



## EARTH SCIENCE

The main intent of science instruction in Davis School District is that students will value and use science as a process of obtaining knowledge based upon observable evidence. The Intended Learning Outcomes (ILOs) describe the skills and attitudes student should learn and demonstrate as a result of science instruction.

### Intended Learning Outcomes

- a. Use Science Process and Thinking Skills
- b. Manifest Scientific Attitudes and Interests
- c. Demonstrate Understanding of Science Concepts and Principles
- d. Communicate Effectively Using Science Language and Reasoning
- e. Demonstrate Awareness of Social and Historical Aspects of Science
- f. Demonstrate Understanding of the Nature of Science

**Students will understand the scientific evidence that supports theories that explain how the universe and the solar system developed. They will compare Earth to other objects in the solar system.**

- a. Describe both the big bang theory of universe formation and the nebular theory of solar system formation and evidence supporting them.
- b. Analyze Earth as part of the solar system, which is part of the Milky Way galaxy.

**Students will understand the atmospheric processes that support life and cause weather and climate.**

- a. Relate how energy from the Sun drives atmospheric processes and how atmospheric currents transport matter and transfer energy.
- b. Describe elements of weather and the factors that cause them to vary from day to day.
- c. Examine the natural and human-caused processes that cause Earth's climate to change over intervals of time ranging from decades to millennia.

**Students will understand the dynamics of the hydrosphere.**

- a. Characterize the water cycle in terms of its reservoirs, water movement among reservoirs and how water has been recycled throughout time.
- b. Analyze the characteristics and importance of freshwater found on Earth's surface and its effect on living systems.



## DAVIS ESSENTIAL SKILLS AND KNOWLEDGE

- c. Analyze the physical, chemical, and biological dynamics of the oceans and the flow of energy through the oceans.

### Students will understand how Earth science interacts with society.

- a. Characterize Earth as a changing and complex system of interacting spheres.
- b. Describe how humans depend on Earth's resources.
- c. Indicate how natural hazards pose risks to humans.