

# Year 3 Science Unit of Learning: Forces and Magnets

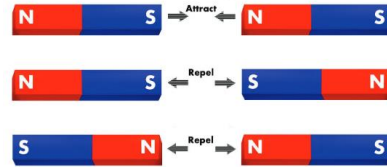
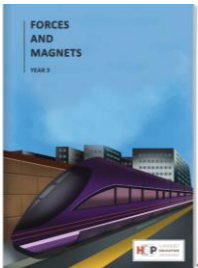
## Big Question: How do forces and magnets work?

**Prior learning:** Pupils have previously learnt about everyday materials and their properties, pushing and pulling, floating and sinking in Year 2. In Year 3, they learnt the properties of some rocks and the effects of forces in the rock cycle.

At the end of this topic, pupils will know:

Line of Enquiry	National Curriculum Objective
How do we make things move?	<ul style="list-style-type: none"> <li>compare how things move on different surfaces</li> <li>notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</li> <li>observe how magnets attract or repel each other and attract some materials and not others</li> <li>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</li> <li>describe magnets as having 2 poles</li> <li>predict whether 2 magnets will attract or repel each other, depending on which poles are facing</li> </ul>
What are some contact forces?	
What are some non-contact forces?	
Are all metals magnetic?	
Can you make a magnet stronger?	
Can magnets help us when we are lost?	

Key Vocabulary	
Word	Definition
contact	A meeting or touching of surfaces.
contraction	When muscles bunch up to get shorter and so pulls on the bone it is attached to.
Friction	A force between two surfaces that are moving across from each other.
lubricant	Liquids that reduce friction.
tendon	Special cords made of tough tissue attach your body's muscles to your bones.
pole	Two small regions of the earth which are located near the North and South Poles and toward which a compass needle points.
gravity	Another type of non-contact force which is the pulling force of the Earth towards everything else.
magnetic	An invisible force that causes objects to attract or repel one another.
attract	In Magnetism, this means to pull closer together.
repel	In Magnetism, this means to push further away.
compass	A tool used for finding direction using a magnet.



As children of God we are loved, we are called, and we are inspired.

