



# Physics Vocabulary

~1300 words and collocations

## MECHANICS

### A

Acceleration  
Action/reaction (force)  
Air resistance  
Airtight  
Align  
Alignment  
Altitude  
Approximation  
Area  
Average  
Axis (*axes pl.*)

### B

Backward/forward (force)  
Balance of forces  
Bias  
Bilateral  
Brake

### C

Charge/heat carrier  
Chart  
Circular motion  
Complement  
Concurrent  
Contact forces  
Cubic meter  
Curvature

### D

Deceleration  
Deflection  
Delay  
Dense  
Density (of ...)  
Depth  
Deviation  
Dimension  
Displacement  
Distance  
Distance-time graph

### E

Eddy  
Engine  
Equation  
Equidistant  
Equilibrium (*pl. equilibria*)  
Exert a force on  
Explosion

External/outside force

### F

Field forces  
Force  
Friction (between ... and ...)

### G

Gradient  
Graph  
Gravitation  
Gravitational force  
Gravity

### H

Hooke's Law

### I

Imbalance  
Impetus  
Impulse  
Inclined plane  
Inertia  
Inhibit

### K

Kilogram  
Kinetic energy

### L

Law of conservation of energy  
Length  
Lever

### M

Magnitude  
Mass  
Measure  
Measurement  
Meter  
Metric system  
Momentum (*pl. momenta*)  
Motion graph

### N

Net/resultant force  
Newton  
Newton's Laws of motion

### O

(Old) imperial system

### P

Pendulum  
Plane  
Potential energy  
Pressure  
Projectile motion  
Projection  
Propulsion  
Pulley

### R

Rate  
Retardation  
Reverse  
Right-hand rule  
Rotation  
Rupture

### S

Scalar  
Scale  
SI system  
Starting/terminal speed  
Stable equilibrium  
Starting speed

### T

Tension  
Three-dimensional  
Torque  
Torsion  
Turbulence  
Twist

### V

Vector  
Velocity  
Vibrate  
Vibration  
Volume  
Vortex (*pl. vortices, vortexes*)

### W

Weight  
Whirl

## Collocations

1,000 kg per cubic metre  
3 cm long/wide/high

Acceleration of free fall  
At a speed of  
An object at rest

Forces act on something  
Forces act through the same point  
Forces cancel each other  
Forces occur

On the vertical/horizontal scale

The direction of travel  
To change one kind of energy into another kind  
To come to rest/to stay at rest  
To cover/travel a distance  
To fall towards (to) the ground  
To go up/down by 5 metres per second  
To increase by ...%  
To lie in the same plane  
To mark on a graph  
To move/drift in a straight line  
To move through the air  
To plot a graph  
To travel 500m in 20s

With an acceleration of

## THERMODYNAMICS AND MOLECULAR PHYSICS

### A

Adherence  
Adhesion  
Ambient (temperature  
/pressure)

### B

Binding  
Boil  
Bond  
Bubble

### C

Capillary  
Cavity  
Celsius  
Cluster  
Collide  
Collision  
Compound  
Contract  
Contraction  
Convection  
Cooling  
Coupling  
Cryogenics

### D

Degree  
Dissolve  
Diffusion

### E

Energy  
Energy input  
Enthalpy  
Entropy  
Evaporation  
Expand  
Expansion

### F

Film  
Fluid  
Freezing point

### H

Heatproof  
Heterogeneous  
Homogeneous  
Humid  
Humidity  
Hydrocarbon  
Hydrogen  
Hydrolysis

### I

Impurity  
Internal energy  
Irreversible  
Isobaric  
Isothermal

### J

Joule

### K

Kelvin

### L

Liquid  
Loss of heat

### M

Medium  
Melt  
Mixture  
Moisture  
Molecule

### P

Plasma  
Precipitation  
Pump  
Pure  
Purity

### Q

Quantity  
Quality

### S

Sample  
Soluble  
Solution  
Solvent  
Steam  
Structure

### T

Thaw  
Thermal (conductivity)  
Thermometer  
Thermostat  
Transition  
Tube

### V

Vacuum  
Valve  
Vaporize  
Vapour  
Viscosity  
Viscous  
Void  
Volume

### U

Useful energy output

### Y

Yield

### Collocations

Heat escapes  
Heat/energy intake

## ELECTRICITY AND MAGNETISM

### A

Admittance  
Alloy  
Alternating/direct current  
Ammeter  
Ampere (Amp)  
Analogue  
Attractive force

### B

Bar magnet  
Battery  
Blow (fuse)  
Bulb

### C

Capacitance  
Capacity  
Cell  
Charge (positive/negative)  
Circuit  
(complete/broken/unbroken/  
short)  
Circuit breaker  
Coil  
Colour-coded  
Compass  
Conductor  
Conductivity  
Consumer unit  
Consumption  
Core  
Coulomb  
Current

### D

Digital  
Discharge

### E

Earth wire; to earth  
Earthing  
Electric battery/cell/generator  
Electric conductivity  
Electric potential  
Electrolysis  
Electrolyte  
Electromagnet  
Electromagnetic  
induction/force  
Electromagnetism

Electromotive force  
Electron  
Electrostatics  
Energy conservation  
Energy-saving  
Extension cable

### F

Fault  
Flow  
Flux density  
Fuse  
Fuse box

### I

Impedance  
Impede  
In parallel  
In series  
Induced voltage  
Insulate  
Insulation  
Insulator  
Ion

### L

Like/unlike/opposite poles  
Live/neutral wire

### M

Magnet  
(permanent/temporary)  
Magnetic field  
Magnetic potential  
Magnetism  
Magnetize/demagnetize

### N

Negatively charged  
Non-conductor

### O

Ohm  
Ohm's Law  
Overhead cable

### P

Parallel circuit  
Plug (into)/unplug  
Positively charged  
Potential difference

Power rating  
Power surge

### R

Reading (meter)  
Relay  
Repel  
Repulsive force  
Resistance  
Resistor  
Rheostat/variable resistor

### S

Semiconductor  
Socket  
Solar cell/panel/energy  
Solenoid  
Substation  
Superconductor  
Switch

### T

Transformer  
Transmitter  
Turbine

### V

Volt  
Voltage  
Voltmeter

### W

Watt  
Wind (v)  
Winding

### Collocations

A battery goes dead  
A bulb goes/runs out  
A charge builds up

Filament bulb

Low energy bulbs

To be connected in series/in  
parallel

To be live/alive

To be on the mains

To coil up

To conduct heat  
To disconnect from the mains  
To induce magnetism

To produce a magnetic fields  
To reverse the direction  
To transfer a charge

To work/run on batteries  
To work from the mains  
Tungsten filament

# OPTICS

## A

Absorb  
Absorption  
Acoustics  
Aerial (dish/long wire/dipole)  
Amplifier  
Amplitude  
Amplitude modulation  
Audible/inaudible

## B

Band  
Beam

## C

Candela

## D

Decibel  
Deflect  
Diffraction  
Dispersion

## E

Echo

## F

Filter  
Fluorescence  
Focal length  
Focus (in focus/out of focus)  
Frequency  
Frequency modulation/band

## H

Hertz  
High/low pitch  
Hologram

## I

Illumination  
Incident ray  
Infrared radiation  
Intensity  
Interference

## L

Laser  
Laterally inverted image

Lattice

Layer

Lens

Light

Longitudinal/transverse wave

Luminosity

Luminous

## M

Microscope  
Microwaves  
Mirror (flat/concave/convex)  
Mode

## N

Noise  
Normal

## O

Optical fibre  
Opaque

## P

Period  
Photon  
Prism  
Propagation

## R

Radar  
Range  
Radio waves  
(long/medium/short/VHF/UHF)  
Radioscopy  
Ray (reflected/refracted)  
Receiver  
Reflection  
Refraction  
Resolution  
Resonance

## S

Scatter (v)  
Scattering  
Spectrometer  
Spectroscope  
Spectrum (pl. spectra)

Stability

## T

Transmit (v)  
Transmission  
Transparent  
Trigger  
Tuning

## U

Ultrasonic  
Ultrasound  
UV-radiation

## V

Virtual image  
Visibility  
Visible/invisible

## W

Wave  
(electromagnetic/sound/light/radio)  
Wavelength

## Collocations

All the colours of the rainbow:  
red, orange, yellow, green,  
blue, indigo and violet.

*(Richard of York gave battle in vain)*

Angle of incidence/reflection/refraction

At a frequency of...

Fine beam

Light/wave travels

To give off/out light

To move the ray sideways

To reflect light

To release/to give off energy

To travel through  
liquids/gases

## ATOMIC AND NUCLEAR PHYSICS

### A

Alpha/beta-particle  
Atom  
Atomic mass

### B

Boson

### C

Chain reaction  
Chemical energy  
Control rod  
Counter  
Crystal

### D

Decay  
Deuterium  
Disintegration

### E

Emission  
Emit (radiation)

### F

Fission  
Fusion

### G

Gamma ray  
Generator  
Grating

### H

Half-life (period)  
Helium

### I

Ion  
Ionizing effect  
Isotope

### J

Jet

### M

Mass number  
Meson  
Moderator

### N

Neutrino  
Neutron  
Nuclear energy/reaction  
Nuclear radiation  
Nuclear waste  
Nucleus (*pl.* nuclei)

### O

Oscillation

### P

Penetrating effect  
Power station  
Proton

### Q

Quantum (*pl.* quanta)

Quark

### R

Radiated energy  
Radioactive  
Radioactive decay  
Radium  
Reactor  
Resonance

### S

Split into  
Splitting

### T

Thermal energy  
Tunnel

### U

Uranium

### X

X-ray

### Collocations

Receive radiation  
Renewable/non-renewable  
energy sources  
Remote control  
  
To enrich uranium



## PHYSICS OF EARTH AND PLANETS

### A

Asteroid

### B

Big Bang Theory

Black hole

### C

Comet

Constellation

Continental drift

Crescent

### D

Density

### E

Earthquakes

Eclipse (solar/lunar)

Ecliptic

Extraterrestrial

### F

Fossil fuels

### G

Galaxy

Geothermal/tidal/hydroelectric energy/power

GPS (global positioning system)

### H

Hemisphere

### I

Inner planets

### J

Jupiter

### L

Light year

### M

Mapping

Mars

Mercury

Meteor

Meteorite

Monitoring

### N

Navigation

Nebula (*pl.* nebulae)

Neptune

### O

Observation

Orbit (n; v)

Outer planets

### P

Path

Planet

Pluto

Probe

Prospecting

Pulsar

### R

Region

Reserves of oil/gas

### S

Satellite

(communications/research/monitoring/navigation/manned)

Saturn

Seismic waves

Seismograph

Shift

Star

Stardust

Surface temperature

Supernova

### T

The Earth

The Milky Way

The Moon

The Polar Star

The Solar System

The Sun

Tilted orbit

### U

Universal gravitation

Universe

Uranus

### V

Venus

### W

Weightless conditions

Weightlessness

### Collocations

Axis runs

The expanding Universe

To be in shadow

To hold in orbit

To move around/to orbit

To travel round (the Sun)

To turn on its axis (planets turn ...)

## MATHEMATICAL TERMS

### A

Abscissa  
Addition  
Adjust  
Adjustment  
Ambiguous  
Arithmetic average  
Assumption  
Axiom

### B

Binary

### C

Circumference  
Coefficient  
Constant  
Continuity  
Cosine  
Criterion (*pl.* criteria)  
Cross-section  
Cubed  
Curve

### D

Data  
Deduction  
Denominator (common d.)  
Diameter  
Disprove  
Distortion  
Distribution  
Division

### E

Equation  
Error

### F

Factor  
Finite  
Formula

Fraction (decimal)

### G

Given

### H

Hypothesis (*pl.* hypotheses)

### I

Index (*pl.* indices)  
Infinite  
Infinity  
Integral  
Inverse/inversely

### L

Linear  
Lateral (view)

### M

Matrix (matrices *pl.*)  
Mean value  
Multiplication  
Multiplicity  
Multiply

### N

Negligible

### O

Obtuse/acute angle  
Ordinate

### P

Pie-chart  
Problem  
Proportion

### R

Radius (*pl.* radii)  
Random  
Ratio

Refutation

Refute

Relation

Root

### S

Semicircle  
Set  
Sine  
Sphere  
Squared  
Subset  
Subtract  
Subtraction  
Summation  
Summation sign  
Symmetrical  
Symmetry  
Synthesis

### T

Tabulate  
Tangent  
Theorem  
Triangle

### Collocations

In inverse proportion to  
In the mean  
Parallel straight lines meet  
only at infinity  
To approach zero  
To go into infinity  
To solve a problem  
To take a root  
To take an integral of ...

## GENERAL WORDS

### A

Accuracy  
Accurate/inaccurate  
Action  
Affect (v)  
Attract (v), to be attracted to

### B

Blow  
Bundle

### C

Close  
Coat (v.)  
Coating  
Consistent data  
Content  
Consume  
Convert (into)  
Coverage

### D

Decrease  
Disconnect  
Durable

### E

Efficiency  
Eigenvalue  
Engineering  
Entity  
Equipment  
Estimate  
Exchange

### F

Facilities  
Feasibility  
Feasible  
Feedback  
Fireproof

### G

Gain  
Gap  
Glow (v; n)

### I

Identical  
Identity  
Impact

Imperfection  
Interact  
Interaction  
Investigate  
Investigation

### L

Level  
Lift  
Limit  
Load

### M

Matter

### O

Overheat

### P

Pattern  
Phenomenon (phenomena  
*pl.*)  
Principle  
Property  
Promising (approach/method)

### R

Reaction  
Reduce  
Reduction  
Release  
Relevant  
Remove  
Replace  
Research

### S

Sensitive  
Specific gravity  
Substitute  
Successive  
Supply  
Support  
Surface

### T

Technique  
Technology  
Test  
Thick

Thickness  
Timing  
Tool  
Top view  
Treat  
Trial

### U

Unique  
Upkeep

### V

Valid  
Validate  
Validation  
Value  
Vanish  
Variable  
Vary  
Verification  
Verify  
Viable/unviable  
Viability

### W

Waterproof  
Windmill

### Collocations

At the bottom

Feasibility study

The reading on the scale  
(gives the volume)

Recognizable pattern

To be deposited on

To be level with

To be made of (rock/ice/iron)

To discern/recognize a  
pattern

To do research into

To show/hold promise for

To put a fault right

To take up space