

Florida
High School

Grades 9, 10, 11
Earth and Space

Standard 1: The student understands the interaction and organization in the solar system and the universe and how this affects life on Earth. (SC.E.1.4)

1. Understands the relationships between events on Earth and the movements of the Earth, its Moon, the other planets, and the Sun.
2. Knows how the characteristics of other planets and satellites are similar to and different from those of the Earth.
3. Knows the various reasons that Earth is the only planet in our solar system that appears to be capable of supporting life as we know it.

Standard 2: The student recognizes the vastness of the universe and the Earth's place in it. (SC.E.2.4)

1. Knows that the stages in the development of three categories of stars are based on mass: stars that have the approximate mass of our Sun, stars that are two-to-three-solar masses and develop into neutron stars, and stars that are five-to-six-solar masses and develop into black holes.
2. Identifies the arrangement of bodies found within and outside our galaxy.
3. Knows astronomical distance and time.
4. Understands stellar equilibrium.
5. Knows various scientific theories on how the universe was formed.
6. Knows the various ways in which scientists collect and generate data about our universe (e.g., X-ray telescopes, computer simulations of gravitational systems, nuclear reactions, space probes, and supercollider simulations).
7. Knows that mathematical models and computer simulations are used in studying evidence from many sources to form a scientific account of the universe.

Starry Night Lesson Plans

In order of relevance

1. Understands the relationships between events on Earth and the movements of the Earth, its Moon, the other planets, and the Sun.	A1-A5	F1-F3	D3		
2. Knows how the characteristics of other planets and satellites are similar to and different from those of the Earth.	C1-C4	I2			
3. Knows the various reasons that Earth is the only planet in our solar system that appears to be capable of supporting life as we know it.	B2	B1	C1		
1. Knows that the stages in the development of three categories of stars are based on mass: stars that have the approximate mass of our Sun, stars that are two-to-three-solar masses and develop into neutron stars, and stars that are five-to-six-solar masses and develop into black holes.	G2	G3			
2. Identifies the arrangement of bodies found within and outside our galaxy.	B1	F3	G1	H1-H3	
3. Knows astronomical distance and time.	B2	G1	G2	H1	H2
4. Understands stellar equilibrium.	G2	G3			
5. Knows various scientific theories on how the universe was formed.	H3	I3			
6. Knows the various ways in which scientists collect and generate data about our universe (e.g., X-ray telescopes, computer simulations of gravitational systems, nuclear reactions, space probes, and supercollider simulations).	I1-I3				
7. Knows that mathematical models and computer simulations are used in studying evidence from many sources to form a scientific account of the universe.	H3	G3			