








# Forces and magnets – Year 3

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

Significant scientist	
<b>Michael Faraday</b> (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:	
<b>Bar</b> 	<b>Ring</b> 
<b>Button</b> 	<b>Horseshoe</b> 

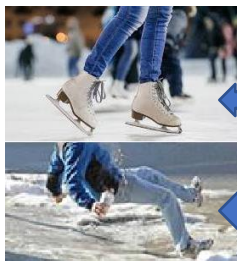
A magnet attracts magnetic materials.

These metals are magnetic:	
<b>iron nails</b> 	<b>nickel</b> 50p coins contain nickel 
<b>stainless steel</b> 	<b>steel</b> 

We can sort and classify materials as:



Objects moving on surfaces:



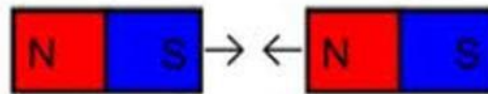
Ice skates have a sharp blade. This helps them move better on ice.

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.



Magnets have two poles



Opposite poles attract



Same poles repel



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