

Year 3 Science Knowledge Organiser

Forces and Magnets

Key Knowledge

Forces are acting around us all the time. A force is a **push** or a **pull**.

A **magnet** is a piece of metal or sometimes a rock that can pull certain types of metal towards it.

The forces of a magnet are strongest on the two ends. These are called the **north** and **south** poles.

Magnets will **attract** one another if the **opposite** poles are near. They will **repel** one another if the **same** poles are near each other.

Many forces need contact between two objects but magnetic forces can act at a distance because they have a **magnetic field** around them.

The Earth is one giant magnet. It has lots of iron rich molten rocks under its surface. The Earth has a north and south pole and its magnetic field stretches out into space.

Not all metals are magnetic – aluminium and copper are examples of non-magnetic metals. You can **magnetise** some things to become temporary magnets by rubbing a magnet along them.

Key Vocabulary

Force	A push or a pull acting on objects.
Friction	Friction is a force between two surfaces that are sliding or trying to slide across each other.
Motion	Motion is movement. The speed of motion can be affected by different forces and the distance they are travelling.
Attract	When two magnets are pulled towards each other.
Repel	When two magnets push one another apart.
Poles	The strongest part of a magnet. These are found at the ends of a magnet. There is a north and south pole.
Magnetic Field	The area around a magnet that a force can act, without touching anything.

