

6th Grade 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, which integrates 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. Across the three years, students study topics such as matter and energy, force and motion, Earth systems, space, ecosystems, and the structure and function of organisms. Emphasis is placed on analyzing data, building and using models, and developing evidence-based explanations that reflect the nature and processes of science.

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

