

Subject Specific Vocabulary

Forces	Pushes or pulls
Magnet	An object that produces a magnetic forces that pulls certain objects towards it.
Magnetic	Objects that are attracted to a magnet are magnetic. Objects containing iron, steel or nickel are magnetic.
Poles	North and South poles are found at different ends of a magnet.
Attract	Attraction is a force that pulls objects together. E.g. when the North pole faces the South pole they attract and pull together.
Repel	Repulsion is a force that forces objects away from each other. E.g. when the North Pole faces the North pole they push away.
Contact force	Forces that need contact (A hand pushing a door).
Non-contact force	Forces that can act at a distance (A magnet doesn't need to touch an object)

Sticky Knowledge

A force is a push or a pull. When an object moves on a surface, the texture of the surface and the object affect how it moves. It may help the object to move better or it may hinder its movement e.g. ice skater compared to walking on ice in normal shoes. A magnet attracts magnetic material. Iron and nickel and other materials containing these, e.g. stainless steel, are magnetic. The strongest parts of a magnet are the poles. Magnets have two poles – a north pole and a south pole. If two like poles, e.g. two north poles, are brought together they will push away from each other – repel. If two unlike poles, e.g. a north and south, are brought together they will pull together – attract. For some forces to act, there must be contact e.g. a hand opening a door, the wind pushing the trees. Some forces can act at a distance e.g. magnetism. The magnet does not need to touch the object that it attracts

Year 3 – Forces and Magnets

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.

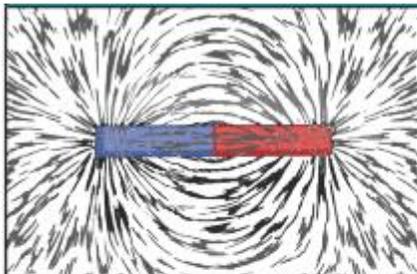
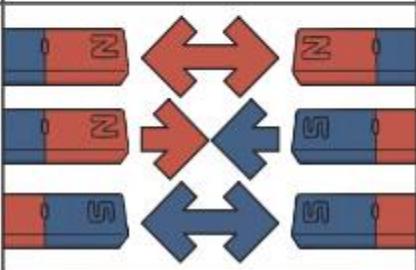
Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.

Describe magnets as having two poles.

Predict whether two magnets will attract or repel each other, depending on which poles are facing

(National Curriculum, 2014)



	<p>Like poles repel. Opposite poles attract.</p>	
<p>A magnetic field is invisible. You can see the magnetic field here though. This is what happens when iron filings are placed on top of a piece of paper with a magnet underneath.</p>		<p>The needle in a compass is a magnet. A compass always points north-south on Earth.</p>

Websites you could look at if you like this topic:

The School Run

<https://www.theschoolrun.com/homework-help/magnets>

First 4 Magnets

<https://www.first4magnets.com/magnetism-for-kids-il47>

BBC Bitesize

<https://www.bbc.co.uk/bitesize/topics/zytlyrd>



Horseshoe magnet



Ring magnet



Iron and steel



Bar magnet

School Values

Happiness – Using equipment

Responsibility – how to use magnets carefully

Books that you could read if you like this topic.



Magnet Max - Monica Lozano Hughes



Fantastic Forces and Incredible Machines: - Nick Arnold