Make a star scope

You will need:

- Cardboard tube (paper towel / toilet roll)
- Black craft cardboard (220gsm)
- Acrylic paint (different colours)
- Glue
- Scissors

Image: Star scope items

Step 1

Head to our #AstronoMay webpage and download our "Constellations and Asterisms Sheet". Print the document and choose a constellation or asterism.

If you don't have a printer, use a mug to draw a circle onto white paper. Use an eggcup to draw a smaller circle inside the bigger circle. Draw your constellation or asterism inside the smaller circle.
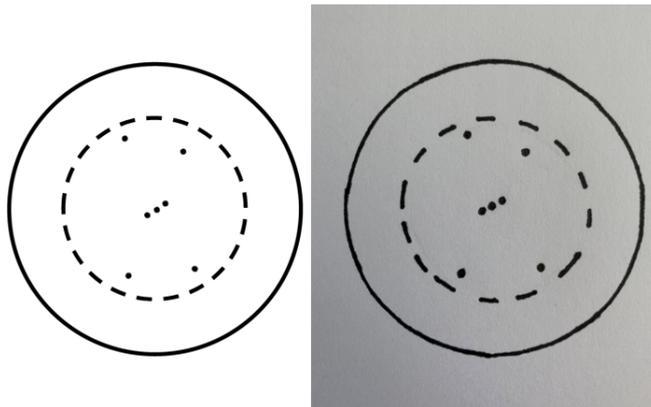

Image: Step 1 Image

Step 2

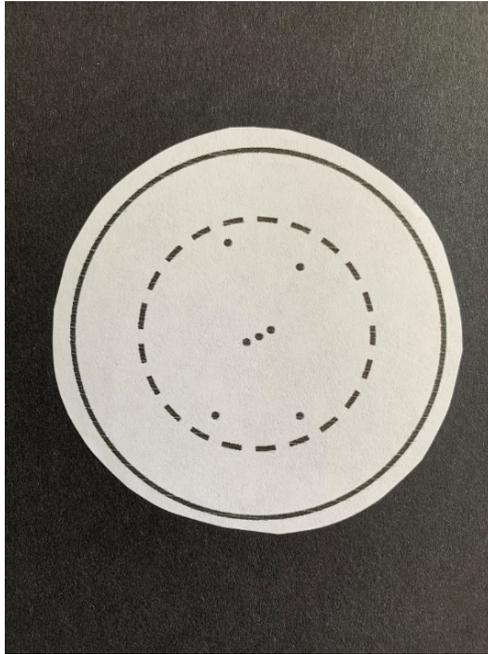Cut out your paper star disc and paste it onto a cardboard sheet.

Image: Step 2a Image

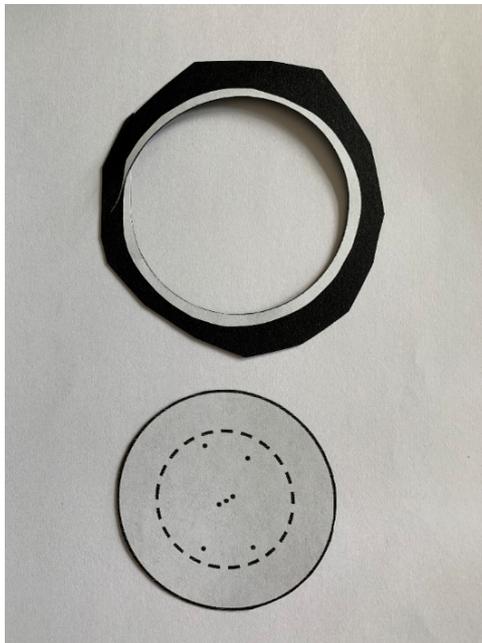Once the glue has dried, cut out the cardboard star disc.

Image: Step 2b Image

Step 3

Ask an adult to help you with this step.

Place the star disc onto a soft surface, such as a sponge or packing foam, and use a sewing needle to poke holes through the dots on your star disc.
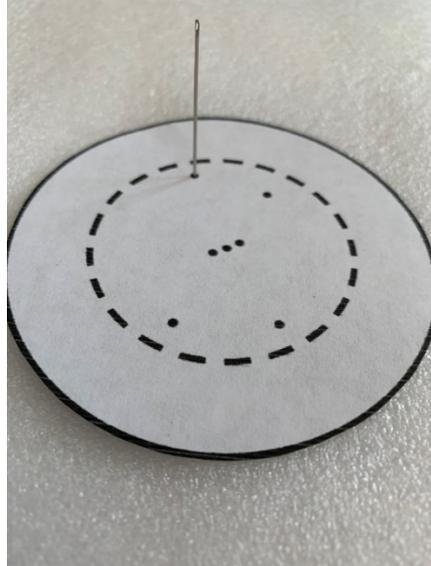

Image: Step 3 Image

Step 4

Using the acrylic paints, or coloured marker pens, decorate your cardboard tube – remember to write the name of your chosen constellation or asterism on the side of the tube.

Image: Step 4 Image

Step 5

On one end of the tube, cut a fringe into it and fold the fringe out as shown.

Image: Step 5 Image

Step 6

Glue the cardboard tube to the white paper side of your star disc – press the tube down onto the disc to help it stick properly. Leave to dry.
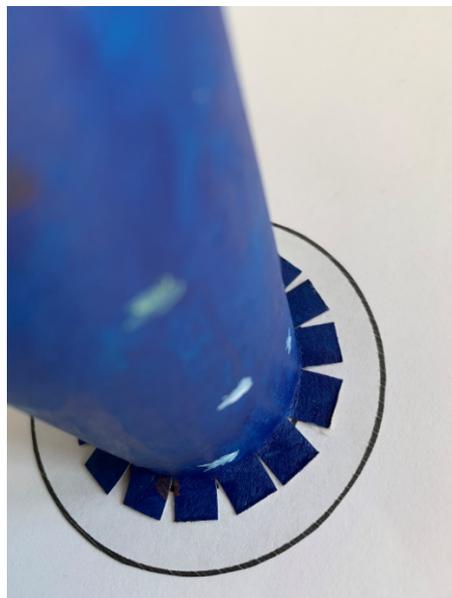

Image: Step 6 Image

Step 7

You're now ready to look at your constellation or asterism! Hold your star scope up to a bright window and have a look through it. IMPORTANT – Don't look through your star scope up at the Sun, you can cause damage to your eyes.

Try using a single LED flashlight or your phone to project your constellation or asterism onto a wall.

Image: Step 7 Image

Have fun creating different star scopes and remember to share your photos with us @ROGAstronomers

Image: End Image