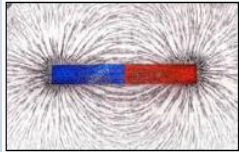


What I know already:

- can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- know that the shapes of solid objects made from some materials can be changed, by squashing, bending, twisting and stretching.

What I will know by the end of this topic:



- Compare how things move on different surfaces.
- Know 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.

Key Vocabulary:

force - The scientific word for the pushing and pulling effect.

friction - The force that can make it difficult for things to move when they touch each other.

balanced force - When two forces are equal and there is no movement.

magnet - A piece of iron or other material which attracts some metals towards it.

magnetic - Objects that can be pushed or pulled by a magnet.

poles - North and south ends of a magnet.

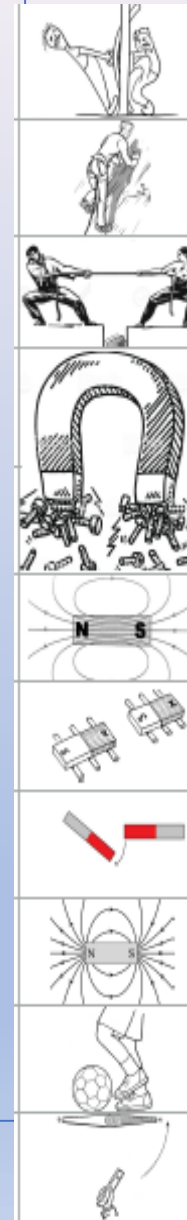
attract - The force of one object pulling another object towards it.

repel - The force of one object pushing another object away from it.

magnetic field - The area around a magnet where the magnetic forces work

contact force - A force that requires physical contact to occur e.g. kicking a ball.

non-contact force - The magnet does not need to touch the object it attracts.



Diagrams

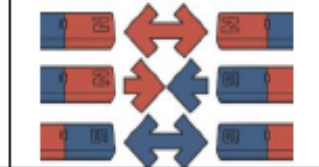
Key Knowledge - Magnets

Magnetism is an invisible force. You can't see it, but you can see its effects.

Magnetic materials contain nickel, iron or cobalt. Not all metals are magnetic.



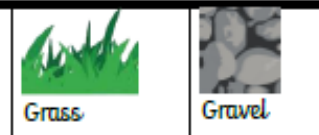
Like poles repel. Opposite poles attract.



Key Knowledge - Forces

Different surfaces create different amounts of friction. Friction is always working against an object to slow it down.

The rougher the surface, the more friction there is.



The smoother the surface, the less friction there is.

