



Magnets

Year 3

Knowing More, Remembering More

Remembering previous learning

What is a force? Forces are pushes or pulls.

What is a contact force? A push or a pull that affects objects which are touching.

In this unit children will:

- Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance.
- Compare and group together a variety of everyday materials based on whether they are attracted to a magnet, and identify some magnetic materials.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Describe magnets as having 2 poles and predict whether 2 magnets will attract or repel each other, depending on which poles are facing.

Working Scientifically:

- 3.3 Make relevant predictions.
- 3.4 Identify what they will change, observe and keep the same.
- 3.5 With support, set up simple practical enquiries.
- 3.6 Begin to use scientific equipment to make observations.
- 3.8 Gather and record data in different ways to help answer questions.
- 3.9 Recording findings using simple scientific language, drawings, labelled diagrams, bar charts, and tables.
- 3.10 Report on findings from enquiries, including oral and written explanations.

Key Learning Steps:

1. Magnets
2. Magnetic and non-magnetic materials
3. Investigate metals
 - 1. North and south poles - attract and repel

Key Vocabulary:

- magnet
- magnetic
- poles
- iron
- magnetic force
- non-metal
- attract
- metal
- steel
- aluminium
- poles
- repel

Key Scientists:



Classic

William Gilbert
(1544 - 1603)

English scientist, known as the father of electricity and magnetism.



Contemporary

Amar Bose

Designed high-end speakers and car suspensions using electromagnets.

Knowing More, Remembering More

Knowing more in Y3

What type of force is a magnetic force? A non-contact force, objects do not touch.

What are magnets? Magnets are objects that can attract (pull) some other metals.

What materials are magnetic? Two metals are magnetic - iron and steel.

What are the two ends of a magnet called? Magnets have two poles - a north and a south.

What do opposite poles on two magnets do? They attract (pull) together.

What to same poles on two magnets do? They repel (push) apart.