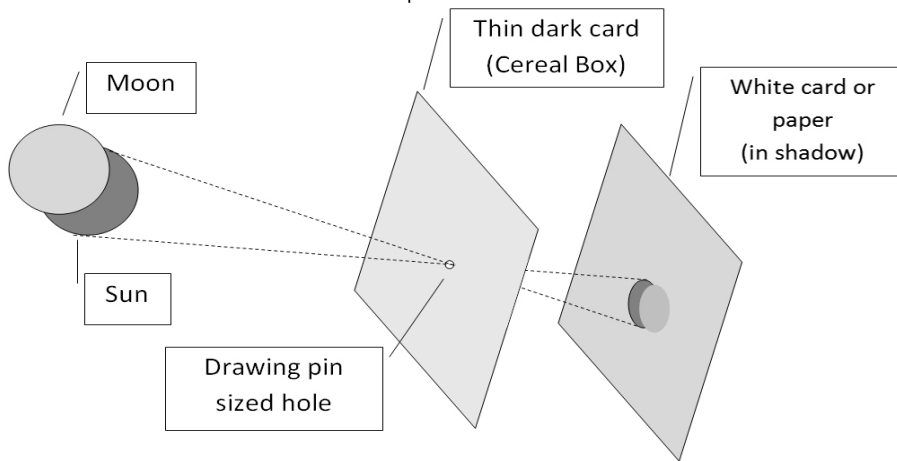


IMPORTANT: NEVER LOOK DIRECTLY AT THE SUN, even during a total eclipse. To use this method, keep the Sun to your back.

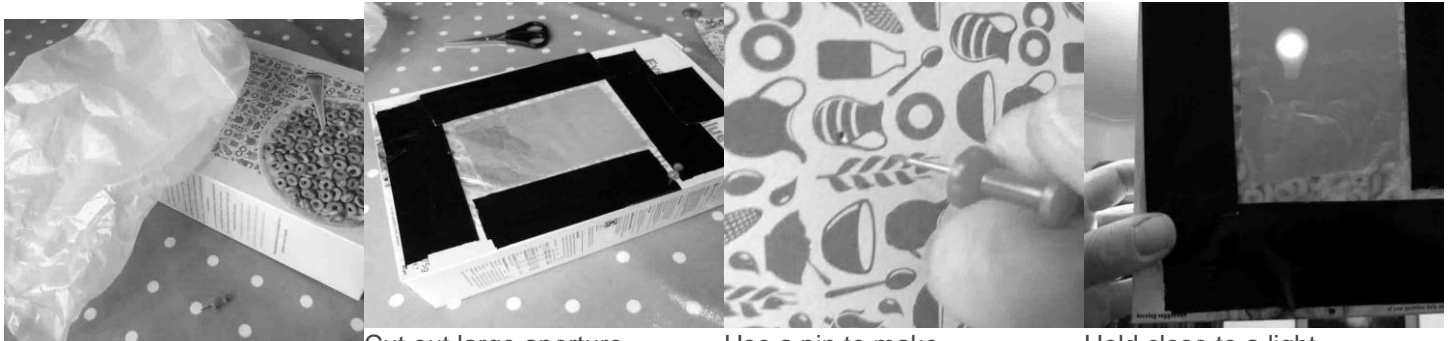


The Cereal Box Pinhole Camera

Time required = 20 minutes.

Materials and tools required :
Empty cereal packet, tape, scissors, pin.

An excellent project to give to students for homework. The final image is quite dark so the obscura needs to be held close to a lightbulb to show the inverted image.



Empty packet and bag(screen)

Cut out large aperture on box and tape the 'screen' over the gap.

Use a pin to make a pinhole on the face opposite the screen

Hold close to a light source to view image (inverted light bulb).

An improvement on the design can be made by cutting a slot into the box, inserting the screen and making the hole in the base.

The image can then be viewed with the box acting as a shade to allow outside viewing.

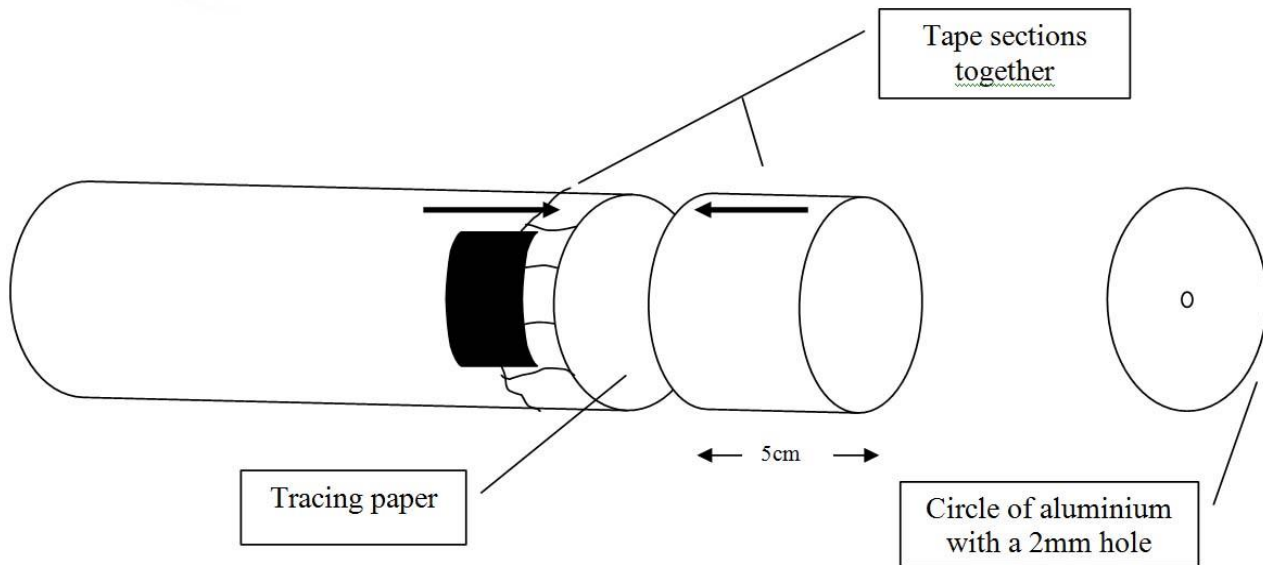


The Tube Obscura Pinhole Camera

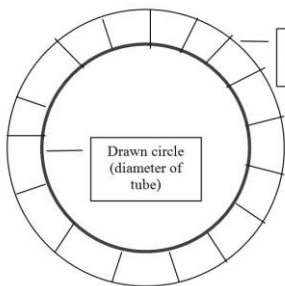
Time required = 25 minutes.

Materials and tools required :

Empty tube, tape, tracing paper, breadknife-hacksaw, scissors, pin.



- Cut the end off a cardboard tube (using a breadknife or small hacksaw) then tape some tracing paper tightly over the cut end of the tube.
- Re-assemble the tube with the tracing paper inside.
- Use the same tube to trace a circle on a thin sheet of aluminium. (A flattened out drink can works well although thin black card will also work).
- Make a pinhole (the size of a drawing pin) in the centre of this circle. Cut the circle out with the hole in the centre and tape over the end of the tube.
- Look through with one eye whilst blocking the excess light with your hands.



Tracing paper outline



Tracing paper inside tube



Using the tube obscura

The tube obscura also has a great 'pirate' feel about it!

These instructions are from <http://www.pinholephotography.org/camera%20obscurer.htm> (Last Accessed 28 April 2017)