

## Making a Camera

### Your Task

Create a pinhole camera using the instruction sheet

Use the camera to investigate your surroundings

You will need a bright day to get the best effect

Investigate ways you could improve the camera design

### You Will Need

- A4 Paper
- Silver foil
- Cocktail stick
- Elastic bands
- White tissue paper

**Did you know?**

People used a device similar to the pinhole camera to help them draw and paint pictures

To allow more light in they used a bigger hole and a lens to focus the image on the paper

**During this task you will**

Notice that the image from a pinhole camera is inverted and reversed

Investigate different ways of making the camera

Consider that light travels in straight lines

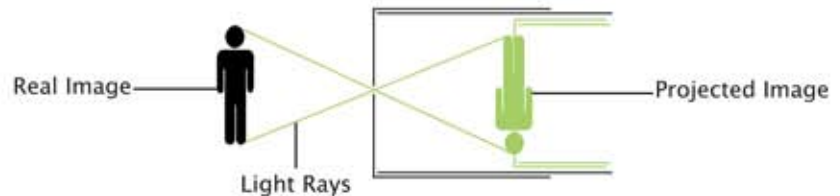


## Pinhole Cameras

### Background Information

The pinhole camera effect is one you may have noticed at the top of closed curtains on a bright morning when you can start to see the shapes and colours of objects outside. The effect was first noted in China during the 5th Century BC.

The image you see from the pinhole camera is upside down and reversed. This is because light travels in straight lines.



### Instructions

1. Roll about 5 sheets of A4 paper to form a tube with about 3cm diameter. Secure the roll with tape.
2. Place 2 layers of foil on one end of the tube and hold it with an elastic band. Create a small hole in the foil using a cocktail stick.
3. Roll another tube 3cm shorter than the first with a diameter of 2.5cm.
4. Place tissue over the end of this tube and secure with an elastic band. This is your screen.
5. Place the screen into the main tube and look through.

