

Year 3 Science – Forces and Magnets Knowledge Organiser

Key Vocabulary

Forces – pushes or pulls.

Friction – a force that acts between two surfaces or objects that are moving, or trying to move across each other.

Surface – the top layer of something.

Magnet – an object which produces a magnetic force that pulls a certain object **towards it**.

Magnetic – objects which are attracted to a magnet are magnetic. Objects containing iron, nickel or cobalt are magnetic.

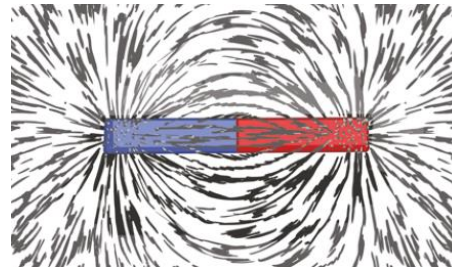
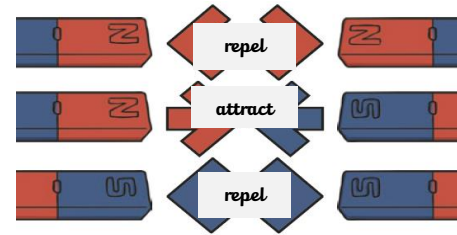
Magnetic field – the **area around a magnet** where there is a **magnetic force** which will pull magnetic objects towards the magnet.

Poles – north and south poles are found at either end of a magnet.

Repel – repulsion is a force that pushes objects away. For example, when a north pole is placed near the north pole of another magnet, the two poles repel (push away from each other).

Attract – attraction is a force that pulls objects together. For example, when a north pole is placed near the south pole of another magnet, the two poles attract (pull together).

South and South **attract**.
North and North **attract**.
North and South **repel**.



Magnetic Field

A magnetic field is invisible. You can see the magnetic field below. This is what happens when iron filings are placed on top of a piece of paper with a magnet underneath.



The needle in a compass is always **magnetic**. A compass always points north-south on Earth.

Non-magnetic



Magnetic



These objects contain iron, nickel or cobalt. Not all metals are magnetic.

Push



Pull

