

This course is designed to provide students with the advanced skills necessary to apply science concepts to their everyday life. Along with being able to ask questions and solve problems, students are able to collect and organize data, and draw conclusions based on their findings. While much of the focus is on physical science, the course is built on the following strands: scientific investigations and reasoning; matter and energy; force, motion, and energy; earth and space; and organisms and environment. In advanced science, students will engage in inquiry-based science in designing and conducting their own investigations, learning to use and develop critical thinking skills, and using problem-solving skills. Texas Essential Knowledge and Skills for Grade 6 Science [§112.18. Science, Grade 6, Adopted 2017](#)

Introduction to Science/Safety
Interactions in an Environment
Prokaryotic & Eukaryotic Cells
Classifications of Organisms

Elements and Compounds
Formation of a New Substance
Metals, Nonmetals & Metalloids
Density

Potential and Kinetic Energy
Changes in Force & Motion
Inclined Planes

Thermal Energy
Energy Transformations
Energy Resources
Space: Gravity