Unit 5: Effects of the Sun

Content Area: **Science**
Course(s): **Science K**
Time Period: **May**
Length: **15 Days**
Status: **Published**

Unit Summary

During this unit of study, students apply an understanding of the effects of the sun on the Earth's surface. The crosscutting concepts of cause and effect and structure and function are called out as organizing concepts for this disciplinary core idea. Students are expected to demonstrate grade-appropriate proficiency in developing and using models; planning and carrying out investigations; analyzing and interpreting data; and designing solutions. Students are also expected to use these practices to demonstrate understanding of the core ideas.

Standards

CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
SCI.K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.
SCI.K-PS3-2	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.
TECH.8.1.2.A.CS1	Understand and use technology systems.

Student Learning Objectives

Students will learn to...

- to make observations to determine the effect of sunlight on Earth's surface. [Clarification Statement: Examples of Earth's surface could include sand, soil, rocks, and water.] [*Assessment Boundary: Assessment of temperature is limited to relative measures such as warmer/cooler.*]
- to use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.*[Clarification Statement: Examples of structures could include umbrellas, canopies, and tents that minimize the warming effect of the sun.]

Essential Questions

- How can I keep the Earth's surface cool?

Application

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

- observe patterns in events generated by cause-and-effect relationships.
- make observations (firsthand or from media) to collect data that can be used to make comparisons.

- make observations to determine the effect of sunlight on Earth’s surface.
- Use tools and materials to design and build a structure (e.g., umbrellas, canopies, tents) that will reduce the warming effect of sunlight on an area.

Skills

Students will be skilled at...

- describing how the shape and stability of structures are related to their function.
- using tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem.
- developing a simple model based on evidence to represent a proposed object or tool.
- developing a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- analyzing data from tests of an object or tool to determine if it works as intended.
- analyzing data from tests of two objects designed to solve the same problem to compare the strengths