# SCIENCE Light and Color Grade 2

Content Area: **Science**
Course(s): **Generic Course**
Time Period: **Marking Period 2**
Length: **December January**
Status: **Published**

## Established Goals/Standards

Please choose the appropriate Goals/Standards from the Standards tab above.

| | |
|---|---|
| SCI.K-2.5.2.2.C.2 | Apply a variety of strategies to collect evidence that validates the principle that if there is no light, objects cannot be seen. |
| SCI.K-2.5.2.2.C.3 | Present evidence that represents the relationship between a light source, solid object, and the resulting shadow. |
| SCI.K-2.5.2.2.C.b | An object can be seen when light strikes it and is reflected to a viewer's eye. If there is no light, objects cannot be seen. |
| SCI.K-2.5.2.2.C.c | When light strikes substances and objects through which it cannot pass, shadows result. |
| SCI.K-2.5.2.2.D.a | Batteries supply energy to produce light, sound, or heat. |
| SCI.K-2.5.4.2.A.a | The Sun is a star that can only be seen during the day. The Moon is not a star and can be seen sometimes at night and sometimes during the day. The Moon appears to have different shapes on different days. |

## Essential Questions

Please add your Essential Questions by clicking on the Lists tab above.

- Can light produce heat?
- Can objects be seen without light?
- How are shadows formed?
- How does light travel?
- What makes color?
- What types of light sources are there?

## Enduring Understanding

Please add your Enduring Understandings by clicking on the Lists tab above.

- An object can be seen by people when the object is illuminated by a light source.
- Light sources produce both light and heat.
- Light travels in a straight line.
- Objects placed in a beam of light cast shadows. The size and clarity of a shadow can be altered by adjusting the distance and angle between the light source and the object casting the shadow.
- There exists a variety of light, some that are natural and others that are made by people
- White light is a combination of many colors, and when separated, produces the colors of the

spectrum.

## Content

Students will be able to:

- identify sources of light.
- classify sources of light as natural or made by people
- conclude that the sun is the most important source of light
- observe that objects and their characteristics cannot be seen without a light source illuminating those objects
- observe that a light source gives off both heat and light
- observe that light travels in a straight line
- classify objects according to how well light can pass through them.
- infer that the amount of light that can pass through a material determines how well we can see through the material
- identify an object by the shadow that is cast when the object is placed in a beam of light. Explore ways of making shadows of different shapes and lengths
- observe how the shadow cast by an object changes when the position of the light source changes. Predict where shadows would be at different times of day.
- produce the colors of the spectrum
- identify the colors of the spectrum
- identify the colors resulting from the mixture of two colors

## Resources

student text: **Discovery Works**

workbook

nonfiction leveled readers

nonfiction trade books

aluminum foil

clear plastic wrap

wax paper

milk

newspaper

objects; bag of small opaque

overhead projector

tissue paper

scissors

unitedstreaming.com

tape

water

aluminum pans

large mirror

construction paper

paper grocery bags

index cards

batteries

flashlights

prisms

crayons

clear cups

food coloring

ice cubes