## Roots, Prefixes, and Suffixes in Biology

Unit 1: Study of Biology	
Root/Prefix/Suffix	Meaning & Examples
a-	not, without: abiotic
bio-	life, living: biodiversity
-ology	study of: biology
de-	away from, down: deductive reasoning
in-	not: independent variable
duct	lead: inductive reasoning

	Unit 2: Biochemistry
Root/Prefix/Suffix	Meaning & Examples
ac/ad-	to, toward: adhesion, activation energy
-ate	verb form-the act of: carbohydrate
cata-	breakdown downward: catalyst
calor-	heat: calorimeter, calorie, kilocalorie
CO-	with, together: covalent
iso-	equal: isotonic solution
di-	two: diploid, disaccharides
hydro-	water: hydrogen
hyper-	above, beyond, over: hypertonic solution
hypo-	below, under, less: hypotonic solution
macr-	large: macromolecule
mono-	one, single: monosaccharide
phag-	eat: phagocytes
sacchar-	sugar: monosaccharide
solv-	loosen, free: solvent
-stasis	standing, placed, staying: homeostasis
tri-	three: triglycerides

Unit 3: Cell Biology	
Root/Prefix/Suffix	Meaning & Examples
aero-	air: aerobic
an-	without: anaerobic
-cell-	chamber, small room: cell wall
centr-	center: centriole
chlor-	green: chloroplast
chrom-	color: chromatid
di-	through, across, apart: diffusion
-elle	small: organelle
eu-	well, good, true, normal: eukaryotes
-gene-	origin, birth: genetics
hapl-	simple: haploid
homo-	same, alike: homologous pair
mut-	change: mutation
nuc-	center: nucleus

photo-	light: photosynthesis
re-	again, back: replication
-sis	condition, state: osmosis
zyg-	joined together: zygote

Unit 4: Heredity	
Root/Prefix/Suffix	Meaning & Examples
auto-	self: autosome
-some	body: autosome
CO-	with, together: codominant
di-	two, double: diploid
fer	produce: fertilization
gam	marriage: gamete
hapl-	simple: haploid
hetero-	different: heterotype
zyg-	joined together: homozygous
-ous	full of: heterozygyous
homo	same, alike: homologous
kary	cell nucleus: karyotype
mut-	change: mutation
pheno-	show: phenotype
syn-	together: synthesis
poly-	many: polygenic
script-	write: transcription
trans-	across: translation

Unit 5: Evolution	
Root/Prefix/Suffix	Meaning & Examples
ad-	to, toward: adapt
di-	apart: diversity
ex-	away from: extinction
phyl-	related group: phylogeny
re-	again: reproductive
iso-	equal, same: isolation
sub-	under, below: subspecies
volve	roll, wander: evolve
con-	with, together: convergent evolution

Unit 6: Diversity	
Root/Prefix/Suffix	Meaning & Examples
angi-	blood, vessel, duct: angiosperm
-ation	noun form-the act of: population
auto-	self: autotroph
gymno-	naked, bare: gymnosperm
in-	not, non: invertebrate
-nom-, -nomy	ordered knowledge, law: binomial nomenclature
phyt-, phyte	plant: bryophyte

pro-	forward, favoring, before: producer
-sperm-	seed: angiosperm
stom, -stoma	mouth: stomata
-troph-	nourishment, one who feels: autotroph
xyl-	wood: xylem

Unit 7: Ecology	
Root/Prefix/Suffix	Meaning & Examples
eco-	house: ecosystem, ecology
en-	made of: environment
ex-	out of, away from: extinction
geo-	land, earth: biogeochemical
im-	to, toward, into: immigration
inter-	within, inside: interdependent
non-	not: nonrenewable
path, pathy-	disease, suffering: pathogen
pre-	before, ahead of time: precipitation
prim-	first: primary
pro-	forward, favoring, before: producer, productive
sub-	under, below: sublimation
troph-	nourishment, one who feeds: heterotroph, trophic level

Unit 8: Human Anatomy & Physiology	
Root/Prefix/Suffix	Meaning & Examples
anti-	against, opposite: antibiotic, antigen
capill-	hair: capillaries
cardi-	heart: cardiovascular system
cerebr-	brain: cerebrum
dis-	apart, out: disease
-fer-	bear, carry, produce: fertilization
med-	middle: medulla oblongata
ocul-	eye: ocular, occipital
-ous	full of: contagious or communicable disease
pan-	all: pandemic
par-, para-	beside, near, equal: parietal lobe
path-, -pathy	disease, suffering: pathogen
tri-	three: trimester
vas-	vessel: vascular tissue
zyg-	joined together: zygote