

AP Biology Summer Vocabulary Assignment

Welcome to AP Biology!

Studying biology will not only require you to understand and apply concepts in context, but also learn many new words and what they mean. Fortunately, most science words are actually combinations of Latin prefixes and suffixes (This dates back to the Age of Enlightenment when everyone educated had to learn Latin, the source language for English, Spanish, French, German, and Italian). If you know the word parts, you can figure out what the word means. Your task is to learn the following prefixes and suffixes as well as words used frequently in biology. On the Friday of the first week of school, 10 words/word parts will be chosen and you will have to write out what they mean. I recommend you learn 10 word parts a day during the last 2 weeks prior to the start of school, maybe during breakfast or lunch so that it doesn't interfere with your vacation.

Vocab word part	Definition
cyto-	cell
lyso-	loosen/break down
phago-	to eat
pseudo-	false
pro-	before
trans-	across
co-	together
hyper-	exceeding
hypo-	lower
exo-	outer
glyco-	sweet
endo-	within
iso-	equal
hydro-	water
an-	not
chemi-	chemical
auto-	self
chloro-	green
hetero-	other
meso-	middle
photo-	light
bi-/di-	two
centro-	the center

gen-	produce
inter-	between
mal-	bad
homo-	like
syn-	together
tetra-	four
mono-	one
pedi-	self
poly-	many
hemo-	blood
non-	not
re-	again
semi-	half
neuro-	nerv
anti-	opposite
retro-	backward
eu-	true
apic-	tip
bio-	life
paleo-	ancient
vestigi-	trace
intra-	within
micro-	small
post-	after

sym-	together
thermo-	temperature
con-	with
gymno-	naked
peri-	around
a-	without
cephal-	head
ecto-	outside
gastro-	stomach
-pod	foot
arthro-	jointed
uni-	one
vivi-	a live
aqua-	water
myco-	a fungus
-phyto	a plant
homeo-	same
osteo-	bone
omni-	all
cardi-	heart
erythro-	red
leuko-	white
myo-	muscle
pulmo-	a lung

counter-	opposite
reni/nephr-	a kidney
epi-	above, over
-ectomy	cut out
soma-	a body
geo-	the Earth
de-	from, down, out
covalent bond-	a type of strong chemical bond in which two atoms share one pair of valence electrons
Hydrogen bond-	A type of weak chemical bond formed when the slightly positive hydrogen atom of a polar covalent bond in one molecule is attracted to the slightly negative atom of a polar
solute-	a substance that is dissolved in a solution
solvent-	The dissolving agent of a solution. Water is the most versatile solvent known.
denaturation-	For proteins, a process in which a protein unravels and loses its native conformation, thereby becoming biologically inactive. For DNA, the separation of the two strands of the double helix. Denaturation occurs under extreme conditions of pH, salt concentration, and temperature.
dehydration synthesis-	A reaction in which two molecules become covalently bonded to each other through the loss of a small molecule, usually water; also called condensation reaction
hydrolysis	A chemical process that lyses, or splits, molecules by the addition of water; an essential process in digestion.
protein-	A three-dimensional biological polymer constructed from a set of 20 different monomers called amino acids.
substrate	The reactant on which an enzyme works.
adaptations-	Inherited characteristics that enhance the ability of an organism to survive and reproduce in a particular environment.
diffusion	The spontaneous tendency of a substance to move down its concentration gradient from a more concentrated to a less concentrated area.
enzyme-	A protein serving as a catalyst, a chemical agent that

	changes the rate of a reaction without being consumed by the reaction.
evolution-	All the changes that have transformed life on Earth from its earliest beginnings to the diversity that characterizes it today.
molecule-	Two or more atoms held together by covalent bonds.
monomer-	The subunit that serves as the building block of a polymer.
protein-	A three-dimensional biological polymer constructed from a set of 20 different monomers called amino acids.
symbiosis-	An ecological relationship between organisms of two different species that live together in direct contact.
homeostasis-	The steady-state physiological condition of the body.
taxonomy-	The branch of biology concerned with naming and classifying the diverse forms of life.
physiology-	The study of the functions of an organism.
ecology-	The study of how organisms interact with their environments.
water potential-	The physical property predicting the direction in which water will flow, governed by solute concentration and applied pressure.