

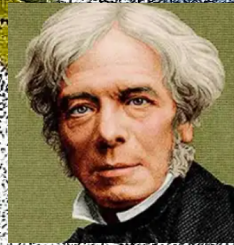
Do magnets have magic powers?



Forces & magnets
Y3

Key science concept: **Scientific enquiry**

Michael Faraday
magnets
This



Key vocabulary

attract	To pull towards
contact force	a force that occurs when objects touch each other
force	a power or strength that can cause an object to move
magnet	An item that can pull some metal objects towards it
magnetic	A material that is attracted to a magnet.
magnetic field	the force that surrounds a magnet and attracts magnetic objects
non-contact force	a force that occurs without objects touching each other
repel	To force back or push away.
resistance	Causing something to stop or slow down.

Key learning

- 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

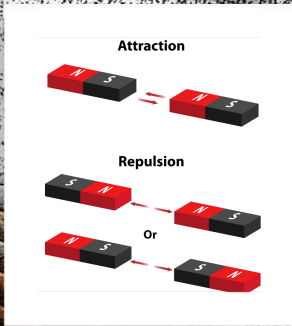
Scientific enquiry types



Comparative and fair testing



Pattern seeking

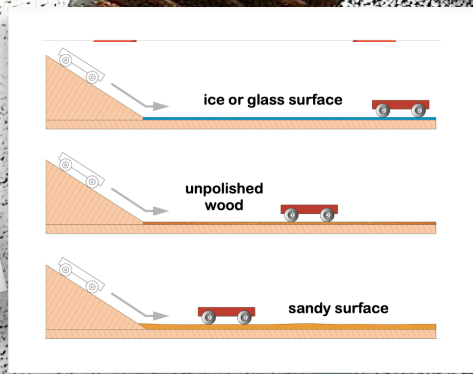


non-magnetic



magnetic





Working scientifically concepts

- Asking questions.
- Recording data
- Setting up tests

Forces - Our Learning Journey

Year 3/4

- Compare how things move on different surfaces
- Magnets and magnetic forces
- Comparing and grouping materials based on whether they are attracted to a magnet

Year 5/6

- Explain and understand gravity
- Identify the effects of air resistance, water resistance and friction
- Mechanisms including levers, pulleys and gears



Ethics

How does mining for rare earth metals impact the environment?