

HERE COMES THE SUN!



BENCHMARK and TASK

SC.B.1.1.1: The student knows that the Sun supplies heat and light energy to Earth.

- The student identifies several sources of light, including artificial light and sunlight.

KEY QUESTION

What are the sources of light?

BACKGROUND INFORMATION

There are several common sources of light. The primary source of light is the sun. The sun is essential to life on earth. The energy from the sun is changed to heat energy that warms the earth. There are other natural sources of light such as fire and lightning. Artificial light can be produced by bulbs and lasers.

MATERIALS

Teacher

shadow box (shoe box or similar box with lid)

Our Sun (Benchmark Education Co.)

Light (Benchmark Education Co.)

Per group

shadow box

Per class

various artificial sources of light: overhead projector, flashlight, matches, candle, light bulb, etc.

various other materials which do not produce light (scissors, pencil, plant, book, shoe, etc.)

yarn

2 labels: *items that produce light*

items that do not produce light

drawing paper

crayons

TEACHING TIPS

Prepare a shadow box: cut a small hole, 1-2 inches wide, in the lid of the box and another smaller hole in one end of the box. The teacher may want to make one box for each group.

ENGAGE

Show children the shadow box. Demonstrate by putting an object like a teddy bear counter in the box and let students experiment by covering the hole on the top of the box to determine if they can see the object without light. Let them choose other small objects to test in the shadow box.

EXPLORE Part 1

Give each group a shadow box and a small assortment of objects.
Have them explore by testing each object.

EXPLAIN

Ask:

*Could you see the items when you covered the hole on the top of the box? Why?
What did you have to do to see the object in the shadow box?*

EXPLORE Part 2

1. Ask students to sit in a circle on the floor. Display items that produce light and items that do not produce light together in the center of the circle.
2. Allow students to name and describe the objects.
3. Form two circles with yarn. Label one circle *items that produce light* and the other circle *items that do not produce light*.
4. Students sort objects into the labeled circles.
5. Allow the class to suggest changes in the sorting arrangement until everyone agrees about the arrangement.
6. Encourage students to suggest and draw pictures of other items that are not in the collection (sun, lightning). Add these to the circles.

EXPLAIN

Through the following questions, reinforce the concept that there are many sources of light.

Ask:

How do we use light?

Where do we get light when we are indoors?

Where do we get light when we are outdoors?

How does the earth get its light?

Read *Light* and discuss the many sources of light.

EXTEND/APPLY

Students can relate light to their everyday life by discussing power outages.

Ask:

Have you ever had lights go out in your house?

How did it affect you?

What did you do?

Why do we need light?

Read *Our Sun* and discuss why the sun is so important to us.