Correlated Learning Standards

U.S. National Science Content Standards Overview

Content Standard A: Science as Inquiry
(Column a) - Abilities necessary to do scientific inquiry
(Column b) - Understandings about scientific inquiry

Content Standard B: Physical Science
(Column c) - Properties and changes of properties in matter
(Column d) - Motions and forces
(Column e) - Transfer of energy

Content Standard D: Earth and Space Science
(Column f) - Structure of the Earth system
(Column g) - Earth's history
(Column h) - Earth in the Solar System

Section	Lesson Plan		a	b	c	d	e	f	g	h
Earth, Moon and Sun	A1	Day and Night Cycle	■	■						■
	A2	The Year and Seasons	■	■			■			■
	A3	The Moon	■	■		■	■	■	■	■
	A4	Phases of the Moon	■	■						■
	A5	Eclipses	■	■		■	■	■	■	■
The Solar System	B1	Overview of the Solar System	■	■		■				■
	B2	Size and Scale of the Solar System	■	■		■				■
	C1	The Inner and Outer Planets of the Solar System	■	■		■				■
The Planets	C2	Motion of the Planets	■	■		■				■
	C3	The Moons of the Planets	■	■						
Asteroids, Comets and Meteors	D1	Asteroids and the Main Belt	■	■	■	■	■			
	D2	Comets and Meteors	■	■		■	■		■	■
	D3	Impact: Near Earth Objects	■	■			■		■	■
Star Finding and Constellations	E1	Finding Your Way Around the Sky	■	■						■
	E2	Constellations and Star Lore	■	■						
	E3	Seasonal Constellations	■	■						
The Sun as a Star	F1	The Sun as a Source of Energy	■	■	■		■			■
	F2	Solar Weather	■	■	■		■			■
	F3	The Formation of the Sun and Solar System	■	■	■	■	■		■	■
The Stars	G1	The Solar Neighborhood	■	■						
	G2	The Stars	■	■	■		■			
Galaxies and the Universe	H1	The Milky Way Galaxy	■	■						
	H2	The Universe	■	■	■	■	■		■	
	H3	The Origin and Evolution of the Universe	■	■	■		■			
Space Exploration and Technology	I1	Tools of the Astronomer	■	■	■					
	I2	Artificial Satellites and the Space Environment	■	■		■	■			

U.S. National Science Content Standards Overview

Content Standard E: Science and Technology
(Column a) - Abilities of technological design
(Column b) - Understanding about science and technology
(Column c) - The outer Solar System

Content Standard F: Science in Personal and Social Perspectives
(Column d) - Personal health
(Column e) - Populations, resources, and environments
(Column f) - Natural hazards
(Column g) - Risks and benefits
(Column h) - Science and technology in society

Content Standard G: History and Nature of Science
(Column i) - Science as a human endeavor
(Column j) - Nature of science
(Column k) - History of science

Section	Lesson Plan		a	b	c	d	e	f	g	h	i	j	k
Earth, Moon and Sun	A1	Day and Night Cycle		■							■	■	■
	A2	The Year and Seasons		■	■						■	■	■
	A3	The Moon		■	■	■					■	■	■
	A4	Phases of the Moon		■						■	■	■	■
	A5	Eclipses		■	■					■	■	■	■
The Solar System	B1	Overview of the Solar System		■	■					■	■	■	■
	B2	Size and Scale of the Solar System		■	■					■	■	■	■
	C1	The Inner and Outer Planets of the Solar System		■	■					■	■	■	■
The Planets	C2	Motion of the Planets		■	■					■	■	■	■
	C3	The Moons of the Planets		■	■					■	■	■	■
Asteroids, Comets and Meteors	D1	Asteroids and the Main Belt		■	■					■	■	■	■
	D2	Comets and Meteors		■	■			■	■	■	■	■	■
	D3	Impact: Near Earth Objects	■	■	■	■	■	■	■	■	■	■	■
Star Finding and Constellations	E1	Finding Your Way Around the Sky									■	■	■
	E2	Constellations and Star Lore								■	■	■	■
	E3	Seasonal Constellations								■	■	■	■
The Sun as a Star	F1	The Sun as a Source of Energy	■	■		■	■	■	■	■	■	■	■
	F2	Solar Weather	■	■		■	■	■	■	■	■	■	■
	F3	The Formation of the Sun and Solar System		■	■						■	■	■
The Stars	G1	The Solar Neighborhood									■	■	■
	G2	The Stars	■	■						■	■	■	■
Galaxies and the Universe	H1	The Milky Way Galaxy	■	■						■	■	■	■
	H2	The Universe	■	■						■	■	■	■
	H3	The Origin and Evolution of the Universe	■	■						■	■	■	■
Space Exploration and Technology	I1	Tools of the Astronomer	■	■					■	■	■	■	■
	I2	Artificial Satellites and the Space Environment	■	■	■	■	■	■	■	■	■	■	■

U.S. National Content Standards

Guide to Standard D: Earth and Space Science

	Starry Night Lesson Plans *In order of relevance*
Earth's History	
The Earth processes we see today, including erosion, movement of lithospheric plates, and changes in atmospheric composition, are similar to those that occurred in the past. Earth history is also influenced by occasional catastrophes, such as the impact of an asteroid or comet.	D3
Earth In The Solar System	
The Earth is the third planet from the Sun in a system that includes the Moon, the Sun, eight other planets and their moons, and smaller objects, such as asteroids and comets. The Sun, an average star, is the central and largest body in the Solar System.	B1 C1 C3 D1 D2 F1
Most objects in the Solar System are in regular and predictable motion. Those motions explain such phenomena as the day, the year, phases of the Moon, and eclipses.	C2 A1 A2 A4 A5
Gravity is the force that keeps planets in orbit around the Sun and governs the rest of the motion in the Solar System. Gravity alone holds us to the Earth's surface and explains the phenomena of the tides.	C2 A3
The Sun is the major source of energy for phenomena on the Earth's surface, such as growth of plants, winds, ocean currents, and the water cycle. Seasons result from variations in the amount of the Sun's energy hitting the surface, due to the tilt of the Earth's rotation on its axis and the length of the day.	F1 A2
The Origin And Evolution Of The Earth System	
The Sun, the Earth, and the rest of the Solar System formed from a nebular cloud of dust and gas 4.6 billion years ago. The early Earth was very different from the planet we live on today.	F3
The Origin And Evolution Of The Solar System	
The origin of the Universe remains one of the greatest questions in science. The Big Bang theory places the origin between 10 and 20 billion years ago, when the Universe began in a hot dense state; according to this theory, the Universe has been expanding ever since.	H3 H2 I1
Early in the history of the Universe, matter, primarily the light atoms hydrogen and helium, clumped together by gravitational attraction to form countless trillions of stars. Billions of galaxies, each of which is a gravitationally bound cluster of billions of stars, now form most of the visible mass in the Universe.	H1 H2 H3 F3 G1
Stars produce energy from nuclear reactions, primarily the fusion of hydrogen to form helium. These and other processes in stars have led to the formation of all the other elements.	G2 F1