

Knowledge Progression

- Can I identify the different types of forces acting on objects?
- Can I compare how things move on different surfaces?
- Can I compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet?
- Can I identify some magnetic materials?
- Can I notice that some forces need contact between two objects, but magnetic forces can act at a distance?
- Can I predict whether two magnets will attract or repel each other, depending on which poles are facing?
- Can I observe how magnets attract or repel each other and attract some materials and not others?
- Can I describe magnets as having two poles?

Year 3 Forces and Magnets Science Knowledge Organiser

Knowledge

Skills

Vocabulary

Skills Progression

- To be able to set up a simple fair test.
- To be able to record findings in a bar chart.
- To be able to identify changes related to scientific ideas.
- To be able to use results to draw simple conclusions.
- To be able to provide an oral explanation of findings.
- To be able to make systematic and careful observations.

Curriculum Coverage

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

Scientific Enquiry

- How does the type of surface on the table affect the speed of the object travelling on it?
- What are magnets used for?
- Which materials are attracted to magnets?
- Which materials can magnets attract through?
- How can I make a fridge magnet?
- Which magnet is the strongest?
- How can I make a compass?
- What happens when a magnet attracts or repels?
- Can I design a game using magnets?

Scientific Vocabulary

- Force
- Push
- Pull
- Friction
- Magnet – bar and horseshoe
- Attract, repel
- Pole- north and south
- Magnetic
- Magnetic field
- Compass

Forces

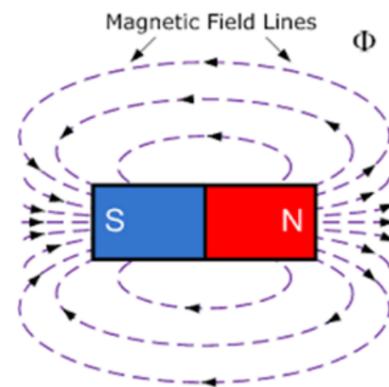
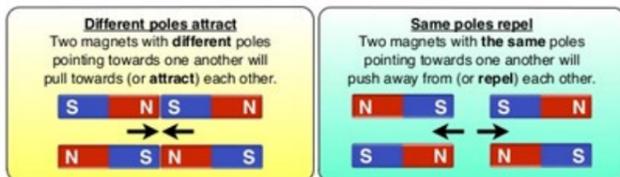
A force is a push or a pull in a certain direction. Force gives an object the energy to move, stop moving or change direction.



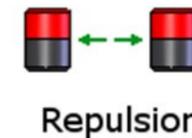
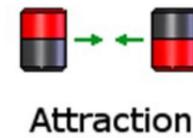
Magnets

Magnets and magnetic materials create pulling and pushing forces on each other when they are close. They **attract** or **repel** each other.

Magnets have **north** and **south poles**. North Pole **N** South Pole **S**



Green Arrows Indicate Magnetic Forces



Pattern Seeking



Fair Testing



Identifying and Classifying



Researching



Observing over Time

