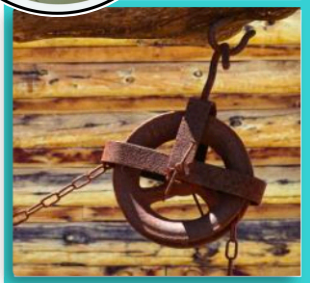
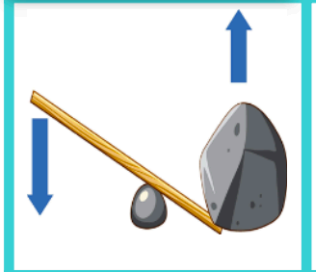
Year 5 - Forces - Half Term 2

Mechanisms



Pulleys

A pulley is a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object.

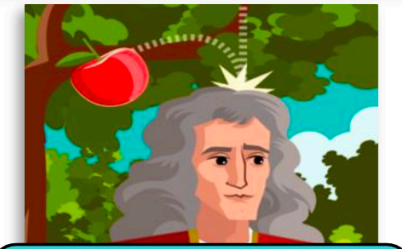


Levers

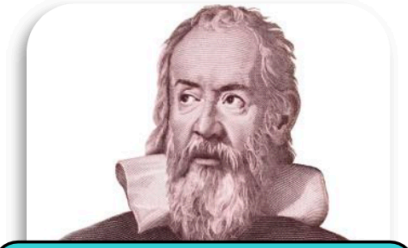
Levers are a bar that rotates around a point. They make it easier to lift a heavy load.

Gears/Cogs

Gears are toothed wheels that mesh together, they rotate in opposite directions.



Sir Isaac Newton developed his theory of gravity.



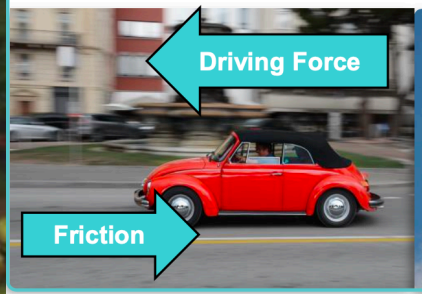
Galileo conducted experiments to test mass.

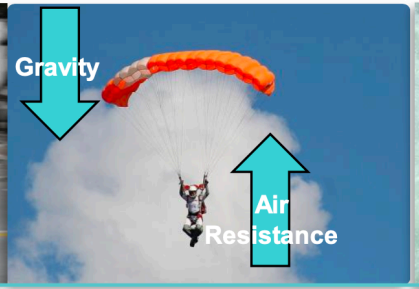
Mass and Weight

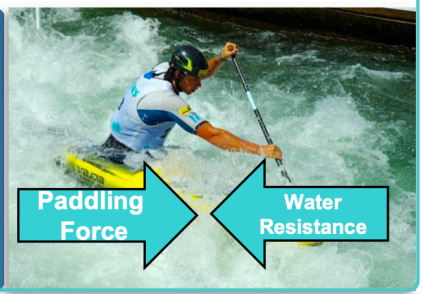
The mass of an item can be measured in **Grams/ Kilograms**.

Weight is how much force is needed to pull an object and is measured in **Newtons**.

Forces in Action







Key Vocabulary

Sir Isaac Newton	an English physicist and mathematician
gravity	force which draws objects towards the centre of a planet
Galileo Galilei	an Italian scientist, and the first astronomer
parachute	a device, usually made from cloth, designed to create air resistance and slow descent
water resistance	friction which acts on an object as it moves through water
streamlined	an object that is shaped to travel through air or water with little resistance
buoyant	to float
upthrust	any force that is causing something to be pushed upwards
friction	the resistance of motion when one object rubs against another
newton	the international metric unit of force
lever	a long arm that rests on a support called a fulcrum
pulley	a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object

To know statements	✓ ✗
I know about gravity and the life and work of Isaac Newton.	
I know about the connection between air resistance and parachutes.	
I know about the factors which affect an object's ability to resist water.	
I know about the effects of friction on different surfaces.	
I know that some mechanisms including levers and pulleys allow a smaller force to have a greater effect.	
I know that some mechanisms including gears allow a smaller force to have a greater effect.	

What can you remember from previous units?

Can you remember how things move on different surfaces?
What is the differences between contact and non-contact forces?

Anything else you have learnt? What have you enjoyed?