



LIGHT PATH

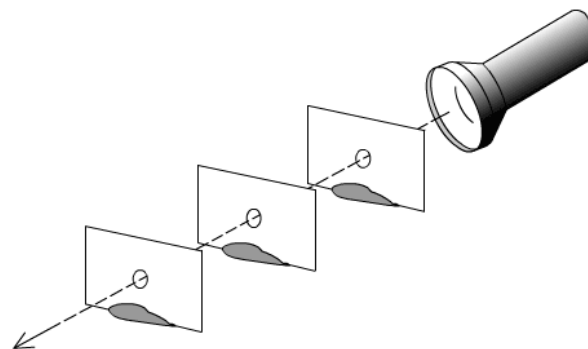
What path does light follow?

Materials

Four 5x8 in. cards per small group
Clay
Flashlight
Rulers
Hole puncher

Procedure

- Punch a small hole in the center of each card. Stand each card in a small ball of clay. Space the cards about 30 cm apart with the center holes lined up.
- Have someone hold the flashlight so that it shines into the hole at one of the end cards while you look through the hole of the card at the other end. What do you see? Now move one of the cards about one inch to the side and see what changes.



Results

The light travels in a straight path. Unless the cards are positioned with the holes in a straight line, the light does not pass through the holes in the card.

Why?

Light travels in waves of frequency and as particles of matter. There are many types of light, of which the visible spectrum is a small part. Visible light is the light that can be seen with the naked eye. Light travels in a straight line because it isn't affected by air. In this experiment, the air is the "medium," or the substance that light is passing through. When light passes through a liquid or other medium, it changes its path. This is because the medium is denser or has different permeability. This interaction and bending of the light is called refraction.