

**Oregon**  
Middle School

**Starry Night Lesson Plans**  
*In order of relevance*

**Grade 5**

**EARTH/SPACE SCIENCE – THE DYNAMIC EARTH**

Identify causes of Earth surface changes.	A3
Observe how the moon and sun create tides that influence the coastal environment.	A3

**EARTH/SPACE SCIENCE – THE EARTH IN SPACE**

Describe the Earth's place in the solar system and the patterns of movement of objects within the solar system using pictorial models.	B1-B2	C1-C4	A1-A5
Understand that the Earth is one of several planets that orbit the sun, and the moon orbits around the Earth.	B1-B2	C1-C4	I2
Describe Earth's position and movement in the solar system.	C1	C2	
Recognize that the rotation of the Earth on its axis every 24 hours produces the night-and-day cycle.	A1	E1	

**EARTH/SPACE SCIENCE – THE UNIVERSE**

Describe natural objects, events, and processes outside the Earth, both past and present.	B1-B2	C1-C3	D1-D3	E1-E3	I2
Observe that different stars can be seen at different times of the year and planets change their positions against the background of stars over time.	E1-E4	C2			
Understand that planets change their positions against the background of stars.	B1	C2	E3	E4	

# Oregon

## Middle School (cont'd)

### Grades 6-8

#### EARTH/SPACE SCIENCE – THE EARTH IN SPACE

Explain the relationship of the Earth’s motion to the day, season, year, phases of the moon, and eclipses.

A1-A5 E3 E4

Know that the moon’s orbit around the Earth is once in about 28 days. Our changing views of the moon allows us to see a changing portion of the lighted side of the moon, which we call “phases”.

A4 A3

Know that because the Earth is tilted relative to the plane of the Earth’s yearly orbit around the sun, sunlight falls more intensely on different parts of the Earth during the year.

A2

Understand that the difference in heating of the Earth’s surface produces the planet’s seasons and weather patterns.

A2

Explain the relationship between the cycle of seasons and the tilt of the Earth on its axis.

A2 E3

#### EARTH/SPACE SCIENCE – THE UNIVERSE

Describe natural objects, events, and processes outside the Earth, both past and present.

A1-A5 B1-B2 C1-C4 D1-D3 F1-F3 G1-G3 H1-H2

Know that technology, like a telescope and camera, are essential to science for such purposes as access to outer space and other remote locations.

I1-I2 H1-H2

Know that telescopes reveal that there are many more stars in the night sky than are evident to the unaided eye, the surface of the moon has many craters and mountains, the sun has dark spots, and Jupiter and some other planets have their own moons.

G1-G3 H1-H2 A3 F1 F2 C3

Know that eight major planets of varied size, composition, and surface features move around the sun in elliptical orbits.

C1-C4

Know that the sun’s gravitational pull holds the Earth and other planets in their orbits, just as the planets’ gravitational pull keeps their moons in orbit around them.

C2 C3 I2 F3

Know that our Sun is a star located within a galaxy of many other stars, “The Milky Way”.

G1-G3 H1

Data indicates that the universe contains billions of galaxies made up of billions of stars plus gas, dust, and dark matter.

H1-H2

Observe evidence for objects that orbit within the Solar System that impact earth: Asteroids, comets and meteorites.

D1-D3

Know that the sun is many thousands of times closer to the earth than any other star. Some distant galaxies are so far away that their light takes several billion years to reach the earth.

G1-G3 H1-H2

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