

4. Light Energy

Classroom Activity:

Students should acquire an understanding of the characteristics and properties of light. Identify common phenomena related to light and colour (rainbows, 3-D pictures)

Grade: 4

Strand(s): Understanding Matter and Energy

This task addresses the following overall expectations:

- investigate the characteristics and properties of light and sound;
- demonstrate an understanding of light and sound as forms of energy that have specific characteristics and properties.

and the following specific expectations:

- investigate the basic properties of light;
- use appropriate science and technology vocabulary, including natural, artificial, beam of light, pitch, loudness, and vibration, in oral and written communication;
- describe properties of light, including the following: light travels in a straight path; light can be absorbed, reflected, and refracted;
- describe how different objects and materials interact with light and sound energy.

Assessment Categories:

- Knowledge and Understanding
- Application

Type of Activity: Classroom/science lab

Time needed to plan the activity: 60 minutes

Time needed to complete the activity: 40 minutes

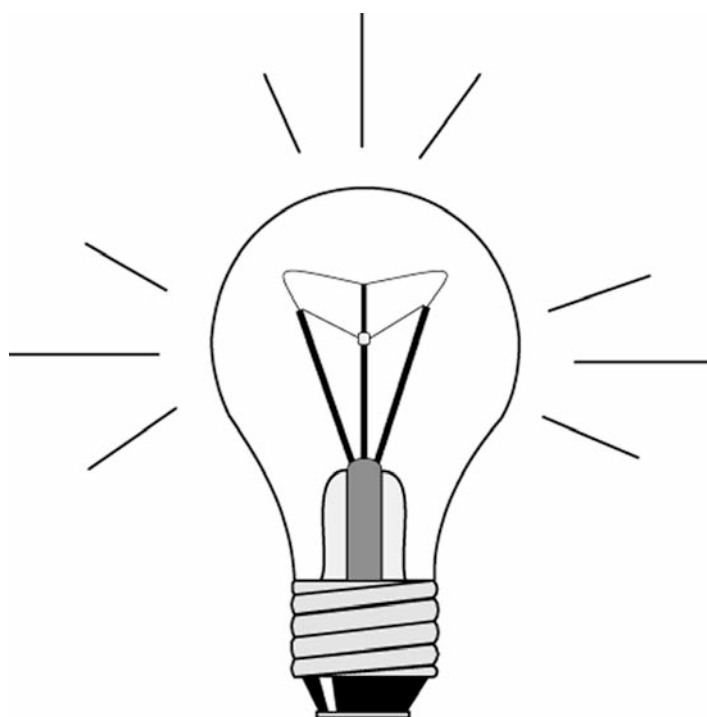
Number classes needed to complete the activity: 1

Materials/Resources for teachers:

diffraction glasses to break up light into a rainbow

3-D glasses

3-D picture



Materials/Resources for students:

none needed

Activity Description:

(approx. 40 minutes)

Use diffraction glasses to view the rainbow when looking at various sources of light.

As a class discuss:

- How light can be separated into the colours of the rainbow.
- When a rainbow can be seen in everyday phenomena.

Use 3-D glasses to look at 3-D pictures and discuss how colour is used to create a 3-D effect

As a class discuss:

* Why we see colour (including the reflection and absorption of light to produce colour, e.g. the differences between wearing a black shirt and a white shirt in the summer).