Key Terms
Honors Biology

Chapter 1

biology
biosphere
ecosystem
community
population
organism
organ system
organs
tissues
cell
organelle
molecule
producers
consumers
decomposers
prokaryotic
eukaryotic
homeostasis
domain
species
unicellular
multicellular
Bacteria
Archaea
Eukarya
Protista
Plantae
Fungi
Animalia
autotroph
heterotroph
decomposer
evolution
natural selection
hypothesis
theory
experimental group
control group
controlled experiment

Chapter 2

acid
acid precipitation
adhesion
aqueous solution
atom
atomic mass
atomic number
base
buffer
chemical bond
chemical reaction
cohesion
compound
covalent bond
double bond
electron
electron shell
electronegativity
element
heat
hydrogen bond
ion
ionic bond
isotope
mass number
matter
molecule
neutron
nonpolar covalent bond
nucleus (plural, nuclei)
pH scale
polar covalent bond
polar molecule
product
proton
radioactive isotope
reactant
salt
solute
solution
solvent
surface tension
temperature
trace element

Chapter 3

alpha helix
amine
amino acid
amino group
anabolic steroid
carbohydrate
carbon skeleton
carbonyl group
carboxyl group
carboxylic acid
cellulose
chitin
cholesterol
dehydration reaction
denaturation
deoxyribonucleic acid
disaccharide
double helix
enzyme
fat
functional group
gene
glycogen
hydrocarbon
hydrolysis
hydrophilic
hydrophobic
hydroxyl group
isomers
lipid
macromolecule
methyl group
monomer
monosaccharide
nucleic acid
nucleotide
organic compound
peptide bond
phosphate group
phospholipid
pleated sheet
polymer
polypeptide
polysaccharide
primary structure
protein
quaternary structure
ribonucleic acid
saturated
secondary structure
starch
steroid
tertiary structure
unsaturated

Key Terms
Honors Biology

Chapter 4

light microscope
cell theory
electron microscope
scanning electron microscope
transmission electron microscope
prokaryotic cells
eukaryotic cells
plasma membrane
chromosomes
ribosomes
cytoplasm
nucleoid
flagella
organelles
cellular metabolism
nucleus
chromatin
nuclear envelope
nucleolus
endomembrane system
vesicles
endoplasmic reticulum
smooth endoplasmic reticulum
rough endoplasmic reticulum
glycoprotein
transport vessicle
Golgi apparatus
lysosome
vaculoes
central vaculoe
peroxisome
mitochondria
intermembrane space
mitochondrial matrix
chloroplasts
stroma
thylakoids
granum
endosymbiosis
cytoskeleton
microfilaments
intermediate filaments
microtubules
centrioles
cilia
flagella
basal body
extracellular matrix
integrins
tight junctions
anchoring junctions
gap junctions
cell wall
plasmodesmata

Chapter 5

fluid mosaic
selective permeability
diffusion
concentration gradient
passive transport
osmosis
tonicity
isotonic
hypotonic
hypertonic
osmoregulation
facilitated diffusion
aquaporins
active transport
exocytosis
endocytosis
phagocytosis
pinocytosis
receptor-mediated endocytosis
energy
kinetic energy
heat
potential energy
chemical energy
thermodynamics
first law of thermodynamics
second law of themodynamics
entropy
exergonic reaction
cellular respiration
endergonic reactions
metabolism
metabolic pathway
energy coupling
ATP
phosphoylation
energy of activation (E_A)
enzymes
substrate
active site
induced fit
cofactors
coenzyme
competitive inhibitor
noncompetitive inhibator
feedback inhibition

Chapter 6

cellular respiration
kilocalories (kcal)
redox reaction
oxidation
reduction
dehydrogenase
NAD^+
electron transport chain
glycolysis
citric acid cycle
oxidative phosphorylation
chemiosomosis
ATP synthesis
substrate-level phosphorylation
intermediates
acetyl CoA
lactic acid fermentation
alcohol fermentation
obligate anaerobes

Key Terms
Honors Biology

Chapter 7

photosynthesis
autotrophs
producers
photoautotrophs
chlorophyll
mesophyll
stomata
stroma
thylakoids
grana
light reactions
Calvin cycle
electromagnetic spectrum
wavelength
photon
photosystem
reaction center complex
photophosphorylation
C_3 plants
photorespiration
C_4 plants
CAM plants
greenhouse effect

Chapter 8

anaphase
anchorage dependence
asexual reproduction
autosome
benign tumor
binary fission
carcinoma
cell cycle
cell cycle control system
cell division
cell plate
centromere
centrosome
chiasma
chromatin
chromosome
cleavage
cleavage furrow
crossing over
cytokinesis
deletion
density-dependent inhibition
diploid cell
Down syndrome
duplication
fertilization
gamete
genetic recombination
genome
growth factor
haploid cell
homologous
chromosomes
interphase
inversion
karyotype
leukemia
life cycle
locus (plural, loci)
lymphoma
malignant tumor
meiosis
metastasis
mitotic phase (M phase)
mitotic spindle
mitosis
nondisjunction
prometaphase
prophase
sarcoma
sex chromosome
sexual reproduction
sister chromatid
somatic cell
telophase
tetrad
translocation
trisomy 21
tumor
zygote

Chapter 9

ABO blood groups
achondroplasia
allele
amniocentesis carrier
character
chorionic villus sampling (CVS)
chromosome theory of inheritance
codominant
complete dominance
cross
cross-fertilization
cystic fibrosis
dihybrid cross
dominant allele
Duchenne muscular dystrophy
F1 generation
F2 generation
genotype
hemophilia
heterozygous
homozygous
Huntington's disease
hybrid
inbreeding
incomplete dominance
law of independent assortment
law of segregation
linked genes
monohybrid cross
P generation
pedigree
phenotype
pleiotropy
polygenic inheritance
Punnett square
recessive allele
recombination frequency
red-green color blindness
rule of addition
rule of multiplication
self-fertilize
sex chromosome
sex-linked gene
testcross
trait
true-breeding
ultrasound imaging

Key Terms
Honors Biology

Chapter 10

adenine (A)
AIDS
anticodon
bacteriophage
capsid
codon
conjugation
cytosine (C)
DNA ligase
DNA polymerase
double helix
emerging virus
exon
F factor
genetic code
guanine (G)
HIV
intron
lysogenic cycle
lytic cycle
messenger RNA (mRNA)
molecular biology
mutagen
mutagenesis
mutation
nucleotide
P site
phage
plasmid
polynucleotide
prion
promoter
prophage
R plasmid
reading frame
retrovirus
reverse transcriptase
ribosomal RNA (rRNA)
RNA polymerase
RNA splicing
semiconservative model
start codon
stop codon
sugar-phosphate backbone
terminator
thymine (T)
transcription
transduction
transfer RNA (tRNA)
transformation
translation
triplet code
uracil (U)
viroid
virus

Chapter 11

activator
adult stem cell
alternative RNA splicing
carcinogen
clone
differentiation
DNA microarray
embryonic stem cell (ES cell)
enhancer
gene expression
histone
homeotic gene
nuclear transplantation
oncogene
operator
operon
promoter
proto-oncogene
regeneration
regulatory gene
repressor
reproductive cloning
RNA interference (RNAi)
signal transduction pathway
silencer
therapeutic cloning
transcription factor
tumor-suppressor gene
X chromosome inactivation

Chapter 12

biotechnology
clone complementary DNA (cDNA)
DNA fingerprinting
DNA ligase
DNA profiling
DNA technology
forensics
gel electrophoresis
gene cloning
gene therapy
genetic engineering
genetically modified organism
genomic library
genomics
Human Genome Project (HGP)
nucleic acid probe
plasmid
polymerase chain reaction (PCR)
primers
proteomics
recombinant DNA
restriction enzyme
restriction fragments
restriction site
reverse transcriptase
Ti plasmid
transgenic
transposable element
vaccine
vector
whole-genome shotgun method

Key Terms
Honors Biology

Chapter 13

adaptation
artificial selection
balancing selection
biogeography
bottleneck effect
directional selection
disruptive selection
evolution
evolutionary tree
extinction
fitness
fossil record
fossils
founder effect
frequency-dependent selection
gene flow
gene pool
genetic drift
Hardy-Weinberg equilibrium
heterozygote advantage
homologous structures
homology
microevolution
molecular biology
mutation
natural selection
neutral variation
paleontologist
population
sexual dimorphism
sexual selection
stabilizing selection
strata
vestigial organ

Chapter 14

adaptive radiation
allopatric speciation
biological species concept
ecological species concept
hybrid zone
morphological species concept
phylogenetic species concept
polyploidy
postzygotic barrier
prezygotic barrier
punctuated equilibrium
reproductive barrier
reproductive isolation
speciation
species
sympatric speciation
taxonomy

Chapter 15

analogy
binomial
clades
cladistics
class
continental drift
convergent evolution
domain
family
genus
geologic record
horizontal gene transfer
ingroup
kingdom
macroevolution
molecular clock
molecular systematics
monophyletic
order
outgroup
paedomorphosis
phyla
phylogenetic tree
phylogeny
protobiont
radiometric dating
ribozyme
shared ancestral characters
shared derived characters
species
stromatolite
systematics
taxon
three-domain system

Chapter 16

alga
alternation of generations
amoeba
Archaea
autotroph
bacillus
Bacteria
biofilm
bioremediation
chemoautotroph
chemoheterotroph
coccus
cyanobacteria
endospore
endotoxin
exotoxin
extreme halophile
extreme thermophile
gametophyte
gram-positive bacteria
gram stain
green algae
heterotroph
methanogens
parasite
pathogen
peptidoglycan
photoautotroph
photoheterotroph
pilus
proteobacteria
protist
pseudopodium
secondary endosymbiosis
sporophyte
stramenopiles
symbiosis

Key Terms
Honors Biology

Chapter 17

angiosperm
anther
apical meristem
ascomycete
basidiomycete
bryophyte
carpel
charophyte
fruit
Fungi
gymnosperm
heterokaryotic stage
hypha
lichen
lignin
mold
mycelium
mycorrhiza
ovary
petal
phloem
pollen
pollination
sac fungus
seed
seed coat
seedless vascular plants
sepal
sporangium
spore
stamen
vascular plant
vascular tissue
xylem
yeast
zygote

Chapter 18

anterior
arachnid
arthropod
bilateral symmetry
bivalve
blastula
body cavity
cephalopod
circulatory system
closed circulatory system
cnidarian
coelom
complete digestive tract
complete metamorphosis
crustacean
cuticle
dorsal
echinoderm
ectoderm
endoderm
endoskeleton
exoskeleton
gastropod
gastrovascular cavity
gastrula
incomplete metamorphosis
ingestion
invertebrate
larva
medusa
mesoderm
metamorphosis
molting
notochord
open circulatory system
polyp
posterior
protostome
pseudocoelom
radial symmetry
segmentation
sessile
suspension feeder
ventral
visceral mass
water vascular system

Chapter 19

amniote
amniotic egg
amphibian
anthropoid
chordate
craniate
ectotherm
ectothermic
endotherm
endothermic
hominid
hominoid
mammal
opposable thumb
placenta
reptile
tetrapod
vertebra (plural, vertebrae)
vertebral column
vertebrate

Key Terms
Honors Biology

Chapter 20

adipose tissue
anatomy
blood
bone
cardiac muscle
cartilage
circulatory system
connective tissue
digestive system
endocrine system
epithelial tissue
epithelium (plural, epithelia)
excretory system
fibrous connective tissue
homeostasis
immune system
integumentary system
interstitial fluid
loose connective tissue
lymphatic system
muscular system
muscle tissue
negative feedback
nervous system
nervous tissue
neuron
organ
organism
organ system
physiology
reproductive system
respiratory system
skeletal muscle
skeletal system
smooth muscle tissue

Chapter 21

absorption
alimentary canal
anus
appendix
basal metabolic rate (BMR)
bile
bulk feeder
carnivore
chyme
colon
digestion
duodenum
elimination
esophagus
essential amino acid
essential fatty acid
essential nutrient
feces
fluid feeder
gallbladder
gastric juice
gastric ulcer
gastrin
gastrovascular cavity
herbivore
high-density lipoprotein(HDL)
ingestion
intestine
kilocalorie (kcal)
large intestine
liver
low-density lipoprotein(LDL)
malnourishment
metabolic rate
microvillus (plural, microvilli)
mineral
mouth
omnivore
oral cavity
overnourishment
pancreas
peristalsis
pharynx
rectum
ruminant
saliva
salivary glands
small intestine
sphincter
stomach
substrate feeder
suspension feeder
undernourishment
villus (plural, villi)
vitamin

Chapter 22

alveolus (plural, alveoli)
breathing
breathing control center
bronchiole
bronchus (plural, bronchi)
countercurrent exchange
diaphragm
gas exchange
gill
hemoglobin
larynx
lung
negative pressure breathing
partial pressure
pharynx
trachea (plural, tracheae)
tracheal system
ventilation
vital capacity
vocal cord

Key Terms
Honors Biology

Chapter 23

anemia
aorta
arteriole
artery
atherosclerosis
AV (atrioventricular) node
atrium (plural, atria)
blood
blood pressure
capillary
capillary bed
cardiac cycle
cardiac output
cardiovascular disease
cardiovascular system
circulatory system
closed circulatory system
diastole
double circulation
heart
heart attack
heart murmur
heart rate
hypertension
leukemia
leukocyte
open circulatory system
pacemaker
phagocyte
plasma
platelet
pulmonary artery
pulmonary circuit
pulmonary vein
pulse
red blood cell
SA (sinoatrial) node
stem cell
stroke
systemic circuit
systole
vein
ventricle
venule
white blood cell

Chapter 24

acquired immunity
active immunity
AIDS
allergy
allergen
anaphylactic shock
antibody
antigen
antigen receptor
antigen-binding site
antigen-presenting cell (APC)
antigenic determinant
antihistamine
autoimmune disease
B cell
cell-mediated immune response
cytotoxic T cell effector cell
helper T cell
histamine
HIV
humoral immune response
immune system
immunodeficiency disease
inflammatory response
innate immunity
lymph
lymphatic system
lymphocyte
macrophage
natural killer cell
neutrophil
opportunistic infections
passive immunity
pathogen
phagocytosis
plasma cell
primary immune response
secondary immune response
T cell
vaccination
vaccine

Chapter 25

ammonia
antidiuretic hormone (ADH)
Bowman's capsule
collecting duct
countercurrent heat exchange
dialysis
distal tubule
ectotherm
endotherm
excretion
filtrate
filtration
glomerulus (plural, glomeruli)
loop of Henle
nephron
osmoregulation
proximal tubule
reabsorption
secretion
thermoregulation
urea
ureter
urethra
uric acid
urinary bladder
urinary system
urine

Key Terms
Honors Biology

Chapter 26

adrenal cortex
adrenal gland
adrenal medulla
androgen
antagonistic hormones
anterior pituitary
diabetes mellitus
endocrine gland
endocrine system
endorphin
epinephrine
estrogen
glucagon
goiter
gonad
growth hormone (GH)
hormone
hypoglycemia
hypothalamus
insulin
local regulator
neurosecretory cell
norepinephrine
pancreas
parathyroid glands
pituitary gland
posterior pituitary
releasing hormone
steroid hormone
target cell
testosterone
thyroid gland
thymus gland

Chapter 27

amnion
asexual reproduction
birth control pill
blastocoel
blastocyst
blastula
budding
cervix
chlamydia
chorionic villus
cleavage
coelom
conception
contraception
corpus luteum
ectoderm
ectopic pregnancy
egg
ejaculatory duct
embryo
endoderm
endometrium
epididymis
external fertilization
fetus
fertilization
follicle
gamete
gametogenesis
gastrula
gastrulation
genital herpes
gestation
hermaphroditism
homeotic gene
in vitro fertilization (IVF)
infertility
internal fertilization
labor
menstrual cycle
menstruation
mesoderm
neural tube
notochord
oogenesis
orgasm
ovarian cycle
ovary
oviduct
ovulation
ovum (plural, ova)
penis
placenta
positive feedback
primary oocyte
primary spermatocyte
programmed cell death
regeneration
reproduction
secondary oocyte
secondary spermatocyte
semen
seminal vesicle
spermatogenesis
sexual reproduction
sexually transmitted disease (STD)
sperm
spermicide
testis (plural, testes)
trimester
uterus
vagina
vas deferens
vasectomy
yolk sac
zygote

Key Terms
Honors Biology

Chapter 28

action potential
Alzheimer's disease (AD)
autonomic nervous system
axon
biological clock
bipolar disorder
blood-brain barrier
brain
brainstem
cell body
cephalization
central canal
central nervous system (CNS)
cerebellum
cerebral cortex
cerebrospinal fluid
cerebrum
circadian rhythm
corpus callosum
cranial nerve
dendrite
forebrain
ganglion (plural, ganglia)
gray matter
hindbrain
hippocampus
integration
interneuron
lateralization
limbic system
long-term memory
major depression
medulla oblongata
membrane potential
midbrain
motor neuron
motor output
myelin sheath
nerve
nerve cord
nervous system
neuron
neurotransmitter
node of Ranvier
parasympathetic division
Parkinson's disease
peripheral nervous system (PNS)
pons
reflex
resting potential
schizophrenia
sensory input
sensory neuron
short-term memory
sodium-potassium (Na-K) pump
somatic nervous system
spinal cord
spinal nerve
stimulus (plural, stimuli)
sympathetic division
synapse
synaptic cleft
synaptic terminal
synaptic vesicle
thalamus
threshold
ventricle
white matter

Chapter 29

aqueous humor
astigmatism
auditory canal
chemoreceptor
cochlea
compound eye
cone
cornea
eardrum
electromagnetic receptor
Eustachian tube
eye cup
farsightedness
hair cell
inner ear
iris
lens
mechanoreceptor
nearsightedness
middle ear
outer ear
pain receptor
perception
photopsin
photoreceptor
pinna
pupil
receptor potential
retina
rhodopsin
rod
sclera
semicircular canals
sensation
sensory adaptation
sensory receptor
sensory transduction
stretch receptor
single-lens eye
thermoreceptor
visual acuity
vitreous humor

Chapter 30

actin
appendicular skeleton
axial skeleton
ball-and-socket joint
endoskeleton
exoskeleton
hinge joint
hydrostatic skeleton
ligament
locomotion
motor unit
muscle fiber
myofibril
myosin
osteoporosis
pivot joint
red bone marrow
sarcomere
tendon
thick filament
thin filament
yellow bone marrow

Key Terms
Honors Biology

Chapter 31

annual
anther
apical dominance
apical meristem
axillary bud
bark
biennial
carpel
clone
collenchyma cell
companion cell
cork
cork cambium
cortex
cotyledon
cuticle
determinate growth
dermal tissue system
double fertilization
dicot
embryo sac
endodermis
endosperm
epidermis
eudicot
fiber
fragmentation
fruit
food-conducting cell
gametophyte
germinate
ground tissue system
guard cell
heartwood
indeterminate growth
internode
lateral meristem
leaf
meristem
mesophyll
monocot
monoculture
node
organ
ovary
parenchyma cell
perennial
petal
phloem
pistil
pith
pollination
primary growth
primary phloem
primary xylem
rhizome
root cap
root system
root hair
sapwood
sclereid
sclerenchyma cell
secondary growth
secondary phloem
secondary xylem
seed coat
seed dormancy
sepal
shoot system
sieve plate
sieve-tube member
sporophyte
stamen
stem
stigma (plural, stigmata)
stoma (plural, stomata)
tendril
terminal bud
tissue
tissue system
tracheid
tuber
vascular bundle
vascular cambium
vascular cylinder
vascular tissue system
vein
vessel element
water-conducting cell
wood
wood ray
xylem

Chapter 32

adhesion
Casparian strip
cation exchange
cohesion
compost
essential element
fertilizer
humus
macronutrient
micronutrient
mycorrhiza (plural, mycorrhizae)
nitrogen fixation
nodule
phloem sap
pressure flow mechanism
root pressure
sugar sink
sugar source
sustainable agriculture
transpiration
transpiration-cohesion-tension mechanism
topsoil
xylem sap

Chapter 33

abscisic acid (ABA)
auxin
biological clock
circadian rhythm
cytokinin
ethylene
gibberellin
gravitropism
herbivore
hormone
long-day plant
photoperiod
phototropism
phytochrome
short-day plant
systemic acquired resistance
thigmotropism
tropism

Key Terms
Honors Biology

Chapter 34

abiotic factor
aphotic zone
benthic realm
biome
biosphere
biotic factor
chaparral
community
coniferous forest
continental shelf
desert
desertification
doldrums
ecology
ecosystem
estuary
habitat
intertidal zone
landscape
ocean current
organism
pelagic realm
permafrost
photic zone
phytoplankton
population
prevailing winds
savanna
temperate broadleaf forest
temperate grassland
temperate zones
trade winds
tropical forests
tropics
tundra
westerlies
wetland
zooplankton

Chapter 35

promiscuous
polygamous
monogamous
behavior
behavioral ecology
stimulus
proximate cause
ultimate cause
innate behavior
fixed action patterns (FAPs)
learning
habituation
imprinting
sensitive period
kinesis
taxis
spatial learning
cognitive map
migration
associative learning
trial-and-error learning
social learning
cognition
problem solving
foraging
search image
optimal foraging theory
signal
communication
social behavior
sociobiology
territory
agonistic behavior
dominance hierarchy
altruism
inclusive fitness
kin selection
reciprocal altruism
courtship rituals
mating systems
endocrine disrupters

Chapter 36

population ecology
population
population density
dispersion pattern
clumped dispersion pattern
uniform dispersion pattern
random dispersion pattern
life tables
survivorship curves
per capita rate of increase
exponential growth model
limiting factors
logistic growth model
carrying capacity
density-dependent
life history
r-selection
K-selection
sustainable resource management
maximum sustained yield
demographic transition
age structure
population momentum
ecological footprint

Key Terms
Honors Biology

Chapter 37

community
interspecific interactions
interspecific competition
mutualism
predation
herbivory
ecological niche
coevolution
parasites
pathogens
food chain
producers
primary consumers
secondary consumers
tertiary consumers
quaternary consumers
detritivores
decomposers
detritus
decomposition
food web
species diversity
keystone species
disturbance
ecological succession
primary succession
secondary succession
invasive species
biological control
ecosystem
energy flow
chemical cycling
biomass
primary production
biogeochemical cycles
abiotic reservoir

Chapter 38

biodiversity
biodiversity crisis
conservation biology
endangered species
threatened species
ozone layer
biological magnification
landscape ecology
movement corridor
biodiversity hot spots
endemic species
zoned reserve
sustainable development
restoration ecology