

JC Science – Key Definitions

Length



Length is measured in:

- Millimetres (mm)
- Centimetres (cm)
- Metres (m)
- Kilometres (km)

Mass



The mass of an object is the amount of matter in the object.

Volume



The volume of an object is the amount of space an object takes up.

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Meniscus



The top surface of water in a graduated cylinder is curved a little. This is called the meniscus.

Density



Density of a substance tells you how much mass is packed into a particular volume.

Flotation



Less dense objects and liquids can float on top of more dense liquids.

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Motion

REVISE
WISE

Words used to describe motion include:

- Speed
- Velocity
- Acceleration

Calculating speed

REVISE
WISE

Distance

Speed X time

A force

REVISE
WISE

A force can cause a moving object to move more quickly, to move more slowly or to change the direction in which it is moving.

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A force

REVISE
WISE

Anything that causes or tends to cause an acceleration.

Unit of force

REVISE
WISE

The unit to measure force is the newton and the symbol is N.

Lever

REVISE
WISE

A lever is any rigid body that is free to move about a fixed point.

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Unit of work



The unit we use to measure work is the joule, and the symbol is J.

Kinetic energy



Energy that a body has because it is moving – for example a ball rolling.

Potential energy



Energy that a body has because of its position relative to other bodies.

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Chemical energy



Energy that is stored in food is a good example of chemical energy.

Electrical energy



Energy that comes from the flow of electric charge – for example, electric current flowing along a copper wire.

Solar energy



Energy that comes from the sun.

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Nuclear



Energy produced from nuclear reactions – for example nuclear fission or nuclear fusion.

Expanding and contracting



Heating causes expansion (when things get bigger) and cooling causes contraction (when things get smaller).

Conduction



Conduction is the movement of heat energy from one object to another object that is in direct contact and is at a lower temperature.