

Knowledge Organiser

Forces

VOCABULARY



Forces- changes the motion of an object. Pushes and pulls in a particular direction.



Gravity- a force which pulls things towards the centre of the Earth. Discovered by Sir Isaac Newton.



Earth's gravitational pull- pull that Earth exerts on an object pulling it towards the Earth's centre.



Weight- The measure of the force of gravity on an object.



Mass- a measure of how much matter (stuff) is inside an object.



Air resistance- resistance or drag, acts against gravity on falling objects.

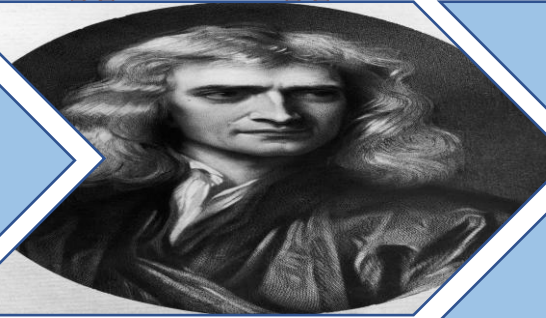


Water resistance- type of force that uses friction to slow things down that are moving



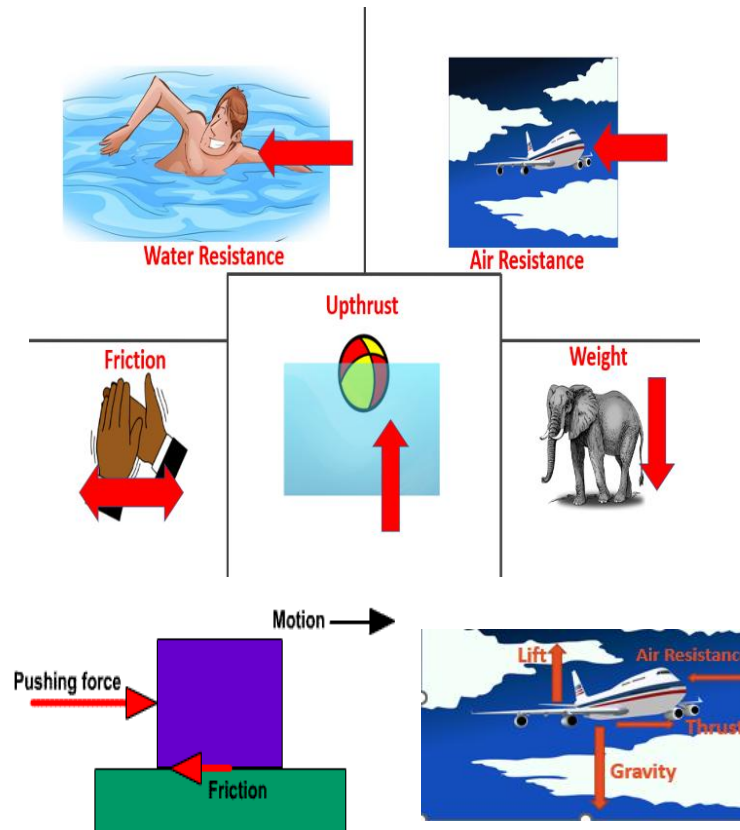
Sir Isaac Newton

1643-1727



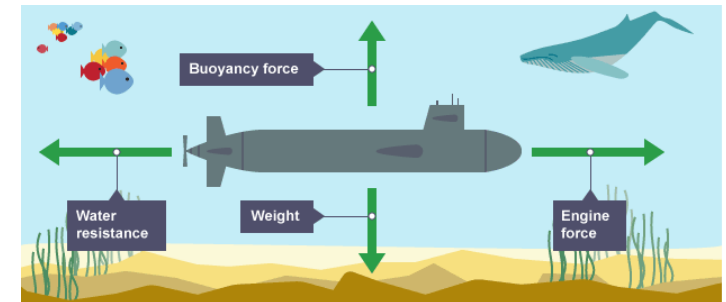
An English mathematician, physicist, astronomer and author who is famous for his laws of motion, theory of colour and the discovery of gravity. Gravity is measured in Newtons (N)

Types of forces.



Skills I am learning ...

- I can observe different forces and measure the force using scientific equipment.
- I can research the effects of gravity and research Sir Isaac Newton's theories.
- I can explain that unsporing objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- I can set up a test which answers a scientific enquiry, to change the speed of a pendulum.
- I can identify the effects of air resistance, water resistance and friction, that act between moving surfaces.
- I can conduct a fair test to explore the effects of air resistance on a falling object.
- I can plan different types of enquiry to answer questions.



This submarine is streamlined, it has a pointed front to cut through the water and a smooth body to allow the water to flow over it.