MAKE YOUR OWN PAPER SEXTANT

The latitude of a place is its location north or south of the equator. Knowing your latitude can help you work out where you are on a map. In the northern hemisphere you can work out your latitude using the North Star. The latitude of anywhere in the northern hemisphere is the same as the angle of the North Star above the horizon in that place.

Using an instrument called a sextant, you can find out the angle. Follow the instructions to create your own simple sextant, then use it to discover your latitude.

Making:

1. Cut out both parts of the sextant and the centre of the pendulum.

2. Fold along the fold lines on the main part of the sextant to make the sight tube. Keep folding inwards so that you form a box shape.

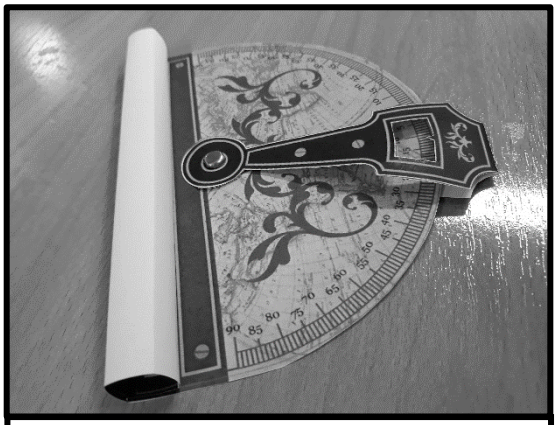
3. Stick the back of panel A to front of panel B.

4. Fold the pendulum in half along the fold line then using a split pin, make a hole in the centre circle on both parts of pendulum.

5. Put one-fold of the pendulum on either side of the semi-circular main part of the sextant. (See picture)

6. Push the split pin through both sides of pendulum and the main part of the sextant and secure the pin.

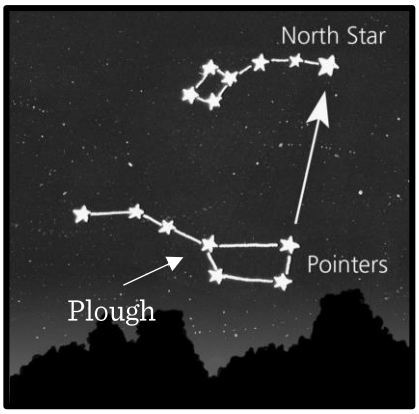
7. Your sextant is now ready to use!

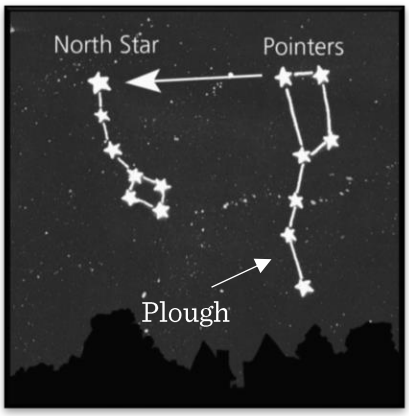


Finished sextant

Using:

1. Find the North Star. You can do this by using the Plough constellation and a compass to help you find north.



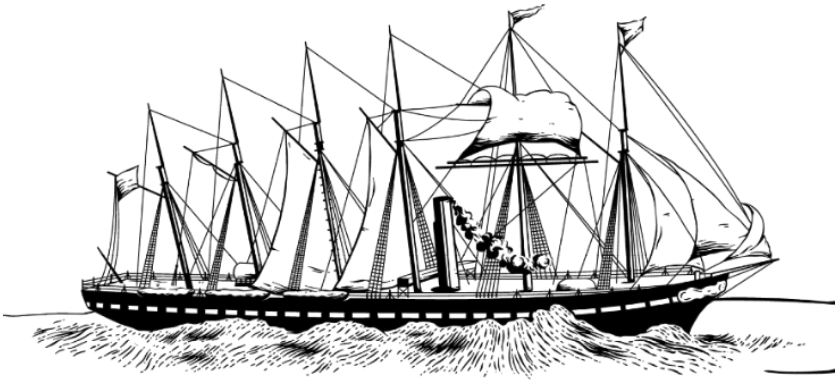


2. Now you've found the North Star you can use your sextant to measure the angle of the star above the horizon.

3. Look at the star through the sight tube. Let the pendulum part of the sextant swing freely until it stops moving.

4. Carefully press the pendulum to the sextant body, then take it away from your eye.

5. Look at what angle the pendulum is pointing to. This angle is your latitude!



Sextant

A

Stick the back of this section to B

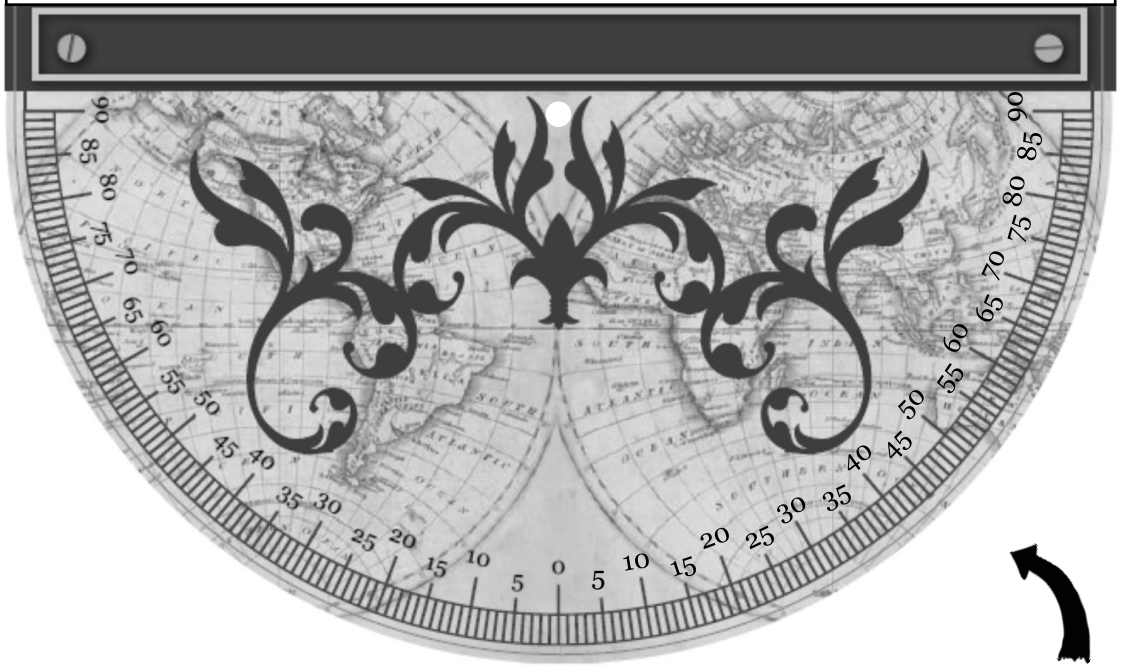
Fold

Fold

Fold

Fold

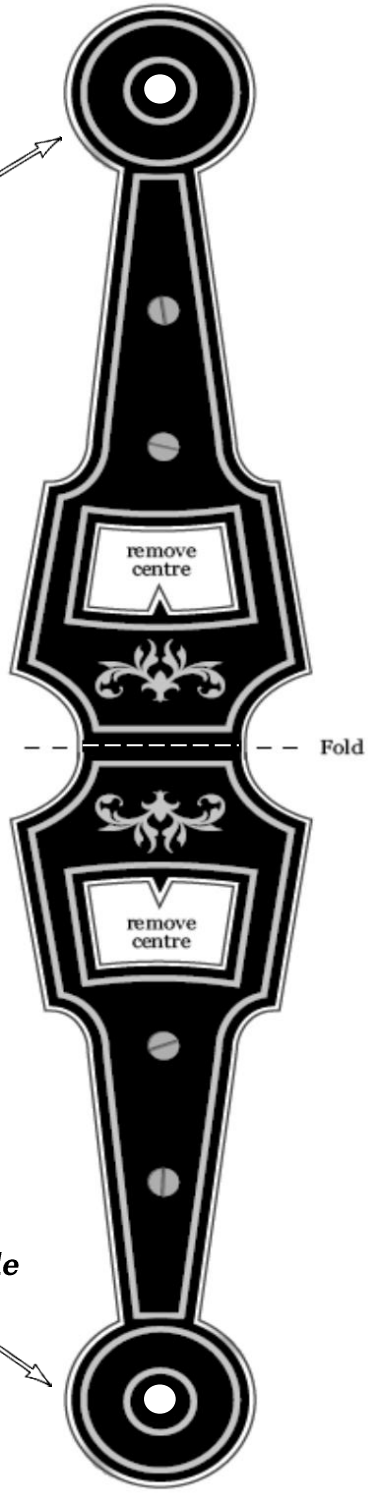
B



Main part

Pendulum

Make a hole in the middle for the pin



Make a hole in the middle for the pin