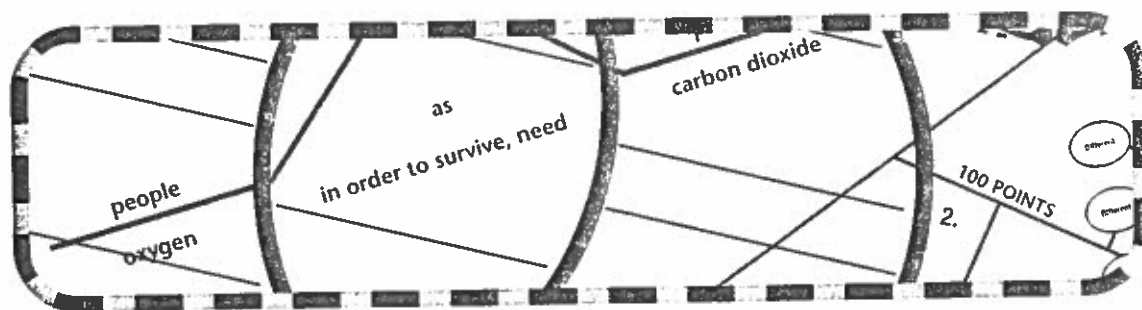


# B Academic Vocabulary Word Lists



In this section, 7,923 vocabulary terms are listed for 11 subject areas:

1. Mathematics

2. Science

3. English language arts

4. History

5. Geography

6. Civics

7. Economics

8. Health

9. Physical education

10. The Arts

11. Technology

The terms for all subject areas are reported at four levels:

Level 1: grades K-2

Level 2: grades 3-5

Level 3: grades 6-8

Level 4: grades 9-12

## Vocabulary Terms

Readers should note that proper names are listed alphabetically by first name as opposed to last name. Also, some entries are alphabetized on the basis of the article *the*.

## Level 1

air  
 animal features  
 balance  
 behavior pattern  
 boulder  
 burning  
 chart  
 circular motion  
 cloud  
 color  
 computer  
 daily weather pattern  
 day  
 death  
 dinosaur  
 dissolving  
 distance  
 diversity of life  
 Earth materials  
 Earth's gravity  
 Earth's rotation  
 egg  
 energy  
 food  
 freezing  
 gas  
 growth  
 habitat  
 heat  
 horsetail tree  
 individual differences  
 insect  
 light  
 liquid  
 liquid water  
 location  
 machine  
 magnet

magnification  
 magnifier  
 mammoth  
 mixture  
 month  
 Moon  
 motion  
 night  
 observation  
 ocean  
 parent  
 parent/offspring  
     similarity  
 pebble  
 plant  
 plant growth  
 position  
 precipitation  
 prediction  
 prehistoric animals  
 properties of light  
 pulling  
 pushing  
 reasoning  
 requirements for life  
 rock characteristics  
 ruler  
 salt water  
 sand  
 science  
 scientist  
 seasonal change  
 seasonal weather pattern  
 shape  
 shelter  
 similarities & differences  
     among organisms  
 size  
 sky  
 soil

solid rock  
 sound  
 star  
 star age  
 star brightness  
 states of matter  
 straight-line motion  
 Sun's position  
 Sun's size  
 teamwork  
 temperature  
 the senses  
 thermometer  
 universe  
 vibration  
 water  
 weather  
 weather conditions  
 weather patterns  
 week  
 weight  
 wind  
 year  
 zigzag motion

## Level 2

ability to support life  
 acceleration  
 air movement  
 animal product  
 apparent movement of  
     the planets  
 apparent movement of  
     the stars  
 apparent movement of  
     the Sun  
 applied force  
 astronomical distance

# Science | Word List

## Level 2 (cont.)

astronomical object	density	heat conduction
astronomical size	detrimental change	heat transfer
astronomy	disease	herbivore
battery	drought	history of science
bedrock	Earth's axis	inherited characteristic
beneficial change	Earth's orbit	land form
birth	Earth's surface	landslide
body of water	Earth's temperature	life cycle
boiling point	earthquake	light absorption
bones/no bones	electrical charge	light emission
calculator	electrical circuit	light reflection
cause & effect	electrical current	light refraction
change of direction	electricity	living organism
change of motion	energy transfer	logical argument
change of speed	engineering	magnetic attraction
changes in the Earth's surface	environment	magnetic repulsion
characteristics of air	environmental changes	mass
charge attraction	environmental conditions	measurement of motion
charge repulsion	erosion	melting point
classification of substances	evaporation	metal
competition	external cue	microscope
composition of matter	extinction	migration
condensation	food chain	mineral
conduction	food web	Moon's orbit
conductivity	force strength	Moon's phases
conductor	forms of energy	naturalistic observation
conservation of mass	forms of water	nutrients
conservation of matter	formula	ocean currents
constellation	fossil	offspring
control of variables	fossil evidence	oil
controlled experiment	fresh water	omnivore
cooling	friction	ongoing process of science
core	gases of the atmosphere	organism
data analysis	generator	outer space
data interpretation	glacial movement	phase change
data presentation	glacier	photosynthetic plants
	graduated cylinder	physical properties
	graph	physical setting
	ground water	pitch

**Level 2 (cont.)**

planet  
 plant organ  
 plant product  
 plant root  
 plant/animal  
 pollution  
 population  
 population density  
 position over time  
 predator  
 prehistoric environment  
 prehistoric organisms  
 properties of soil  
 properties of sound  
 properties of water  
 question formulation  
 recycle  
 relative position  
 replicable experiment  
 reproducible result  
 reproduction  
 resource availability  
 rock breakage  
 rock composition  
 rock cycle  
 scientific equipment  
 scientific evidence  
 scientific experiment  
 soil color  
 soil composition  
 soil texture  
 solar system  
 solubility  
 stored energy  
 survival of organisms  
 technology  
 telescope  
 tide

volcanic eruption  
 water capacity  
 weathered rock  
 weathering  
 wind patterns

**Level 3**

acquired trait  
 adaptive characteristics  
 air mass circulation  
 alternative explanation  
 of data  
 animal nervous systems  
 asexual reproduction  
 asteroid  
 asteroid impact  
 asteroid movement  
 patterns  
 atmosphere  
 atmospheric  
 composition  
 atmospheric layers  
 atmospheric pressure  
 atom  
 atomic arrangement  
 balanced force  
 behavioral change in  
 organisms  
 behavioral response to  
 stimuli  
 bias  
 body plan  
 carrying capacity  
 celestial body  
 cell  
 cell division  
 cell growth  
 characteristics of life

chemical change  
 chemical compound  
 chemical element  
 chemical energy  
 chemical properties of  
 substances  
 chemical reaction  
 circulatory system  
 classification of  
 organisms  
 climate  
 climate change  
 climatic pattern  
 closed system  
 color of light  
 comet  
 comet impact  
 comet movement  
 patterns  
 common ancestry  
 concentration of  
 reactants  
 confirmation by  
 observation  
 conflicting  
 interpretations  
 conservation of energy  
 constant speed  
 continuation of species  
 crustal deformation  
 crustal plate movement  
 crystal  
 debris  
 deceleration  
 decomposer  
 digestive system  
 direction of a force  
 direction of motion  
 displacement of results  
 Earth system

# Science | Word List

## Level 3 (cont.)

Earth's age	gravitational force	Marie Curie
Earth's atmosphere	Greek basic four elements	mathematical model
Earth's climate	habits of mind	mechanical energy
Earth's crust	heat convection	mechanical motion
Earth's layers	heat emission	metal reactivity
eclipse	heat energy	metamorphic rock
ecological role	heat radiation	meteor
ecosystem	heat retention	meteor impact
egg cell	hereditary information	meteor movement
electric current	homeostasis	patterns
electrical energy	host	Milky Way galaxy
element stability	hydrosphere	molecular arrangement
emergence of life forms	hypothesis	molecular motion
energy source	hypothesis testing	molecule
erosion resistance	igneous rock	multicellular organism
ethics in science	immune system	muscular system
evaluation of science process	inertia	mutualism
evidence from sedimentary rock	infection	nervous system
excretory system	informed subject	Newton's Laws of Motion
experimental confirmation	infrared radiation	nonmetal reactivity
experimental control	insulator	nonreactive gas
external feature	intellectual honesty	nuclear reaction
faulty reasoning	interdependence of organisms	organ
filtering	internal cue	organ system
food oxidization	internal structure	organism system failure
forms of matter	invertebrate	oxidation
fossil record	kinetic energy	oxygen
fundamental unit of life	lever arm	parasite
fungus	life form change	particle ring
galaxy	life-sustaining functions	peer review
Galileo	light scattering	percolation
gene	light transmission	photosynthesis
geologic evidence	light wavelength	physiological change
geologic force	light year	Pierre Curie
geological shift	lithosphere	planet composition
	logic	planet orbits
	Louis Pasteur	planet size
	mantle	planet surface features
		plant tissue

## Level 3 (cont.)

polygenic trait  
 predation  
 prey  
 properties of elements  
 pulley  
 radiation  
 reaction rate  
 recrystallization  
 recycling of matter  
 reproductive system  
 research question  
 respiration  
 respiratory system  
 right of refusal  
 risk & benefit  
 rock layer movement  
 rusting  
 satellite  
 scientific interpretation  
 scientific method  
 scientific skepticism  
 screening  
 sediment deposition  
 sedimentary rock  
 sedimentation  
 separation method  
 sexual reproduction  
 skeletal system  
 soil erosion  
 soil fertility  
 solar system formation  
 specialized cell  
 specialized organ  
 specialized tissue  
 species  
 species diversity  
 speed  
 sperm

sperm cell  
 sunlight reflection  
 surface area of reactants  
 surface run-off  
 taxonomy  
 theoretical model  
 tissue  
 tolerance of ambiguity  
 unbalanced force  
 unicellular organism  
 unity of life  
 universal solvent  
 vertebrate  
 visible light  
 water cycle  
 wavelength

## Level 4

abiotic components of ecosystems  
 accelerator  
 acid/base reactions  
 actual mass  
 advection  
 age of the universe  
 Albert Einstein  
 Alfred Wegener  
 amino acid sequence  
 anatomical characteristic  
 Antoine Lavoisier  
 atmospheric change  
 atomic bomb  
 atomic bonding principles  
 atomic configuration  
 atomic energy  
 atomic mass

atomic motion  
 atomic nucleus  
 atomic number  
 atomic reaction  
 atomic theory  
 atomic weight  
 Avogadro's hypothesis  
 Bernoulli's principle  
 Big Bang theory  
 biochemical characteristic  
 biological adaptation  
 biological evolution  
 biological molecule  
 breakdown of food molecules  
 buoyancy  
 carbon  
 carbon atom  
 carbon cycle  
 carbon dioxide  
 catalyst  
 cell function  
 cell membrane  
 cell nucleus  
 cell organelle  
 cell wall  
 cellular communication  
 cellular differentiation  
 cellular energy conversion  
 cellular regulation  
 cellular response  
 cellular waste disposal  
 charged object  
 Charles Darwin  
 Charles Lyell  
 chemical bond  
 chemical organization of organisms

## Science | Word List

### Level 4 (cont.)

chemical properties of elements	elasticity	exothermic reaction
chemical reaction rate	electric force	experimental method
chloroplast	electric motor	$F=ma$
chromatography	electric potential	Fahrenheit
chromosome	electrically neutral	filial generation
chromosome pair	electromagnetic field	flow of energy
composition of the universe	electromagnetic force	flow of matter
convection	electromagnetic radiation	fluid resistance
convection current	electromagnetic spectrum	foot pound
Copernican revolution	electromagnetic wave	formation of polymers
Copernicus	electron	fossil fuels
Coulomb's law	electron configuration	gamma ray
criteria for acceptance	electron sharing	gene encoding
crystalline solid	electron transfer	gene expression
cytoplasm	elementary particle	general theory of relativity
data reduction	elements of matter	genetic diversity
decay rate	elimination of matter & energy	genetic mutation
degree of kinship	elliptical orbits	genetic variation
derived characteristic	embryo formation	geochemical cycle
disclosure of methods & procedures	empirical standards	geologic time
DNA	endothermic reaction	geologic time scale
DNA molecule	energy requirements of living systems	geological dating
DNA replication	Enrico Fermi	Gregor Mendel
DNA sequence	entropy	germ theory
DNA structure	enzyme	Golgi apparatus
DNA subunit	equal & opposite force	gravitational energy
dominant trait	equilibrium of ecosystems	greenhouse gas
Doppler effect	Ernest Rutherford	Halley's comet
drag	evidence for the Big Bang theory	harvesting of resources
Earth's elements	evidence for the expansion of the universe	history of the universe
Earth's external energy sources	evidence for the unity among organisms	human genetics
Earth's formation	excitatory molecule	human modification of ecosystems
Earth's internal energy sources		hydrogen bomb
		hydrogen ion
		inertial frame of reference
		inhibitory molecule
		inverse square law

## Level 4 (cont.)

ion	nucleated cell	recombination of
ionic motion	ocean layers	chemical elements
isotope	ohm	recombination of genetic
Johannes Kepler	organic compound	material
John Dalton	synthesis	relative mass
Kelvin (temperature)	organic matter	relative motion
Lise Meitner	origin of life	release of energy
mass to energy	origin of the universe	reproductive capacity
conversion	oxidation-reduction	reproductive value of
meiosis	reactions	traits
Mendelian genetics	ozone	revision of scientific
metallic surface	paradigm shift	theories
method of investigation	parental generation	rock sequence
microwave	particle emission	rules of evidence
mitochondrion	periodic table of the	sea floor spreading
mitosis	elements	segregation
molar volume	photosynthesizing	seismic wave
mole	organism	selective gene
molecular energy	phylogenetics	expression
molecular synthesis	plate boundary	semiconductor
molten rock	plate collision	sex cell
mountain building	plate tectonics	sex chromosomes
moving electrical charge	potential energy	sex-linked trait
moving magnet	pressure	shared characteristic
natural selection	properties of reactants	sound wave
net force	properties of waves	space probe
neuron	protein	special theory of
neurotransmitter	protein structure	relativity
neutron	protein synthesis	speciation
new gene combinations	proton	speed of light
Newtonian mechanics	Ptolemy	spontaneous nuclear
nitrogen	quantum of energy	reaction
nitrogen cycle	radical reaction	star composition
nuclear fission	radio wave	star destruction
nuclear force	radioactive dating	star formation
nuclear fusion	radioactive decay	star size
nuclear mass	radioactive isotope	star system
nuclear stability	rate of nuclear decay	star temperature
	recessive trait	star types
		stellar energy



## Science | Word List

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### Level 4 (cont.)

storage of genetic information	transforming matter and/or energy	vacuole
Sun's radiation	transport of cell materials	viscosity
superconductor	transporting matter and/or energy	water wave
survival value of traits	ultraviolet radiation	wave amplitude
synthetic polymer	unequal heating of air	wave packet
thermal equilibrium	unequal heating of land masses	wave source
torque	unequal heating of oceans	weight of subatomic particles
		x-ray