

Force.

Anything that causes a body to speed up, slow down or change direction of motion.



We generally have **pull forces** and **push forces**.



There are **contact** and **non-contact** forces.

Force types.

These types of forces are generally the most common you come across.

| | | | |
|-------------|------------------------|----------------|--------------------|
| Contact | Force (Mechanical) | Friction | Tension |
| | Thrust | Buoyancy | Air-Resistance |
| Non-contact | Gravitational | Electrical | Magnetic |

Combining Forces

Balanced forces are seen when two (or more) forces act to **cancel each-other's effect out**.

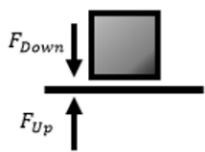


Unbalanced forces are seen when two (or more) forces action **does not cancel each-other effect out**.

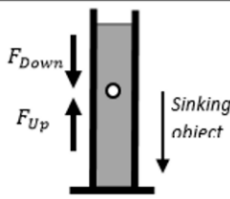


Forces and Motion.

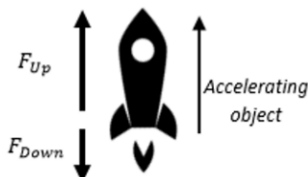
Forces affects the motion of objects in the following ways.



Balanced forces – the body isn't moving so it continues not moving.



Balanced forces – the body is moving so it continues moving at the exact same speed.



Unbalanced force – the body will speed up, or slow down for as long as the forces act on it.

Forces pairs.

Every force experiences a force of equal strength acting in the opposite direction



The book puts a force acting down on the table.
The table puts an equal force acting up on the book.



The moon feels a gravitational force from the earth.
The earth feels an equal gravitational force acting towards the moon.