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Bioenergetics

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| **Across****4.** Cellular respiration that requires oxygen**6.** Plant pigment responsible for red, orange, and yellow colors**9.** Anaerobic respiration performed by yeast cells**10.** A natural compound that gives color to plants and animals**15.** Anaerobic stage during cellular respiration that occurs in the cytoplasm**16.** Area of the chloroplast where the Calvin Cycle takes place**18.** Pores on the underside of a leaf**19.** Sequence of biochemical reactions, catalyzed by enzymes, that occur in all living cells and concerned mainly with the exchange of energy**22.** Chemical reactions in which glucose is converted into ATP in the mitochondria**24.** The process of converting carbon dioxide from the atmosphere into carbohydrates, like glucose, by photosynthesis**25.** The molecule glucose is converted to during glycolysis**26.** Membrane bound organelle where cellular respiration takes place**27.** Second stage of cellular respiration that requires only 2 ATP**28.** Process that does not require oxygen to occur**29.** Any pigment in plant leaves other than chlorophyll**30.** First phase of photosynthesis that occurs in the thylakoid membranes | **Down****1.** Process that uses chemical energy, instead of light energy, to make the energy storing molecule of glucose**2.** Enzyme that adds a phosphate group to ADP to make ATP**3.** Third stage of cellular respiration when most ATP molecules are produced**5.** Anaerobic respiration performed by bacteria and muscle cells**7.** Site where oxygen in produced in the chloroplast**8.** The mechanism in plants by which chlorophyll and other light-absorbing pigments absorb energy from sunlight**11.** Membrane bound organelle where photosynthesis occurs**12.** Another name for anaerobic respiration**13.** Reactions that convert light energy into chemical energy**14.** Another name for the Krebs cycle**17.** Form of cellular energy synthesized in the mitochondria**20.** Second phase of photosynthesis**21.** Movement of hydrogen ions across a semipermeable membrane during cellular respiration or photosynthesis to generate ATP**23.** A lower energy molecule that can be converted to ATP by adding a phosphate group |