

Scope out the Sky

Correlated Standards by Grade

Last Updated: 2026

IMPORTANT: Our classes have a base curriculum that can vary based on instructor, and some activities that match the standards below may not be taught. Please let us know if there is a standard below you would like us to focus on, and we will tailor our classes to make sure we address it!

Next Generation Science Standards (NGSS)

5th Grade

5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

5-ESS1-2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

Middle School (6-8)

MS-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

Alabama Course of Study (ACOS)

5th Grade

Science

SC.5.10 Obtain and communicate information to explain why the sun appears to be larger and brighter than other stars.

SC.5.11 Analyze data that reveal patterns of daily changes in length and direction of shadows, day and night, phases of the moon, and seasonal appearance of some stars in the night sky.

6th Grade

Science

SC.6.1. Manipulate models to demonstrate the patterns of motion of the sun, Earth, and moon.

- SC.6.1a Construct an evidence-based explanation of how the relative positions of the sun and Earth result in observable phenomena, including day and night cycles, length of year, and seasons.
- SC.6.1b Construct an evidence-based explanation of how the relative positions of the sun, moon, and Earth result in observable phenomena, including lunar cycles, eclipses, and tidal cycles.

SC.6.4. Analyze and use data to determine scale properties and characteristics of objects in the solar system including sizes, distances, orbital periods, basic composition, and ability to support life.

Mississippi College- and Career-Readiness Standards

5th Grade

Science

E.5.8A Students will demonstrate an understanding of the locations of objects in the universe.

- E.5.8A.1. Develop and use scaled models of Earth's solar system to demonstrate the size, composition (i.e. rock or gas), location, and order of the planets as they orbit the Sun.
- E.5.8A.3 Describe how constellations appear to move from Earth's perspective throughout the seasons (e.g., Ursa Major, Ursa Minor, and Orion).
- E.5.8A.4. Construct scientific arguments to support claims about the importance of astronomy in navigation and exploration, including the use of telescopes, compasses, and star charts.

E.5.8B Students will demonstrate an understanding of the principles that govern moon phases, day and night, appearance of objects in the sky, and seasonal changes.

6th Grade

Science

E.6.8. Students will demonstrate an understanding of Earth's place in the universe and the interactions of the solar system (sun, planets, their moons, comets, and asteroids) using evidence from multiple scientific resources to explain how these objects are held in orbit around the Sun because of its gravitational pull.

- E.6.8.5. Construct explanations for how gravity affects the motion of objects in the solar system and tides on Earth.