



Magnets

Prior Year 2 Learning:

- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Year 3 Learning

- compare how things move on different surfaces
- notice that some forces need contact between two objects, but magnetic forces can act at a distance
- observe how magnets attract or repel each other and attract some materials and not others
- compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- describe magnets as having two poles
- predict whether two magnets will attract or repel each other, depending on which poles are facing

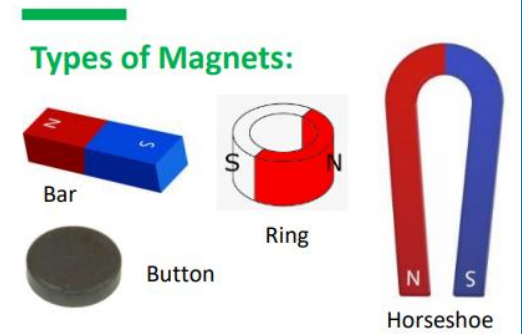
Forces

A force is a push or pull that acts upon an object. We can't see forces, but they are an important part of our everyday lives.

We push and pull objects to do many different things. When we push or pull objects, we can move the object, change the object's shape, or make the object change direction.

pushes	pulls

Magnets can be lots of different shapes, sizes and colours, but they will always have a north and south magnetic pole.



Magnets are usually made from iron. They can attract and repel other objects with their magnetic forces. Magnetic forces act at a distance meaning that a magnet does not need to be in contact with another object for the magnetic forces to act.

Magnetic



Not all metals are magnetic. Iron and steel are two metals that are.

Magnets and their poles

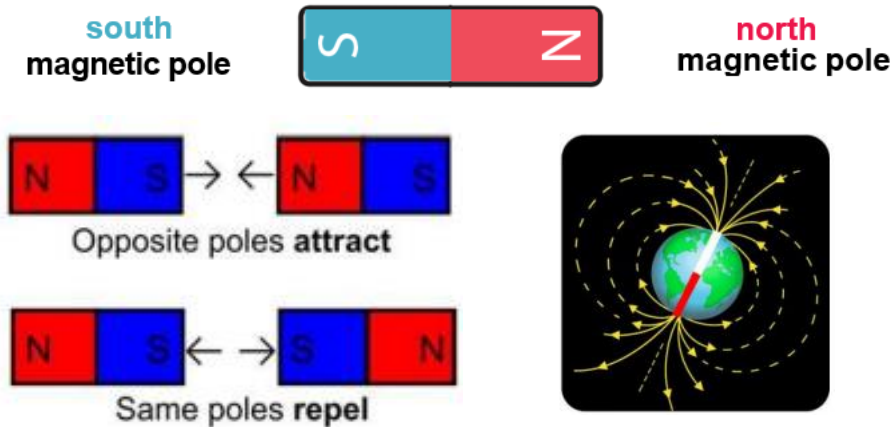


Same poles repel.

If you try to put two magnets together with the same poles pointing towards one another, the magnets will push away from each other. We say they repel each other.

Different poles attract.

If you put two magnets together with different poles pointing towards one another, the magnets will pull towards each other. We say they attract each other.



The Earth has a magnetic field, having a North Pole and a South Pole.

Key Vocabulary

push	To move something away.
pull	To move something towards.
magnet	Something that has a North and South pole, which attracts and repels magnetic objects.
magnetic	Something that is attracted to a magnet.
magnetic field	The space around a magnet within which the force of magnetism acts.
attract	A pulling force created by a magnet.
repel	A pushing force created by a magnet.
contact	When one thing touches another for a force to happen.
non-contact	A force which acts on an object without coming physically in contact with it.
north pole and south pole	The North and South poles are opposite ends of a magnet. The magnetic field flows from North to South.
friction	the force that acts upon one surface when it moves against another.