



Big Question:

How can we make an object move?

Key Vocabulary:

Forces: *Pushes or pulls*

Contact: *When something is touching something else.*

Non-contact: *When something is not touching something else.*

Friction: *A force that acts between two surfaces or objects that are moving or trying to move, across each other.*

Magnet: *An object which produces a magnetic force that pulls certain objects towards it.*

Magnetic: *Objects which are attracted to a magnet are magnetic. Objects containing iron, nickel and cobalt metals are magnetic.*

Poles: *North and south poles are found at different ends of a*

Knowledge from Y1 that will help me answer the big question:

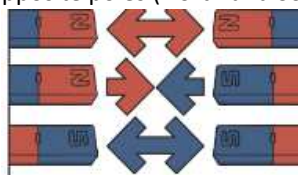
You can distinguish between an object and the material from which it is made. Materials can be grouped according to their properties.



New knowledge that will help me answer the big question:

Some forces require direct contact, whereas other forces can act at a distance, such as magnetic force.

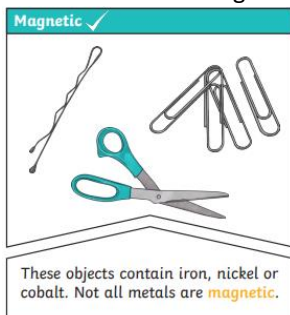
Magnets have two poles. Like poles (North and North or South and South) repel. Opposite poles (North and South) repel.



Magnetic materials are attracted to magnets.

All magnetic materials are metal.

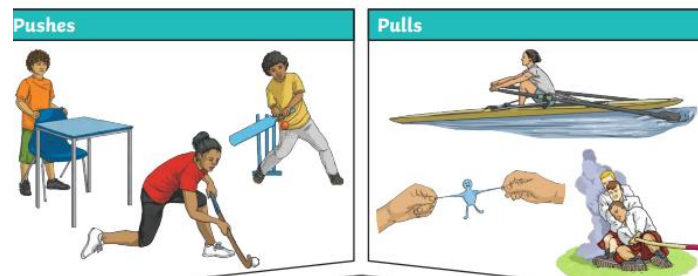
Not all metals are magnetic.



New knowledge that will help me answer the big question:

Forces will change the motion of an object. They will either make it start to move, speed up, slow down or even make it stop.

An object will not move unless a pushing or pulling force is applied.



Friction is a force between two surfaces as they move over each other.

Friction slows down a moving object.

Smooth surfaces usually generate less friction than rough surfaces.

New knowledge that will help me answer the big question:

A prediction is a best guess for what might happen in an investigation based on previous knowledge.

Tests can be set up to test a prediction.

Equipment is used to take measurements in standard units.

Timers measure time (hours, minutes seconds).	Thermometers measure temperature (degrees Celsius).	Metre sticks measure length (metres)

Taking readings more than once helps make sure the measurements are accurate.

Results are the information that are found in an investigation.

A conclusion is the answer to an investigation question.

As a scientist, the essential knowledge I need to answer the big question is:	Date
An object will not move unless a pushing or pulling force is applied. Some forces require direct contact, whereas other forces can act at a distance, such as magnetic force.	
Magnets have two poles (north and south). Opposite poles (north and south) attract each other, while like poles (north and north, or south and south) repel each other.	
Some materials have magnetic properties. Magnetic materials are attracted to magnets. All magnetic materials are metals but not all metals are magnetic. Iron is a magnetic metal.	
Tests can be set up and carried out by following or planning a set of instructions. A prediction is a best guess for what might happen in an investigation based on some prior knowledge.	
Equipment is used to take measurements in standard units. Examples include data loggers plus sensors, timers (seconds, minutes and hours), thermometers (°C) and metre sticks.	
Taking repeat readings can increase the accuracy of the measurement.	
Results are information that has been found out from an investigation.	
A conclusion is the answer to a question that uses the evidence collected.	