

U.S. Curriculum Correlations by State

South Carolina

South Carolina Grade 8

Standard 8-1: The student will demonstrate an understanding of technological design and scientific inquiry, including process skills, mathematical thinking, controlled investigative design and analysis, and problem solving.

8-1.1 Design a controlled scientific investigation.

8-1.2 Recognize the importance of a systematic process for safely and accurately conducting investigations.

8-1.3 Construct explanations and conclusions from interpretations of data obtained during a controlled scientific investigation.

8-1.4 Generate questions for further study on the basis of prior investigations.

8-1.5 Explain the importance of and requirements for replication of scientific investigations.

8-1.6 Use appropriate tools and instruments (including convex lenses, plane mirrors, color filters, prisms, and slinky springs) safely and accurately when conducting a controlled scientific investigation.

8-1.7 Use appropriate safety procedures when conducting investigations.

Standard 8-2: The student will demonstrate an understanding of Earth's biological diversity over time. (Life Science, Earth Science)

8-2.3 Explain how Earth's history has been influenced by catastrophes (including the impact of an asteroid or comet, climactic changes, and volcanic activity) that have affected the conditions on Earth and the diversity of its life-forms.

Starry Night Lesson Plans

In order of relevance

These over-arching science process objectives are embedded, as appropriate, within all of Starry Night's hands-on activities, computer exercises, and SkyGuide tutorials.

D3 D2

U.S. Curriculum Correlations by State

South Carolina Continued

Standard 8-4: The student will demonstrate an understanding of the characteristics, structure, and predictable motions of celestial bodies. (Earth Science)

8-4.1 Summarize the characteristics and movements of objects in the Solar System (including planets, moons, asteroids, comets, and meteors).

Starry Night Lesson Plans
In order of relevance

A1 A2 A3 A4 A5 B1 B2 C1 C2 C3

8-4.2 Summarize the characteristics of the surface features of the Sun: photosphere, corona, sunspots, prominence, and solar flares.

F2 F1

8-4.3 Explain how the surface features of the Sun may affect Earth.

F2

8-4.4 Explain the motions of Earth and the Moon and the effects of these motions as they orbit the Sun (including day, year, phases of the Moon, eclipses, and tides).

A1 A2 A3

8-4.5 Explain how the tilt of Earth's axis affects the length of the day and the amount of heating on Earth's surface, thus causing the seasons of the year.

A2 E3

8-4.6 Explain how gravitational forces are influenced by mass and distance.

C2

8-4.7 Explain the effects of gravity on tides and planetary orbits.

A3 C2

8-4.8 Explain the difference between mass and weight by using the concept of gravitational force.

8-4.9 Recall the Sun's position in the Universe, the shapes and composition of galaxies, and the distance measurement unit (light year) needed to identify star and galaxy locations.

G1 G3 G4

8-4.10 Compare the purposes of the tools and the technology that scientists use to study space (including various types of telescopes, satellites, space probes, and spectroscopes).

H1 G2