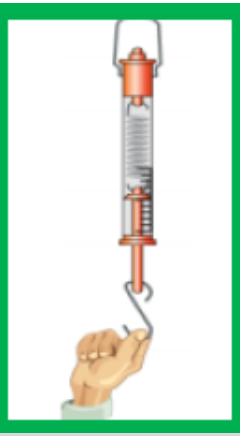
Forces and Friction. Eagles Knowledge Organiser.

**Gravity is the force that pulls objects towards it.**




## Upthrust

Upthrust or buoyance is a type of force that acts on an object displays water underneath it.



## Forcemeter

This is used to measure force and the magnitude of that force. Force is measured in Newtons (N) and it can be read on the display.

## Water Resistance

Water resistance is a type of friction that acts on a object as it travels through water.



Air resistance – A force that is caused by air with the force acting in the opposite direction to an object moving through the air

Force – A push or pull upon an object resulting from its interaction with another object

Friction – The resistance that one surface or object encounters when moving over another

Gears – A toothed wheel that works with others to alter the relation between the speed of a driving mechanism (e.g. engine) and the speed of the driven parts (e.g. the wheels)

Gravity – The force that attracts a body towards the centre of the earth

Levers – A rigid bar resting on a pivot that is used to move a heavy or firmly fixed load

Mass – The weight measured by an objects acceleration under a given force or by the force exerted on it by gravity

Pull force – To draw or haul towards oneself or itself, in a particular direction

Pulleys – A wheel with a grooved rim around that changes the direction of a force applied to the cord

Push force – To move something in a specific way by exerting force

Water resistance - A force that is caused by water with the force acting in the opposite direction to an object moving through the water



This force can be seen in real life, with the example of a parachute opening up in the air as the jumper falls through the sky.

The larger the surface area, the greater the amount of air resistance

## Friction

Friction is the force between two surfaces. This can take place as one object moves across another for example a car on a road. Wet or slippery surfaces can reduce the amount of friction between the two object





Both teams in this game are pulling and we can show the movement of forces through the use of arrows.