

Classroom Exercises: Day and Night

LEARNING OBJECTIVE:

To understand how the eyes react and adjust to light.

MATERIALS:

A mirror and a flashlight

PROCEDURE:

Set up a mirror in a darkened room. A student or several students should stand in front of a mirror for a few minutes. They should be able to notice that the pupils in their eyes have become larger. That is because, in the dim light, the muscles in the iris enlarge the pupil to let in more light. Now, give the flashlight to the student or students and instruct them to carefully shine it at their eyes while they continue to look into the mirror. Ask them what they see. They should see their pupils react by becoming smaller to let in less light.

Ask students to give examples from their everyday lives of the effects of light on their eyes. These might include:

- Entering a dark movie theater on a sunny day, and then leaving the theater to return to the bright sunlight.
- Being awakened by a bright light when you are sleeping.
- Being on an amusement park ride that suddenly goes into a tunnel.