



Make sure you can write definitions for these key terms.

- friction
- field
- extension
- equilibrium
- electrostatic force
- elastic limit
- drag force
- contact force
- compress
- balanced
- air resistance
- gravitational field strength
- non-contact force
- newtonmeter
- weight
- newton
- water resistance
- upthrust
- unbalanced
- tension
- streamlined
- stretch
- reaction force
- gravity
- Hooke's law
- gravitational field strength
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Assessment & Review

Review of learning

Apply:
P1-4 Space
P2-1 Magnetic forces
SP1 Motion
SP2 Forces

Revision

Retrieval, keyword definitions and equation practice.

Forces in Action Fact Sheet

Air resistance is a type of friction which slows the fall of a parachute or a piece of paper in air. The bigger the surface area the greater the amount of air resistance.

Friction is the force between two surfaces - for example there is friction between a car tyre and the road, or a ski and snow. Melted snow between the ski and the snow lubricates the ski and reduces the friction.

Water resistance is another type of friction which slows objects moving through water.

This is a **forcemeter**. It is marked in **newtons**, and is used to measure the **magnitude** of a force.

These two teams are both **pulling**, in the **direction** of the arrows, in this game of tug of war.

The forces of **gravity** and **upthrust** need to be balanced for a ship to float.

The Earth's gravity pulls objects to its centre.

An object at rest stays at rest.

An object acted upon by a balanced force stays at rest.

An object acted upon by an unbalanced force changes speed and direction.

An object at rest stays at rest.

An object acted upon by an unbalanced force changes speed and direction.

An object in motion stays in motion.

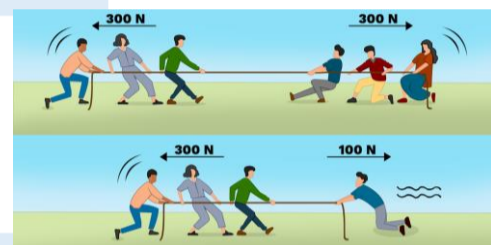
An object acted upon by an unbalanced force changes speed and direction.

How can ultrasound be used to see an image of an unborn baby?



Balanced and unbalanced

Describe the difference between balanced and unbalanced forces.



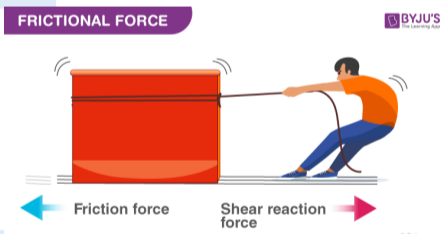
Forces at a distance

Describe the effects of a field and the effect of gravity on Earth and in space.

Why don't we float off into space?

Drag forces and friction

Describe the effect of drag and friction and explain how they arise.



Squashing and stretching

Describe how forces can deform objects.

Why don't we fall through the ground?



Contact Forces

1. Friction Force
2. Normal Force
3. Spring Force

Non-contact Forces

1. Magnetic Force
2. Gravitational Force
3. Electrostatic Force

Pushing a box

Book on a table

Weight on a spring

Opposite poles attract

Like poles repel

Interaction between two magnets

Trajectory of a ball thrown in air

Attraction between two conductors

Introduction to forces

An introduction to forces and what they do.

Retrieve:
KS2 Introduction to forces: contact/non-contact

