

# Biology Vocabulary Study Sheet

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| 1. abiotic factors      | Nonliving components of environment.  |
| 2. amino acids          | Building blocks of proteins; 20 different types in the human body.  |
| 3. biotic factors       | All the living organisms that inhabit an environment.   |
| 4. aerobic              | Process that requires oxygen.   |
| 5. anaerobic            | Process that does not require oxygen.   |
| 6. homeostasis          | A tendency to maintain a balanced or constant internal state; the regulation of any aspect of body chemistry, such as blood glucose, around a particular level. |
| 7. asexual reproduction | Process by which a single parent reproduces by itself.  |
| 8. sexual reproduction  | A reproductive process that involves two parents that combine their genetic material to produce a new organism, which differs from both parents.                |
| 9. active transport     | Energy-requiring process that moves material across a cell membrane against a concentration difference.   |
| 10. allele              | Different forms of a gene.  |
| 11. antigen             | A protein that, when introduced in the blood, triggers the production of an antibody.   |
| 12. bilateral symmetry  | Body plan in which only a single, imaginary line can divide the body into two equal halves.   |
| 13. biome               | A group of ecosystems that share similar climates and typical organisms   |
| 14. biodiversity        | The variety of life in the world or in a particular habitat or ecosystem.   |
| 15. biomass             | Total amount of living tissue within a given trophic level.   |
| 16. bone marrow         | A soft tissue inside the bone that produces blood cells.  |
| 17. botany              | Study of plants.  |

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18. Calvin Cycle	Reactions of photosynthesis in which energy from ATP and NADPH is used to build high-energy compounds such as sugars.
19. carbohydrates	The starches and sugars present in foods.
20. carrying capacity	Largest number of individuals of a population that a environment can support.
21. catalyst	Substance that speeds up the rate of a chemical reaction.
22. cell wall	A rigid layer of nonliving material that surrounds the cells of plants and some other organisms.
23. cellular respiration	Process that releases energy by breaking down glucose and other food molecules in the presence of oxygen.
24. cellulose	A substance (made of sugars) that is common in the cell walls of many organisms.
25. centromere	Area where the chromatids of a chromosome are attached.
26. cerebrum	Area of the brain responsible for all voluntary activities of the body.
27. chlorophyll	A green pigment found in the chloroplasts of plants, algae, and some bacteria.
28. chloroplast	An organelle found in plant and algae cells where photosynthesis occurs.
29. chromatin	Clusters of DNA, RNA, and proteins in the nucleus of a cell.
30. chromosomes	Threadlike structures made of DNA molecules that contain the genes.
31. circulatory system	Transports oxygen, waste, nutrients, hormones, heat, etc... around the body.
32. codon	A specific sequence of three adjacent bases on a strand of DNA or RNA that provides genetic code information for a particular amino acid.
33. coniferous forest	Forest populated by cone-bearing evergreen trees; mostly found in northern latitudes.

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34. commensalism	A relationship between two organisms in which one organism benefits and the other is unaffected.
35. community	All the different populations that live together in an area.
36. cytokinesis	Division of the cytoplasm during cell division.
37. cytolysis	The bursting of a cell.
38. cytoplasm	A jellylike fluid inside the cell in which the organelles are suspended.
39. deciduous	(of plants and shrubs) shedding foliage at the end of the growing season.
40. desert	Can be hot or cold; receives less than 30 cm of precipitation per year.
41. diffusion	Movement of molecules from an area of higher concentration to an area of lower concentration.
42. digestion	Breakdown of food substances into simpler forms that can be absorbed and used.
43. dihybrid cross	A cross between individuals that have different alleles for the same gene.
44. dominant allele	An allele whose trait always shows up in the organism when the allele is present.
45. ecology	Scientific study of interactions among organisms and between organisms and their environment.
46. ecosystem	A biological community of interacting organisms and their physical environment.
47. ectothermic	Cold blooded. Cannot regulate its own body temperature.
48. Electron Transport Chain	A sequence of electron carrier molecules (membrane proteins) that shuttle electrons during the redox reactions that release energy used to make ATP.
49. endothermic	Absorbs heat.
50. epidermis	Outer layer of skin.
51. excretion	Process by which metabolic wastes are eliminated from the body.

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52. flagellate	To whip; to lash.
53. fruit	A mature ovary of a flower that protects dormant seeds and aids in their dispersal.
54. food chain	A series of steps in which organisms transfer energy by eating and being eaten.
55. food web	A community of organisms where there are several interrelated food chains.
56. gene	A segment of DNA on a chromosome that codes for a specific trait.
57. genetics	The scientific study of heredity.
58. genotype	Genetic makeup of an organism.
59. gestation	Growth process from conception to birth.
60. gonad	female or male reproductive organ that produces sex cells and hormones; ovary or testis.
61. hermaphrodite	An organism that has both male and female reproductive organs.
62. hibernation	Long-term resting state that is an adaptation to winter cold and food scarcity.
63. hydrophobic	"Water-fearing"; pertaining to nonpolar molecules (or parts of molecules) that do not dissolve in water.
64. isotonic solution	A solution in which the concentration of solutes is essentially equal to that of the cell which resides in the solution.
65. lysosome	A small, round cell structure containing chemicals that break down large food particles into smaller ones.
66. lipids	Energy-rich organic compounds, such as fats, oils, and waxes, that are made of carbon, hydrogen, and oxygen.
67. meiosis	Cell division that produces reproductive cells in sexually reproducing organisms.
68. membrane	thin layer of tissue that covers a surface, lines a cavity, or divides a space or organ.

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69. messenger RNA	RNA molecule that carries copies of instructions for the assembly of amino acids into proteins from DNA to the rest of the cell.
70. metabolism	All of the chemical reactions that occur within an organism.
71. mitosis	Part of eukaryotic cell division during which the cell nucleus divides.
72. monohybrid cross	A cross between individuals that involves one pair of contrasting traits.
73. monosaccharides	Simple sugars (glucose, fructose, galactose).
74. mutualism	A relationship between two species in which both species benefit.
75. NADPH	An electron carrier involved in photosynthesis.
76. nervous system	A conglomeration of billions of cells specifically designed to provide a communication network within the human body.
77. neurotoxins	Toxic substances, such as lead or mercury, that specifically poison nerve cells.
78. niche	An organism's particular role in an ecosystem, or how it makes its living.
79. nucleotides	Basic units of DNA molecule, composed of a sugar, a phosphate, and one of 4 DNA bases.
80. nucleus	A part of the cell containing DNA and RNA and responsible for growth and reproduction.
81. osmosis	Diffusion of water through a selectively permeable membrane.
82. parasite	An organism that lives in or on another organism; one who lives off another person.
83. parasitism	A relationship between two organisms of different species where one benefits and the other is harmed.
84. passive transport	The movement of substances across a cell membrane without the use of energy by the cell.
85. pathogen	An organism that causes disease.

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86. phenotype	An organism's physical appearance, or visible traits.
87. phospholipid	A molecule that is a constituent of the inner bilayer of biological membranes, having a polar, hydrophilic head and a nonpolar, hydrophobic tail.
88. phototropism	A growth response to light.
89. placenta	A structure that allows an embryo to be nourished with the mother's blood supply.
90. plankton	Tiny organisms that float in the water.
91. plasma membrane	A selectively-permeable phospholipid bilayer forming the boundary of the cells.
92. pollen	A fine dust that contains the sperm of seed-producing plants.
93. pollination	The transfer of pollen from male reproductive structures to female reproductive structures in plants.
94. population	A group of individuals that belong to the same species and live in the same area.
95. primary consumer	An organism that eats producers.
96. primary succession	Succession that occurs on surfaces where no soil exists.
97. proteins	Nutrients the body uses to build and maintain its cells and tissues.
98. quarternary consumer	An organism that eats tertiary consumers.
99. recessive allele	An allele that is masked when a dominant allele is present.
100. regeneration	The ability to regrow a missing part of the body.
101. respiration	Inhalation and exhalation of air.
102. respiratory system	The organ system that brings oxygen to body cells and removes waste gas.
103. secondary consumer	An organism that eats primary consumers.
104. secondary succession	Type of succession that occurs in an area that was only partially destroyed by disturbances.

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105. species	A group of similar organisms that can breed and produce fertile offspring.
106. symbiosis	A close relationship between two species that benefits at least one of the species.
107. skeletal system	Protects and supports body organs and provides a framework the muscles use to support movement. Made up of bones and joints.
108. taxonomy	The scientific study of how living things are classified.
109. temperate forest	Biome characterized by broad-leaved, deciduous trees, well-defined seasons, and average yearly precipitation of 75-150 cm.
110. temperate grassland	A community (or biome) that is dominated by grasses, has few trees, and is characterized by cold winters and rainfall that is intermediate between that of a forest and a desert.
111. tertiary consumer	An organism that eats secondary consumers.
112. transformation	A change in genotype and phenotype due to the assimilation of external DNA by a cell.
113. transpiration	Evaporation of water from the leaves of a plant.
114. tropical forest	Warm, long days; very diverse; over 200 cm of precipitation per year.
115. vaccine	A harmless variant or derivative of a pathogen that stimulates a host's immune system to mount defenses against the pathogen.
116. vacuole	Cell organelle that stores materials such as water, salts, proteins, and carbohydrates.
117. ventricle	Bottom portion of the heart, thicker walled and larger.
118. virus	A tiny, nonliving particle that invades and then reproduces inside a living cell.
119. zooplankton	Tiny floating organisms that are either small animals or protozoa.
120. zygote	The fertilized egg; it enters a 2-week period of rapid cell division and develops into an embryo.