



THE COMPASS Finding Your Way

Reading a Map

Orienteering

Orienteering is a sport involving travelling from one place to another using a map and compass.

Today, when we hold a map, we hold it with North to the top, however this has not always been the case.

During the middle ages maps were drawn with the East at the top and North to the left.

The compass needle would be horizontal not vertical.

The Orient (to the east) was at the top.

We still Orientate ourselves when finding out new surroundings.

We go to an Orientation meeting when we start at a new job – to find our way.

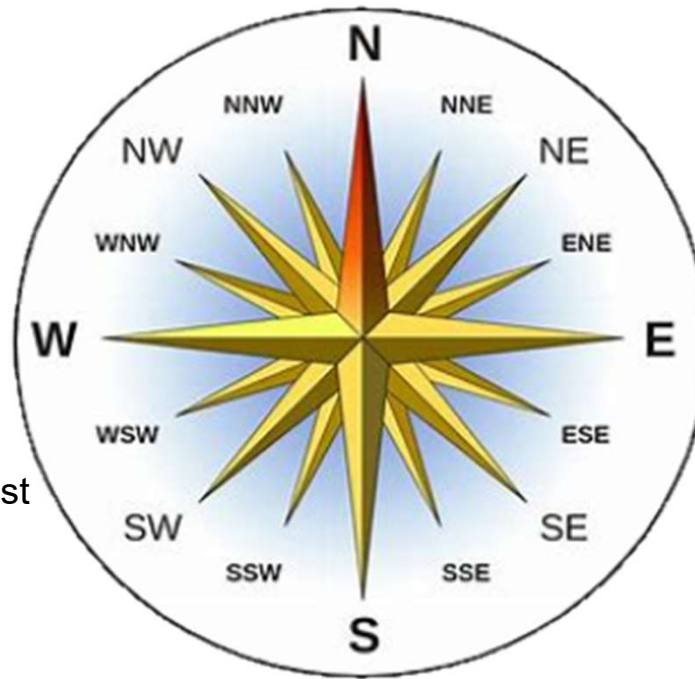


Compass Points

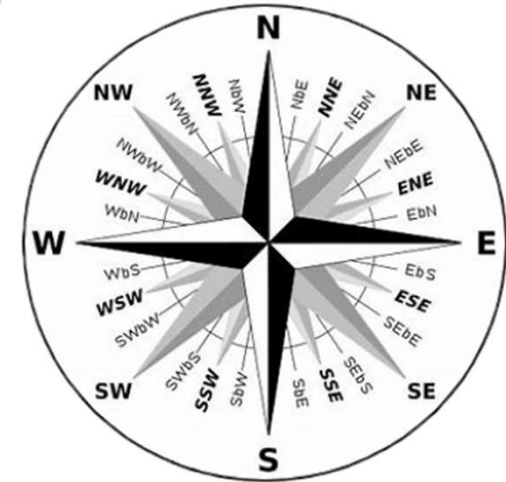
The compass rose is firstly divided into the four cardinal points, North, South, East and West.

These points are dissected by the four ordinal points, North West, North East, South West and South East.

These are then sub divided again, forming 16 points.



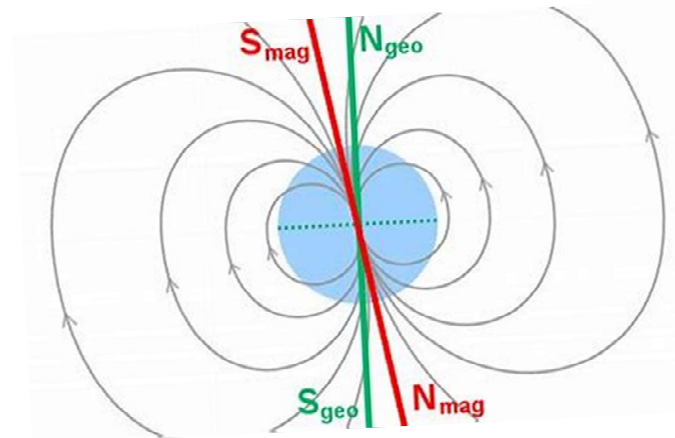
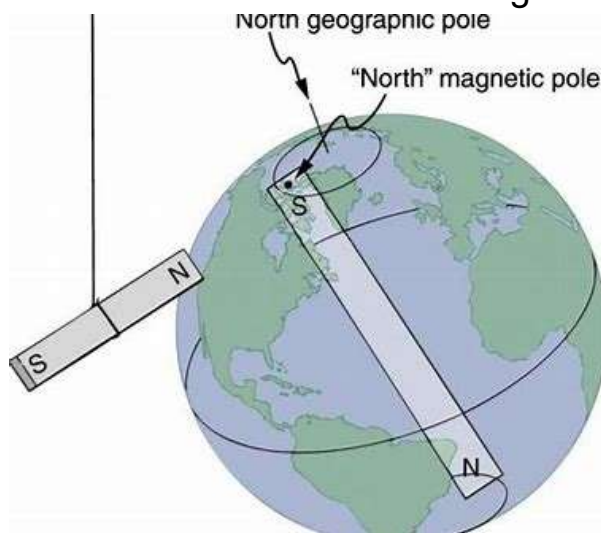
The compass may be divided again to 32 points, or smaller again (usually quoted in degrees).



Magnetic Field

A compass does not point to the north pole.
Magnetic North and the north pole are not in the same place.

The Earth is surrounded by a magnetic field.
The magnetised needle of the compass aligns with this magnetic field to point North/South.



Early Compasses

The earliest recorded compasses were used by the Chinese 2700BC. These compasses were made from loadstone, a magnetic ore.

Suspended from a wooden frame the loadstone could move freely and, attracted by the earth's magnetic field, align North/South.

The ore could also be used to magnetise a metal needle and that needle could be floated on water to point North/South.

Later the ore would be shaped into a 'spoon' that would turn so that the handle would point to the south, laid on a marked stone it was a useful navigational tool.



Time to test...

You will need...

A bowl, or saucer of water.

A fine sewing needle.

A piece of toilet paper, you can use a leaf.

A magnet, try a fridge magnet.
(you don't need a compass but if you have one you can use it to check)



Split the layers of toilet paper and tear a small square.

Take the needle and rub it over the magnet.



Take the layer of paper and float it on the surface of the water. Gently lower the needle onto the paper.



The needle should move to a North/South alignment.
If it doesn't move you may have placed it in the right place.
Try again placing the needle at 90° and watch it move.
If it doesn't move this time the needle may not be magnetised, try leaving it on the magnet overnight and test again.
(The paper may sink leaving the needle floating)



