T1 kinematics	T1 distance	T1 scalar
T1 displacement	T1 vector	T1 speed
T1 velocity	T1 acceleration	T1 average

T1 A quantity described by magnitude alone, with no direction.	T1 The total length of a path travelled.	T1 The description of motion using quantities such as position, velocity and acceleration without analysing its causes.
T1 The distance travelled per unit time.	T1 A quantity with both magnitude and direction.	T1 The straight-line change in position, including direction.
T1 A single value that represents a set of values, usually their mean.	T1 The rate of change of velocity.	T1 The rate of change of displacement.

T1 instantaneous	T1 tangent	T1 uniform acceleration
T1 free fall	T1 projectile	T1 component
T1 trajectory	T1 time of flight	T1 range

T1 Acceleration that is constant in size and direction.	T1 A straight line that touches a curve at a point and has the same direction there.	T1 Referring to a particular instant rather than an average over a time interval.
T1 The part of a vector acting in a specified direction.	T1 An object moving after being launched, typically modelled under gravity with air resistance neglected.	T1 Motion under gravity alone, with other forces neglected.
T1 The horizontal distance travelled by a projectile between its launch and a specified landing level or point.	T1 The total time that a projectile spends in the air.	T1 the curve the position vector traces through space

T1 fluid resistance	T1 drag	T1 terminal speed
T2 force	T2 interaction	T2 inertia
T2 free-body diagram	T2 resultant force	T2 translational equilibrium

T1 The constant speed at which the drag on a falling object balances the driving force.	T1 A resistive force exerted by a fluid on an object moving relative to it.	T1 The drag force on an object moving through a liquid or gas.
T2 An object's resistance to changes in its state of motion, measured by its mass in translational motion.	T2 A mutual force between objects or particles.	T2 An interaction that can change an object's motion or shape.
T2 The state of a body with zero resultant force on it.	T2 The single force equivalent to all the forces acting together.	T2 A diagram showing all external forces acting on a selected object.

T2 static friction	T2 dynamic friction	T2 spring constant
T2 Stokes' law	T2 viscosity	T2 buoyancy
T2 momentum	T2 conservation of momentum	T2 impulse

T2 The force required per unit extension of a spring in its linear range.	T2 The resistive force between two surfaces sliding over each other.	T2 The force that resists the start of sliding between two surfaces at rest relative to each other.
T2 The upward force on an object immersed in a fluid, equal to the weight of the fluid displaced.	T2 A measure of a fluid's resistance to flow or to relative motion between adjacent layers.	T2 The law $F = 6\pi\eta rv$ for the viscous drag on a small sphere moving slowly through a fluid.
T2 The change in momentum, equal to force multiplied by its duration for a constant force.	T2 Total momentum remains constant when no resultant external force acts.	T2 The product of mass and velocity.

T2 elastic collision	T2 inelastic collision	T2 explosion
T2 period	T2 angular velocity	T2 centripetal acceleration
T2 centripetal force	T3 conservation of energy	T3 work

T2 A rapid release of stored energy that can cause an object or system to separate into parts moving apart.	T2 A collision in which the total kinetic energy of the colliding objects is not conserved.	T2 A collision in which total kinetic energy and momentum are conserved.
T2 The acceleration towards the centre of a circular path, caused by the changing direction of velocity.	T2 The rate of change of angular displacement, with a direction associated with the axis of rotation.	T2 The time taken for one complete oscillation or cycle.
T3 Energy transferred by a force acting through a displacement.	T3 The principle that energy cannot be created or destroyed, only transferred or transformed.	T2 The resultant force towards the centre of a circular path.

T3 mechanical energy	T3 kinetic energy	T3 gravitational potential energy
T3 elastic potential energy	T3 power	T3 efficiency
T3 Sankey diagram	T3 energy density	T4 molecular model

T3 Energy stored because of an object's position in a gravitational field.	T3 The energy an object has because of its motion.	T3 The sum of kinetic, gravitational potential and elastic potential energy.
T3 The fraction of total energy or power input converted to useful output.	T3 The rate of energy transfer or work done.	T3 Energy stored when an elastic object is stretched or compressed.
T4 A picture of matter as particles in motion, used to explain gas behaviour.	T3 The energy released per unit volume of a fuel.	T3 An energy-flow diagram with arrow widths proportional to the amounts transferred.

T4 density	T4 Celsius scale	T4 Kelvin scale
T4 absolute zero	T4 average kinetic energy	T4 Boltzmann constant
T4 internal energy	T4 thermal equilibrium	T4 specific heat capacity

T4 The absolute temperature scale, which starts at absolute zero and has degrees the same size as Celsius degrees.	T4 The temperature scale in degrees with 0 °C near the freezing point of water and 100 °C near its boiling point at standard pressure.	T4 Mass per unit volume.
T4 The constant $k = 1.38 \times 10^{-23}$ J K^{-1} that links the average energy of particles to absolute temperature.	T4 The mean translational energy per particle of a gas, proportional to its absolute temperature.	T4 The lowest temperature on the thermodynamic temperature scale, equal to zero kelvin.
T4 The energy needed to raise the temperature of one kilogram of a substance by one kelvin or one degree Celsius.	T4 A condition in which bodies have the same temperature and no net heat flows between them.	T4 The total microscopic kinetic and potential energy of a system's particles, excluding its overall motion and position as a whole.

T4 phase change	T4 melting	T4 freezing
T4 boiling	T4 condensing	T4 specific latent heat
T4 specific latent heat of fusion	T4 specific latent heat of vaporization	T4 evaporation

T4 The change of state from liquid to solid.	T4 The change of a substance from solid to liquid.	T4 A transition between physical phases, such as melting, boiling or condensation.
T4 The energy needed to change the phase of 1 kg of a substance at constant temperature.	T4 Changing from gas to liquid.	T4 Vaporisation throughout a liquid when its vapour pressure matches the surrounding pressure.
T4 The escape of particles from the surface of a liquid into its vapour without the whole liquid boiling.	T4 The energy needed to change 1 kg of liquid to gas at constant temperature.	T4 The energy needed to change 1 kg of solid to liquid at constant temperature.

T4 conduction	T4 thermal conductivity	T4 temperature gradient
T4 convection	T4 convection current	T4 thermal radiation
T4 black body	T4 luminosity	T4 Stefan–Boltzmann constant

T4 The change in temperature per unit distance through a material.	T4 A measure of how well a material conducts thermal energy.	T4 The transfer of thermal energy through a material by particle collisions and free electrons, without bulk movement.
T4 Electromagnetic radiation emitted by an object because of its temperature.	T4 The circulating flow of a fluid in which warmer, less dense fluid rises and cooler fluid sinks.	T4 Heat transfer through the bulk movement of a fluid.
T4 The constant $\sigma = 5.67 \times 10^{-8}$ W m^{-2} K^{-4} in the law for power radiated by a black body.	T4 The total energy a star or other source emits as radiation per unit time.	T4 An ideal surface that absorbs all radiation falling on it and is also the best possible emitter.

T4 Wien's displacement law	T4 apparent brightness	T5 radiative equilibrium
T5 solar constant	T5 albedo	T5 emissivity
T5 greenhouse effect	T5 greenhouse gas	T5 photon

T5 The state in which a body absorbs and emits radiation at equal rates, so its temperature stays constant.	T4 The power received from a star per unit area at the observer.	T4 For a blackbody, the wavelength of peak emission per unit wavelength is inversely proportional to its absolute temperature.
T5 The ratio of the power radiated by a surface to that of a black body of the same area and temperature.	T5 The fraction of the radiation incident on a surface that the surface reflects.	T5 The solar power per unit area received at the top of Earth's atmosphere, about 1360 W m^{-2}.
T5 A quantum of electromagnetic radiation with energy equal to Planck's constant multiplied by its frequency.	T5 A gas that absorbs and emits infrared radiation, contributing to atmospheric warming.	T5 The warming caused when atmospheric gases absorb and emit infrared radiation, reducing the rate at which energy escapes to space.

T5 natural frequency	T5 resonance	T5 enhanced greenhouse effect
T6 pressure	T6 amount of substance	T6 Avogadro constant
T6 molar mass	T6 absolute zero	T6 pressure–volume diagram

T5 The extra warming caused by human activities that increase the concentration of greenhouse gases.	T5 In the trial method, overlap with the complementary function requires extra factors of x. An undamped system forced at its natural frequency can have a growing response.	T5 A frequency at which a system oscillates freely after being disturbed.
T6 The number of specified elementary entities in one mole, exactly 6.02214076 times ten to the power 23 per mole.	T6 The quantity of particles in a sample, measured in moles.	T6 Force acting normally per unit area.
T6 A graph of a gas's pressure against its volume, on which the area under a curve gives the work done.	T6 The lowest temperature on the thermodynamic temperature scale, equal to zero kelvin.	T6 The mass of one mole of a substance.

T6 isotherm	T6 molar gas constant	T6 ideal gas law
T6 ideal gas	T6 kinetic theory	T6 root mean square speed
T6 monatomic	T6 real gas	T7 electromotive force

T6 The relation pV=nRT connecting pressure, volume, amount and absolute temperature in the ideal-gas model.	T6 The constant R = 8.31 J K^{-1} mol^{-1} in the ideal gas equation.	T6 A line on a pressure–volume diagram joining states at one temperature.
T6 The square root of the mean of the squares of particle speeds in a gas.	T6 A model that explains properties of matter through the motion and interactions of its particles.	T6 A model of a gas with point particles that exert no intermolecular forces except during perfectly elastic collisions.
T7 The energy supplied by a source per unit charge passing through it.	T6 A gas that deviates from ideal behaviour, especially at high pressure or low temperature.	T6 Consisting of individual atoms rather than molecules containing several atoms.

T7 chemical cell	T7 solar cell	T7 electric current
T7 charge carrier	T7 conductor	T7 insulator
T7 potential difference	T7 resistance	T7 resistivity

T7 The rate of flow of electric charge.	T7 A device that converts light directly into electrical energy.	T7 A device that converts chemical energy into electrical energy.
T7 A material in which electric charge does not move readily under ordinary conditions.	T7 A material through which electric charge or thermal energy can pass readily.	T7 A particle that transports electric charge, such as an electron or a mobile ion.
T7 A material property relating resistance to length and cross-sectional area at a specified temperature.	T7 The ratio of potential difference to electric current.	T7 The energy transferred per unit charge between two points.

T7 Ohm's law	T7 ohmic	T7 filament lamp
T7 non-ohmic	T7 thermistor	T7 light-dependent resistor
T7 potentiometer	T7 internal resistance	T7 terminal potential difference

T7 A lamp with a thin metal wire that glows when hot; its resistance rises with temperature.	T7 Obeying Ohm's law, so current is proportional to potential difference at constant temperature.	T7 The rule that current is proportional to potential difference across an ohmic conductor when physical conditions such as temperature are constant.
T7 A resistor whose resistance generally decreases as the intensity of incident light increases.	T7 A resistor whose resistance changes strongly with temperature, commonly decreasing as temperature rises.	T7 Not obeying Ohm's law, so current is not proportional to potential difference.
T7 The potential difference across a cell's terminals when it supplies current.	T7 The effective resistance within a source of electrical energy that causes its terminal voltage to change when current flows.	T7 A variable resistor used as a potential divider to give an adjustable voltage.

T7 potential divider	T8 simple harmonic motion	T8 oscillation
T8 equilibrium position	T8 restoring force	T8 displacement
T8 angular frequency	T8 amplitude	T8 period

T8 A repeated back-and-forth motion about a fixed position.	T8 Oscillation in which acceleration is proportional to displacement from equilibrium and directed towards equilibrium.	T7 A circuit arrangement that uses series resistances or impedances to obtain a fraction of an applied potential difference.
T8 The straight-line change in position, including direction.	T8 A force acting towards an object's equilibrium position after displacement.	T8 The point at which an oscillating object has zero resultant force on it.
T8 The time taken for one complete oscillation or cycle.	T8 The maximum displacement from an equilibrium position.	T8 The rate of change of phase in radians per second, equal to two pi times frequency.

T8 frequency	T8 isochronous	T8 spring constant
T8 simple pendulum	T8 total energy	T8 damping
T9 travelling wave	T9 medium	T9 transverse wave

T8 The force required per unit extension of a spring in its linear range.	T8 Having a period that does not depend on the amplitude of the oscillation.	T8 The number of complete cycles per unit time.
T8 The reduction of oscillation amplitude caused by energy transfer out of the oscillating system.	T8 The sum of an object's kinetic and potential energies; in relativity, its rest energy plus kinetic energy.	T8 A small mass on a light string that swings with a period set by its length and g.
T9 A wave whose oscillations are perpendicular to its direction of energy transfer.	T9 The material or environment through which a wave or other physical influence is transmitted.	T9 A disturbance that moves through a medium (or through space), transferring energy from one place to another.

T9 longitudinal wave	T9 compression	T9 rarefaction
T9 wavelength	T9 wave speed	T9 sound
T9 ultrasound	T9 electromagnetic wave	T9 electromagnetic spectrum

T9 A region of a longitudinal wave where the particles are further apart than at equilibrium.	T9 A region of a longitudinal wave where the particles are closer together than at equilibrium.	T9 A wave whose oscillations are parallel to its direction of energy transfer.
T9 A mechanical wave and needs a medium; there is no air on the Moon.	T9 The rate at which a wave disturbance or a point of constant phase travels through a medium.	T9 The distance between corresponding points on successive waves.
T9 The complete range of electromagnetic radiation, ordered by frequency or wavelength.	T9 Waves of coupled electric and magnetic fields that transfer energy and can travel through a vacuum.	T9 Sound with a frequency above the upper limit of normal human hearing, conventionally above 20 kilohertz.

T10 wavefront	T10 ray	T10 boundary
T10 reflection	T10 normal	T10 transmission
T10 refraction	T10 refractive index	T10 Snell's law

T10 The surface between two media or regions, at which a wave may be reflected or refracted.	T10 A line showing the direction in which the wave travels; it is perpendicular to wavefronts in the ordinary isotropic wave model used here.	T10 A line (or surface) joining points that are in phase, for example all the points on one crest.
T10 The passage of a wave through a medium or across a boundary.	T10 A line perpendicular to a surface at a given point.	T10 The change in direction of a wave at a boundary so that it returns into its original medium.
T10 The law $n_1 \sin \theta_1 = n_2 \sin \theta_2$ relating the angles of incidence and refraction at a boundary.	T10 For a medium, the ratio of the speed of light in a vacuum to its phase speed in that medium.	T10 A change in a wave's direction when it crosses a boundary at an angle and its speed changes.

T10 critical angle	T10 total internal reflection	T10 optical fibre
T10 diffraction	T10 aperture	T10 principle of superposition
T10 pulse	T10 interference	T10 coherent

T10 A thin glass strand that guides light by total internal reflection.	T10 When all of a wave is reflected back into a denser medium because it meets the boundary above the critical angle.	T10 The incidence angle in the higher-index medium for which the refracted ray travels along the boundary.
T10 The rule that the resultant displacement where waves meet is the vector sum of their individual displacements.	T10 The opening through which a wave passes.	T10 The spreading or redistribution of waves as they pass an edge or aperture.
T10 Having the same frequency and a constant phase difference.	T10 The superposition of waves, producing a combined displacement that depends on their relative phase.	T10 A short single disturbance that travels through a medium.

T10 path difference	T10 constructive interference	T10 destructive interference
T10 fringe	T10 fringe separation	T11 standing wave
T11 node	T11 antinode	T11 boundary condition

T10 The superposition of waves out of phase, which gives a smaller resultant amplitude.	T10 The superposition of waves in phase, which gives a larger resultant amplitude.	T10 The difference in the distances travelled by two waves from their sources to a point.
T11 A wave pattern with fixed nodes and antinodes formed by the superposition of waves travelling in opposite directions.	T10 The distance between the centres of adjacent bright or dark interference fringes.	T10 A band of greater or lesser intensity in an interference or diffraction pattern.
T11 A specified value or relationship that a solution must satisfy at a boundary or stated position, helping determine constants or allowable solutions.	T11 A position of maximum oscillation amplitude in a standing wave.	T11 A point in a stationary wave where the displacement amplitude is zero.

T11 harmonic	T11 first harmonic	T11 natural frequency
T11 driving frequency	T11 resonance	T11 damping
T11 light damping	T11 critical damping	T11 heavy damping

T11 A frequency at which a system oscillates freely after being disturbed.	T11 The standing wave with the lowest frequency on a string or in a pipe.	T11 A component of a periodic signal at a whole-number multiple of the fundamental frequency.
T11 The reduction of oscillation amplitude caused by energy transfer out of the oscillating system.	T11 In the trial method, overlap with the complementary function requires extra factors of x. An undamped system forced at its natural frequency can have a growing response.	T11 The frequency of the external influence acting on an oscillating system.
T11 Damping so strong that a displaced system returns slowly to equilibrium without oscillating.	T11 The damping that returns a system to equilibrium in the shortest time without oscillating.	T11 Damping small enough for a system to oscillate with slowly decreasing amplitude.

T12 Doppler effect	T12 redshift	T12 blueshift
T12 spectral line	T13 Kepler's laws	T13 ellipse
T13 focus	T13 point mass	T13 Newton's universal law of gravitation

T12 A shift of spectral lines to shorter wavelengths, caused by a source moving towards the observer.	T12 A shift of observed spectral features towards longer wavelengths.	T12 A change in observed wave frequency caused by relative motion between a source and an observer.
T13 A closed oval curve, the shape of a planetary orbit, with two foci.	T13 Three laws describing planetary orbits: elliptical paths, equal areas in equal times, and T^2 proportional to a^3.	T12 A narrow band of one wavelength in a spectrum, produced by a transition between energy levels.
T13 The law that two point masses attract with a force proportional to their masses and inversely proportional to the square of their separation.	T13 An idealised object whose mass is treated as concentrated at a single point.	T13 One of the two fixed points of an ellipse; the Sun lies at one focus of a planet's orbit.

T13 gravitational field	T13 gravitational field strength	T13 field line
T13 uniform field	T13 orbit	T13 centripetal force
T13 geostationary orbit	T13 apparent weightlessness	T14 electric charge

T13 An imaginary curve whose tangent at each point indicates the direction of a field.	T13 The gravitational force per unit mass on a small test mass at a point.	T13 A region in which a mass experiences gravitational force, described locally by force per unit mass.
T13 The resultant force towards the centre of a circular path.	T13 The path of an object moving around another body under a force such as gravity.	T13 A field with the same magnitude and direction at every point in the region considered.
T14 A physical property responsible for electric forces and interactions, occurring with positive or negative sign.	T13 The sensation of having no weight in free fall, when no contact force supports the body.	T13 An equatorial orbit with a 24-hour period, in which a satellite stays above one point on Earth.

T14 elementary charge	T14 charge is conserved	T14 electrostatic induction
T14 earthed	T14 charge is quantized	T14 Coulomb's law
T14 permittivity	T14 electric field	T14 electric field strength

T14 The redistribution of charge in a body caused by a nearby charge, without contact.	T14 The total electric charge of an isolated system never changes.	T14 The magnitude of the charge on a proton or electron, about 1.60 $\times 10^{-19}$ C.
T14 The rule that the electrostatic force between point charges is proportional to their charge product and inversely proportional to the square of their separation.	T14 All observable charge comes in whole-number multiples of the elementary charge.	T14 Connected to the ground, so that charge can flow to or from it.
T14 The electric force per unit positive charge at a point.	T14 A region in which an electric charge experiences an electric force.	T14 A property of a medium that sets the strength of the electric force through it.

T14 electric field line	T14 edge effect	T14 magnetic field
T14 magnetic field line	T14 right-hand grip rule	T14 solenoid
T15 parabola	T15 tesla	T15 Fleming's left-hand rule

T14 A region in which magnetic materials, moving charges or currents experience magnetic forces.	T14 The bending of electric field lines at the ends of parallel plates, where the field is no longer uniform.	T14 A line showing the direction of the force on a positive test charge at each point in a field.
T14 A coil of wire that produces a magnetic field when an electric current flows through it.	T14 A rule that gives the direction of the magnetic field around a current.	T14 A line showing the direction of the force on a north pole at each point in a magnetic field.
T15 A rule that links the directions of current, magnetic field and force on a conductor.	T15 The unit of magnetic flux density, equal to one weber per square metre.	T15 The curve formed by points equally distant from a fixed point and a fixed straight line.

T15 charge-to-mass ratio	T15 velocity selector	T15 motor effect
T16 nucleus	T16 plum-pudding model	T16 nuclear model
T16 alpha particle	T16 gold foil	T16 evacuated

T15 The force on a current-carrying conductor in a magnetic field.	T15 A device using crossed electric and magnetic fields to allow particles of a selected speed to pass undeflected.	T15 The charge of a particle divided by its mass, measured in C kg^{-1}.
T16 The picture of an atom as a tiny, dense, positive nucleus surrounded by electrons.	T16 The disproved atomic model of electrons embedded in a sphere of positive charge.	T16 The small, dense central part of an atom, containing protons and usually neutrons.
T16 With the air pumped out to leave a near vacuum.	T16 The thin metal target in the Geiger–Marsden alpha-scattering experiment.	T16 A helium-4 nucleus of two protons and two neutrons, emitted in alpha decay.

T16 nuclide	T16 nucleon number	T16 proton number
T16 isotope	T16 spectrum	T16 continuous spectrum
T16 emission spectrum	T16 absorption spectrum	T16 discrete

T16 The number of protons in an atomic nucleus, which identifies its element.	T16 The total number of protons and neutrons in an atomic nucleus.	T16 An atomic species identified by its numbers of protons and neutrons.
T16 A spectrum containing all wavelengths across a range, with no gaps.	T16 A distribution of electromagnetic radiation according to wavelength or frequency.	T16 An atom of an element with the same proton number but a different neutron number from another atom of that element.
T16 Existing only in separate, distinct values, not over a continuous range.	T16 The pattern of wavelengths absorbed by a substance, often seen as missing bands or lines in transmitted light.	T16 A set of bright lines on a dark background.

T16 energy level	T16 photon	T16 line spectrum
T16 ground state	T16 ionisation energy	T17 isotope
T17 strong nuclear force	T17 mass defect	T17 binding energy

T16 A spectrum of separate wavelengths, characteristic of the element that produces it.	T16 A quantum of electromagnetic radiation with energy equal to Planck's constant multiplied by its frequency.	T16 An allowed value of energy that a quantum system can have.
T17 An atom of an element with the same proton number but a different neutron number from another atom of that element.	T16 The energy needed to remove an electron completely from an atom in its ground state.	T16 The lowest-energy state available to an atom, particle or other quantum system.
T17 The energy required to separate a bound system into specified free constituents.	T17 The difference between the total mass of a nucleus's separate nucleons and the mass of the nucleus.	T17 The residual strong interaction that binds protons and neutrons together in nuclei.

T17 unified atomic mass unit	T17 binding energy per nucleon	T17 fusion
T17 fission	T17 radioactive decay	T17 random
T17 spontaneous	T17 alpha particle	T17 antineutrino

T17 The joining of light nuclei to form a heavier nucleus, with a release of energy.	T17 A nucleus's total binding energy divided by its number of protons and neutrons.	T17 One twelfth of the mass of a carbon-12 atom, about 1.66×10^{-27} kg.
T17 It is impossible to predict when a particular nucleus will decay.	T17 The spontaneous, random change of an unstable nucleus with the emission of radiation.	T17 The splitting of a heavy nucleus into two lighter nuclei, with a release of energy.
T17 The very light, neutral antiparticle emitted with an electron in beta-minus decay.	T17 A helium-4 nucleus of two protons and two neutrons, emitted in alpha decay.	T17 It occurs without a triggering collision. For the ordinary classroom decay model, its rate is approximately unaffected by temperature, pressure or chemical state.

T17 positron	T17 neutrino	T17 gamma ray
T17 ionisation	T17 activity	T17 becquerel
T17 count rate	T17 half-life	T17 background radiation

T17 High-energy electromagnetic radiation emitted by an excited nucleus.	T17 An electrically neutral, very light elementary particle that interacts mainly through the weak interaction and gravity.	T17 The positively charged antiparticle of the electron, with the same mass.
T17 The SI unit of radioactive activity, equal to one nuclear decay per second.	T17 The number of nuclear decays per second in a radioactive sample, measured in becquerels.	T17 The removal or addition of electrons to an atom, leaving it charged.
T17 Ionising radiation present in the surroundings from natural and artificial sources.	T17 The time for the number of undecayed nuclei in a radioactive sample to halve.	T17 The number of events registered by a detector per unit time.

T18 nuclear fission	T18 fission fragment	T18 spontaneous fission
T18 neutron-induced fission	T18 chain reaction	T18 critical mass
T18 moderator	T18 control rod	T18 coolant

T18 Fission of a heavy nucleus that happens without an incoming particle.	T18 One of the two lighter nuclei produced when a heavy nucleus splits.	T18 The splitting of a heavy atomic nucleus into smaller nuclei, usually releasing energy and neutrons.
T18 The minimum amount of fissile material needed to sustain a nuclear chain reaction under specified conditions.	T18 A process in which products of one reaction trigger further reactions of the same kind, as neutrons can do in nuclear fission.	T18 Fission that starts when a nucleus absorbs a neutron.
T18 A fluid that carries thermal energy away from a reactor core or engine.	T18 A rod that absorbs neutrons in a reactor and so controls the rate of fission.	T18 A material in a reactor that slows fast neutrons so they are more likely to cause fission.

T18

heat exchanger

T18

shield

T18

nuclear waste

T19

gas pressure and
radiation pressure

T19

equilibrium

T19

nuclear fusion

T19

proton–proton chain

T19

positron

T19

neutrino

T18 Radioactive material left over from reactors and other nuclear processes.	T18 A barrier of absorbing material that protects against radiation.	T18 A device that transfers thermal energy between two fluids that do not mix.
T19 The joining of light atomic nuclei to form a heavier nucleus, releasing energy.	T19 A state with no resultant force or resultant moment.	T19 The two outward pressures in a star that balance the inward pull of gravity.
T19 An electrically neutral, very light elementary particle that interacts mainly through the weak interaction and gravity.	T19 The positively charged antiparticle of the electron, with the same mass.	T19 The series of fusion reactions by which Sun-like stars convert hydrogen into helium.

T19 Coulomb barrier	T19 quantum tunnelling	T19 astronomical unit
T19 light year	T19 parsec	T19 stellar parallax
T19 luminosity	T19 apparent brightness	T19 Hertzsprung–Russell diagram

T19 The mean distance between Earth and the Sun, about 1.5 $\times 10^{11}$ m.	T19 The passage of a particle through an energy barrier that it could not cross classically.	T19 The electrostatic repulsion that an incoming positive particle must overcome to reach a nucleus.
T19 The apparent shift of a nearby star against distant stars as Earth orbits the Sun.	T19 The distance at which a star has a parallax angle of one arcsecond, about 3.26 light years.	T19 The distance light travels in a vacuum in one year, about 9.46 $\times 10^{15}$ m.
T19 A plot of stellar luminosity against surface temperature.	T19 The power received from a star per unit area at the observer.	T19 The total energy a star or other source emits as radiation per unit time.

T19 main sequence	T19 red giant	T19 supergiant
T19 white dwarf	T19 instability strip	T19 nebula
T19 protostar	T19 planetary nebula	T19 supernova

T19 A very large, extremely luminous, massive star late in its life.	T19 A large, cool, luminous star that has exhausted the hydrogen in its core.	T19 The band on the Hertzsprung–Russell diagram containing stars that fuse hydrogen in their cores.
T19 A cloud of gas and dust in space.	T19 The region of the Hertzsprung–Russell diagram occupied by pulsating variable stars such as Cepheids.	T19 A dense, hot stellar remnant supported by electron degeneracy pressure, with no sustained core fusion.
T19 An extremely energetic stellar explosion, caused by the collapse of a massive star or runaway nuclear reactions in a white dwarf.	T19 The expanding shell of gas shed by a red giant at the end of its life.	T19 A collapsing cloud of gas that is heating up but has not yet started hydrogen fusion.

T19 neutron star	T19 black hole	T20 uncertainty
T20 random error	T20 systematic error	T20 zero error
T20 accurate	T20 precise	T20 uncertainty bar

T20 An estimate of the possible range of error in a measurement.	T19 A region of spacetime where gravity is so strong that nothing, not even light, can escape.	T19 The very dense remnant of a supernova, composed mostly of neutrons.
T20 An instrument reading that is nonzero when the true quantity is zero.	T20 A consistent measurement bias caused by the method or instrument.	T20 Unpredictable variation between repeated measurements.
T20 A line through a plotted point showing the uncertainty range of that measurement.	T20 Giving closely grouped repeated readings, with little random variation.	T20 Close to the true value.

T20 outlier	T20 gradient	T20 intercept
T20 linearise	T20 research question	T20 independent variable
T20 dependent variable	T20 control variable	

T20 The coordinate at which a graph crosses a specified coordinate axis.	T20 The change in the vertical coordinate divided by the change in the horizontal coordinate.	T20 An observation unusually far from the rest of the data or from the pattern expected under a model.
T20 An input or factor whose value is chosen or varied to examine its effect on another quantity.	T20 The specific question an investigation is designed to answer.	T20 To transform variables so that a relationship plots as a straight line.
	T20 A factor kept constant or otherwise accounted for so its effect does not distort an investigation.	T20 The measured or calculated outcome whose response to changes in another variable is studied.