



Grade: 1

MSCCR Science Standard:

P.1.6A.1 Construct explanations using first-hand observations or other media to describe how reflected light makes an object visible.

Learning Objectives:

TSW recall that light reflects off objects to allow us to see them.

Materials: students will work in groups of 2

Hand mirror (1 per student)

Flashlight (1 per group)

Challenge sheet (1 per group)

Aluminum foil squares (1 per student) *keep these as flat as possible

Book: I See Myself by Vicki Cobb (1 for teacher only)

Engage

“Other than a mirror, what are some things you can see yourself in? From your seat, look around the room and see if there is anything you could use as a mirror.”

Explore

Advanced Preparation: each team of students will need 2 mirrors and flashlight. Make the room as dark as possible for the activity.

“Shine the flashlight on the mirror. Where does the beam of light go? Does the light go through the mirror? Where does the light go after it bounces off the mirror?”

“You have or will get a list of challenges to complete using the flashlight and the mirror. You may use the flashlight to read the paper if the room is too dark.”

Classroom teacher will circulate to make sure students can successfully complete the challenges. Allow the students to have their own ideas as they work to observe, discuss, and draw conclusions, but offer guidance as needed.

Explain

Class discussion following mirror challenges:

Were you able to do all of the challenges?

Which one was the most difficult for your group? Why do you think that was difficult?

Did any of the results surprise you?

What word appeared in the mirror?

The word REFLECT means to 'send back'. When you look into a mirror, what reflects or is sent back? (light or maybe their reflection) When we look in a mirror, we call our mirror image a reflection because it is formed by light reflecting off the mirror to our eyes

Read *I See Myself* by Vicki Cobb.

After reading, ask:

- Why are mirrors the best objects for seeing yourself? (because they are flat and shiny)
- In order to see yourself, in order to see anything, you must have what? (light)
- When a ray of light hits a mirror, what happens? (It makes a perfect “bounce” every time.)
- Why can't you see yourself in a sweater or in the pages of a book? (A sweater or page is not perfectly flat and shiny. The light reflects off the sweater or page and scatters in many directions.)

Elaborate

Pass out aluminum foil squares. *“Look at yourself in the foil square. Can you see yourself in the foil? If you crumple it and then try to smooth it out, can you see yourself? Is your reflection the same as it was in the smooth piece? Why do you think your reflection looks different? Do you remember what the book said are the best kinds of things to see yourself in? Why?”*

Evaluate

Review information from lesson.

“I had fun and I hope you did, too! Remember to stay curious!”