



THE MULBERRY HOUSE
SCHOOL

Finding your way back home!

Key vocabulary:

- **Navigate** – to find your way back from one place to another
- **Compass**
- **North**
- **East**
- **South**
- **West**
- **Earth's magnetic field**

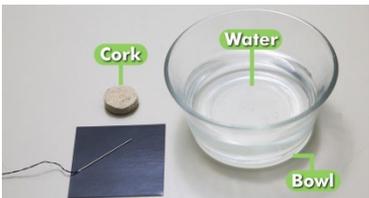
Let's imagine that we are going camping for the weekend with our family. What do you think we can use to navigate our way back home? One of the most common equipment that we can use is a phone or a map. But, what if we didn't have any of these available to use? Did you know that we can use a compass instead to help us navigate?

Instructions:

1. With an adult, carefully rub one end of the needle on one side of the magnet 30 times. Always rub in the same direction.
2. Flip the magnet over and rub the other end of the needle on this side 30 times. Again, rub in the same direction; remember an adult must be with you!
3. Place the magnetised needle onto the piece of cork.
4. Gently place the needle and cork into the bowl of water.
5. The needle will turn and then come to a complete stop. It will be facing magnetic north. You can check this by placing the compass next to the bowl.
6. Label the circle with the corresponding N (north) and S (south) directions. You now have a homemade compass!

What you need:

- **Magnet**
- **Needle**
- **Paper**
- **Water**
- **Bowl**
- **Cork**
- **Adult supervision**



Why does the needle move?

The needle is being affected by the Earth's magnetic field. One end points towards magnetic north and the other end points south. You can use a compass to check which direction each end is facing.

The Sun is in the South at about midday, so you can also check your compass is working if one end points in that direction. The other end of the needle will be pointing north, away from the Sun.

Where are compasses used?

When it is dark or foggy, ships need to know they are sailing in the right direction. A ship's navigator uses a compass to check that they are still on course. Explorers also use a compass to help them find their way and avoid getting lost.