

U. S. Curriculum Correlations by State

Delaware

Grades 9-12

Solar System Models

1. The Solar System is a very small part of a constantly changing Universe. Stars, including the Sun, appear to go through cycles that are characterized by birth, development, and death. Existence of gas and dust around nearby stars supports the theory that planetary systems continue to evolve.
2. The stars in the Milky Way Galaxy are separated by vast distances. Although it takes light from the Sun eight minutes to reach the Earth, it takes the light from the next nearest star four years to reach Earth. Light which reaches Earth from distant galaxies is millions of years old and is actually a view of the past.
3. The distance from the center of the nebula to points of condensation determined the position of the planets in the Solar System. The masses of the condensed protoplanets determined which elements were retained, as well as the their physical state.
4. The tilt of the Earth's axis relative to its orbital plane does not change as the Earth orbits the Sun during a year. Seasonal variations of the apparent path of the Sun through the sky determine how directly the Sun's rays strike and warm different areas of the Earth.

Interactions in the Solar System

1. Gravitation pulls planets toward the Sun balancing each planet's energy of motion. The gravitational pull of the Sun and Moon determine the times for high tides and the intensity of these tides on Earth.
2. Solar energy radiates through space and is distributed on Earth by radiation, conduction, and convection. Energy transfer powers atmospheric and oceanic circulation.

Technology and Application

1. Space exploration expands our knowledge of the Universe and advances the technological sophistication of society.

Starry Night Lesson Plans

In order of relevance

F3 G2 H1 H2 H3

G1 G2 I1 H1 H2 H3 B2

B1 B2 C1 F3

A2

C2 A3

F1 F2 I1 I2

I1 I2 H1 H2 H3