



MEASURING THE SIZE OF THE SUN

Materials required:

- > A box (You can use the postage box the STEM activities came in)
- > Aluminium foil
- > Sticky tape
- > A sheet of white paper
- > A ruler
- > A pin or thumb tack
- > Scissors

Instructions:

1. Cut a 2x2 cm square out of the centre of one of the short sides of the box. Place the aluminium foil over the cut-out and tape it down.
2. Use the pin or needle to pierce the foil.
3. Line the inside of the opposite end of the box with the white paper.
4. Measure the length of the box, from the hole to the sheet of paper.
5. Point the foil-covered front end towards the Sun. Do not look directly at the Sun!
6. Use a ruler to measure the image of the Sun on the piece of paper, using the same units you used to measure the length of the box.
7. Diameter of the Sun = size of image / length of box * 149,600,000 km

Instructional video available here:
youtu.be/_Fy_jjIBluk

You can even repeat this with the Moon!
Use the same box (steps 1 – 4), then:

1. Point the foil-covered front end towards the Full Moon.
2. Use a ruler to measure the image of the Moon on the piece of paper.
3. Diameter of the Moon = size of image / length of box * 384,400 km
4. If you want to go further, change the size of the box and see what happens!

Contact

T 02 6125 9909
E science@anu.edu.au
W science.anu.edu.au