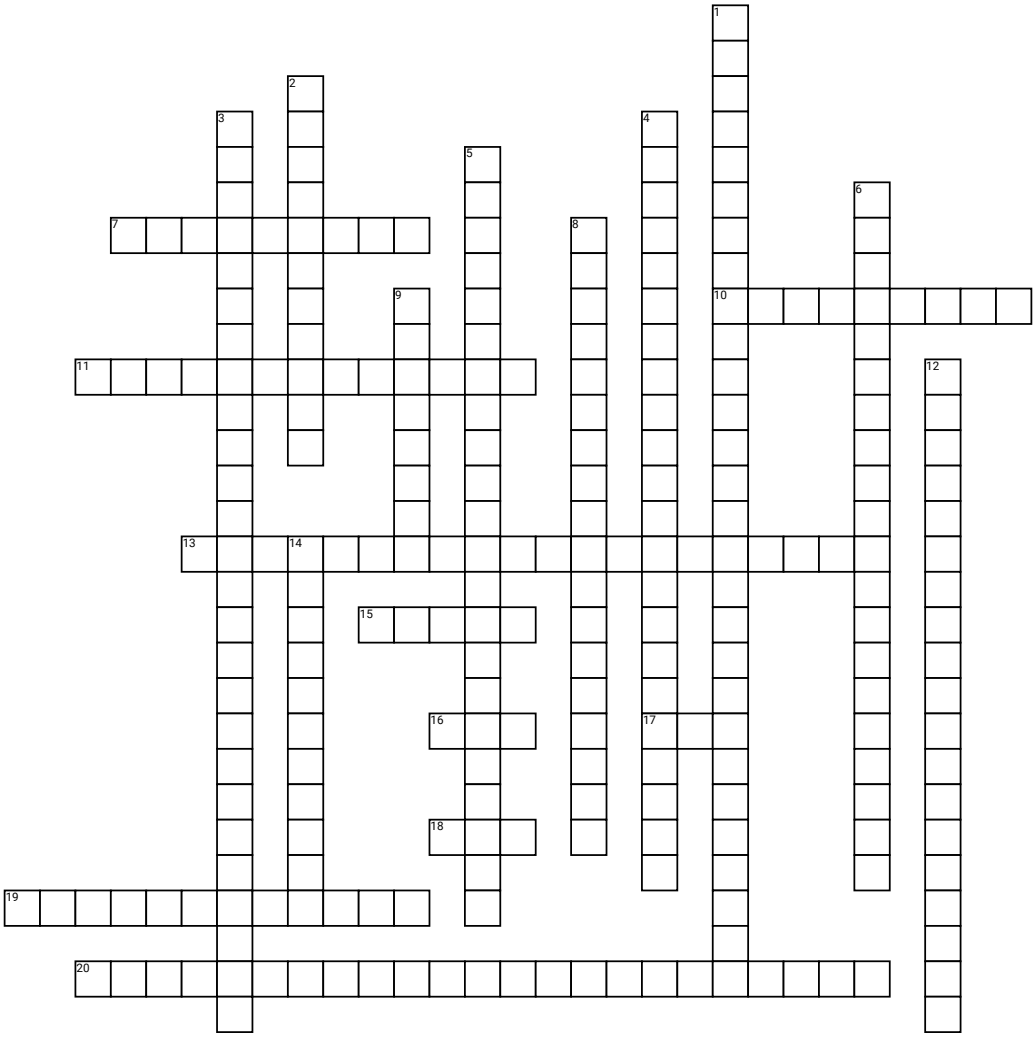
Cellular Respiration and Photosynthesis Crossword Puzzle



Across

7. An organism that is able to capture energy from sunlight and transform it into an organic molecule of glucose

10. site of glycolysis

11. site of aerobic cellular respiration

13. reactant that is broken down in first stage (glycolysis) into pyruvate

15. molecule that transfers electrons Calvin cycle to build glucose

16. adenosine triphosphate the "energy currency of the cell" the form of energy that is useable by cells breaks into ADP when used by cells

17. adenosine diphosphate accepts a phosphate group to store energy in the form of ATP

18. molecule that brings electrons and H via FADH2 to the electron transport chain to create ATP created during reactions that breakdown glucose

19. anaerobic respiration follows glycolysis and converts pyruvate into either alcohol and CO2 (yeast, bacteria) or lactic acid (muscles) occurs in the cytoplasm

20. Plants

Down

1. metabolic pathway that does not use oxygen (AKA fermentation); breakdown of pyruvate into lactic acid or alcohol and CO2

2. An organism that obtains organic food molecules by eating other organisms

3. metabolic pathway that requires oxygen (Kreb's --> ETC); complete breakdown of glucose and oxygen into carbon dioxide and water

4. 6CO2 + 6H2O + ENERGY --> C6H12O6 + 6O2

5. NADH and FADH2 deliver electrons that are passed across the membrane to create 32 ATP

6. ALL organisms MUST perform some type of respiration (aerobic or anaerobic) to convert glucose into ATP

8. product created from oxygen and electrons from ETC

9. The molecules created from the initial breakdown of glucose during glycolysis

12. reactant that is used to accept electrons in ETC

14. the site of photosynthesis

Word Bank

respiration organisms	chloroplast	mitochondrion	cytoplasm
ATP	aerobic cellular respiration	oxygen in respiration	water in respiration
NADP+	autotroph	electron transport chain	ADP
photosynthetic organisms	pyruvate	heterotroph	FAD
glucose in respiration	photosynthesis equation	fermentation	anaerobic cellular respiration