

Forces & Magnets - Year 3

What are forces?

- Forces are pushes and pulls. These forces change the motion of an object.
- They will make it start to move or speed up, slow it down or even make it stop.
- For example, when a cyclist pushes down on the pedals of a bike, it begins to move. The harder the cyclist pedals, the faster the bike moves.
- When the cyclist pulls the brakes, the bike slows down and eventually stops.

Key Vocabulary

Force-the pulling/pushing effect that something has on something else.

Magnet- a piece of iron or other material which attracts magnetic materials towards it.

Friction- A force that acts between two surfaces or objects which are moving, or trying to move, across each other.

Gravity- the force which causes things to drop to the ground.

Magnetic-Objects which are attracted to a magnet are magnetic.

Non-Magnetic- An object which is not attracted to a magnet.

Magnetic field- The area around a magnet where there is a magnetic force.

Poles-North and South poles are found at different ends of a magnet.

Pull-When you pull something, you hold it firmly and use force in order to move it towards you or away from its previous position

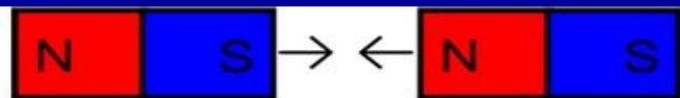
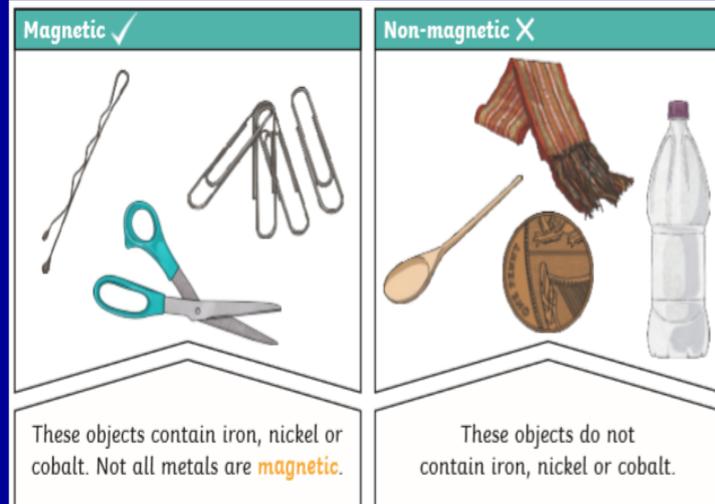
Push-When you push something, you use force to make it move away from you or away from its previous position

Attract-Attraction is a force that pulls objects together towards each other.

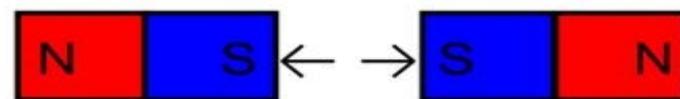
Repel- Repulsion is a force that pushes objects away from each other.

Key Learning

- To understand that forces are pushes and Pulls.
- To observe how magnets attract/repel each other
- To identify and group everyday materials whether they are attracted to a a magnet
- To understand magnets have two poles and will attract/repel each other, depending on which poles are facing



Opposite poles attract



Same poles repel

How do Magnets Work?

- Magnets produce an area of force around them called a magnetic field.
- When objects enter this magnetic field, they will be attracted to or repelled from the magnet if they are magnetic.
- When magnets repel, they push each other away
- When magnets attract, they pull together.
- The ends of a magnet are called poles.
- One end is called the north pole and the other end is called the south pole