AP Biology - Ms. Baker

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Chapter 9 Study Guide

Distinguish between anabolic and catabolic pathways-

Distinguish between a reducing agent and an oxidizing agent-

In cellular respiration, where do glycolysis, citric acid cycle and oxidative phosphorylation take place? Be specific.

Which of the three processes above does not require the presence of oxygen?

What are the reactants and products of the three processes of cellular respiration?

Where is the energy stored at the end of the three phases?

What is the number of ATP molecules produced by each phase?

Describe the pathway after glycolysis if no oxygen is present.

What types of organisms do alcohol and lactic acid fermentation?

What is considered to be the first metabolic pathway to have evolved? Why?

What is the final electron acceptor of the electron transport chain?

Describe, in as much detail as possible, the steps and molecules involved in:

Glycolysis:

Citric Acid Cycle:

Oxidative Phosphorylation:

Chemiosmosis and Proton-motive force: