

PHYSICAL SCIENCE VOCABULARY

1485 Vocabulary Words

SECTION 1

Lab Equipment

balance
balance beam
beaker tongs
bunsen burner
burette

data
eudiometer
graduated cylinder
test tube
test tube clamp

Fields of Science

aerodynamics
anatomy
anthropology
applied science
archaeology
astronautics
astronomy
biochemistry
biology
biotechnology
chemical technology
chemist
chemistry
geochemistry
geologist
geology

meteorologist
meteorology
microbiology
mineralogist
mineralogy
oceanographer
paleontologists
petrologist
petrology
physical science
physics
pure or basic science
science
seismologist
solid state physics
technologist

mechanistic view

technology

Measurements

absolute zero
accuracy
calorie
Celsius
Centigrade
data
Fahrenheit
grams
gravity
liter

meniscus
meter
metric system
newton
temperature
time
unit
volume
weight

Prefixes

atto
centi
da
deci
deka
exa
femto
giga
hecto
kilo
mega
micro

milli
nano
one billion
one hundred
one million
one quadrillion
one quintillion
one tenth
one thousand
peta
pico
tera

SI Units - Metric System

A	luminous intensity
ampere	m
atto	meter
c	metric system
candela	micro
cd	milli
centi	milliliter
centimeter	millisecond
cubic centimeters	ml
cubic meters	mol
d	mole
deci	N
deka	nano
electric current	one thousandth
femto	Pa
hecto	pico
J	s
K	second
Kelvin	SI
kg	SI derived unit
kilo	square centimeters
kilogram	thermodynamic temperature
kilometer	time
L	volume
length	weight
liter	

Properties of Matter

absorption

mass

buoyancy
calorie
chemical change
chemical properties
classification
color
conduction
density
endothermic
English System
gas
inorganic
instrument
kinetic energy
liquid

matter
measurement
melting point
millibar
mixture
physical change
physical properties
physical state
plasma
potential energy
precision
specific gravity
sublimation
temperature
weight

Metals and Nonmetals

atom
brittle
chemical compound
compound
ductile
element

luster
metal
molecule
nonmetal
rigid
sublimation

Atomic Structure

amu
atom
atomic mass unit
atomic number

ground state
isotope
metal
molecules

average atomic mass
chemical bond
chemical bond energy
deuterium
electromagnetic force
electron
electron affinity
electron cloud
electron configuration
electron dot model
energy level
excited state
glass

monoatomic element
neutron
nonmetal
nucleus
ordinary hydrogen
polyatomic ion
proton
quarks
stable octet
strong force
subatomic particles
valence electrons
weak force

Periodic Table

actinoid series
alkali metals
alkaline earth metals
boron family
halogen family
lanthanoid series
nitrogen family

noble gas
oxygen family
periodic law
periodic table
transition elements
transuranium element

Chemistry and the Periodic Table

alkalosis
allotrope
alloy
amalgam
atomic mass

mass
mass number
mass spectrometer
Mendeleev's table
metal

atomic mass number
atomic mass unit
atomic number
brittle
ductile
group
inert gas
malleable

metalloid
molecular weight
Moseley's table
nonmetal
period
photoconductor
radioactive element
semiconductor

Scientific Processes

collecting data
communicating
conclusion
constant
control
data
data collecting
data table
dependent variable
drawing conclusions
error
experiment
graph
hypothesis
independent variable
inference

law
model
observation
operational definitions
organizing data
problem
problem solving
procedure
scientific law
scientific method
senses
spherical symmetry
theory
variable
variable factor

Math

arc

independent variable

area
constant
dependent variable
direct proportions

rate
ratio
volume

Atoms & Bonding - Chemical Bonding

6

adhesion
atomic shell
chemical bonding
cohesion
covalent molecule
diatomic
diatomic molecule
ion
ionic bond
kernel
macromolecule
metallic bonding

negative ion
network crystal
network solid
orbital
oxidation number
polar molecule
positive ions
stable
subscript
triatomic
valence
valence electrons

Chemical Equations

activation energy
analysis
balanced chemical equation
carbonate ion
catalyst
chemical equation
chemical reaction
coefficient
collision theory

endothermic
endothermic reaction
exothermic
exothermic reaction
inhibitor
law of multiple proportions
precipitate
precipitation
product

concentration
conservation of mass
decomposition
decomposition reaction
double displacement reaction
double replacement

radicals
reactant
replacement reaction
single displacement reaction
subscript
synthesis reaction

Chemical Reactions

ammonia
binary compound
carbon dioxide
carbonation
chemical equation
chemical formula
combustion
conservation of energy
corrosive
disintegration
formula
galvanizing

hydrolysis
nitrogen
normal freezing point
oxidation
oxides
parabola
polyatomic ion
precipitates
precipitation
reduction
rust
tarnish

SECTION 2

Solids - Liquids - Gases

aerosol
alloy
amorphous solids
boiling point elevation

hydrate
hydrated crystal
ice
immiscible

brine
coagulate
compound
condensation point
condensation surface
condense
crystal
crystal structure
crystalline solid
crystallization
deliquescent
dissociation
dry ice
effervescence
efflorescent
electrolyte
equilibrium
evaporation
freezing
freezing point
freezing point elevation
gas
gaseous solution
gel
hard water
heat of condensation
heat of fusion
heterogenous mixture
homogenous mixture

latent heat
liquid
melting point
miscible
mixture
pascal
permeability
permeable
phase
phase change
polar
polar molecule
porosity
soft water
solid
solidification
solute
solution
standard
standard solution
substance
supercooled liquid
surface tension
surfactant
tincture
Tyndall effect
unit cell
viscosity

Solutions

absorbed
absorption
boiling point
Brownian movement
capillary action
capillary migration
capillary water
coagulate
colloidal dispersion
colloids
concentrated solution
concentration
condensation
condensation surface
convection current
diffusion
dilute solution
dissociation
distillation
dry-bulb thermometer
emulsify

emulsion
g/cm³
g/L
gas
impermeable
kg/m³
mass percent
nonpolar molecule
saturated
saturation
saturation vapor pressure
sol
soluble
solute
solution
solvent
supersaturated solution
suspension
vaporization
viscous
water vapor

Acids - Bases - and Salts

acid
acid anhydride
acid rain
acid solution
alkali
alkaline
anhydride
anhydrous

hydrogen ion
hydronium ion
hydroxide ion
indicator
ionization
ionization energy
litmus paper
neutralization

antacid
aqueous solution
base
base solution
basic anhydride
buret
dehydrate
dehydrating agent
detergent
electrolysis
electrolyte
end point
flame test

nonelectrolyte
oxidation number
pH
phenolphthalein
pickling
polar molecule
salt
steel
strong acid
strong base
titration
weak acid
weak base

Carbon Chemistry

aliphatic compounds
alkane
alkene
alkyne
covalent bond
diatomic molecule
double bond
fractionating towers
graphic formula
hydrocarbons
isomer
kerogen
methane
natural gas

organic
organic chemistry
organic compounds
petroleum
saturated
saturated compound
saturated hydrocarbons
single bond
structural formula
triple bond
unsaturated
unsaturated compounds
unsaturated hydrocarbons

Organic Compounds

alcohol	fractionating tower
amino acid	halogen derivative
amino group	hydrolysis
anesthetic	hydroxyl group
carbohydrate	monomer
carboxyl group	petroleum
catalyst	photosynthesis
condensation reaction	polyester
distillation	polymer
ester	polymerization
esterification	polymers
fraction	substituted hydrocarbon

Biological Compounds - Chemistry of Living

alkalosis	methane
aromatic compound	monosaccharide
carbohydrate	nucleic acid
carboxyl group	oil
carboxylic acid	organic acid
cycloalkane	polymers
denatured alcohol	polysaccharides
detergent	protein
digestion	radical group
disaccharide	saponification
enzyme	saturated fats
fat	soap
fatty acids	starch
fermentation	steroid
fractional distillation	sugar

glucose
glycerol
hormone
lipid
metabolism

synthetic
tar
tetrahedron
triglyceride
unsaturated fats

Energy & the Environment

acid rain
aeration
aerobic bacteria
aerosols
air pollution
anaerobic bacteria
anthracite
asbestos
bituminous coal
carbon dioxide cycle
carcinogen
chlorofluorocarbon
chlorophyll
cogeneration
conservation
contour farming
crop rotation
deforestation
desalination
energy conservation
environmental factors
EPA
erosion
gangue

greenhouse effect
hard water
noise pollution
nonrenewable resources
nuclear energy
nuclear wastes
oil pollution
ozone
ozone layer
photochemical smog
pollutant
R-value
recycling
renewable resources
smog
soft water
strip mining
sulfuric acid
sulfurous smog
temperature inversion
thermal pollution
toxic
toxic wastes
water pollution

Energy Alternatives - Energy Uses Today

active solar heating	nuclear fusion
anthracite coal	oil shale
biogas	OTEC
biomass	passive solar heating
bituminous coal	peat
coal	petroleum
coal gasification	photovoltaic cell
combustion	piston
conduction	polluted water
convection	purification
cooling tower	R-value
crude oil	radiation
energy farming	radiator
external combustion machine	reclamation
fermentation	recycling natural resources
fluid	refinery
fly ash	renewable resources
fossil fuels	salinization
fuel injection	smog
gasohol	solar cell
gasoline engine	solar collector
geothermal power	solar energy
geyser	solar heating system
heat engines	solar water heating
heat mover	synthetic fuels
heat pump	tar sands
hydroelectric	thermal pollution
hydroelectric energy	tidal power
hydrogen power	transpiration

inertial confinement
insulator
irrigation
lignite coal
magnetic confinement
natural gas
natural resources
noise pollution
nonrenewable resources

tropical forest
turbine
water power
water resources
wind energy
wind power
wind turbines
windbreak

SECTION 3

Heat Energy

absolute zero
BTU
calorie
calorimeter
Celsius
change of phase
condensation
conduction
conductor
convection
energy
first law of thermodynamics
fluid
freezing point
fuel injection
gravitational potential energy
heat of vaporization

insulator
internal energy
joule
Kelvin scale
kinetic energy
kinetic theory of matter
law of conservation of energy
mechanical energy
melting
melting point
phase change
potential energy
radiation
second law of thermodynamics
specific heat
temperature
thermal energy

heat
heat conductor
heat energy
heat of fusion
heat transfer
heating systems

thermal expansion
thermography
thermometer
thermostat
thermostat bimetallic strip
vaporization

Heat & Uses

active solar heating
Archimedes' Principle
barometer
Bernoulli's Principle
Boyle's law
camshaft
carburetor
central heating
Charles law
chemical energy
combustion
compression stroke
cooling system
cooling tower
cryogenics
crystal
cylinder
diesel engine
evaporation
exhaust stroke
external combustion engine
fiberglass
freon

hot water system
insulation
intake stroke
internal combustion engine
kindling temperature
noise pollution
pascal
Pascal's principle
passive solar heating
piston
power stroke
pressure
radiant electric system
radiant hot water system
radiator
refrigerant
solar heating system
spark plug
specific heat
steam heating system
storage tank
thermal pollution
thermostat

Gay-Lussac's law
heat engine
heat mover
heat pump system

turbine
volume
warm air system

Waves

AM
amplify
amplitude
amplitude modulation
angle of incidence
angle of reflection
antinode
cancellation
compression
compressional wave
constructive interference
crest
cycle
destructive interference
diffraction
Doppler effect
electromagnetic spectrum
frequency

hertz
Hutgens' principle
Hz
incident wave
interference
law of reflection
longitudinal wave
medium
normal
resonance
reverberation
standing wave
transverse wave
trough
ultrasonic
vibration
wave
wavelength

Sound

acoustics
amplitude
beats

quality
rarefaction
reflected wave

Db
decibel
Doppler effect
echo
fundamental
fundamental tone
harmonic series
harmony
larynx
loudness
music
musical scale
natural frequency
node
noise
octave
overtones
pitch

reflection
refraction
resonance
reverberation
scale
sonar
sound navigation and ranging
sound wave
speed of a wave
timbre
tone quality
ultrasonic
ultrasonic cleaners
ultrasonic waves
ultrasound
velocity of sound
vocal cords
volume

Sound - Ear

anvil
cochlea
ear canal
eardrum
hammer
incus
inner ear

malleus
middle ear
organ of Corti
outer ear
stirrup
utricle

Light

achromatic
electromagnetic spectrum
electromagnetic waves
fiber optics
fiberscope
FM
gamma ray
incandescent light
incident ray
incoherent light
infrared
infrared radiation
infrared ray
intensity
interference
IR
light
light rays
lumen
luminous
microwave
modulation
opaque
phosphor
photoconductor
photodetector
photoelectric cell
photoelectric effect
photons
photosensitive

pigment
polarized light
primary color
primary light color
primary light colors
primary pigment
quantum
radar
radio direction and ranging
radio wave
real image
secondary color
shadow
spectrum
speed of light
subtractive color
telecommunication
thermogram
translucent
transparent
transparent material
tuning
ultraviolet radiation
UV
visible light
visible radiation
visible spectrum
white light
X rays

Spectrum - Color

absorption spectrum
additive color
bright line spectrum
complementary color
cone

electromagnetic wave
emission spectrum
invisible spectrum
prism
spectroscope

Reflection - Refraction

angle of reflection
angle of refraction
camera
coherent light
concave lens
concave mirror
converge
convex lens
convex mirror
diffraction
diffraction grating
diffraction light
diffraction medium

diffuse reflection
disperse light
dispersion
diverge
farsighted
filter
fluorescent light
mirage
optical fiber
plane mirror
regular reflection
total internal reflection
vacuum

Forces in Fluids

air pressure
Archimedes's principle
Bernoulli's principle
buoyancy

drag
fluid pressure
lift
pressure

buoyancy force
density

thrust

Forces - Work

actual mechanical advantage
automation
average speed
balanced force
block and tackle
compound machine
efficiency
effort arm
effort distance
effort force
first class lever
force
freefall
friction
fulcrum
gravity
horsepower
ideal mechanical advantage
inclined plane
lever
load distance
load force
machine
mass

mechanical advantage
moment
net force
newton
newton-meter
power
pulley
resistance distance
resistance force
resistant arm
screw
second class lever
simple machine
speed
terminal velocity
third class lever
vectors
velocity
watt
wedge
wheel and axle
work
work input
work output

SECTION 4

Work & Power

acceleration	lubricant
action reaction pairs	meter-kilogram second
air resistance	momentum
constant speed	Newton's First Law
deceleration	Newton's Second Law
fluid friction	Newton's Third Law
force	reaction force
friction	rolling friction
gravity	scale
inertia	sliding friction
isometric exercise	terminal velocity
law of conservation of momentum	weight
law of universal gravitation	

Motion

centimeter-gram-second system	orbital motion
centripetal acceleration	parabola
centripetal force	projectile
conservation of momentum	projectile motion
constant speed	reaction force
instantaneous speed	unbalanced force
J	universal gravitation
joule	vertical
kilowatt	vertical velocity
momentum	weight
motion of circles	

Mirror & Lens

AM
color-blind
cones
focal length
focal point
focus
glare
hologram
holography
illuminated
index of refraction
iris
laser
lens
lux
magnification
microscope

mirror
modulation
nearsighted
neon light
normal
optical axis
optics
parabolic mirror
pupil
reflecting telescope
refracting telescope
refraction
retina
rods
telephoto lens
virtual image
wide angle lenses

Light and Its Uses

CD
coherent light
compact disk
hologram
laser

light pipe
optical fiber
pumping
stimulated emission
total internal reflection

Electricity

AC	force of repulsion
alternating current	friction
DC	fuse
direct current	induction
dry cell	insulator
electric power	lightning
electricity	lightning rod
electrode	neutron
electrolyte	nucleus
electron	proton
electroscope	static discharge
electrostatic attraction	static electricity
electrostatic induction	subatomic particle
force of attraction	voltaic cell

Uses of Electricity

anode	electromagnetic induction
armature	electromagnetic waves
cathode	generator
cathode ray	ground
circuit	grounding
circuit breaker	hertz
circuit diagram	ion
compass	ionization
conduction	kilowatt
conductor	kilowatt hour
conservation of charge	left hand rule
current	resistance
discharge	resistors

electric charge.
electric current
electric discharge
electric field
electric generator
electric insulator
electrochemical cell

switch
thermocouple
transformer
Van de Graaf generator
volt
voltage

Electric Circuits

amplification
amplifier
battery
ohm
Ohm s law
parallel circuit
potential difference
power

rectifier
series circuit
short circuit
superconductor
voltmeter
watt
wet cell
xerography

Magnetism

alloy
alternating current
ammeter
ampere
brushes
commutator
compass
diamagnetism
diode
domain

magnetic flux
magnetic flux density
magnetic inclination
magnetic induction
magnetic lines of force
magnetic poles
magnetic variation
magnetism
magnetosphere
natural magnet

electric motor
electromagnet
electromagnetic induction
electromagnetism
electromotive force
emf
galvanometer
generator
lines of force
magnetic declination
magnetic domain
magnetic equator
magnetic field

north magnetic pole
north-seeking pole
permanent magnet
pole
primary coil
secondary coil
solenoid
south magnetic pole
south-seeking pole
step down transformer
step up transformer
temporary magnet
transformer

Electronics & Computers

analog
analog computer
anode
arithmetic unit
base
binary system
bit
byte
capacitance
capacitor
cathode
cathode ray tube
central processing unit
chip
circuit
computer

digital computer
digital signal
diode
disk drive
floppy disk
hardware
input
input device
input unit
integrated circuits
main memory
microprocessor
modem
output device
output signal
output unit

computer program
control unit
CPU
CRT
data
data bank
data processing

parallel circuit
program
RAM
read/write memory
rectifier
ROM
series circuit

Semiconductors

doping
n-type semiconductor
p-type semiconductor
semiconductor
signal
silica

silicates
silicones
transistor
triode
vacuum tube
voltmeter

Uses of Electricity

analog
audio signal
circuit breaker
fuse
motor

phosphor dots
phosphors
power grid
short circuit
transformer

Nuclear Chemistry

alpha decay
alpha particle
atomic nucleus

nuclear fission
nuclear fusion
nuclear radiation

beta decay
beta particle
binding energy
chain reaction
cloud chamber
critical mass
decay chain
decay series
disintegration series
electroscope
fission
fusion
gamma decay
gamma ray
Geiger counter
half life
irradiation
mass defect
nuclear chain reaction
nuclear decay series
nuclear energy

nucleon
nuclide
photon
plasma
radiation
radiation counters
radiation detection
radioactive
radioactive decay
radioactive isotope
radioactivity
radioisotope
rem
roentgen
synthetic elements
tracers
transmutation
transuranium elements
unstable
X rays

Nuclear Reactors

bubble chamber
containment dome
control rods
cyclotron
heat exchanger
isotope
meltdown
moderator

nuclear reactor
nuclear wastes
particle acceleration
plasma phase
reactor core
shielding
synchrotron
thermonuclear power

natural transmutation
nuclear power

thermonuclear reaction

New Frontiers

apogee
asteroids
astronaut
astronautics
astronomy
azimuth
big bang theory
black hole
CCD
charge coupled device
comets
escape velocity
four type of forces
galaxy
maser
Milky Way
moon
nebula
neutrino
neutron star

perigee
pulsars
quantum theories
quarks
red giant
satellite
solar system
space probes
space shuttle
space station
spectroscope
star cluster
strong force
supernova
superstring theory
TOE
weak force
white dwarf
zenith