

Skills Worksheet

Homeostasis and Cell Transport

In the space provided, write the letter of the description that best matches the term or phrase.

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|---------------------------------|--|
| _____ 1. passive transport | a. movement of a substance down the substance's concentration gradient |
| _____ 2. concentration gradient | b. causes a cell to shrink because of osmosis |
| _____ 3. equilibrium | c. movement of a substance by a vesicle to the outside of a cell |
| _____ 4. diffusion | d. an example of a cell membrane "pump" |
| _____ 5. osmosis | e. protein used to transport specific substances across a membrane |
| _____ 6. hypertonic solution | f. transport protein through which ions can pass |
| _____ 7. hypotonic solution | g. movement of a substance by a vesicle to the inside of a cell |
| _____ 8. isotonic solution | h. does not require energy from the cell |
| _____ 9. ion channel | i. concentration of molecules is equal throughout a space |
| _____ 10. carrier protein | j. difference in the concentration of molecules across a space |
| _____ 11. facilitated diffusion | k. diffusion of water through a membrane |
| _____ 12. active transport | l. organelle that pumps water out of the cell |
| _____ 13. sodium-potassium pump | m. passive transport using carrier proteins |
| _____ 14. endocytosis | n. concentration of both solutions is equal |
| _____ 15. exocytosis | o. movement of a substance against the substance's concentration gradient |
| _____ 16. vesicle | p. causes a cell to swell because of osmosis |
| _____ 17. contractile vacuole | q. organelle that fuses with lysosomes in order that contents can be digested |

16. A peptide bond is the covalent bond that links two amino acids. A polypeptide is a long chain of amino acids linked together by peptide bonds.
17. A fatty acid is an unbranched carbon chain that makes up most lipids. Most lipids are composed of fatty acids.
18. An enzyme is a substance that speeds up chemical reactions. An active site is the location on an enzyme that binds to a substrate.
19. A monosaccharide is a monomer of a carbohydrate. A disaccharide is a carbohydrate made of two monosaccharides linked together.
20. DNA is a nucleic acid that stores hereditary information used to make proteins. RNA is a nucleic acid that is involved in protein synthesis.
21. ATP is an organic molecule that acts as the main energy currency of cells. Carbohydrates are organic molecules that act as a source of energy in cells.
29. chloroplasts
30. central vacuole
31. cell wall
32. colonial organism
33. nuclear envelope
34. microfilaments
35. surface-area-to-volume ratio
36. organ system

Homeostasis and Cell Transport

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|------|-------|
| 1. h | 10. e |
| 2. j | 11. m |
| 3. i | 12. o |
| 4. a | 13. d |
| 5. k | 14. g |
| 6. b | 15. c |
| 7. p | 16. q |
| 8. n | 17. l |
| 9. f | |

Photosynthesis

1. photosynthesis
2. autotrophs
3. heterotrophs
4. granum
5. pigment
6. chlorophyll
7. carotenoids
8. electron transport chain
9. carbon fixation
10. Calvin cycle
11. C₄ pathway
12. CAM pathway
13. chemiosmosis
14. light reactions
15. stomata
16. thylakoids

Cellular Respiration

1. alcoholic fermentation
2. pyruvic acid
3. acetyl CoA
4. aerobic respiration
5. anaerobic
6. NADH
7. oxaloacetic acid
8. citric acid
9. NAD⁺
10. cellular respiration
11. mitochondrial matrix

Cell Structure and Function

1. THYLAKOID
2. CELL
3. TISSUE
4. CYTOSOL
5. CHLOROPHYLL
6. CELL THEORY
7. PLASMA MEMBRANE
8. RIBOSOME
9. PROKARYOTE
10. FLAGELLUM
11. ORGANELLE
12. CILIUM
13. EUKARYOTE
14. NUCLEUS
15. CYTOPLASM
16. CYTOSKELETON
17. PLASTID
18. PHOSPHOLIPID BILAYER
19. CENTRIOLE
20. ORGAN
21. NUCLEOLUS
22. MICROTUBULE
23. CHROMOSOME
24. endoplasmic reticulum
25. nucleoplasm
26. Golgi apparatus
27. lysosomes
28. mitochondria