

Sun & Moon

Unit Overview



DESIGN CHALLENGE:

How can we represent the sun, moon, and stars on our birthday?

ANCHORING PHENOMENON:

I could track when my birthday is happening even if I didn't have a calendar.

STORYLINE

How does the young child begin to understand time? What does rotation of the Earth and revolution around the sun have to do with time? This unit emphasizes the Crosscutting Concept of Patterns and Systems and System Models as the basis for understanding both our place in the universe and time. Students learn about cycles and make observations to find out more about how the sky changes throughout the day. They also learn what makes day and night.

Next, students collect and analyze data by making observations of the sky during the day. The students observe changing shadows and consider how the movement of the Earth and position of the sun affects the shadows. They also create models to represent the amount of daylight during each month.

From there, the students begin to look at patterns in the night sky. Moon phases and constellations are introduced in the context of repeating patterns. This unit concludes with students creating a representation drawing and story to represent the sun, moon and stars that can be observed on their birthday each year.

OVERVIEW

Section 1 <i>What patterns and cycles do we notice in our lives?</i>	Section 2 <i>What patterns do we notice during the day?</i>	Section 3 <i>What patterns do we notice during the night?</i>	Section 4 <i>How can we use observations to predict patterns in the sky?</i>
Total Time: 2 days LESSON 1 What is a cycle?	Total Time: 12 days LESSON 2 What do we notice about the sky? LESSON 3 What makes day and night? LESSON 4 How long is a day? LESSON 5 How do the hours of sunlight differ in the summer and winter?	Total Time: 4 days LESSON 6 What do we notice about the moon? LESSON 7 What do we notice about the stars?	Total Time: 2-3 days LESSON 8 How can we represent the patterns we see in the sky?

Unit 7 Teacher Guide (version 07.29.19) *Sun and Moon*
Washington University in St. Louis Institute for School Partnership