Cellular Respiration and Photosynthesis Crossword Puzzle

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| **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 |

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