

Amazing Forces Facts

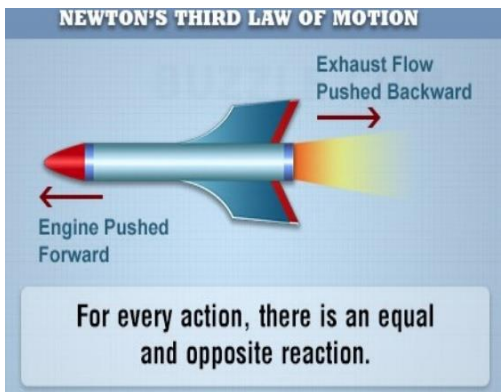
An orange floats with its skin on, yet, sinks without it.

A force is measured in Newton Meters.





Sir Isaac Newton was one of the first scientists to study gravity and force. Scientists still use his three laws today.


If you dropped a hammer and a feather at the same time on the moon they would both hit the ground at the same time – due to minimal gravitational pull and resistance.





Key Concepts


Exploring 'Force' - A force can cause an object to accelerate, slow down, remain in place, or change shape. 

Newton's Law of Motion – investigating balanced and unbalanced forces on an object. 

Water resistance – investigating the friction between a material and water particles with differing effects. 

Air Resistance – exploring the interaction between different materials and air particles during flight – through comparative and fair tests. 

Archimedes 212BC – investigating that if the weight is equal to or less than the up thrust an object will float – through comparative and fair tests. 

Archimedes Levers- noticing scientific patterns including whether 'the distance from the fulcrum to where the input force is applied' has a specific effect. 



Vocabulary

Balanced Force	The forces are the same size but acting in opposite directions.
Unbalanced Force	The forces are not equal in size.
Equal force	Results when everything pulling or pushing on something is equal.
Opposite Force	Results when forces are pulling or pushing in.
Buoyancy	The ability or tendency of something to float in water or other fluid.
Resistance	Is a force whose direction is opposite to the velocity of the main object,
Motion	The movement of travel for an object.
Effort	The force that moves an object over a distance by overcoming a resistance force.
Velocity	The speed of an object in a given direction.
Friction	The force resisting the relative motion of an object.
Load	The force exerted on a surface or body.
Pivot	A point around which something can rotate or turn.
Fulcrum	A rigid bar supported at one point, used within a lever.