# Science Autumn 2 Forces and Magnets




## Key Vocabulary

**forces-** Actions that affect an object through pushes or pulls

**friction-** A force that acts between two surfaces or objects that are moving.

**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

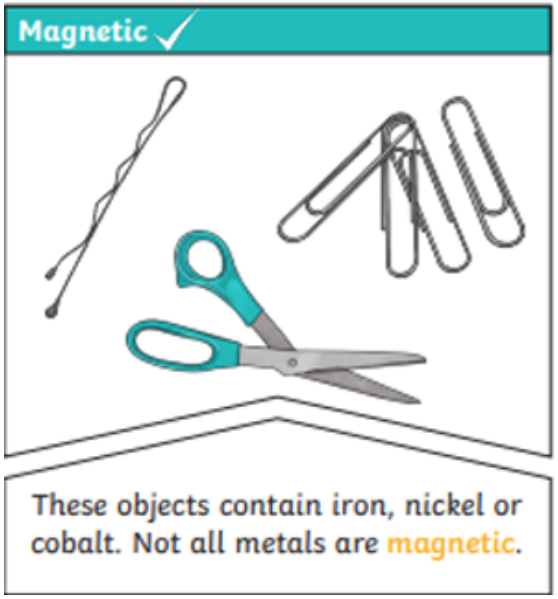
**non- magnetic-** Objects which are not attracted to a magnet are non-magnetic.

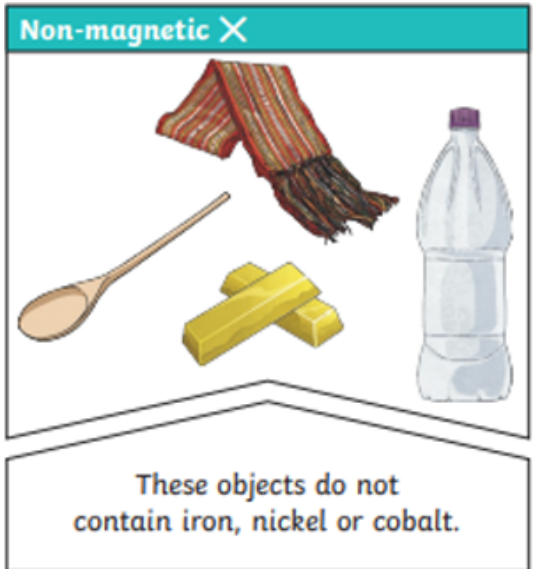
**magnetic field-** The area around a magnet where there is a magnetic force which will pull magnetic objects towards the magnet.

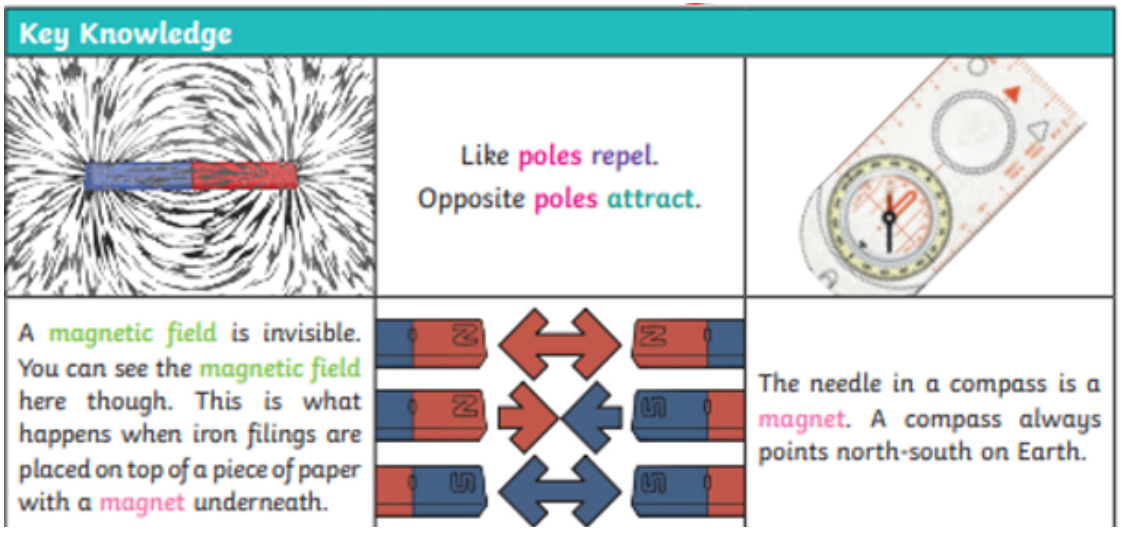
**poles-** North and south poles are found at the opposite ends of a magnet

**eepel** (**repulsion**)- Repulsion is a force that pushes objects away. For example, when a magnet's north pole is placed near the north pole of another magnet, the two poles repel (push away from each other).

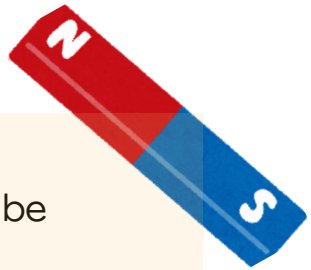
**attract** (**attraction**)- Attraction is a force that pulls objects together. For example, when a magnet's north pole is places near the south pole of another magnet, the two poles attract (pull together).



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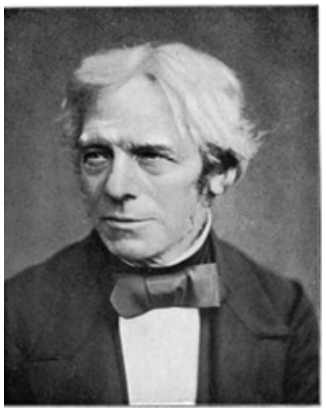

## Prior Learning- You may already be able to:

- Know what happens when you push or pull an object.
- Recognise that objects can move in different ways (rolling, sliding or spinning)
- Understand that some objects are easier to move than others.
- Identify and name a range of everyday materials, including wood, metal, plastic, glass and fabric.
- Describe the simple physical properties of everyday materials.
- Compare and group materials based on their properties.
- Use observations to describe similarities and differences between objects and materials.
- Ask simple scientific questions and carrying out practical investigations with support.

## New Learning- I will discover that:

- Forces can make objects move (they can be pushes or pulls)
- Some forces require contact with an object in order to move it.
- The speed and ease at which an object travels across a surface is impacted by the material the surface is made from.
- Magnets have a invisible forcefield which pulls magnetic materials towards them.

Only some metals can be magnetic (iron, nickel or cobalt)



We will be exploring the scientist, Michael Faraday.

He is famous for discovering electromagnetism and how magnets create electric current.