







What? (Key Knowledge)

Forces

What is a force?	A force is either: <ul style="list-style-type: none"> • A push or • A pull
Forces can make things...	<ul style="list-style-type: none"> • Speed up • Slow down • Change shape • Change direction
A force that speeds something up	The child is pushing the car to speed it up. 
A force that slows something down	The girl is pulling the dog to slow it down. 
A force that changes the shape of something	The can is being squeezed so that it changes shape and becomes smaller. 
A force that changes the direction of something	When the ball is hit with the racket, it will change direction. 

Types of force

Magnetism	<p>Attract: </p> <p>Repel: </p> <p>North and South attract. But North and North or South and South will repel.</p>
Air Resistance	<ul style="list-style-type: none"> • Air resistance slows down moving objects, because air slows you down as you move through it • To travel faster through the air, things need to be streamlined.
Water Resistance	<ul style="list-style-type: none"> • Water resistance slows down moving objects, because water slows you down as you move through it • To travel faster through the water, things need to be streamlined.
Friction	<ul style="list-style-type: none"> • Friction happens when two surfaces touch each other. • Friction gives us grip. • Friction produces heat. • Rougher surfaces slow things down a lot. • Smoother surfaces don't slow things down as much.

Gravity (another force)

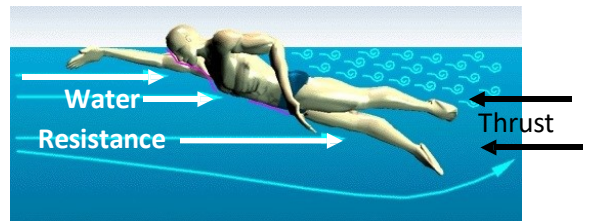
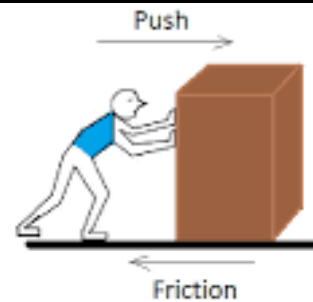
What is gravity?	<p>Gravity is the force that pulls objects down towards the centre of the Earth.</p> <p>Gravity stops things from floating away into space.</p> <p>When things go into the air (like a football) gravity pulls them back down.</p>
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What? (Key Vocabulary)

Spelling	Definition/Sentence
Streamlined	A shape that presents least resistance to air or water
Surface	The top layer of something
Grip	To have a good connection with a surface
Drag	To cause to slow down
Centre	The middle

Diagrams and Symbols

Diagrams of forces in action



Gravity pulls us towards the centre of the Earth.

Prior Knowledge

- Compare how things move across different surfaces.
- Magnets attract and repel.
- Notice how some forces need contact between 2 objects whilst magnets can act without direct contact.
- Make predictions based on forces and magnets.

