Grade 1 Science - Unit 3 - The Sun, Moon & Stars

Unit Focus

This unit introduces first-grade students to observable patterns in the sky, focusing on the sun, moon, and stars. Students will investigate how the movements and appearances of the sun, moon, and stars follow predictable patterns. To support and enhance these investigations, select lessons from Mystery Science are incorporated, providing engaging videos and activities aligned with the unit's learning goals. Through observation, hands-on activities, and guided inquiry, students will deepen their understanding of how the sky changes during the day, night, and across seasons

Stage 1: Desired Results - Key Understandings

Standard(s)

Next Generation Science Standards

Cross Cutting Concepts: 1

- Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-1),(1-ESS1-2) (1.SS.CC.1.1)
- Science assumes natural events happen today as they happened in the past. (1-ESS1-1) (1.SS.CC.2.1)
- Many events are repeated. (1-ESS1-1) (1.SS.CC.2.2)

Disciplinary Core Ideas: 1

- Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1- ESS1-1) (1.ESS1.A.1)
- Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2) (1.ESS1.B.1)

Performance Expectations: 1

- Use observations of the sun, moon, and stars to describe patterns that can be predicted. (1-ESS1-1)
- Make observations at different times of the year to relate the amount of daylight to the time of year. (1-ESS1-2)

Science and Engineering Practices: 1

- Make observations (firsthand or from media) to collect data that can be used to make comparisons. (1-ESS1-2) (1.SS.SEP.1.2)
- Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (1- ESS1-1) (1.SS.SEP.2.2)

Madison Public Schools Profile of a Graduate

- Product Creation: Effectively use a medium to communicate important information. (POG.3.2)

Transfer

Students will be able to independently use their learning to...

T1 Create models to explore complex systems, show mastery of key science concepts, and/or develop solutions through creation of a product open to testing and redesign.

Meaning

Understanding(s)	Essential Question(s)
Students will understand that... **U1** The sun, moon, and stars follow predictable patterns in the sky, which can be observed and used to make predictions about their movements. **U2** The amount of daylight varies with the seasons, and observing these changes helps us understand the passage of time throughout the year.	*Students will keep considering...* **Q1** How do the movements and appearances of the sun, moon, and stars follow predictable patterns? **Q2** How does the amount of daylight change throughout the year, and how can these changes be predicted?

Acquisition of Knowledge and Skill

Knowledge	Skill(s)
Students will know... **K1** The sun rises in the east, moves across the sky, and sets in the west. **K2** The moon follows a predictable cycle and changes in appearance. **K3** Stars other than the sun are visible at night but not during the day.	*Students will be skilled at...* **S1** Observe and describe patterns in the sky involving the sun, moon, and stars. **S2** Explain the sun's movement across the sky and its relationship to time of day. **S3** Identify that stars are visible at night and not during the day.

Stage 1: Desired Results - Key Understandings		
	K4 The amount of daylight changes throughout the year, with longer days in some seasons and shorter days in others. There are more daylight hours in the summer and fewer in the winter. **K5** Vocabulary: Cycle, Shadow, Sun, Sunrise, Sunset, Season, East, West, North, South, Moon, Full Moon, Half Moon, Star, Pattern, Predict, Observe.	**S4** Make predictions about where and when the sun, moon, and stars can be seen based on observed patterns. **S5** Observe the changing amount of daylight across seasons and describe the difference in daylight hours between seasons. **S6** Use observations to predict when the days will be longer or shorter, based on patterns seen in previous seasons.