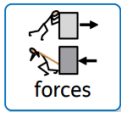
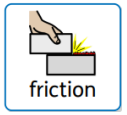
Year 3 Science
Autumn 1

Forces and Magnets

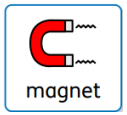
Key Vocabulary



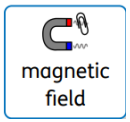
Forces: Pushes and pulls in a particular direction



Friction: a push against a moving object. It stops or slows the object down.



Magnet: a material or object that produces a magnetic field.



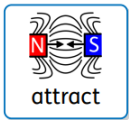
Magnetic field: the area around a magnet in which there is magnetic force.

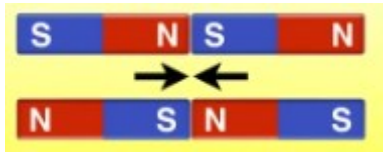
By the end of this unit I will be able to:
Compare how things move on different surfaces
Notice that some forces need contact between two objects, but magnetic forces can act at a distance
Observe how magnets attract or repel each other and attract some materials and not others
Compare and group together 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

Magnetism

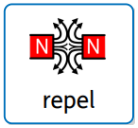
All magnets have a north and south pole which each has a magnetic force.

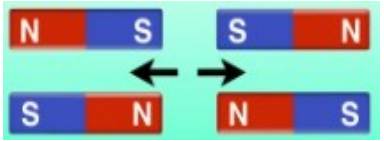
Attract: When two magnets with different poles point towards each other they pull towards (attract) each other.





Repel: When two magnets with different poles point towards each other they pull away (repel) from each other.





Contact between two objects

Some forces need contact between them, for example push and pull. for them to occur.

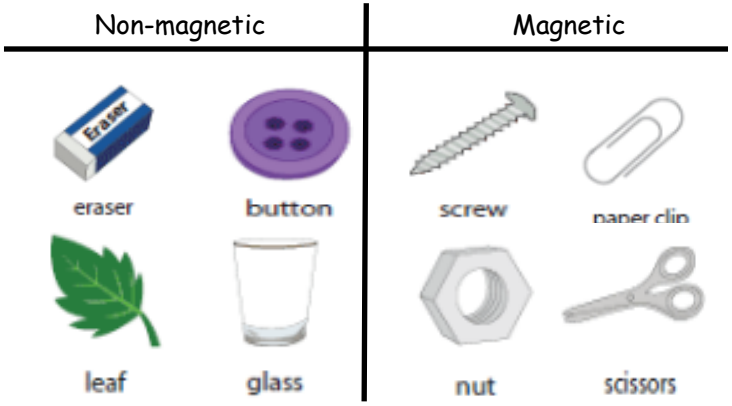


Magnetic forces can take place without contact as they are attracted or repelled to each other by a magnetic field



Magnetic versus non-magnetic materials

Magnetic materials are always made of metal, but not all metals are magnetic. Here are some everyday objects which are magnetic and non-magnetic.



Friction on different surfaces:

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

