

Density

The density of a material is the mass of 1 cm^3 (or 1 m^3) of the material. It is a measure of the compactness of a material. Density is measured in grams per centimetre cubed (g/cm^3) or kilograms per metre cubed (kg/m^3).



Volume

The volume of a three-dimensional shape is a measure of the amount of space or capacity it occupies, eg an average can of fizzy drink has a volume of 330 cm^3 .



Mass

The amount of matter an object contains. Mass is measured in kilograms (kg) or grams (g).

Matter

Sub-atomic particles and anything made from them, such as atoms and molecules, are matter. Energy and forces are not matter.



Particle

A general term for a small piece of matter. For example, protons, neutrons, electrons, atoms, ions or molecules.



Displacement

Quantity describing the distance from the start of the journey to the end in a straight line with a described direction, eg 50 km due north of the original position.

Fold

State

Solid, liquid or gas. Evaporation is a change of state from liquid to gas.

Internal energy

The total kinetic energy and potential energy of the particles in an object.

Temperature

How warm or cold something is.

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Specific heat capacity

The amount of energy needed to raise the temperature of 1 kg of substance by 1°C.



Specific latent heat

The amount of energy needed to melt or vaporise 1 kg of a substance at its melting or boiling point.



Conservation of energy

The principle that the total energy of a system stays the same, that energy cannot be created or destroyed (only stored or transferred).

Pressure

Force exerted over an area. The greater the pressure, the greater the force exerted over the same area.



Proportional

When two quantities have the same ratio or relative size. For example, current is proportional to voltage if the current doubles when the voltage is doubled.



Inversely proportional

A relationship between two variables where as one variable increases, the other variable decreases, eg as the volume doubled, the pressure decreased by half.