

T1 energy	T1 Physics Equations Sheet	T1 system
T1 energy stores	T1 heating	T1 work done by forces
T1 work done when a current flows	T1 Sankey diagram	T1 kinetic energy

T1 The object or collection of objects chosen for analysis, separated conceptually from its surroundings.	T1 Meaning pending review.	T1 The capacity to do work or cause change.
T1 Meaning pending review.	T1 Meaning pending review.	T1 Meaning pending review.
T1 The energy an object has because of its motion.	T1 An energy-flow diagram with arrow widths proportional to the amounts transferred.	T1 Meaning pending review.

T1 elastic potential energy	T1 gravitational potential energy	T1 spring constant
T1 extension	T1 gravitational field strength	T1 limit of proportionality
T1 specific heat capacity	T1 powerful	T1 power

T1 The force required per unit extension of a spring in its linear range.	T1 Energy stored because of an object's position in a gravitational field.	T1 Energy stored when an elastic object is stretched or compressed.
T1 The point beyond which extension is no longer directly proportional to applied force.	T1 The gravitational force per unit mass at a point.	T1 The increase in length of an object.
T1 The rate of energy transfer or work done.	T1 Meaning pending review.	T1 The energy needed to raise the temperature of one kilogram of a substance by one kelvin or one degree Celsius.

T1 work done	T1 watt	T1 dissipated
T1 closed system	T1 Lubrication	T1 Thermal insulation
T1 thermal conductivity	T1 efficiency	T1 fossil fuels

T1 Meaning pending review.	T1 The SI unit of power, equal to one joule per second.	T1 Meaning pending review.
T1 Meaning pending review.	T1 Meaning pending review.	T1 A system that does not exchange matter with its surroundings, although energy may be transferred.
T1 Coal, oil and natural gas formed from ancient organic matter over millions of years.	T1 The fraction of total energy or power input converted to useful output.	T1 Meaning pending review.

T1 nuclear fuel	T1 renewable	T1 non-renewable
T2 Physics Equations Sheet	T2 potential difference	T2 circuit symbols
T2 in series	T2 in parallel	T2 Electric current

T1 Describing a resource used faster than natural processes replace it on a human timescale.	T1 Describing a resource that can be replenished naturally on a timescale relevant to its use.	T1 Meaning pending review.
T2 Meaning pending review.	T2 The energy transferred per unit charge between two points.	T2 Meaning pending review.
T2 The rate of flow of electric charge.	T2 Meaning pending review.	T2 Meaning pending review.

T2 charge	T2 resistance	T2 Ohmic conductor
T2 Filament lamp	T2 Diode	T2 Thermistor
T2 LDR	T2 alternating	T2 direct

T2 Meaning pending review.	T2 The ratio of potential difference to electric current.	T2 An electrical property that causes attraction or repulsion.
T2 In the type required here, resistance falls as temperature rises – used as a temperature sensor in a thermostat.	T2 Conducts in the forward direction.	T2 Resistance increases as its filament temperature rises. The current increases less than proportionally with pd, so the I–V curve flattens away from the origin in both directions.
T2 Meaning pending review.	T2 Meaning pending review.	T2 Resistance falls as light intensity rises – used as a light sensor in an automatic lighting circuit.

T2 National Grid	T2 step-up transformer	T2 step-down transformer
T2 electric field	T3 density	T3 internal energy
T3 latent heat	T3 specific latent heat	T3 Fusion

T2 Meaning pending review.	T2 Meaning pending review.	T2 Meaning pending review.
T3 The total microscopic kinetic and potential energy of a system's particles, excluding its overall motion and position as a whole.	T3 Mass per unit volume.	T2 A region in which an electric charge experiences an electric force.
T3 The change of state from solid to liquid.	T3 The energy needed to change the state of one kilogram of a substance with no change of temperature.	T3 Energy transferred during a change of state without a temperature change.

T3 Vaporisation	T3 physical changes	T3 sublimates
T3 specific heat capacity	T4 isotopes	T4 radioactive decay
T4 Activity	T4 becquerel	T4 Count-rate

T3 Meaning pending review.	T3 A change in form or physical state that does not change a substance's chemical identity.	T3 The change of state from liquid to gas.
T4 The spontaneous, random change of an unstable nucleus with the emission of radiation.	T4 Atoms with the same proton number but different neutron numbers.	T3 The energy needed to raise the temperature of one kilogram of a substance by one kelvin or one degree Celsius.
T4 Detector counts per second, after allowing for background where needed. A detector usually records only some emissions: its count rate is not automatically the source activity in Bq.	T4 The SI unit of radioactive activity, equal to one nuclear decay per second.	T4 The positive magnitude, in Bq.

T4 Half-life	T4 Contamination	T4 Irradiation
T4 background radiation	T4 fission	T4 fusion
T5 scalar	T5 vector	T5 contact

T4 Exposing an object to radiation. The irradiated object does not become radioactive.	T4 Unwanted radioactive atoms on or inside an object or person. The hazard lasts as long as the atoms are there, decaying on or in the body.	T4 The time for the number of undecayed nuclei in a radioactive sample to halve.
T4 Meaning pending review.	T4 Meaning pending review.	T4 Ionising radiation present in the surroundings from natural and artificial sources.
T5 Meaning pending review.	T5 A quantity with both magnitude and direction.	T5 A quantity described by magnitude alone, with no direction.

T5 non-contact	T5 weight	T5 centre of mass
T5 resultant force	T5 free-body diagrams	T5 Elastic
T5 inelastic	T5 moment	T5 upthrust

T5 The point representing an object's or system's mass-weighted average position.	T5 The gravitational force acting on an object.	T5 Meaning pending review.
T5 Meaning pending review.	T5 Meaning pending review.	T5 The single force equivalent to all the forces acting together.
T5 The upward buoyant force exerted by a fluid on an object immersed in it.	T5 The turning effect of a force about a pivot.	T5 Describing a deformation that is not fully recovered on unloading, or a collision in which total kinetic energy is not conserved.

T5 Distance	T5 Displacement	T5 Speed
T5 Velocity	T5 Acceleration	T5 terminal velocity
T5 Inertia	T5 drag	T6 transverse

T5 The distance travelled per unit time.	T5 The change in position from an initial point to a final point, including direction.	T5 Time graph: gradient = speed.
T5 A constant falling velocity reached when weight is balanced by resistance.	T5 The rate of change of velocity.	T5 The rate of change of displacement.
T6 Describing a wave whose oscillations are perpendicular to the direction in which the disturbance travels.	T5 A resistive force exerted by a fluid on an object moving relative to it.	T5 An object's resistance to changes in its state of motion, measured by its mass in translational motion.

T6 longitudinal	T6 compressions	T6 rarefactions
T6 amplitude	T6 wavelength	T6 frequency
T6 period	T6 specular reflection	T6 diffuse reflection

T6	T6	T6
Meaning pending review.	Regions of a longitudinal wave where particles are closer together and pressure or density is higher than the equilibrium value.	Describing a wave in which particle oscillations are parallel to the direction of energy transfer.
T6	T6	T6
The number of complete cycles per unit time.	The distance between corresponding points on successive waves.	The maximum displacement from an equilibrium position.
T6	T6	T6
From a rough surface, scattered.	From a smooth surface, one direction.	The time taken for one complete oscillation or cycle.

T6 convex	T6 concave	T7 poles
T7 permanent magnet	T7 induced magnet	T7 magnetic field
T7 solenoid	T7 electromagnet	T7 magnetic flux density

T7 The north and south regions of a magnet, where its magnetic effects are strongest.	T6 Rays spread.	T6 Parallel rays converge at the principal focus.
T7 A region in which magnetic materials, moving charges or currents experience magnetic forces.	T7 Meaning pending review.	T7 An object that retains its magnetisation and produces a magnetic field without an external current or field being maintained.
T7 Meaning pending review.	T7 A magnet produced by an electric current, often using a coil around an iron core.	T7 A coil of wire that produces a magnetic field when an electric current flows through it.

T7 transformer	T8 red-shift	T8 nebula
T8 supernova		

T8 A cloud of gas and dust in space.	T8 The universe is expanding.	T7 A device that changes alternating potential difference using electromagnetic induction between coils.
		T8 An extremely energetic stellar explosion, caused by the collapse of a massive star or runaway nuclear reactions in a white dwarf.