

Build a Solar Projector...

(see www.CountdownToEclipse.net for more information)

First, eat lots of Quaker Oatmeal ... its good for you ... till you have three empty containers...



Next, remove the lid on one container. Tape or glue a round white piece of paper on the *inside* of the lid and replace on the container. See below



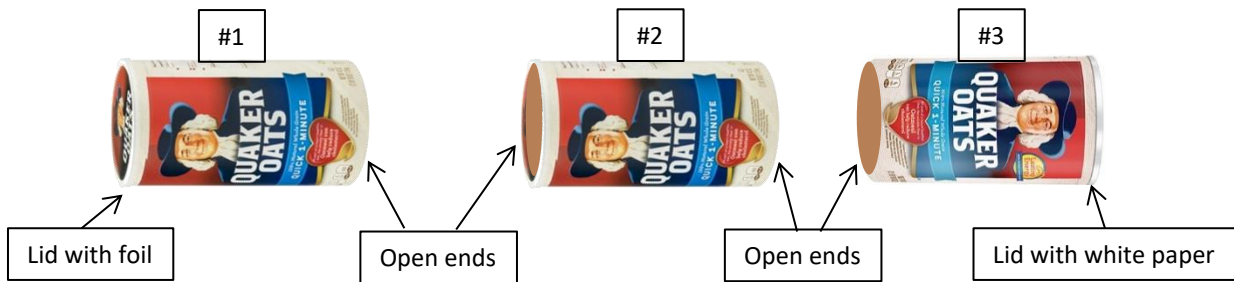
Then, remove the other end of the container, but leave a "lip" to give it more strength. Call this container #3

Remove the lid and the other end of a second container. Leave the lip on this container too. Call this container #2.

On the third container, remove the lid and cut a small round hole in its center. Cover the hole with aluminum foil. Use a needle or safety pin to punch a hole in the center of the foil. Replace the lid on the container and remove the other end, leaving the lip for strength. Call this container #1.



Lay the three cartons on a table in the order shown below.



Wrap two containers with BLACK poster paper as shown below.



Tape the poster board to oats containers to form a tube. The center oats container serves to provide support.

Repeat on the bottom half to form one long tube.



Cut out a “mouse hole” in the end with the white paper as shown on the right. This is your viewing area where you will see the sun.



Hold the pinhole projector with the foil end pointing at the sun. Do not look at the sun to aim the tube. Instead, look at the shape that the tube makes on the ground. Rotate the tube till the shadow shape is roughly circular.

Make minor alignment adjustments while looking in the viewer end of the tube. You will see a round bright light on the white paper. This is the sun! Sometimes you can even see sunspots!

The longer the tube, the bigger the size of the projected sun. To calculate the size of the projected sun, divide the tube's length (in feet) by 9. This gives the sun's image diameter in inches