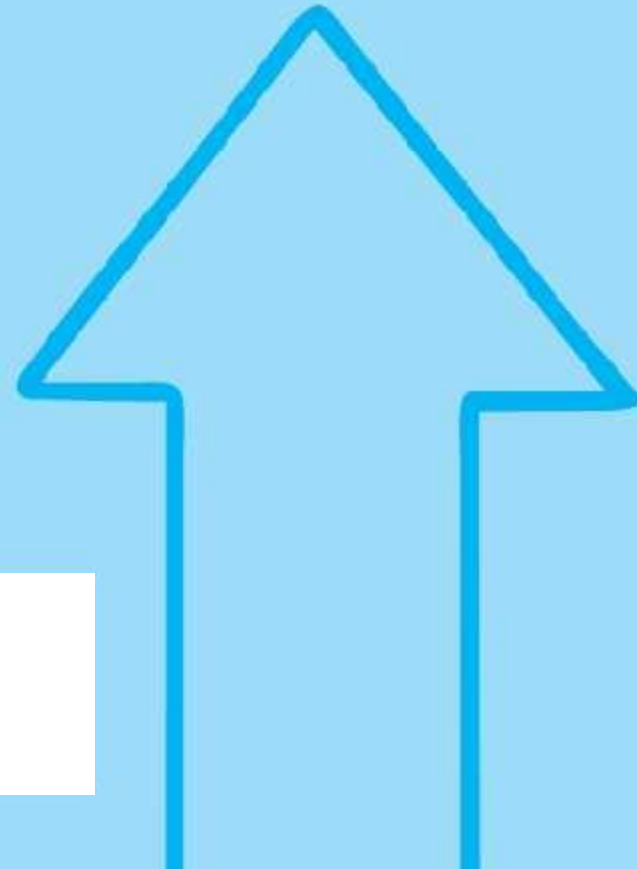


Types of Forces



Forces

Forces are measured in newtons, using a newton meter.

The unit of force is named after Isaac Newton, who first theorised about forces.

Some examples of forces are...



Contact Forces

Friction, air resistance, water resistance and buoyancy (upthrust) are all examples of contact forces.

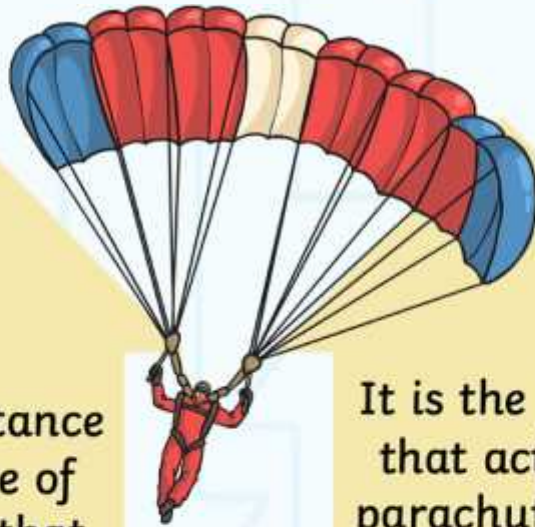
A **contact force** occurs when the objects are touching.



Friction



Air Resistance



Air Resistance is a type of friction that occurs between the air and another material.

It is the force that acts in parachutes so that we don't crash to the ground.

Upthrust is not a type of friction. It is when the gas or liquid below something pushes up more than the gas or liquid above.

Water Resistance

Water resistance is a type of friction that occurs between the water and another material.

Swimmers force



Water resistance

Water resistance pushes against objects, making it hard for them to move through water.

Buoyancy



Buoyancy (upthrust) is the force that pushes an object upwards in a fluid.

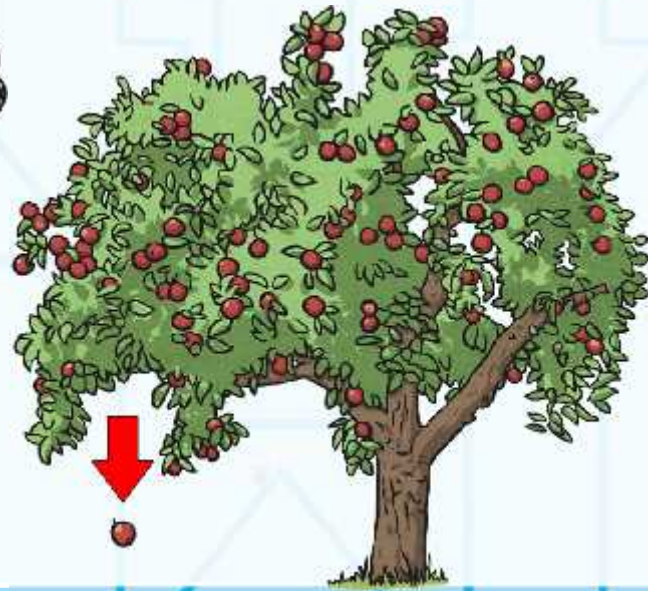
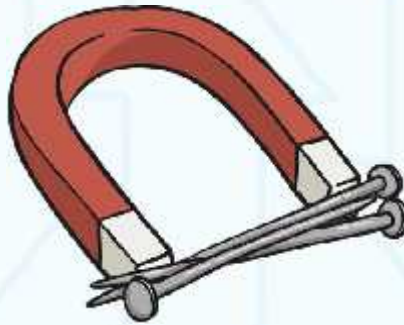
In the water, the weight of an object is pushing down and the upthrust is pushing up. If the weight is equal to or less than the upthrust, the object will float.

If the weight of the object is greater than the upthrust, it will sink.

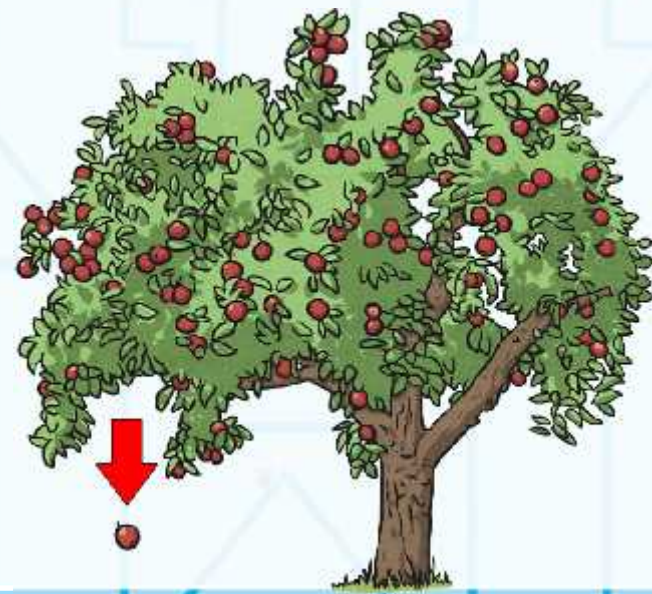
Non-Contact Forces

Gravity, magnetism and electrical forces, such as electrostatic, are examples of non-contact forces.

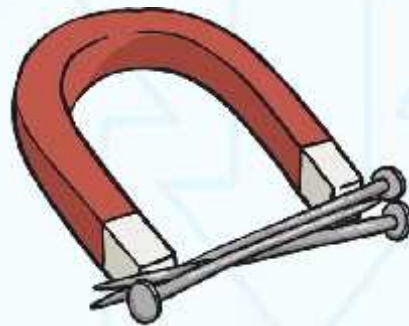
A **non-contact force** occurs when the objects are not touching.



Gravity



Magnetism



Electrical Force

