



Key vocabulary	
<b>acceleration</b>	Increase in speed.
<b>air resistance</b>	The force that slows down objects that move through air.
<b>balanced</b>	The forces are equal.
<b>deceleration</b>	Decrease in speed.
<b>drag</b>	A resistance force.
<b>force</b>	A force is a push or a pull. Forces make objects start moving, stop moving, speed up, slow down or change direction.
<b>friction</b>	When one surface moves against another, the rubbing force that tries to stop them is called friction. It gives us grip
<b>gear</b>	Machinery used to transmit or receive force.
<b>gravity</b>	A force which pulls things down towards the centre of the Earth.
<b>lever</b>	A plank that is free to rotate on a pivot.
<b>lift</b>	The force that directly opposes the weight of a plane and holds the plane in the air.
<b>mass</b>	The measure of the amount of matter in an object.
<b>mechanisms</b>	A device that allows a small force to be increased to a larger force.
<b>Newton (N)</b>	The unit for measuring force.
<b>opposite</b>	Completely different.
<b>pulley</b>	A wheel which passes a cord and changes the direction of a force to raise heavy weights.
<b>thrust</b>	A push force.
<b>unbalanced</b>	Weights are not equal.
<b>upthrust</b>	A force that pushes an object up.
<b>water resistance</b>	A force that slows down objects moving through water.
<b>weight</b>	Mass of an object multiplied by gravity.

## Forces – Year 5

Significant scientists	
Traditional	
<p><b>Galileo Galilei</b> (1564-1642)</p> 	<p>He was an Italian scientist. He discovered that if two objects of similar shape and size are dropped, they will fall at the same rate.</p>
<p><b>Sir Isaac Newton</b> (1642-1726)</p> 	<p>He was an English scientist and mathematician. He 'discovered' the concept of gravity when sitting under a tree and an apple fell to the ground near him.</p>
Contemporary	
<p><b>Emma England - Aeronautical engineer</b> Emma works as part of a team designing the wings of aircrafts.</p>	



Seeds fall to the ground because of gravity.

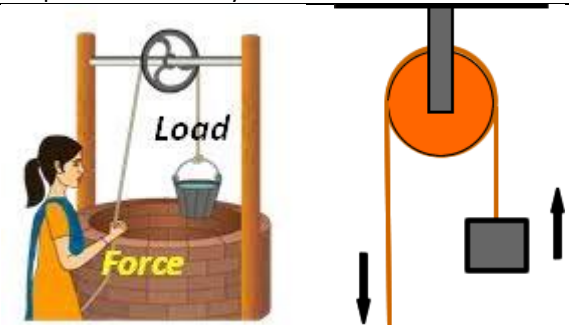
### Simple machines

These are used to make tasks easier. This means you need to use less force.



Force Pivot

A lever tilts on a pivot which is nearer to the end of the pivot with a heavy load.



**Pulleys** have a rope or cable which goes over a wheel. This is pulled to lift, lower or move heavy objects.



**Gears** are toothed wheels which lock together and turn each other to form simple machines.