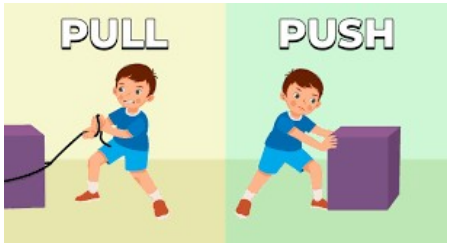
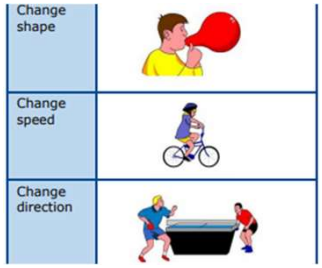
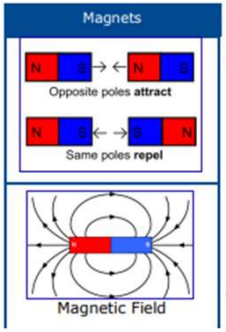
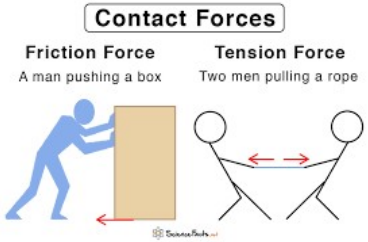
Science Y3 – Autumn 1	Big question: 'How do I know the force is there?'	Forces

What I will know by the end of the unit:	
I can describe how objects move on different surfaces.	
I can explain what a force is and that it is a push or a pull.	 
I can explain that all magnets have two poles and how they attract and repel.	  
I can describe and give examples of when some forces require contact and some do not.	 

Science Y3 – Autumn 1

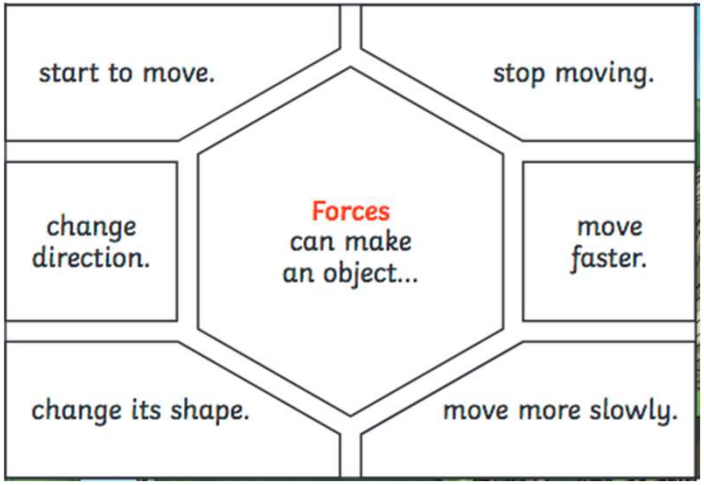
Big question:
'How do I know the force is there?'

Forces

Key Vocabulary	
Attract	To pull towards
Compass	A device for finding directions by means of a magnetic needle pointing to the magnetic north
Contact force	Forces that act when two or more objects touch each other, eg friction
Force	A push or a pull
Friction	The force that acts when two objects touch each other. It is a contact force
Magnetic field	The area around a magnet in which there is magnetic force
Magnetic	The pushing or pulling force that acts between two magnets or between a magnet and magnetic materials
Non-contact force	Forces that do not need contact. They can act at a distance, eg magnetic force
Pole	The end of a magnet where the magnetic field is the strongest
Repel	To push backwards

This unit of work links to …

This topic will build upon the work carried out in Y1 and Y2 looking at material properties – particularly Magnetism.
This will form the foundations for the forces topic covered in Year 5.
Topic will link to DT work looking at levers and linkages.



Investigate!

- What is the best surface for a hot wheel track?
- How can I make my paper clip float without touching it?
- What will happen to two magnets floating in water?
- How strong is my magnet?

Famous scientists

William Gilbert (1540-1603) was the first to investigate the magnetism using scientific methods. He also discovered that the Earth is itself a weak magnet.
Mary Somerville (1780-1872) was fascinated by magnets and carried out lots of experiments with them. She was also one of the first popular Science writers - selling many books in her lifetime. She was the first woman to be elected to the Royal astronomical society.