

Grade 8

Earth science is the core of the eighth grade program. Students study selected topics from meteorology, astronomy, and geology to learn about the earth's systems. Through the study of earth and space, students recognize the interconnected nature of the earth's four major systems: the geosphere, hydrosphere, atmosphere, and biosphere.

Studies of earth's systems integrate previously or simultaneously gained understandings in physical and life science with the physical environment. Energy transfer in the systems is a common component of many of these topics. Another is the cycling of matter, how the physical properties of matter change, and even the chemical properties, which leads to different interactions in the Earth system over time. Thus, there are many physical science concepts presented during the year. Students learn about the nature and interactions of oceans and the atmosphere, and of earth processes, including plate tectonics, changes in topography over time, and the place of Earth in the universe. They should begin to see how Earth's movement affects both the living and nonliving components of the world. Attention shifts from the properties of particular objects toward an understanding of the place of Earth in the solar system and changes in the earth's composition and topography over time.



Students engage in science as a process of inquiry; making observations, asking questions, doing research, making a hypothesis/inference, designing an experiment, analyzing results, making new inferences, and communicating those ideas. There is emphasis on developing proper lab skills, mapping skills, and problem solving strategies. Keeping accurate and organized records is emphasized. Activities

Grade Level Overview

provide opportunities for experimentation and problem solving and increase students' awareness of the impact of factors such as weather, location and topography on organisms.

Middle school students grapple with the importance and methods of obtaining direct and indirect evidence to support current thinking. They recognize that new technologies and observations change our explanations about how things in the natural world behave.

