

Forces (Y5&6)

Sticky knowledge

Gravity is a force. Everything on the Earth is pulled towards the Earth by gravity. This causes unsupported objects to fall.

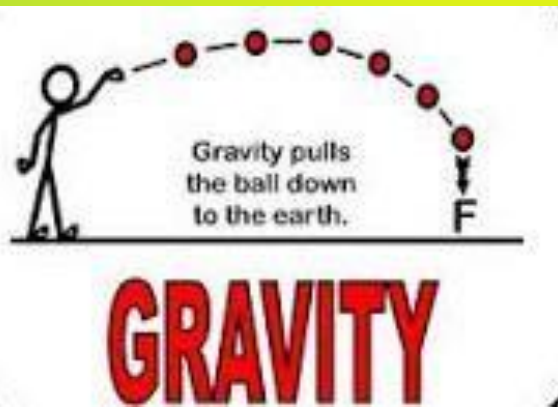
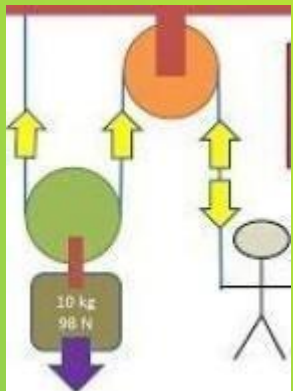
A pulley is a simple machine that can be used to change the direction of a force, and can also be used to reduce the force required to lift a load.

Pulleys, levers and gears are all mechanisms, also known as simple machines.

A force causes an object to start moving, stop moving, speed up, slow down or change direction.

Air resistance, water resistance and friction are contact forces that act between moving surfaces. The object may be moving through the air or water or the air and water may be moving over a stationary object.

A mechanism is a device that allows a small force to be increased to a larger force. The pay back is that it requires a greater movement. The small force moves a long distance and the resulting large force moves a small distance, e.g. a crowbar or bottle top remover.



Subject Vocabulary (sticky)

air resistance	a type of friction between air and another material
water resistance	a type of friction between water and another material
gravity	a force which tries to pull two objects toward each other
Newton	a unit of force
gears	wheels with teeth that slot together
pulleys	made by looping a rope over one or more wheels
Earth	The planet we live on
mechanisms	Uses levers, pulleys and gears to make something work
fulcrum	the point against which a lever is placed to get a purchase, or on which it turns or is supported
load	the overall force on something when it is supporting a weight or mass
pivot point	a central point or pin on which something balances

