



Science – Year 3 Forces and Magnets

Vocabulary

Tier 1	Tier 2	Tier 3
Push	Magnetic	Magnetism
Pull	Repel	Magnetic field
Move	Direction	Electromagnet
Magnet	Surface	Poles (North/South Pole)
Stick	Opposite	Non-magnetic
Force	Friction	Attraction force
Attract	Strength	Magnetic material

- don't know
- I know this word
- I can use it in a sentence

Useful Resources

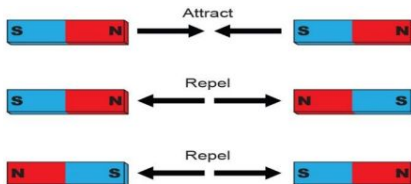
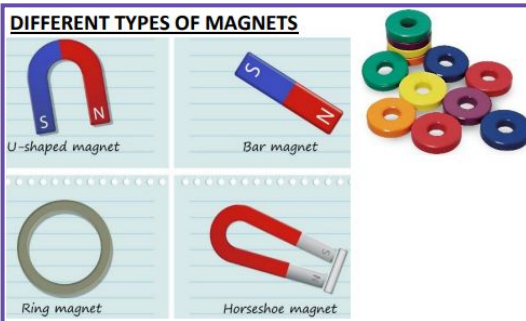
- <https://www.bbc.co.uk/teach/class-clips-video/articles/zbin3at>
- <https://www.bbc.co.uk/bitesize/articles/zhj9r2p#z8m996f>

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.

How do magnetic poles work?

- The ends of a magnet are called poles. One end is called the north pole and the other end is called the south pole.
- Opposite poles attract, similar poles repel. If you place two magnets so the south pole of one faces the north pole of the other, the magnets will move towards each other. This is called attraction.



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.

How do different surfaces affect the motion of an object?

- Forces act in opposite directions to each other.
- When an object moves across a surface, friction acts as an opposite force. Friction is a force that holds back the motion of an object.
- Some surfaces create more friction than others which means that objects move across them slower. On a ramp, the force that causes the object to move downwards is gravity.
- Objects move differently depending on the surface of the object itself and the surface of the ramp.

Scientific Enquiry Skills

Asking questions

Asking questions that can be answered using a scientific enquiry.



Making predictions

Using prior knowledge to suggest what will happen in an enquiry.



Setting up tests

Deciding on the method and equipment to use to carry out an enquiry.



Observing and measuring

Using senses and measuring equipment to make observations about the enquiry.



Recording data

Using tables, drawings and other means to note observations and measurements.



Interpreting and communicating results

Using information from the data to say what you found out.



Evaluating

Reflecting on the success of the enquiry approach and identifying further questions for enquiry.

