

In this unit, I will:

- ❑ Investigate the relationship between mass and gravity
- ❑ Identify the effects of air resistance, water resistance and friction that act between moving surfaces
- ❑ Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect
- ❑ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

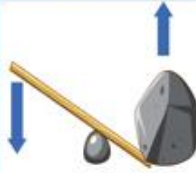
Forces



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.

Mass and Weight



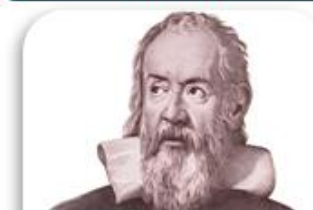
The mass of an item can be measured in **Grams/ Kilograms**.



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



Sir Isaac Newton developed his theory of gravity.



Galileo conducted experiments to test mass.

gravity	force which draws objects towards the centre of a planet
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