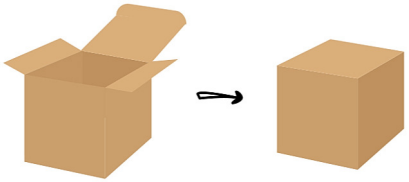
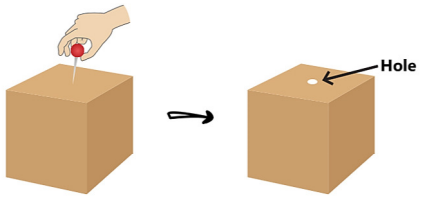
HOW TO MAKE YOUR OWN PIN HOLE CAMERA

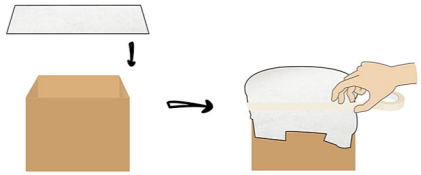
1. Close the box from one side.



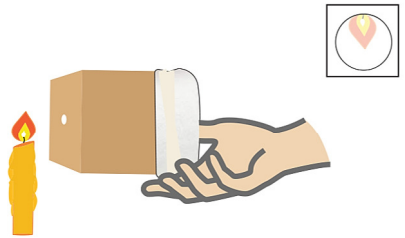
2. Take a pin and make a hole on closed side of the box.



3. Cover the open side of the box with translucent sheet using the given tape as shown.



4. Keep the bottom side of the box (with hole) in front of the burning candle and observe the inverted image of the flame on the translucent sheet.

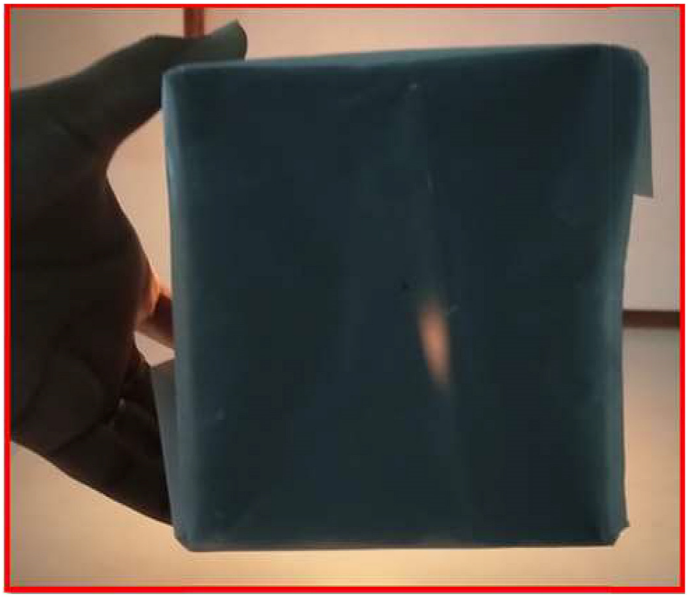


Working- When the rays of a light pass through a pin hole camera, inverted image will be formed on the screen.

Future STEM Explorers

Future STEM Explorers

Pinhole Camera



Learning Outcomes:

Students will be able to

- Analyze that light travels in a straight line
- Understand the property of image formed by pinhole camera

Pin Hole Camera

A **pinhole camera** is a simple camera without lens and with a single small aperture. Effectively it is a light proof box with a small hole on one side and translucent screen on opposite side.
E.g. wax paper, Tracing paper, translucent cloth.

Pin Hole Camera is different from a normal camera as there is no lens in it.

Front and back view of pinhole camera:

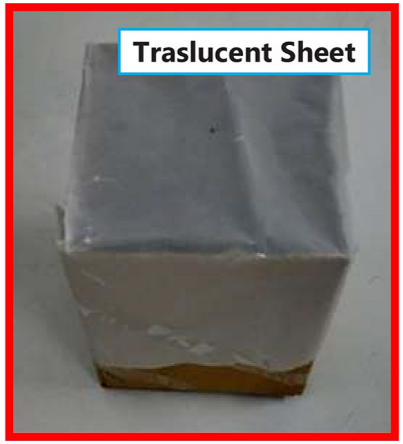


Image formed by pinhole camera

In pin hole camera, the rays reflected from the top of the object reach the lower part of the screen whereas the rays reflected from the lower part of the object reach the upper part of the screen, forming an inverted image on the screen. This happens due to the fact that light travels in a straight line.

Quiz Time

1. What is pinhole camera? How is it different from a normal camera?

2. Why an inverted image is formed on a screen?

3. Why do we take a light proof box to make pinhole camera?