

Lesson Plan Title

Shadows, Shadows Everywhere

Grade Level

1st Grade

Subject Area

Science

MSCCRS

P.1.6A Students will demonstrate an understanding that light is required to make objects visible.

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

P.1.6A.2 Use evidence from observations to explain how shadows form and change with the position of the light source.

Art Form

Drama

MSCCR Creative Arts Standards

TH: Pr6.1.1 Convey meaning through the presentation of artistic work.

- a. With prompting and support, use movement and gestures to communicate emotions in a guided drama experience (e.g., process drama, story drama, creative drama).

Duration

1 Hour

Materials

Sidewalk chalk

Objectives

TSW will understand how a light source casts a shadow.

TSW use movement to create shadows.

Vocabulary

Gesture

Movement

Shadow

Reflection

Lesson Description

TTW ask the students, "Does anyone know what a shadow is? A shadow is an image that casts through a light source. Does anyone think they have ever seen a shadow?" TTW allow students to give responses.

TTW play the youtube.com video: <https://youtu.be/IOIGOT88Aqc>

Info to review/point out from the video:

TTW explain:

- *The different ways to cast a shadow (sun, flashlight)
- *What is needed to create a shadow (light source)
- *What parts of our bodies we can move to create a shadow (hands, feet, arms, legs)
- *A shadow of an object is only something that is visible to our eyes
- *Air and water cannot produce a shadow because you can see through them
- *The more light sources you have, more shadows you will have
- *A shadow can change size depending on the distance of the light source; ex. close to the object (larger shadow) or farther away from the object (smaller shadow)

TTW demonstrate vocabulary words.

Now we are going to go outside and create shadows of our own. TTW take students outside on a sunny day to an area around the school where students can move in order to cast shadows (ex. sidewalk). TTW have students in two parallel lines. Two students will work together. One line of students will use movement of hands to create an image of choice (small shadow puppet). Next, the student will create a shadow image using his/her whole body and "freeze" while modeling the image. The other line of students will be on the opposite side of the sidewalk to see the shadow image that was created by his/her peer through the light source from the sun. The student creating the shadow will stand still as the other student will trace the shadow using sidewalk chalk. TTW ask the students "What color is the shadow? Why do you think it is black?" and students will respond. TTW ask students, "Can you see a gesture in a shadow?" TTW give examples such as standing sideways and pointing a finger or sticking your tongue out as a way to see a gesture in a shadow. Students will then walk around the school noticing shadows of trees and other objects.

Recommended Resources:

<https://youtu.be/IOIGOT88Aqc>

Extended Learning Activities

Teachers could expand on this lesson by allowing students to use flashlights indoors to model/create shadows. Students could also create shadow puppets or characters as a way to recall details from a specific story.

Sources

Youtube.com <https://youtu.be/IOIGOT88Aqc> "Peek a Boo, The Dr. Binocs Show" video

Tips

May work best following up a lesson on the history of atomic theory, as a supplemental lesson to reinforce the learning.

Author

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