Unit 3b-The Sun

Content Area: **Science**
Course(s): **Science K**
Time Period: **Marking Period 3**
Length: **MP 3**
Status: **Published**

Essential Questions

- What are characteristics of the sun?
- Can structures reduce the warming effect of sunlight on Earth's surface?

Big Ideas

- Sunlight warms earth's surface.

Science and Engineering Practices

Constructing Explanations and Designing Solutions:

- Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.
- Generate and/or compare multiple solutions to a problem.

Enduring Understandings

Next Generation Standards

Conservation of Energy and Energy Transfer

K-PS3.B   Sunlight warms Earth's surface.

Student Learning Standards

Mathematics

K.MD.A.2   Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.

Focus Areas

Knowledge

- How sunlight affects different surfaces on Earth. Use the terms warm, cool, and hot.

Skills

- Describe the sun's characteristics
- Design and build a structure that will reduce the warming effect of sunlight on Earth's surface. They will choose materials for their design that will create shade.

Understandings

- Make observations to determine the effect of sunlight on Earth's surface.
- Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.

Resources

Primary Resources

- BrainPop, Jr.
- NJCTL Unit 1 The Sun's Heat
- Mystery Science

Core

- Sun Protection Activity
- Mystery Science "How Do You Know What to Wear" Read Along
- Mystery Science "How Can You Warm Up a Frozen Playground?"
- Mystery Science "How Can You Walk Across Hot Pavement Barefoot Without Buring Your Feet?"

Supplemental

- Sun's Effect on Sand vs. Grass Lab
- Sun's Effect Hard Surfaces Lab
- Sun's Effect on Ocean's Surface Lab
- Sun's Effect on Water vs. Sand Lab
- Build a Solar Stove Lab
- Does the sun give heat energy? Lab
- Sun's Effect on Earth's Surface Lab
- Design Shade Structure Lab
- Build Shade Structure Lab