

Delaware
Middle School

Starry Night Lesson Plans
In order of relevance

Science Standard 4 - Earth in Space

Grades 6-8

The Sun is a star that gives off radiant energy that drives Earth systems and is essential for life. The amount of radiant energy Earth receives from the Sun throughout the year is nearly constant.	F1	
The tilt of Earth's axis of rotation as it orbits the Sun points in the same direction with respect to the stars. The tilt and the orbital motion of Earth around the Sun cause variation in the amount of solar radiation striking a location on the Earth's surface, which results in variation in the length of day/night and seasons.	A1	A2
Moon phases occur because the relative positions of Earth, Moon, and Sun change, thereby enabling us to see different amounts of the Moon's surface.	A4	A5
The Moon is a natural satellite of Earth and is different than the Earth in size, atmosphere, gravity, and surface features.	A3	C3
Tides are caused by the gravitational interactions of the Sun, Moon and Earth. The Moon has a greater impact on tides because of its proximity to Earth.	A3	
The Sun is by far the most massive object in the Solar System, therefore gravitationally dominating all other members of the Solar System.	B1-B2	F1-F3
The Solar System consists of comets, asteroids, planets, and their respective satellites, most of which orbit the Sun on a plane called the ecliptic. The planets in our Solar System revolve in the same direction around the Sun in elliptical orbits that are very close to being in the same plane. Most planets rotate in the same direction with respect to the Sun.	B1-B2	C1-C4 D1-D3 E3 E4
Planets can be categorized as inner or outer planets according to density, diameter and surface features.	C1	
Planets and their moons have been shaped over time by common processes such as cratering, volcanism, erosion, and tectonics. The presence of life on a planet can contribute to its unique development.	C1	C3
Technology, including humans landing on the Moon, robot landers and other space probes, satellites, and radio telescopes, allow scientists to investigate conditions on Earth and on other objects in the Solar System,	I1-I2	F2
The technology used in space exploration expands our knowledge of the Universe and has many spin-offs related to everyday applications.	I1-I2	F2