

3501.0935 GRADE 7 STANDARDS.**Subpart 1. The nature of science and engineering.**

A. The practice of science. The student will understand that science is a way of knowing about the natural world and is characterized by empirical criteria, logical argument, and skeptical review.

B. The practice of science. The student will understand that scientific inquiry uses multiple interrelated processes to investigate questions and propose explanations about the natural world.

C. Interactions among science, technology, engineering, mathematics, and society. The student will understand that current and emerging technologies have enabled humans to develop and use models to understand and communicate how natural and designed systems work and interact.

Subp. 2. **Physical science; matter.** The student will understand that the idea that matter is made up of atoms and molecules provides the basis for understanding the properties of matter.

Subp. 3. Life science.

A. Structure and function in living systems. The student will understand that tissues, organs, and organ systems are composed of cells and function to serve the needs of all cells for food, air, and waste removal.

B. Structure and function in living systems. The student will understand that all organisms are composed of one or more cells which carry on the many functions needed to sustain life.

C. Interdependence among living systems. The student will understand that natural systems include a variety of organisms that interact with one another in several ways.

D. Interdependence among living systems. The student will understand that the flow of energy and the recycling of matter are essential to a stable ecosystem.

E. Evolution in living systems. The student will understand that reproduction is a characteristic of all organisms and is essential for the continuation of a species. The student will understand that hereditary information is contained in genes which are inherited through asexual or sexual reproduction.

F. Evolution in living systems. The student will understand that individual organisms with certain traits in particular environments are more likely than others to survive and have offspring.

G. Human interactions with living systems. The student will understand that human activity can change living organisms and ecosystems.

H. Human interactions with living systems. The student will understand that human beings are constantly interacting with other organisms that cause disease.

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