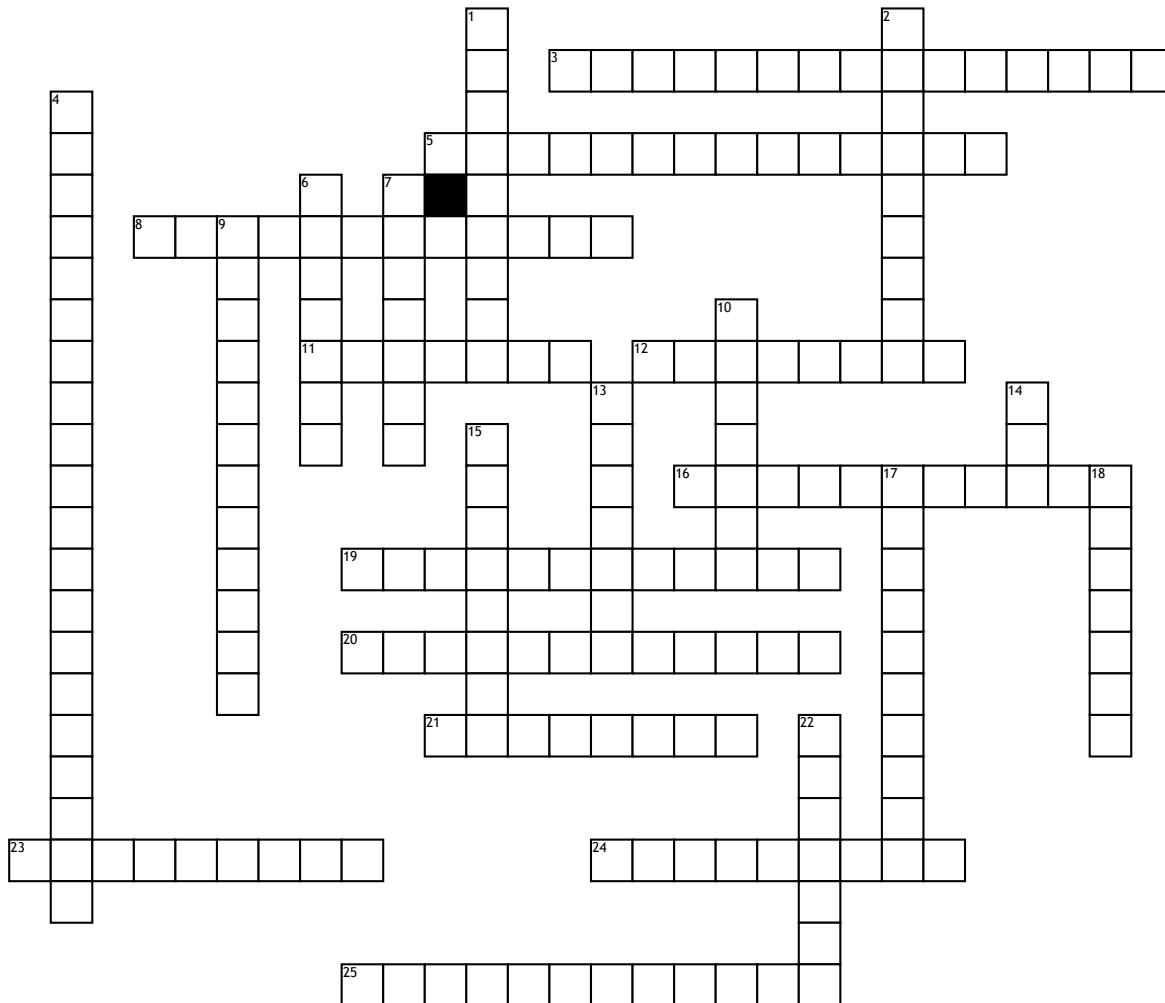


Cell Structure and Function



Across

3. The double layer of membrane which surrounds the nucleus.
 5. A series of tubes and membranes that store, modify, and package the products received from the ER. The Golgi also manufactures some proteins of its own.
 8. Holes in the nuclear membrane which allow mRNA and other molecules to leave the nucleus.
 11. The aqueous component of the cytoplasm.
 12. ER that does not have any ribosomes attached to it.
 16. A type of plastid that performs photosynthesis.
 19. Organelles that manufacture the cell energy molecule, ATP.
 20. A complex network of proteins that strengthen the cell and keep it from rupturing.

21. A protective layer that surrounds the cell membrane in plant cells.
 23. A spherical structure in the nucleus which manufactures ribosomal components.
 24. The jelly-like fluid that fills the inside of a cell.
 25. The largest of the cytoskeletal proteins, components of tubulin.

Down

1. Organelles that manufacture proteins.
 2. Microtubules that help pull the DNA apart during cell division. They are composed of nine triplets of microtubules.
 4. An extensive network of folded membranes and membranous sacs throughout the cytoplasm.
 6. A membrane-bound organelle that stores substances.
 7. Folds of the inner mitochondrial membrane.

9. The barrier around all cells which protects them from the outside world.
 10. ER that has many ribosomes attached to it.
 13. A storage structure in the cytoplasm that may hold food or wastes.
 14. Deoxyribonucleic acid, genetic material.
 15. Vesicles that contain enzymes to break down proteins, lipids, carbohydrates, and old organelles.
 17. Units inside all cells that perform specific functions.
 18. Long, thin, hollow tubes found just inside the cell membrane.
 22. The structure found in the cytoplasm which stores the DNA.