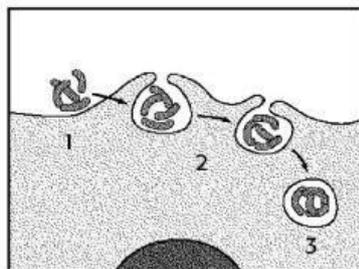


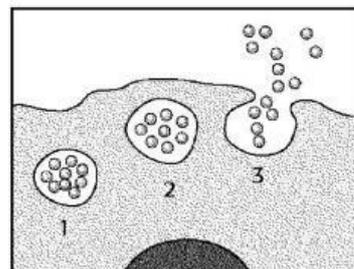
## Completion

Complete each statement.

1. Because carbon atoms have four electrons in their outermost energy level, they can form up to \_\_\_\_\_ covalent bonds with other atoms.
2. In a condensation reaction, two molecules become linked together and a molecule of \_\_\_\_\_ is produced.
3. In a triple bond, \_\_\_\_\_ pair(s) of electrons is (are) shared between two atoms.
4. The ratio of surface area to \_\_\_\_\_ puts limitations on a cell's size.
5. Eukaryotic cells are much larger and have more specialized functions than prokaryotic cells because they contain \_\_\_\_\_, which carry out specialized activities.
6. A cell with a well-defined nucleus and cytoplasm surrounded by a plasma membrane is a(n) \_\_\_\_\_ cell.
7. \_\_\_\_\_ molecules have "heads" and "tails" and are found in the plasma membrane.
8. The network of protein fibers that supports the shape of the cell is called the \_\_\_\_\_.
9. Both plant and animal cells have plasma membranes. In addition, plant cells are surrounded by a(n) \_\_\_\_\_.
10. Matthias Schleiden worked with \_\_\_\_\_ cells, and Theodor Schwann worked with \_\_\_\_\_ cells.
11. Stacks of thylakoids, called \_\_\_\_\_, are suspended in the stroma of chloroplasts.
12. Organisms that harvest energy from either sunlight or chemicals in order to make food molecules are called \_\_\_\_\_.
13. The main pigment associated with the two photosystems is \_\_\_\_\_.



X



Y

14. Refer to the illustration above. The process shown in figure Y is called \_\_\_\_\_.
15. Refer to the illustration above. Cells often trap extracellular particles and fluid. This is shown in figure

\_\_\_\_\_.

16. Chemiosmosis in the thylakoid membrane results in the synthesis of\_\_\_\_\_.
17. The second stage of photosynthesis, in which glucose is manufactured, is called the\_\_\_\_\_.
18. \_\_\_\_\_ is a biochemical pathway of cellular respiration that is anaerobic.
19. Of the maximum possible yield of 38 ATP molecules produced by the complete oxidation of one glucose molecule, \_\_\_\_\_ molecules of ATP are produced during glycolysis.
20. The Krebs cycle takes place in the \_\_\_\_\_.
21. The scientist who first named cells was \_\_\_\_\_.
22. Large, complex cells that contain a nucleus are called \_\_\_\_\_.
23. Substances that move wastes and other materials through the plasma membrane are called\_\_\_\_\_.
24. The bacterium E. coli is a type of cell called \_\_\_\_\_.
25. The central structure that defines the cell is called the \_\_\_\_\_.
26. A flu virus could easily infect a cell without the presence of \_\_\_\_\_.

