars, formation of elements)</i></p> <p>ESS.1B Students will develop an understanding of Earth, the solar system, and the laws that predict the motion of celestial bodies. <i>(solar nebular their, celestial bodies, orbits, revolution, rotation, Kepler's law, Newton's laws)</i></p>	<p>Earth Structure and History</p> <p>ESS.2.A Students will develop an understanding of the structure and composition of Earth and its materials. <i>(Earth's internal layers, Earth's physical divisions, physical and chemical properties of rocks and minerals, rock types, rock cycle, etc.)</i></p> <p>ESS.2.B Students will develop and understanding of the history and evolution of the earth. <i>(Contributions of scientists Smith, Hutton, Steno, Lyell; relative age; absolute age; geological features, plate tectonics, sea floor spreading, earthquake activity volcanic activity, mountain building; weathering</i></p>	<p>Earth's System and Cycles</p> <p>ESS.3 Students will develop an understanding of Earth's systems and cycles. <i>(day/night cycles, distribution of sunlight, seasons; physical and chemical properties of ocean water; ocean circulation; thermal energy transfer; water cycle; weather; climate change; major changes that shaped Earth's systems; rock/fossil record as evidence for share ancestry, evolution and extinction</i></p>	<p>Earth's Resources and Human Activity</p> <p>ESS.4 Students will develop an understanding of Earth's resources and the impact of human activities. <i>(human impacts on Earth's systems; natural hazards, geologic events; natural resources)</i></p>