Forces and magnets – Year 3

Key vocabulary	
force	A force is a push or a pull.
friction	A force between two surfaces that are sliding or trying to slide across each other.
magnetic force	An invisible force that attracts magnetic metals.
magnet	Magnets attract magnetic materials. Iron, nickel, cobalt and materials that contain these (e.g. stainless steel) are magnetic.
attract	To pull towards.
repel	To push away.
poles	Magnets have two poles, a north pole and a south pole.
contact force	Many forces need contact to act:
non-contact force	Magnetic force does not need contact and can act at a distance.

Objects moving on surfaces:

Ice skates have a sharp blade. This helps them move better on ice.

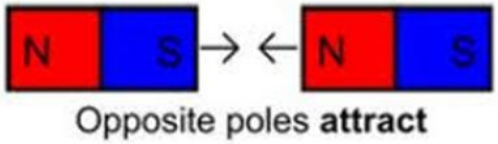
It is much harder to walk on ice in trainers.

A bowling green is closely mown so the grass is short and the balls roll easily.

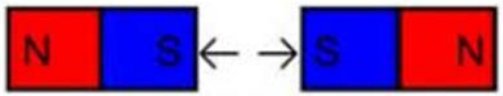
Significant scientist	
Michael Faraday *(1791-1867)*	Michael Faraday was an English scientist. In 1831, he discovered electromagnetic induction. This was a very important discovery for the future of science and technology.

Types of magnets:	
Bar	**Ring**
Button	**Horseshoe**

Magnets have two poles



Opposite poles **attract**



Same poles **repel**

A magnet attracts magnetic materials.

These metals are magnetic:	
iron nails	**nickel** 50p coins contain nickel
stainless steel	**steel**

We can sort and classify materials as:

A magnet does not need to touch an object to attract it.

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Information relating to 'famous scientists' adapted from work by Alex Sinclair & Amy Strachan of St Mary's University