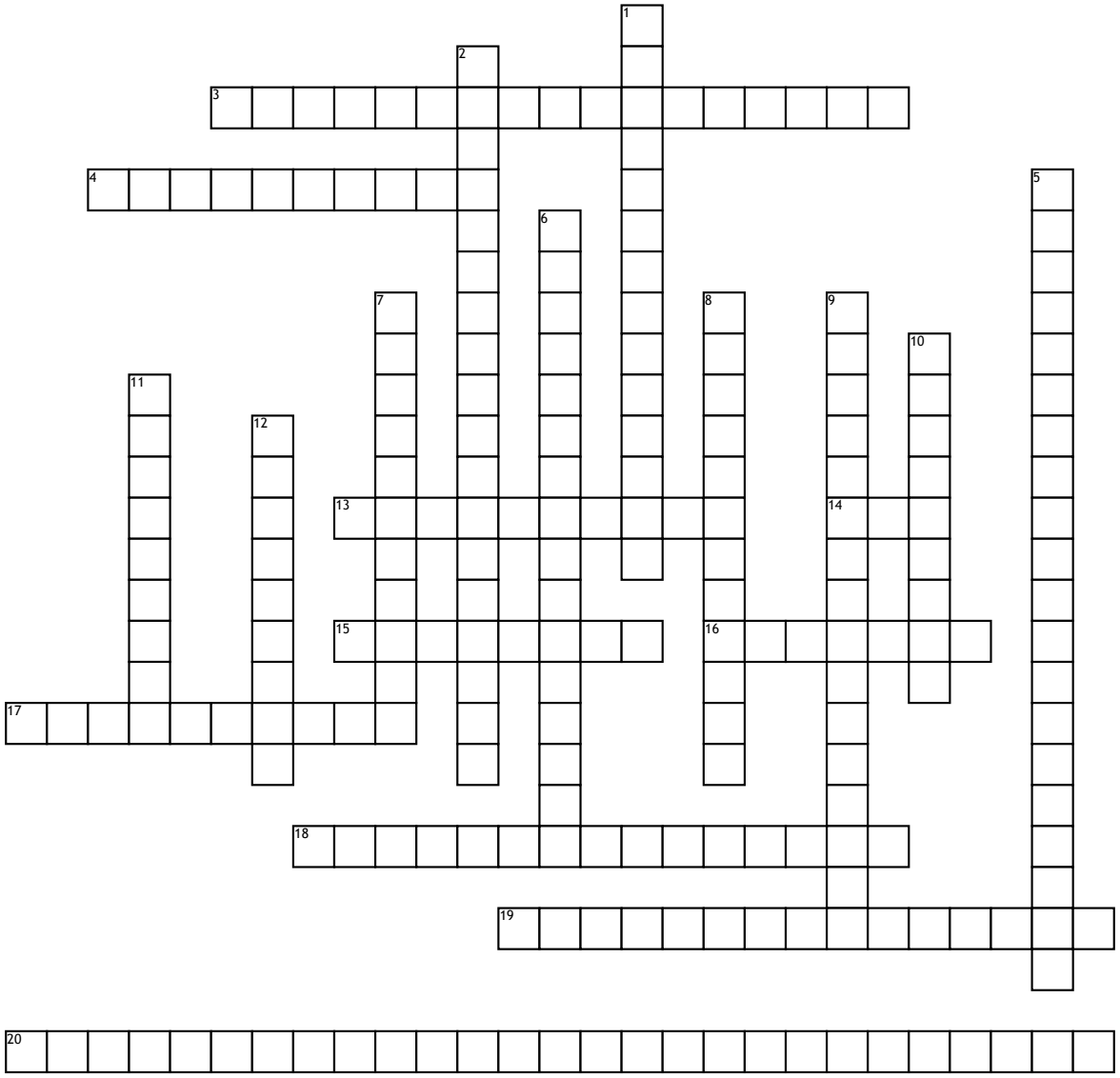
Chap 5 Terminology



Across

3. An energy-releasing chemical reaction in which the reactants contain more potential energy than the products.

4. The part of an enzyme where a substrate molecule attaches; typically, a pocket or groove on the enzyme's surface.

13. Referring to a solution that, when surrounding a cell, will cause the cell to lose water.

14. Adenosine triphosphate, the main energy source for cells. ATP releases energy when its phosphate bonds are hydrolyzed.

15. Referring to a solution that, when surrounding a cell, causes no net movement of water into or out of the cell.

16. The diffusion of free water across a selectively permeable membrane.

17. The movement of materials out of a cell by the fusion of vesicles with the plasma membrane.

18. The movement of a substance across a biological membrane against its concentration gradient, aided by specific transport proteins and requiring an input of energy (often as ATP).

19. The transfer of a phosphate group, usually from ATP, to a molecule. Nearly all cellular work depends on ATP energizing other molecules by phosphorylation.

20. The movement of specific molecules into a cell by the infolding of vesicles containing proteins with receptor sites specific to the molecules being taken in.

Down

1. In cellular metabolism, the use of energy released from an exergonic reaction to drive an endergonic reaction.

2. An energy-requiring chemical reaction, which yields products with more potential energy than the reactants.

5. The passage of a substance through a specific transport protein across a biological membrane down its concentration gradient.

6. The diffusion of a substance across a biological membrane, with no expenditure of energy.

7. Cellular uptake of molecules or particles via formation of new vesicles from the plasma membrane.

8. Cellular "eating"; a type of endocytosis in which a cell engulfs macromolecules, other cells, or particles into its cytoplasm.

9. The amount of energy that reactants must absorb before a chemical reaction will start.

10. A transport protein in the plasma membrane of an animal, plant, or microorganism cell that facilitates the diffusion of water across the membrane (osmosis).

11. Referring to a solution that, when surrounding a cell, will cause the cell to take up water.

12. The random movement of particles that results in the net movement of a substance down its concentration gradient from a region where it is more concentrated to a region where it is less concentrated.