

Scouting at Home



Suitable for: Joeys | Cubs
Time needed: 30 minutes



Creative
Challenge Area

Making a compass

Make a simple compass and show the effects of metallic and magnetic materials upon it.

You will need

- Piece of paper
- Felt-tipped pen
- Plate or saucer
- Water
- Piece of cork (a slice from a wine bottle cork is ideal)
- Sewing needle
- Magnet

Instructions

1 Take the needle and magnet. Stroke the magnet against the needle. It is important that the needle is always stroked in the same direction. The more times the needle is stroked the more molecules are pulled in line and the stronger the magnetised needle will become.

2 Fill the plate with water and place the cork on top of the water. The cork will float.

3 Rest the magnetised needle on the cork. The cork will rotate and the needle will point in a North-South direction.

4 Use the felt-tipped pen to mark the sheet of paper with the points of a compass (North, South, East and West). Gently lift the saucer and place on top of the paper. Make sure 'North' is aligned with the magnetised part of the needle.

How does it work?

The Earth acts like it has a magnet inside it. The magnetised end of your needle is attracted to the North Pole of the Earth because the 'magnet' inside the Earth has its south end facing towards the North Pole. Opposite poles attract, so this explains why the north end of the compass needle points toward the south end of the magnet within the Earth - the North Pole.

Taking it further

Why don't you investigate why a compass is needed? Think of as many situations as you can when a compass would be useful and write about why.

