

6th Grade Honors Syllabus

Course Description/Goals:

In Middle School Science, students build on prior knowledge through hands-on exploration and critical thinking as they investigate natural phenomena across life, Earth, and physical science. Students engage in 3D science instruction, integrating science and engineering practices, crosscutting concepts, and disciplinary core ideas. Through the 5E instructional model, students ask questions, plan and conduct investigations, and design solutions to real-world problems. Honors courses emphasize student-led learning and inquiry-based investigations that promote higher-order thinking. These courses explore core topics in greater depth, providing enriched background knowledge to prepare students for high school science or, at the high school level, advanced courses such as AP. Differentiated instruction and assessments challenge students to apply their understanding in complex, authentic contexts, fostering independence and deeper engagement with scientific ideas.

Course TEKS/Objectives:

The 6th Grade Science TEKS are organized into reporting categories that reflect key areas of scientific understanding. These include: Matter and Energy; Force, Motion, and Energy; Earth and Space; and Organisms and Environments. Students explore properties of matter, changes in energy, Newton’s Third Law, and energy conservation in systems. Earth and space concepts include the rock cycle, tides, Earth’s layers, and natural resource management. Life science topics focus on ecosystems, cell theory, and the role of structural and behavioral variations in species survival. Across all topics, students engage in scientific and engineering practices to investigate questions, analyze data, and model real-world systems. Each category contains specific standards (TEKS) that students are expected to master and can be [referenced here](#).

Course Outline:

Semester 1	Semester 2
<ul style="list-style-type: none">-Comparing States of Matter and Physical Properties-Metals, Nonmetals, and Metalloids-Identifying Chemical Change-Exploring Forces- Types and Measuring- Energy	<ul style="list-style-type: none">-Earth-Sun-Moon System-Earth’s Structure-Managing Earth’s Resources-Introduction to Living Things-Organisms and Ecosystems