

Biology I Vocabulary Chapter 9

Vocab 9.1

- 1 calorie The amount of energy needed to raise the temperature of 1 gram of water 1 degree Celsius.
- 2 glycolysis The process in which energy is released from the breakdown of glucose, a six-carbon sugar, to two three-carbon pyruvic acids
- 3 cellular respiration In the presence of oxygen, the complete breakdown of glucose and other food molecules to release energy. (ATP)
- 4 NAD⁺ An electron (and hydrogen) carrier used in the process of glycolysis.
- 5 fermentation In the absence of oxygen, the process in which energy (ATP) is released from the breakdown of glucose. Only small amounts of energy (ATP) are released.
- 6 anaerobic "Without oxygen" Describes fermentation of glucose to pyruvic acid and then to either lactic acid in lactic acid fermentation, or to carbon dioxide and ethyl alcohol in alcoholic fermentation.

Vocab 9.2

- 1 aerobic "With oxygen", describes cell respiration in which glucose is completely broken down through glycolysis, Krebs cycle and the electron transport chain to release large amounts of ATP.
- 2 Krebs cycle The process in which the three-carbon pyruvate is broken down into carbon dioxide in a series of energy-extracting reactions.
- 3 electron transport chain The process that uses the high-energy electrons captured in the Krebs cycle to convert ADP to ATP.