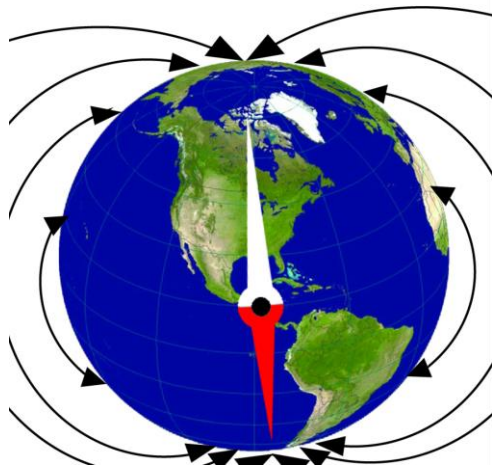


### Why is a compass so useful?

The compass needle is a magnet that lines up with the earth's magnetic poles to the North and South. When you use a compass not only will you know where North is but all the other directions too.



## Year 3 Science Forces and Magnets



### What is a magnet?

A magnet is a piece of iron that can attract some other metals towards it.

A magnet has two ends called poles, one of which is called a North pole, while the other is called a South pole.

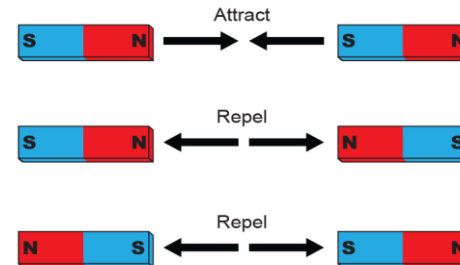
### Not all metals are magnetic

Some metals like iron and steel are attracted to a magnet. We say these metals are magnetic. Metals like copper and aluminium that are **not** attracted to magnets are called non-magnetic.

### How do magnets attract and repel each other?

Magnets **attract** each other when a North pole and South pole pull together.

Magnets **repel** when like poles push other away from each other.



### Significant Scientist: William Gilbert 1544-1603

William Gilbert was a British doctor and scientist who founded the scientific study of magnetism. He discovered that our planet has two magnetic poles; he defined these poles correctly and established that the earth behaves like a giant magnet.



### Key vocabulary

magnet	A piece of iron that can attract some other metals towards it
force	Forces are pushes and pulls. Magnetism is a natural force of push and pull
attract	When magnets attract, they pull together
repel	When magnets repel, they push each other away
magnetic	Iron and steel are attracted to magnets
non-magnetic	Materials that are not attracted to magnets
magnetic field	Magnets produce an area of force around them
metal	A hard substance such as iron, steel, gold or lead
opposite	North and south are opposite to each other
pole	Opposite ends of a magnet are called poles