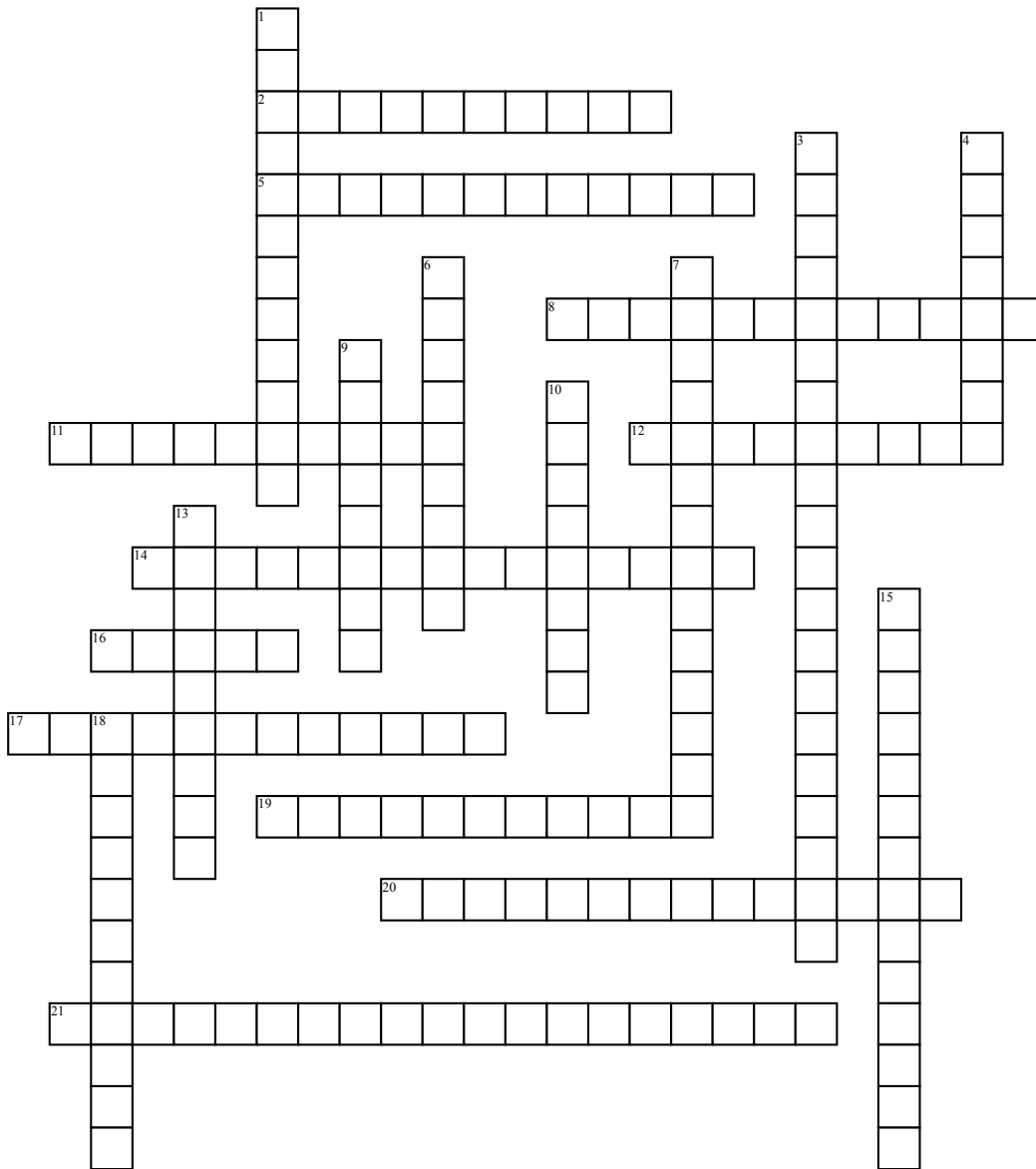


Chapter 4: Section 3 & 4 Vocabulary



Across

2. A membrane system found within chloroplasts that contains the components for photosynthesis.
 5. A network of thin tubes and filaments that crisscrosses the cytosol.
 8. Use light energy to make carbohydrates from carbon dioxide and water.
 11. Two short cylinders of cytoplasm near the nuclear envelope.
 12. Organelles made of protein and RNA that direct protein synthesis in the cytoplasm.
 14. A double membrane made up of two phospholipid bilayers.
 16. Hairlike structures that extend from the surface of the cell, they are short and present in large numbers on certain cells.

17. Hollow tubes made of a protein called tubulin.

19. Structures in the nucleus made of DNA and protein.

20. Large, fluid-filled organelle that stores not only water but also enzymes and other materials.

21. A double layer of phospholipids that makes up plasma and organelle membranes.

Down

1. Tiny organelles that transfer energy from organic molecules to ATP.

3. A system of membranous tubes and sacs.

4. Organelles are surrounded by a double membrane and contain their own DNA.

6. Vesicles that bud from the Golgi apparatus and that contain digestive enzymes.

7. Another system of flattened, membranous sacs.

9. A rigid layer that lies outside the cells plasma membrane.

10. Hairlike structures that extend from the surface of the cell, they are no longer and far less numerous on the cells.

13. The site where DNA is concentrated when it is in the process of making ribosomal RNA.

15. Long threads of the bead like protein, actin, and are linked end to end and wrapped around each other like two strands of a rope.

18. The main molecule that absorbs light and captures light energy for the cell.