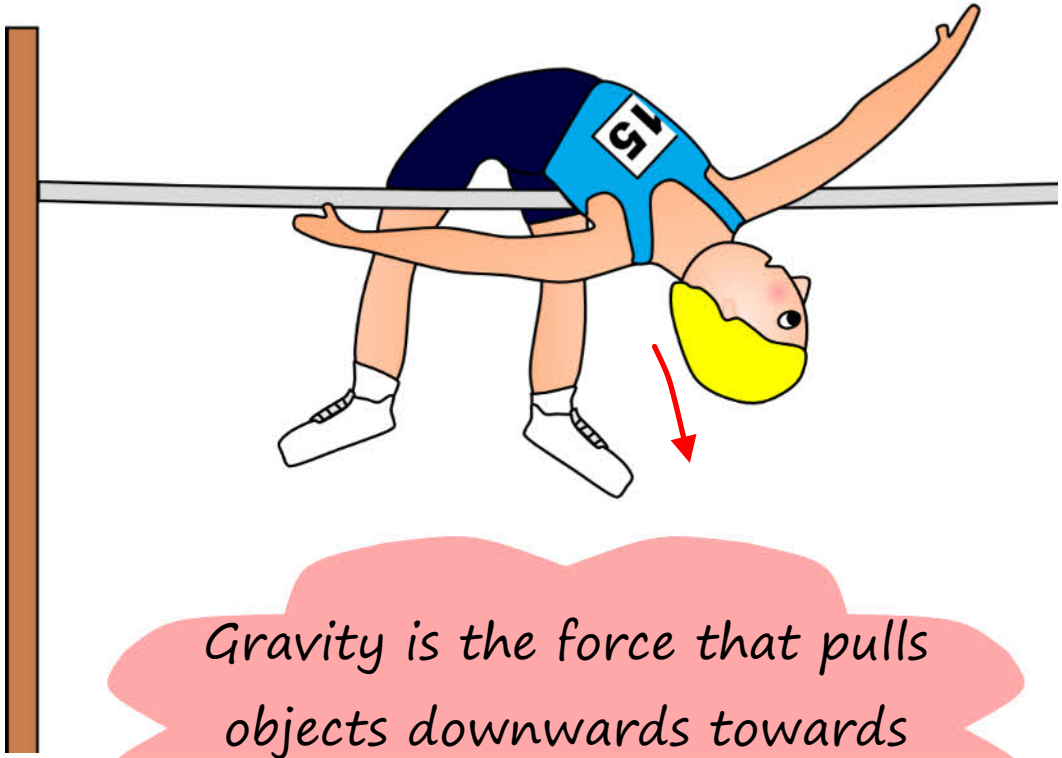
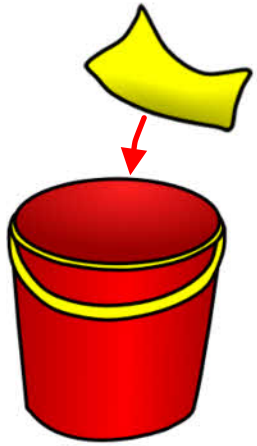
Types of Forces

Gravity

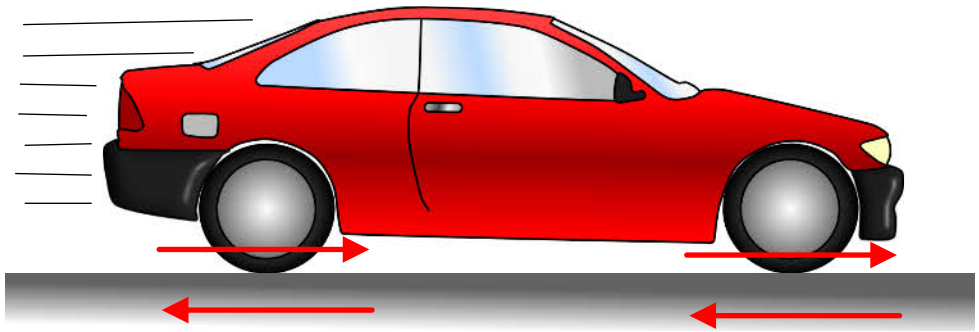


Gravity is the force that pulls objects downwards towards the centre of the earth.



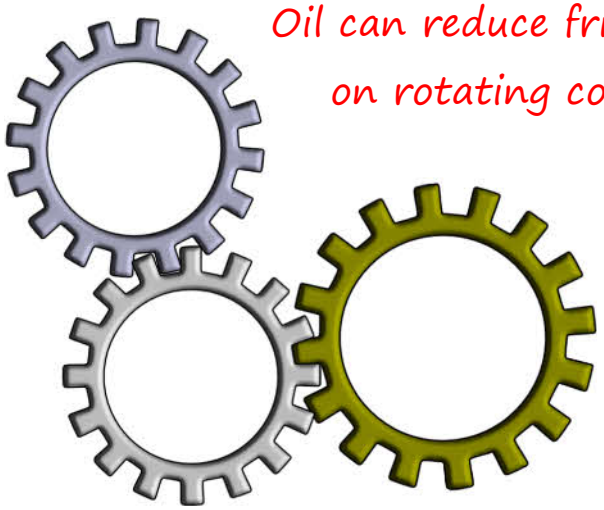
Types of Forces

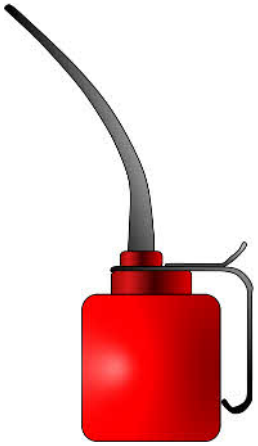
Friction

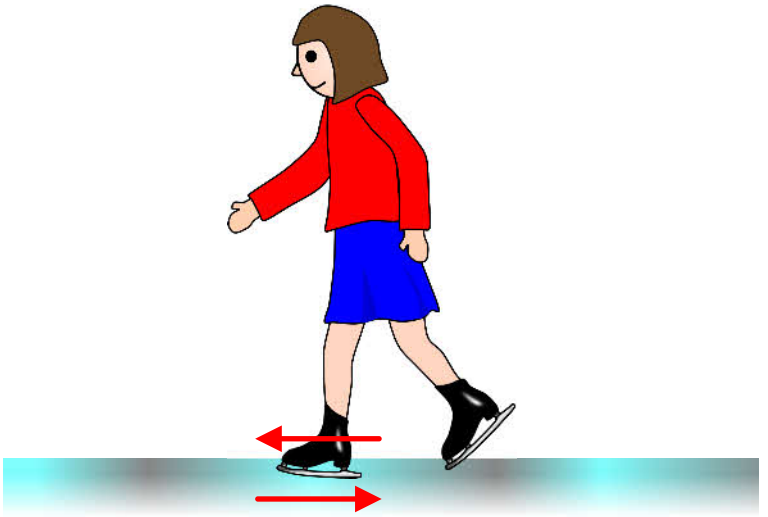


Friction is the resistance between two surfaces that are in contact with each other.

Oil can reduce friction on rotating cogs.



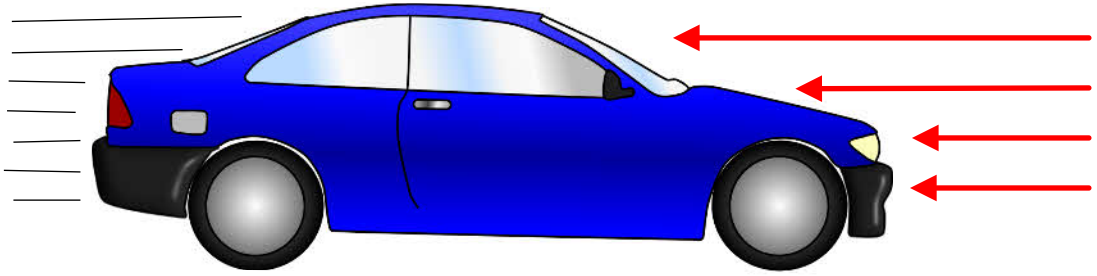


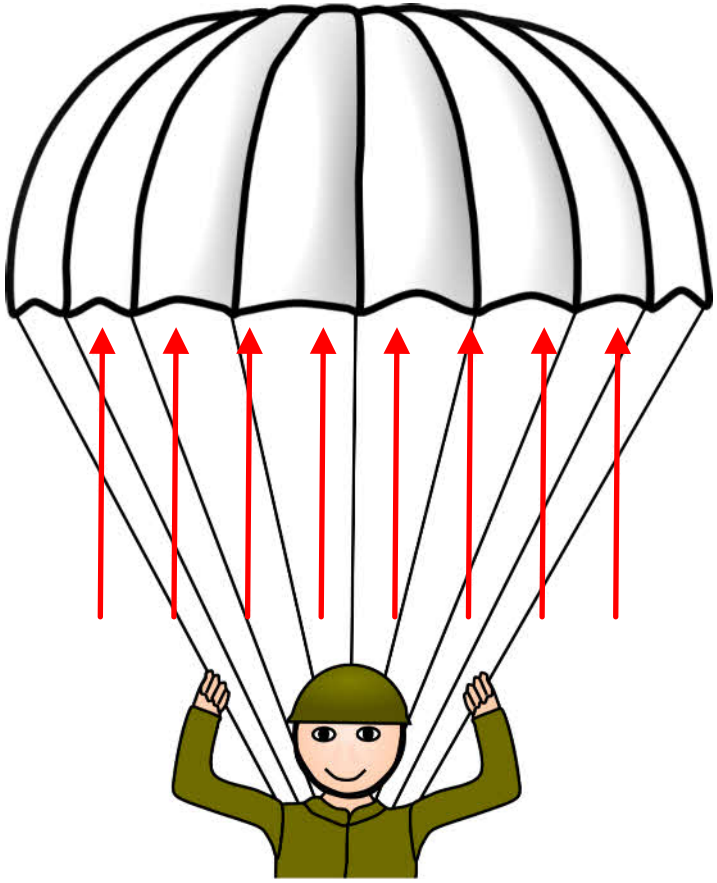


Types of Forces

Air Resistance

Air resistance pushes against moving objects.

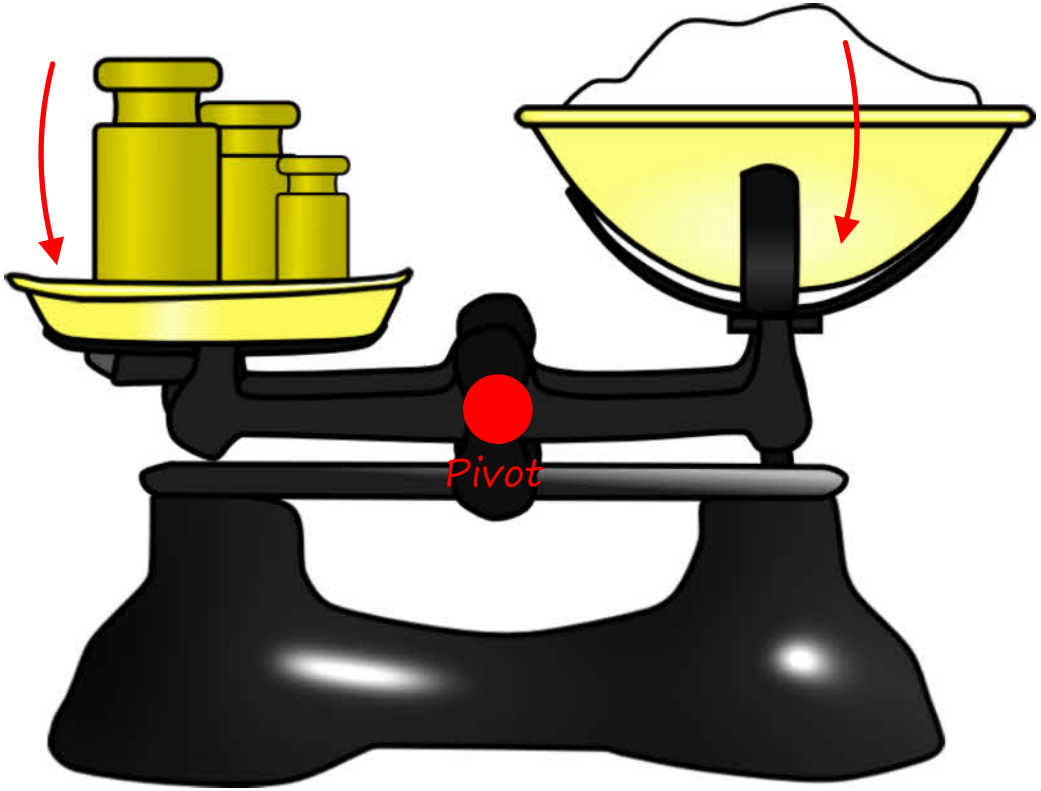




Types of Forces

Moments

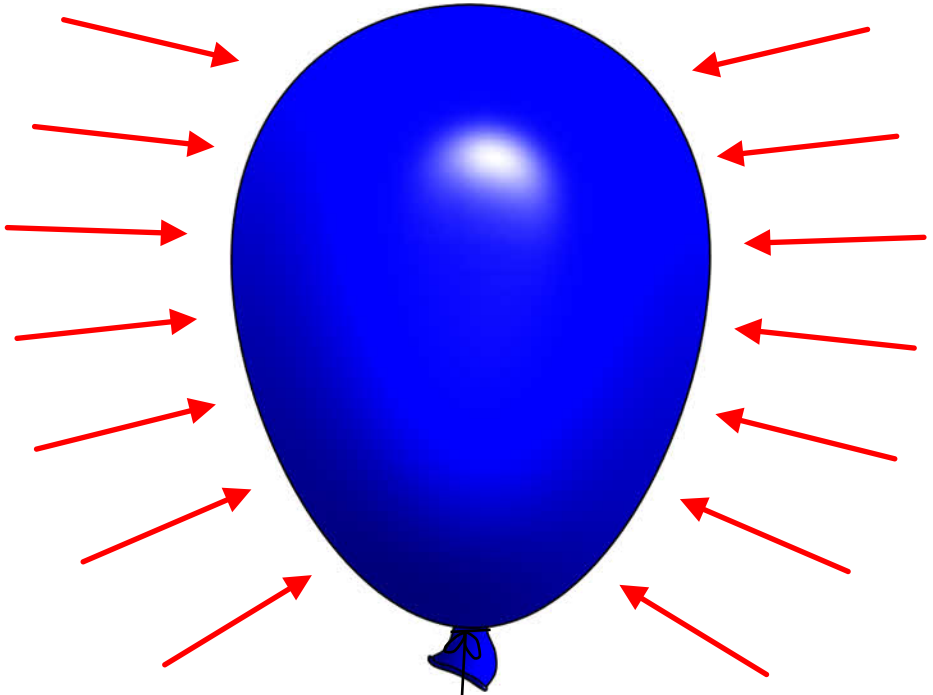
Moments are two forces that have opposite turning effects.



Types of Forces

Pressure

Pressure is what happens when a force pushes on a surface.

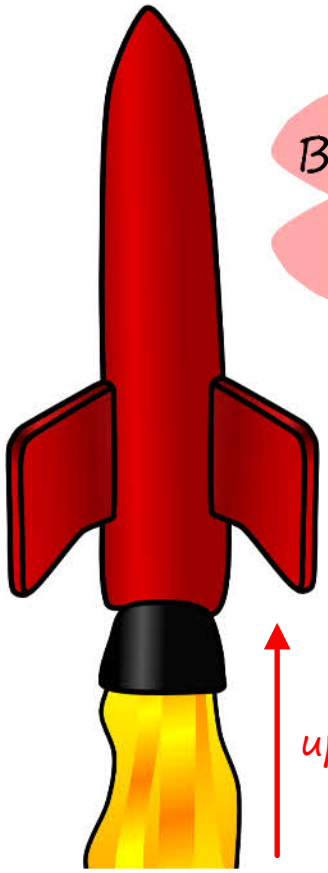


The earth's atmosphere pushes on all surfaces. We measure it as 'atmospheric pressure'.

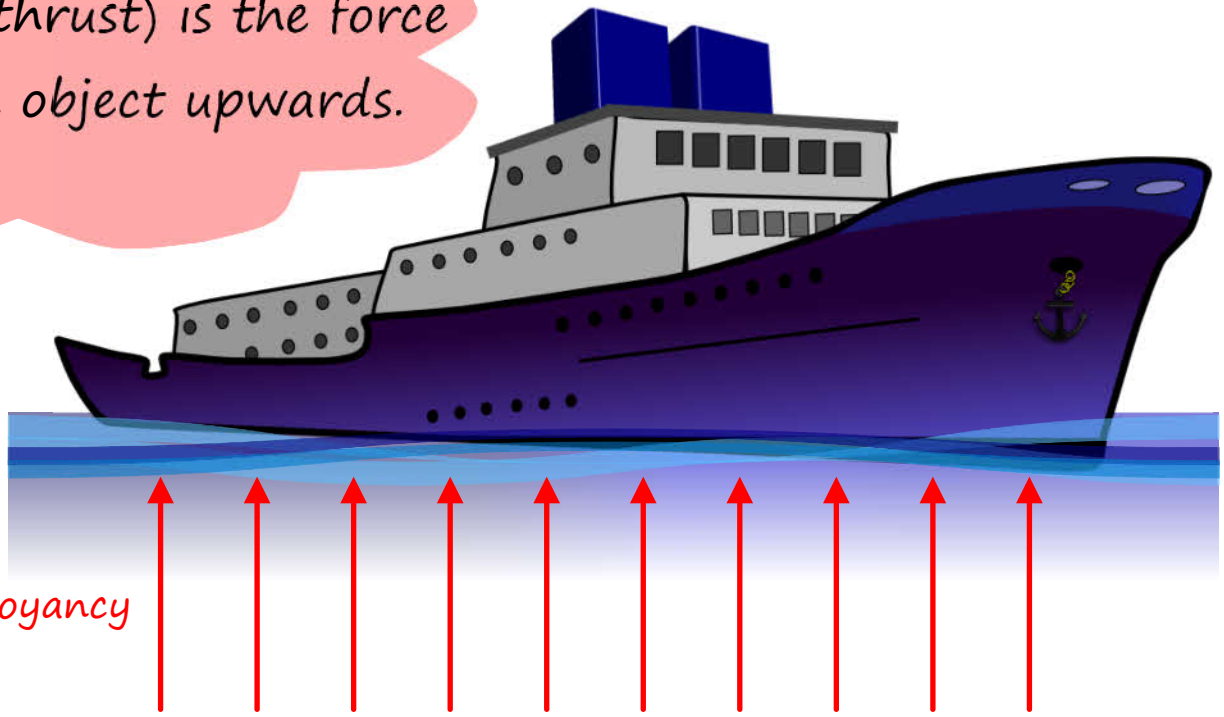
Types of Forces

Buoyancy

Buoyancy (or upthrust) is the force that pushes an object upwards.



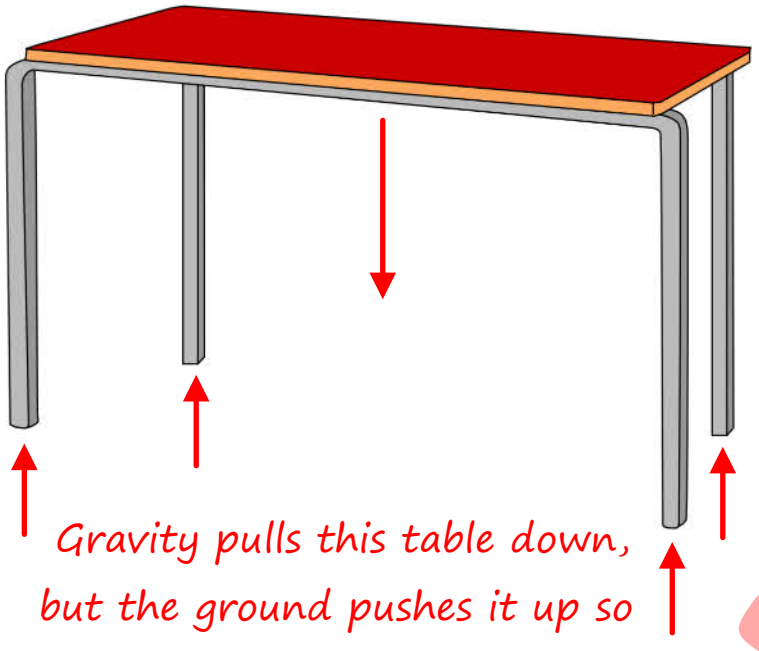
upthrust



buoyancy

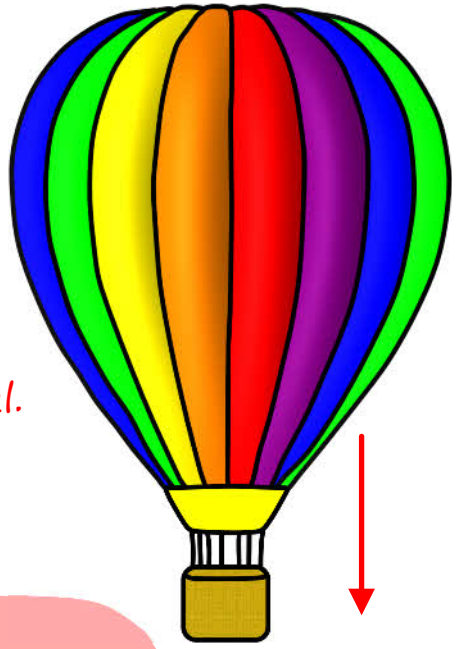
Types of Forces

Balanced Forces



Gravity pulls this table down, but the ground pushes it up so it does not move.

A balloon can float still in the air because the forces of upthrust and gravity are equal.



When things are not moving, the forces are balanced.

Types of Forces

Unbalanced Forces

As the hurdler loses contact with the ground and moves upwards, the forces of gravity and upthrust are unbalanced.

Unbalanced forces are needed to make things change movement or direction.

The see-saw is unbalanced because the opposite forces are not equal.