

Word Part (word element)	Word Part Meaning	Word Part Example	Meaning of Example
a-, an-, non-, un-	Without, Not	-Aphotic -Anaerobic - Nonrenewable	-Without light -Without air or oxygen -Not able to replenish naturally
adi-, lip-	Fat	-Adipose -Liposuction	-Fat tissue - Removing fat tissue
amphi-	Both sides	Amphibian	Both sides of land and water
ana-	Up	Anabolic	Build up of larger molecules from smaller molecules
angio-	Vessel, Container	-Angiosperm, -Angiogram	-Container for seed - Picture of a blood vessel
anti-, contra-	Opposite, Against	-Anticodon -Contraception	-Opposite of codon -Against conception
avi-, orni-	Bird	-Aviary -Ornithologist	-Bird cage -Bird studier
bi-, di-, diplo-	Two	-Bipedal - Diploid - Diplococcus	-Two feet -Two sets of chromosomes -Two round bacteria
cat-, de-	Down	-Catabolic -Decomposer	-Break down of big molecules into small molecules. -Break down of dead organisms
corp, som	Body	-Corpse - Somatic cell	-Dead body - Body cell (any cell that is not an egg or sperm)
echin-	Spiny	-Echinoderm	-Spiny skin (sea star)
eco-	Where one lives, Home	Ecology	Study of where organisms live
epi-	Upon, Over, Atop	-Epidermis - Epicardium - Epiphytes	-Upon the dermis (skin) - Over the heart - Atop a plant
eu-	True	-Eukaryote -Eucoelomate	-True nucleus (protective membrane around DNA) -True body cavity
ex-, extra-, exo-	Out, Outside, Beyond	-Extinct - Extracellular - Extrapolation	-Died out - Outside the cell - Beyond known values (on a graph)
hapl-, mono-, uni-	One	-Haploid	-One set of chromosomes

		- Monosaccharide	- One unit of sugar (glucose)
		- Unicellular	- one celled organism
herb-, -phyte	Plant	- Herbivore - Epiphyte	- Plant eater - Atop a plant
Homo, homeo (greek)	Same	Homozygous	Same alleles (form of a gene)
hyper-	More, Excessive	- Hypertonic, - Hypertension	- More solute (something dissolved in water) - Excessive blood pressure
hypo-, sub-	Less, Below	- Hypotonic - Hypotension - Subatomic	- Less solute - Below normal blood pressure,
inter-	Between	Intercellular	Between cells
intra-, endo-	Inside	- Intracellular - Endoderm	- Inside a cell - Inside layer of a developing embryo
peri-	Around	Pericardium	Around the heart
post-	After	Post mortem	After death
pre-, ante	Before	Prenatal	Before birth
quat-, quad, tetra-	4	- Quaternary - Quadiceps - Tetrapod	- 4 th - 4 heads - 4 feet
re-	Again	Reproduce	Produce again
semi-, hemi-	One-Half	- Semipermeable - Hemisphere	- Allows some (1/2), but not all things through. - One-half a sphere (ball-shape)
sym-, syn-, -sys	With, Together	- Symbiosis - Synthesize - System	- Organisms living with each other - Put together - Working together
tert-, tri-	3	- Tertiary - Trisomy	- 3 rd 3 bodies (chromosomes)
trans-, per-	Across, Through	- Transport - Transdermal - Permeable	- Across a cell membrane - Through the skin - Through a cell membrane
aero-	Air, Oxygen	Anaerobic	Without oxygen
anthro, homo (latin)	Man, Human	- Anthropoid	- Man-like

		- Homo sapien	- Man who is wise
post-	After	Post mortem	After death
pre-, ante	Before	Prenatal	Before birth
re-	Again	Reproduce	Produce again
aqua-, hydr-	Water	-Aquatic, -Hydration	-Of water - With water
arthro-	Joint	-Arthropod - Arthritis	-Jointed foot - Joint inflammation
auto-	Self	Autotroph	Self feeder (can make their own energy, usually by photosynthesis)
bio-, vita-	Life	-Biosphere - Vitamin	-Where life exists on earth - Organic molecules necessary for life
card-	Heart	Cardiology	Study of the heart
ceph-	Head	Cephalization	Concentration of sense organs at the front of an animal's body, its head
cerv-	Neck	Cervical vertebrae	Bones of the neck
carn-	Meat, Flesh	Carnivore	Meat-eater
chloro-	Green	Chlorophyl	Green leaf
chrom-	Color	Chromosome	Colored body
-cide	Kill	-Herbicide - Insecticide	-Plant killer -Insect killer
-cyte	Cell	-Erythrocyte - Osteocyte	-Red blood cell -Bone cell
ecto-, exo-	Out, Outside	-Ectoderm - Exoskeleton	-Outer layer of tissue during embryo development. - Skeleton on outside of body
-emia	Blood Condition	-Hyperglycemia - Sickle cell anemia	-High blood sugar levels. - Sickle shaped red blood cells (should be circular)
entomo-, insect	Insect	-Entomologist - Insectivore	-Insect studier - Insect eater
Equ-, iso-	Equal, Same	Isotonic	Solute levels are equal on both sides of a membrane (inside & outside the cell)
erythr-	Red	Erythrocyte	Red blood cell
gastr-	Stomach	Gastrointestinal (GI)	Stomach and intestines
geo	Earth	Geotropism	A plant's response to the earth's gravity
lingu	Tongue	Sublingual	Under the tongue

-gram, -graph	Written or Picture	-Electrocardiogram - Sonograph	-Print out of the heart's electrical activity. - Taking pictures using sound waves
helix	Spiral, Coil	Double helix	Two strands in a spiraled shape
hem-	Blood	Hemorrhage	Bleed heavily
hepato-	Liver	Hepatitis	Inflammation of the liver
herp-	Reptile	Herpetologist	Study of reptiles (lizards, croc's, turtles, and snakes)
hetero-	Different, Other	-Heterozygous - Heterotroph	-Offspring gets different forms of same trait (Tt). - Other feeder (ex. herbivore)
-ichthyes (ikthees)	Fish	-Chondrychthyes - Osteichthyes	-Fish with a cartilage skeleton - Fish with a bony skeleton
-itis	Inflammation of	-Dermatitis - Laryngitis	-Inflammation of the skin -Inflammation of the larynx (voicebox)
leuco-	White	Leucocyte	White blood cell
loc	Place	Locus	Place on a chromosome where a specific gene is found
lys-	To Loosen	Lyses	Process of loosening up or digesting a cell membrane causing cell death
macro-, mega-	Large	-Macromolecule - Megafauna	-Large molecules (lipids, carbohydrates, proteins, nucleic acids) - Big animals
mar-	Sea	Marine Biology	Study of life in the Sea or Ocean
medi-, meso-	Middle	-Medial - Mesoderm	-Middle - Middle layer of tissue during embryo development
meta-, muta-	Change	-Metastasis - Mutation	-Cancer cells that change location (spread) Change in the sequence of DNA
meter	Measurement	-Spirometer - Sphygmomanometer	-Measures inhalation & exhalation, -Measures blood pressure
micro-	Small	-Microsporangia - Microbiology	-Small spore carriers (male) - Study of microbes (bacteria, viruses, etc.)

morph	Shape, Form	Metamorphosis	Change in shape (tadpole to frog)
multi, myria, poly-	Many	-Multicellular - Myriapod - Polysaccharide	-Organism made of many cells - Organism w/many feet - Many monosaccharides
myo-	Muscle	-Myofibril - Fibromyalgia	-Muscle cell - Muscle pain
neo-	New	Neonatal	Newborn
nephr-, renal	Kidney	-Nephron - Renal vein	-Part of the kidney that filters/cleans blood - Vessel taking blood to the kidney
nom-	Name	Binomial nomenclature	Two-name naming system (Homo sapien = Humans)
-logy	Study or Science of	-Mycology - Virology	-Study of Fungi - Study of Viruses
omni-, toti-	All	-Omnivore - Totipotent	-Eats all – plants & animals - All important cell (zygote) – becomes all cells
oo-, ov-	Egg	-Oogonia - Oviduct - Oviparous	-Egg stem cells - Egg carrying tube - Eggs that are hatched outside the mother
orth-	Straight	Orthoptera	-Straight-winged insect order (grasshoppers)
paleo-, archeo-	Old, Ancient	-Paleontology - Archeology	-Study of fossils and the history of earth -Study of ancient civilizations
patho-	Disease	Pathogens	Disease-causing organisms (some bacteria, some viruses, etc.)
ped, pod	Feet, Foot	-Centipede - Tetrapod	-100 feet - 4 feet
phago, troph, vore	To Feed or Eat	-Phagocyte - Autotroph - Carnivore	-Eating cell (white blood cells) - Self-Feeders (photosynthesizers) - Meat eater
-phore	Carry, To Bear	Chromatophore	Color or pigment carrying cell
pino-	Drink	Pinocytosis	Process of a cell engulfing/drinking liquids or dissolved substances
-pter	Wing	-Hymenoptera	-Membraned wings

		- Orthoptera	- Straight wings
platy-	Flat	Platyhelminthes	Flatworm
dendro-, arbor-	Tree	-Dendrochronology - Arboretum	-Counting tree rings to determine its age - Place where many different trees grow
-ose	Sugar	Glucose	A simple sugar or monosaccharide made by photosynthesis in autotrophs
-ase	Enzyme	-Amylase - Lipase	-Enzyme that breaks down carbohydrates - Enzyme that breaks down lipids
-ploid	Chromosome	-Haploid -Diploid	-One set of chromosomes - Two sets of chromosomes
pneumo-, pulmo-	Lungs	-Pneumonia - Pulmonary artery	-Infection of the lungs -Vessel taking blood from the heart to the lungs
prim-, prot-	First	-Primary consumer -Protozoa	-1st organisms to eat producers (herbivores) -1st animal (heterotrophic Protists)
pseudo-	False	-Pseudocoelomate, -Pseudopodium	-False body cavity (between ecto- & endoderm) - False foot (found in amoeba's)
sapr-	Rotten	Saprotroph	Feeds on Rotting organic matter/dead organisms (also called decomposers)
-scope	View, See	-Microscopic - Macroscopic	-To see or view something small -To see or view something w/o using a scope
-sect, -tom	Cut	-Disect - Anatomy	-Cut in two - To cut up
sperm	Seed	-Spermicide - Spermatid	-Sperm killer - A small or immature sperm
spir	Breathe	-Inspire - Spiracle	-To breathe in - Hole found on insects for air to enter and leave (breathing)
stas, stat	Unchanging	Homeostasis	Unchanging chemical conditions in healthy organisms
stom-, ora	Mouth	-Stomata	-Hole or mouth in leaves allowing gas exchange (O2 &

		- Oral cavity	CO2) - Mouth space
tax-	Arrange	Taxonomy	A system used to arrange or classify a large number of organisms
telo-	End	-Telophase - Telomeres	-End of mitosis - End or tip of chromosomes
Terr	Land	Terrestrial ecosystem	All living and nonliving things in a designated area on land
therm	Heat	Thermophile, Thermometer	Bacteria that live in hot areas, Heat measuring instrument
toxic	Poison	-Neurotoxin - Hemotoxin	-Poison to the nervous system - Poison in the blood
-trop, -volv	Turn, Change	-Phototropism -Evolution	-Plant's response of turning toward light - How organisms change over time
Zyg-	Yoke	-Zygote - Homozygous	-Union of egg & sperm - Zygote receives the same gene from both egg & sperm
zo	Animal	Zoology	Study of animals
ventr-	Belly	Ventral	Belly portion of an organism (portion of a worm that touches the ground)
-osis	Actions, conditions, or states	Tuberculosis	characterized by heightened susceptibility to suggestion.
Plasm	Fluid substance	Plasmolysis	Plasma membrane pulls away from the cell wall due to the loss of water through osmosis
-stasis	A condition of balance among various forces	Homeostasis	A system that regulates its internal environment and tends to maintain a stable, constant condition
Tonic	A substance or solute	Hypertonic	A hypertonic solution has more solute in it than a cell that is in the solution.
parous	To bear, to bring forth	Oviparous	An oviparous organism bears eggs.