

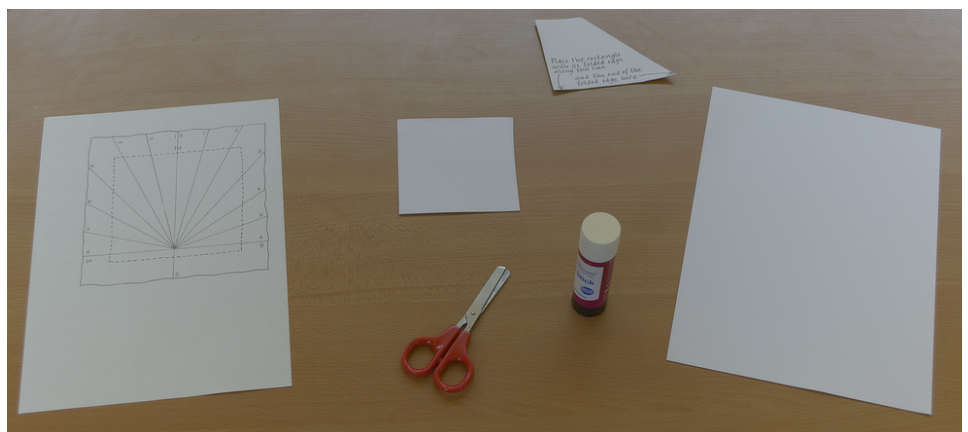
Make a Sundial

What is this activity about?

Looking at a very early method of measuring time.

What you need:

- Templates from this document
- Blank paper and light card - see the photo: the square has a side of about 10 cm
- Pens and pencils for colouring
- Scissors
- Glue



How is it linked to PK Porthcurno?



Parts of the telegraph system relied on very precise timing.

A sundial isn't very accurate, but it is an important step in how people first began to understand how to measure time.

It needs the kind of careful building skills that the telegraph engineers used in looking after the delicate equipment.

This stone sundial clearly shows the **dial plate** (the part with the numbers on) and the **gnomon** (the part that casts the shadow)

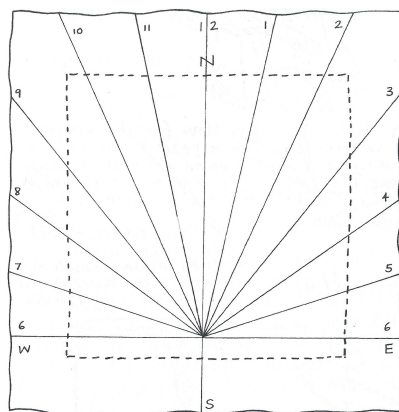
Your Challenge

- Build a sundial
- Use it to tell the time
- Work out why it does not tell the time accurately

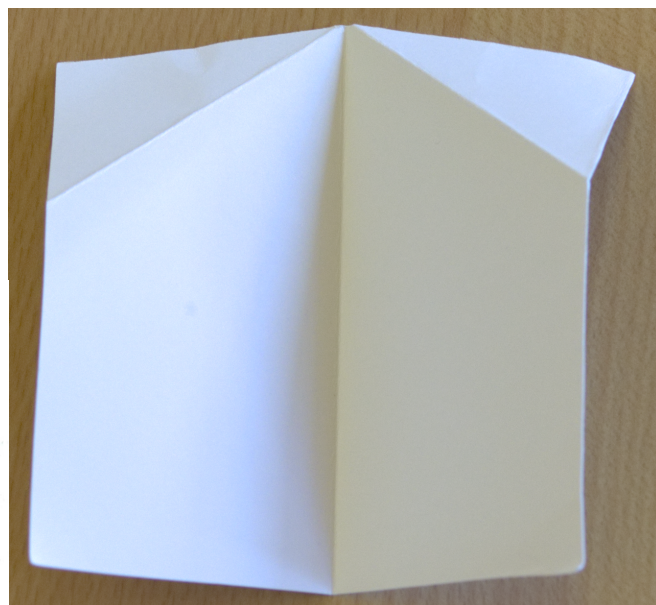
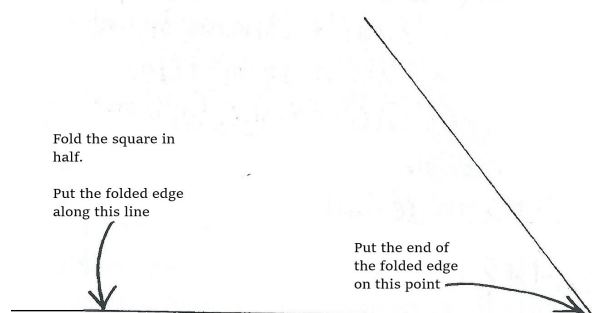
Building your sundial

First, print the templates from the end of this document. The build is easiest if you can use light card for the dial plate and gnomon, and stick the folding guide to heavy card.

Cut out your dial plate.



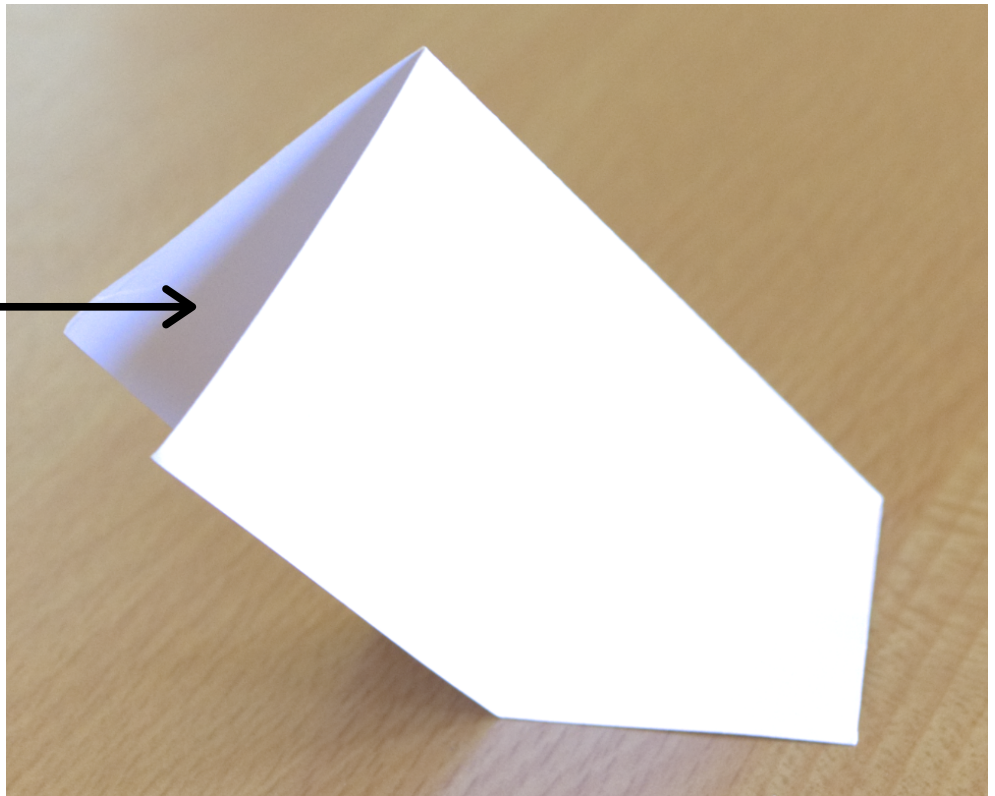
Use the gnomon folding template to fold your square of card to make a gnomon. You will need to flip the template over after folding the first side.



This is a good time to decorate your dial plate and gnomon.

Glue the two sides of your gnomon together.

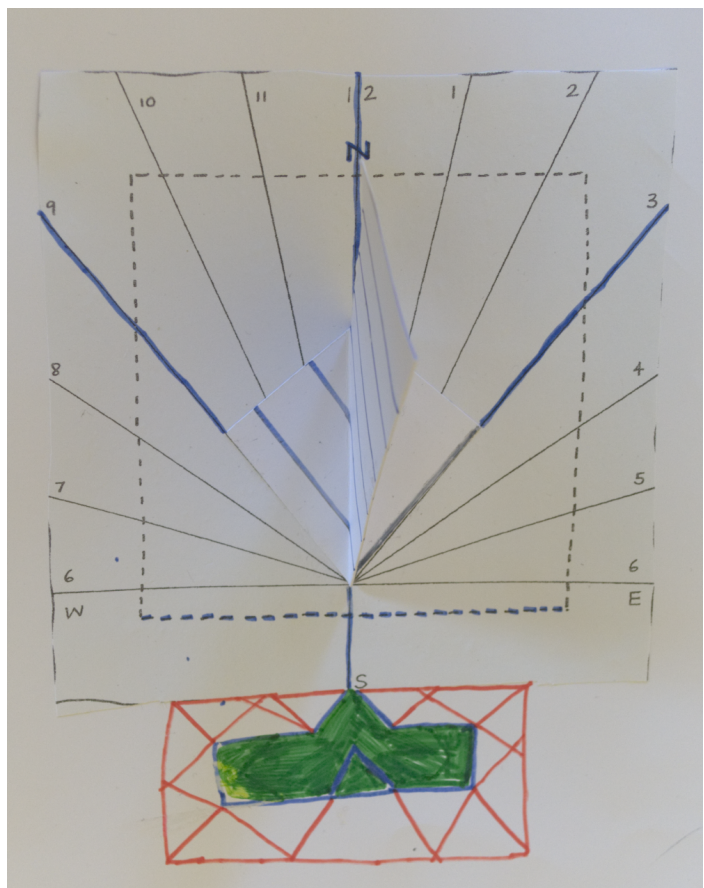
Glue in here and
press together.



Now glue your gnomon to your
dial plate. Make sure you line it
up between the North and
South labels.

Wait for a sunny day. Place
your sundial so that N on the
dial plate points North.

What's the time?



Did you know?

- Your sundial is built for use near Penzance, although it will be reasonably good anywhere in the UK.
- It will probably show a time that's different to the one your clock or watch shows.
- There are several reasons for this. Can you think of some?

Look out for future STEAM Explorers activities...

We hope to see you in real life soon - keep an eye on our social media and website!

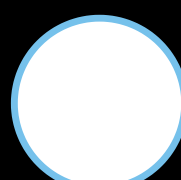
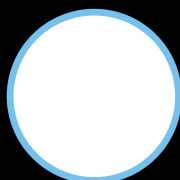
Connect with us

We'd love to see pictures of your sundials telling the time.

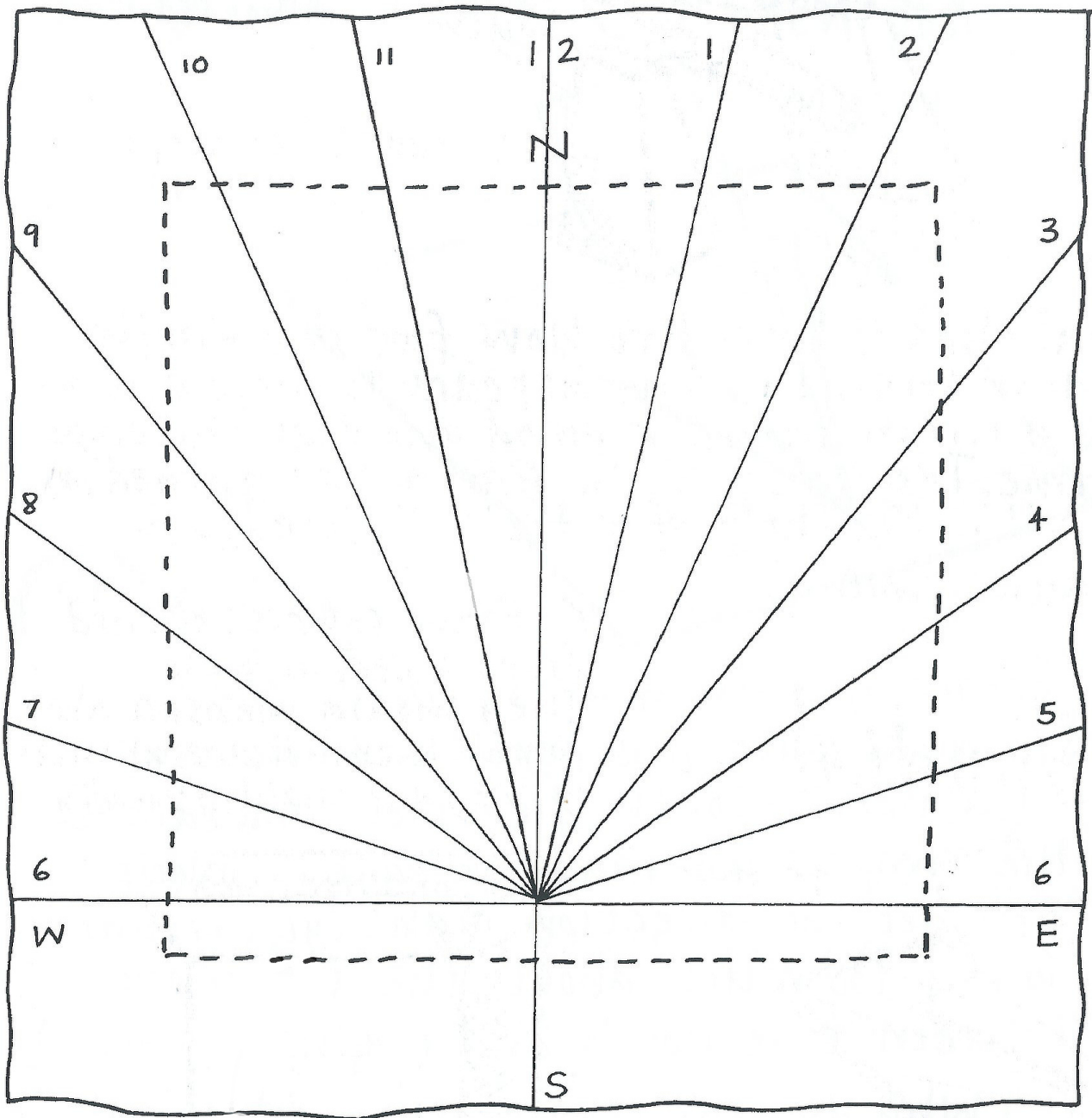
#PKPorthcurno #PKSundial #SteamExplorers #PlayfulMuseums



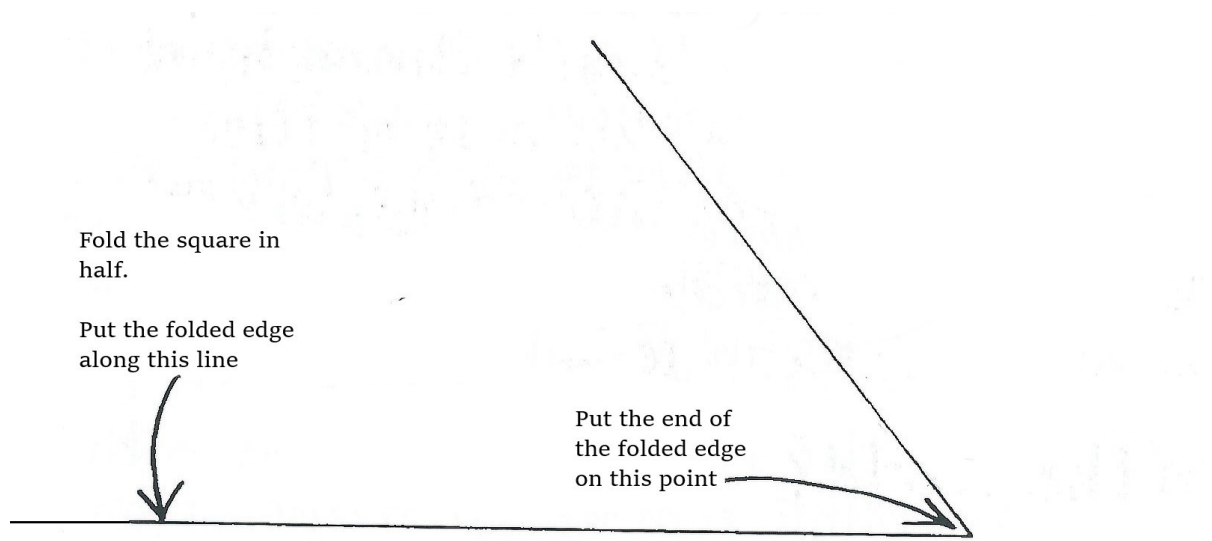
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Template: Dial Plate



Template: Gnomon Folding



- When you have stuck this template to stiff card, it will help you to fold your gnomon correctly.
- Be sure to cut accurately along the two marked lines. The other sides of the template are less important, as long as you end up with a trapezium shape.

