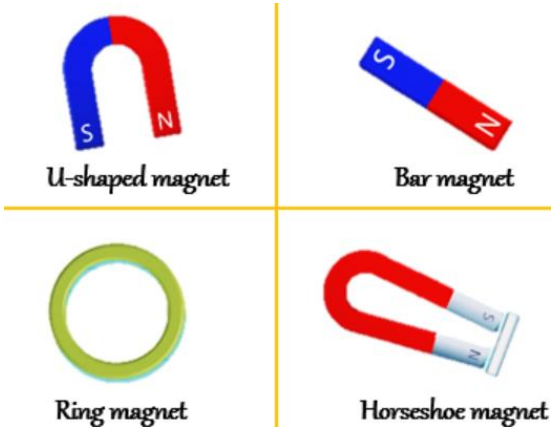
YEAR 3 - FORCES & MAGNETS

What is a force?

A force is the push or pull of an object in a particular direction.



Friction

The grip on our shoes stops us slipping. Therefore, friction is great. Ice-skates on an ice-rink will move for a long time because there is very little friction. **The rougher the surfaces, the greater the friction.** This rubbing of two surfaces can release energy, causing heat.

Related vocabulary	Definition
forces	the pushes and pulls which act on our bodies and the things around us to make things move and stop moving.
materials	the matter or substance that objects are made from. Different materials have different features, or properties, which make them suitable for different uses.
push / pushing	any action moving an object away from you.
pull / pulling	any action moving an object towards you
friction	a 'sticking' force – the resistance that a surface or object encounters when moving over another surface or object. E.g. Air resistance, water resistance and surface resistance.
magnet	an object that has a magnetic field (an invisible pattern of magnetism). A magnet attracts or repels other items.
magnetic force	an invisible force created by electrons. Magnetic force controls magnetism and electricity.
poles	the north pole is the end of the magnet attracted to the Earth's North magnetic pole; a magnet's south pole is the end attracted to the Earth's South magnetic pole.
attract	to pull together with physical force
repel	to move or force back or away.
contact force	a force that must directly touch another object to affect it.
non-contact force	a force that affects something at a distance e.g. gravity or magnetism.

Objects that contain iron, nickel or cobalt are magnetic. <u>Not all metals are magnetic!</u>

Magnets have **2 poles**, a north pole and a south pole.
Opposite poles attract.
Same poles repel.