

Key vocabulary	
gravity	A force which pulls things down towards the centre of the Earth.
force meter	Piece of equipment used to measure the size of a force.
Newton (N)	The unit for measuring force.
air resistance	The force that slows down objects that move through air.
water resistance	A force that slows down objects moving through water.
friction	When one surface moves against another, the rubbing force that tries to stop them is called friction. It gives us grip.
mechanisms	A device that allows a small force to be increased to a larger force.
simple machines	Levers, pulleys and gears are all types of simple machines.

Real-life examples of forces in action



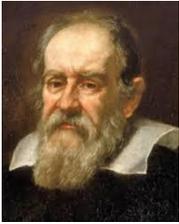
Dolphins have a streamlined shape.

A non-slip mat uses friction.

A skydiver falls fast until they open their parachute.

Forces – Year 5

Significant scientists
Traditional

<p>Galileo Galilei (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>Sir Isaac Newton (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>Emma England - Aeronautical engineer 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.

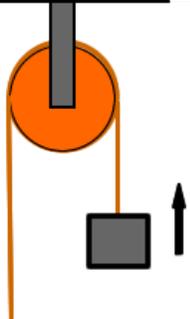


Force Pivot

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



Load
Force



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.

Information relating to 'famous scientists' adapted from work by Alex Sinclair & Amy Strachan of St Mary's University