Year 3

Forces and Magnets

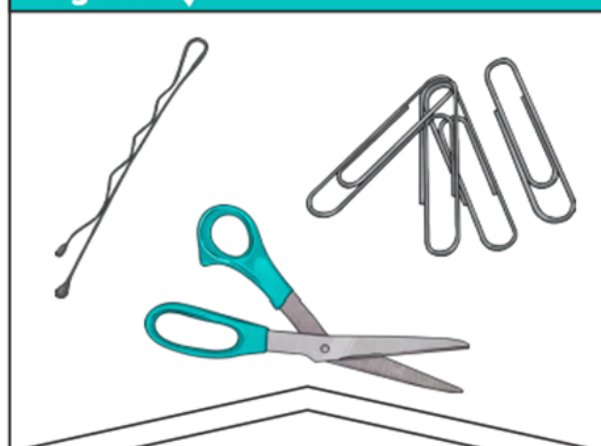| Key Vocabulary			

Pre existing knowledge

- The shape of some materials can be changed when they are stretched, twisted, bent and squashed.

- Know what a force is and be able to explain that a push and pull are types of forces.

- Know that when forces are applied to an object, they allow them to move or stop moving.

Different surfaces create different amounts of friction. The amount of friction created by an object moving over a surface depends on the roughness of the surface and the object, and the force between them.

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 certain objects towards it.
Magnetic	Objects which are attracted to a magnet are magnetic. Objects containing iron, nickel or cobalt metals 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 different ends 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).

Magnetic ✓

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

Non-magnetic ✗

These objects do not contain iron, nickel or cobalt.

Pushing force

Friction

Pushes

Pulls

Forces will change the motion of an object. They will either make it start to move, speed up, slow it down or even make it stop.
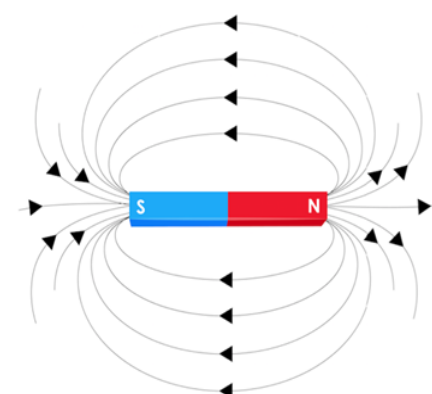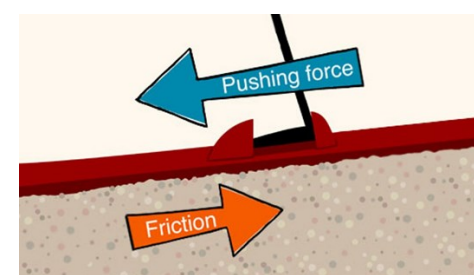
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Forces act in opposite directions to each other.

Friction is a force that holds back the motion of an object.
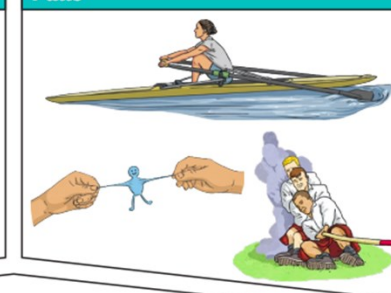
Gravity is a force that keeps items on the ground.