

NGSS Performance Expectation		In this unit, students:
K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.	Go outside on a bright, sunny day and experience what it feels like in the sunlight and shade.
K-PS3-2	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.	Design sun hats to shade different parts of their heads and help them feel more comfortable in the sun.
K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	Learn that it feels cooler in the shade than in the sun and examine a variety of hats and test materials to determine which are good at making shade. They design sun hats that meet their needs and those of their engineering partner.
K-2-ETS1-2	Develop 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.	Consider how the different parts of a hat and its shape impact its function.
K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Test and evaluate sun hat designs to see how well they meet needs.

**Crosscutting
Concept**

Structure and Function

The shape of an object or living thing determines many of its properties and functions. In this unit, students investigate how the parts and shape of a variety of hats impact their function. They apply this knowledge as they collaboratively design a hat with a partner that meets both their needs for sun protection.