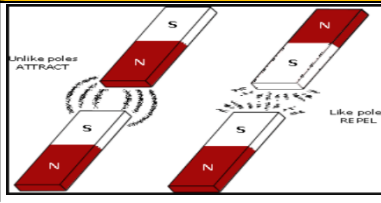
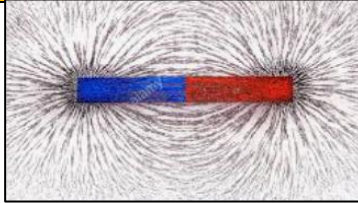
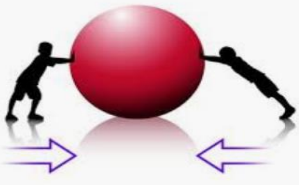




Forces and Magnets - Year 3 Sticky Knowledge Mat



Sticky Knowledge



Forces are pushes and pulls which make things move and stop moving.

Most forces need contact between objects, but magnets can act at a distance.

Magnets always have one north pole and one south pole.

Magnets can attract or repel one another.

Magnets only attract certain types of metals.

Forces can make an object speed up, slow down, change direction or change shape.

Different surfaces create different amounts of friction.

Magnetic ✓



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

Non-magnetic X



These objects do not contain iron, nickel or cobalt.

Types of Force



Subject Specific Vocabulary

force	A push or pull on an object which can cause it to move, change speed, direction or shape. Measured in Newtons (N).
Magnet	An object which produces a magnetic force that pulls certain objects towards it.
attract	To pull towards. Opposite of repel.
repel	To push away. Opposite of attract.
friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
Magnetic	Objects that are attracted to a magnet.
Poles	Different ends of a magnet.
Gravity	The force that pulls things to the centre of the earth.
Air resistance	The friction that occurs between air and another object.



Light and shadows - Year 3 Sticky Knowledge Mat



Sticky Knowledge



Light is a form of energy that makes it possible to see.

Light is given off some objects (for example the Sun). Darkness is when there is no light.

Light can reflect off surfaces (e.g. mirrors). A mirror is not a light source. It reflects light so doesn't create it.

Objects can be labelled as transparent, translucent, or opaque, depending on the amount of light that they let through.

Shadows are formed when light is blocked by an opaque object. Because light travels in straight lines, when it hits an object, it is blocked. It can't bend around the object so it casts a shadow.

Light travels in straight lines. It travels from the light source either directly into our eyes, or reflecting off objects.

The moon does not emit its own light - it reflects the sun.

Subject Specific Vocabulary

Light source	An object that produces its own light (e.g. sun, fire).
Reflection	When a light hits a surface and 'bounces' off.
Sun	A hot, glowing ball of gas that gives off light. It is dangerous to look directly at the sun.
Opaque	An object which does not allow light to pass through it (e.g. wood).
Translucent	An object which allows some light to pass through it. It may be possible to see some unclear images through the object (e.g. tissue paper).
Transparent	An object which allows light to pass through it so that objects behind it can be easily seen (e.g. glass).
Light	A form of energy that makes it possible to see.
Dark	Darkness is the absence of light.
Shadow	A dark area or shape caused by the blockage of light.

