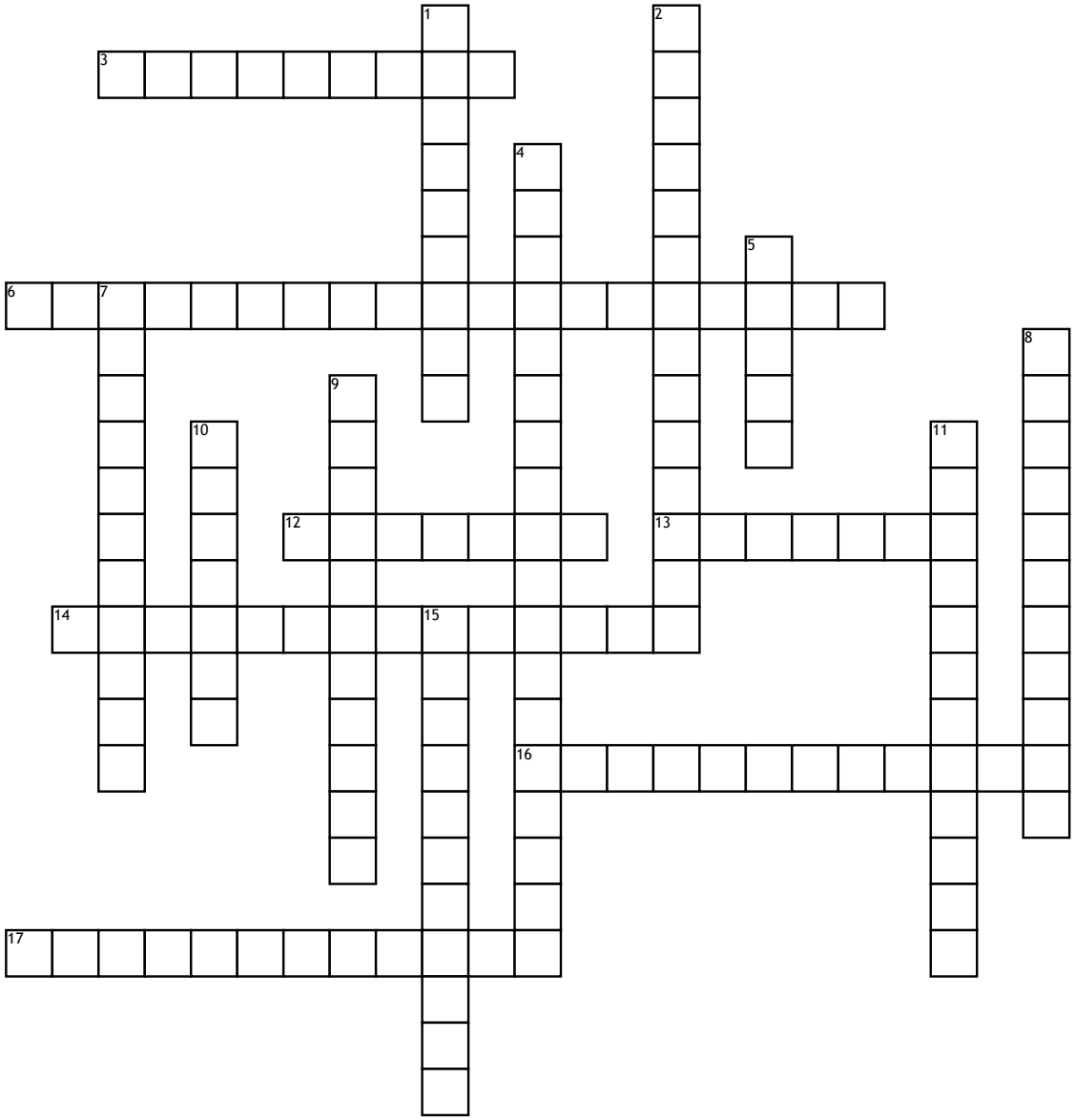
Terminology Chap 3



Across

3. A fatty acid in which all carbons in the hydrocarbon tail are connected by single bonds and the maximum number of hydrogen atoms are attached to the carbon skeleton. Saturated fats and fatty acids solidify at room temperature.

6. A chemical reaction in which two molecules become covalently bonded to each other with the removal of a water molecule.

12. A functional biological molecule consisting of one or more polypeptides folded into a specific three-dimensional structure.

13. Organic compounds with the same molecular formula but different structures and, therefore, different properties.

14. The simplest carbohydrate; a simple sugar with a molecular formula that is generally some multiple of CH_2O. Monosaccharides are the monomers of disaccharides and polysaccharides.

16. Member of the class of biological molecules consisting of single-monomer sugars (monosaccharides), two-monomer sugars (disaccharides), and polymers (polysaccharides).

17. A process in which a protein unravels, losing its specific structure and hence function; can be caused by changes in pH or salt concentration or by high temperature; also refers to the separation of the two strands of the DNA double helix, caused by similar factors.

Down

1. A structural polysaccharide of plant cell walls composed of glucose monomers. Cellulose molecules are linked by hydrogen bonds into cable-like fibrils.

2. A carbohydrate polymer of many monosaccharides (sugars) linked by dehydration reactions.

4. A chemical reaction that breaks bonds between two molecules by the addition of water; process by which polymers are broken down and an essential part of digestion.

5. An organic compound consisting mainly of carbon and hydrogen atoms linked by nonpolar covalent bonds, making the compound mostly hydrophobic. Lipids include fats, phospholipids, and steroids and are insoluble in water.

7. "Water-fearing"; pertaining to nonpolar molecules (or parts of molecules) that do not dissolve in water.

8. A fatty acid that has one or more double bonds between carbons in the hydrocarbon tail and thus lacks the maximum number of hydrogen atoms. Unsaturated fats and fatty acids do not solidify at room temperature.

9. An organic compound composed only of the elements carbon and hydrogen.

10. A six-carbon monosaccharide that serves as a building block for many polysaccharides and whose oxidation in cellular respiration is a major source of ATP for cells.

11. A sugar molecule consisting of two monosaccharides linked by a dehydration reaction.

15. "Water-loving"; pertaining to polar or charged molecules (or parts of molecules) that are soluble in water.