

Science

Term: Summer 2

Year: Unit 3 - Year 3 & 4

Duration: 6 Weeks

Forces and Magnets

In this unit we will be learning...

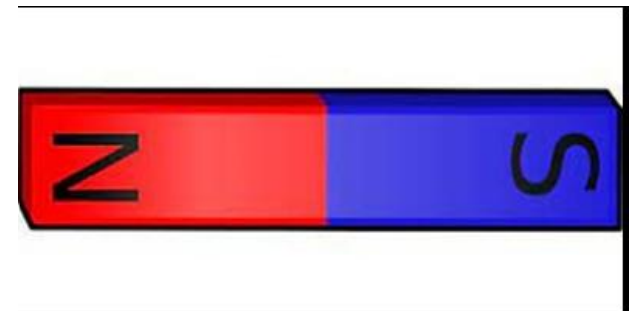
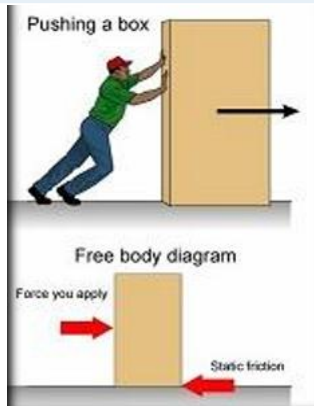
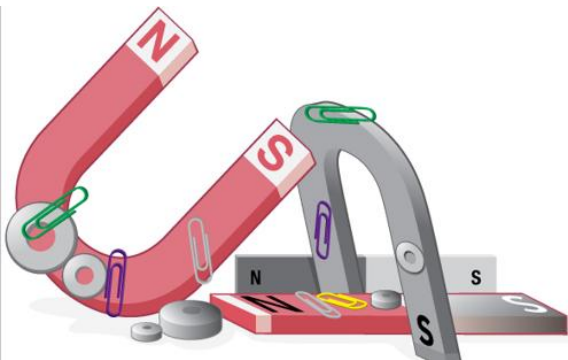
I can compare how things move on different surfaces.

I notice that some forces need contact between two objects, but magnetic forces can act at a distance.

I can 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.


I can describe magnets as having two poles.

I can predict whether two magnets will attract or repel each other, depending on which poles are facing.




Key Vocabulary	
Forces	Changes the motion of an object. Pushes and pulls in a particular direction.
Gravity	A force which pulls things towards the centre of the Earth. Discovered by Sir Isaac Newton.
Push	Force which causes movement away from something.
Pull	Force which causes movement towards something.
Contact force	Requires contact to happen.
Non-contact force	Doesn't require contact.
Attract	Causes something to move towards.
Repel	Causes something to move away.
Poles	Magnets have a North and South Pole
Magnetic field	Magnets electric charge

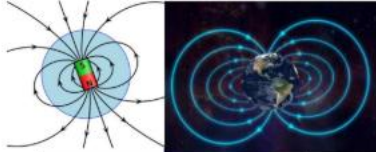
Magnets











Magnets have North Poles and South Poles.
Magnets can come in all shapes, sizes and strengths.



Opposite poles attract. (Stick together)
The same poles repel. (Move away)

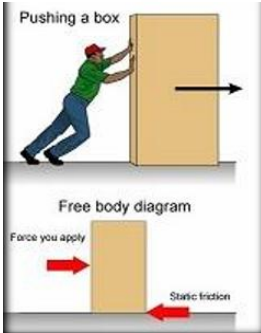


Magnets have magnetic fields.
The Earth is also a giant magnet. This is how compasses work.

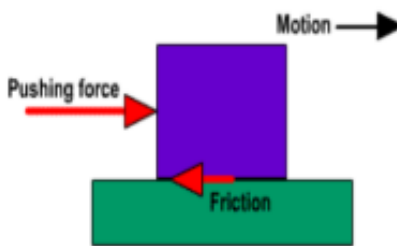
Magnetic		Not Magnetic	
			
			

What is a force?

Forces are pushes or pulls. Push and pull forces can make things start and stop moving, make a moving object change direction and change the shape of an object.



Friction



Friction is a force **between two surfaces** that are sliding, or trying to slide, across each other. For example, when you try to push a book along the floor, friction makes this difficult.