

Grade 7 Science Standards and Benchmarks Confirmed

Standard 3: Students will understand the composition and structure of the universe and the Earth's place in it.

Benchmarks:

- 3.1 Students will know that the scale and structure of the Solar System relates to the scale and structure of the Milky Way galaxy.
- 3.2 Students will know that seasonal patterns emerge as the Earth orbits the Sun.
- 3.3 Students will know that discoveries made by Earth space probes help them to investigate components of the Solar system.
- 3.4. Students will know about the composition and life span of stars and the big bang theory.

Standard 4: Students will understand the principles of heredity and related concepts

Benchmarks:

- 4.1. Students will know that reproduction is a characteristic of all living things and is essential for the continuation of a species.
- 4.2. Students will know that for sexually reproducing organisms, a species comprises all organisms that can mate with one another to produce fertile offspring.
- 4.3. Students will know that multicellular organisms have a variety of specialized cells, tissues, organs, and organ systems that perform specialized functions.

Standard 8: Understands the structure and properties of matter.

- 8.1 Students will understand what factors bring about change within a solution.
- 8.2 Students will understand how water interacts with the earth and its organisms to produce a solution.
- 8.3. Students will understand how the size of particles is related to the formation of solutions.

Grade 7 Science Standards and Benchmarks Confirmed

Standard 10: Understands forces and motion.

Benchmarks:

- 10.1 Students will know that forces interact and will be able to point out these interactions using the concept of motion.
- 10.2 Students will understand that force can be measured and how the motion of objects demonstrates stability.
- 10.3 Students will understand the causes and the effects of friction and ways to reduce it.
- 10.4 Students will understand Newton's first law of motion as well as the concepts of inertia and forces in pairs.

Standard: 12 - Understands the nature of scientific inquiry

Benchmarks:

- 12.1 Students will design and conduct a scientific investigation.
- 12.2. Students will use appropriate tools to gather, analyze, and interpret scientific data.