

CHAPTER 9 CELLULAR RESPIRATION

- OCCURS IN PRO AND EUKARYOTIC CELLS
- AEROBIC, REQUIRES OXYGEN AND MITOCHONDRIA/Prokaryotic cells use membrane system.
- ANEROBIC REQUIRES NO OXYGEN AND CYTOPLASM
- BOTH PRODUCE ATP AS ENERGY SOURCE

Figure 9.0 Orangutans eating



Figure 9.1 Energy flow and chemical recycling in ecosystems

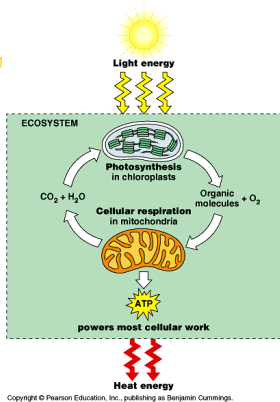
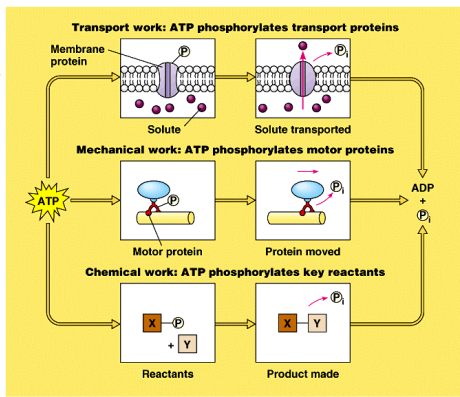


Figure 9.x1 ATP

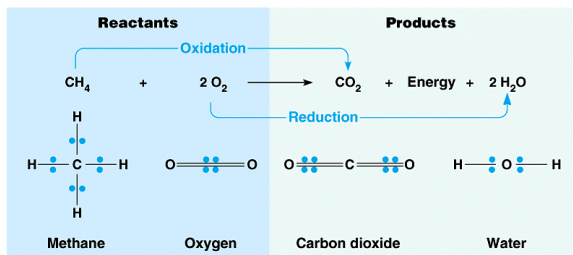


Figure 9.2 A review of how ATP drives cellular work



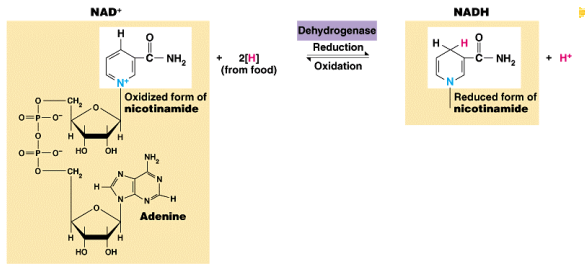
Copyright © Pearson Education, Inc., publishing as Benjamin Cummings.

Figure 9.3 Methane combustion as an energy-yielding redox reaction



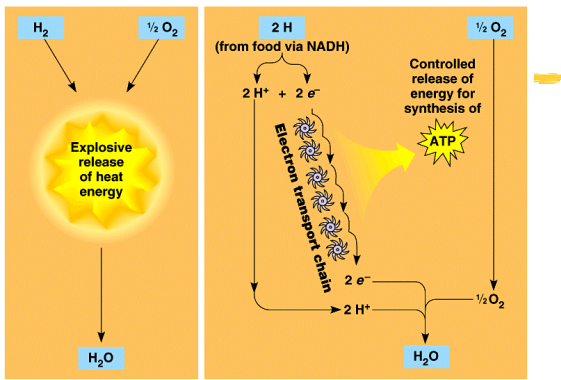
Copyright © Pearson Education, Inc., publishing as Benjamin Cummings.

Figure 9.4 NAD⁺ as an electron shuttle



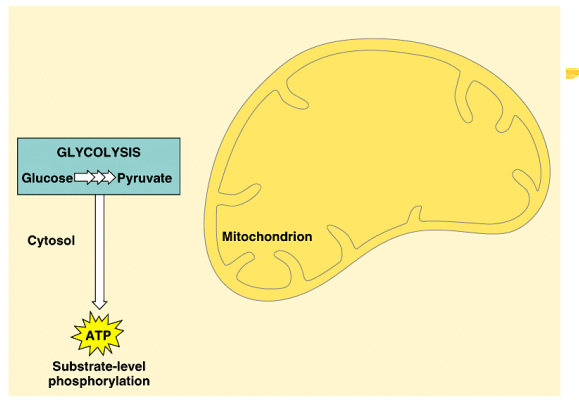
Copyright © Pearson Education, Inc., publishing as Benjamin Cummings.

Figure 9.5 An introduction to electron transport chains



Copyright © Pearson Education, Inc., publishing as Benjamin Cummings.

Figure 9.6 An overview of cellular respiration (Layer 1)



Copyright © Pearson Education, Inc., publishing as Benjamin Cummings.

Figure 9.6 An overview of cellular respiration (Layer 2)

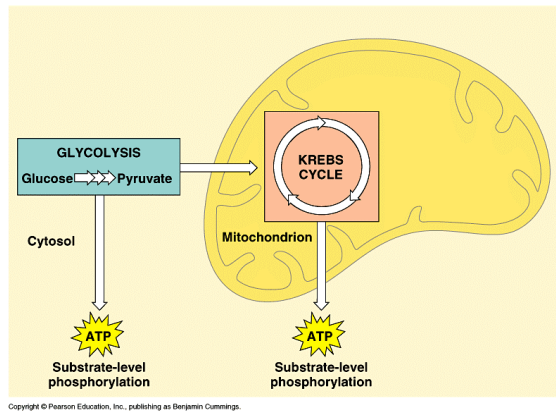


Figure 9.6 An overview of cellular respiration (Layer 3)

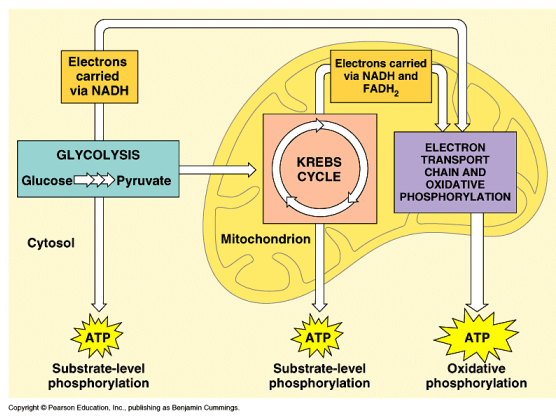


Figure 9.7 Substrate-level phosphorylation

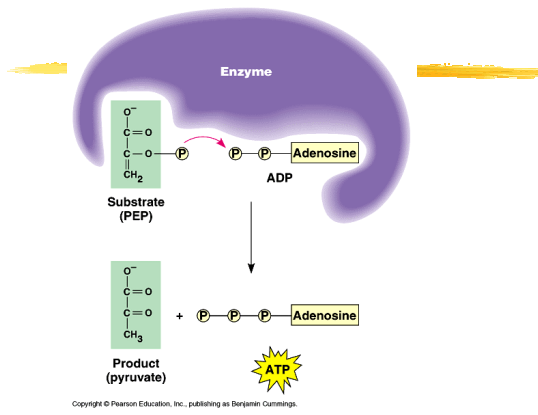


Figure 9.9 A closer look at glycolysis: energy investment phase (Layer 2)

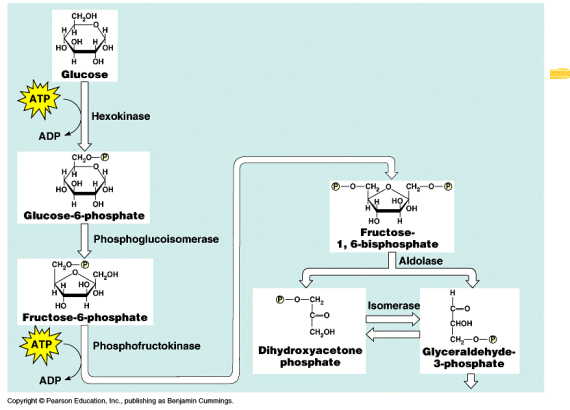


Figure 9.9 A closer look at glycolysis: energy payoff phase (Layer 3)

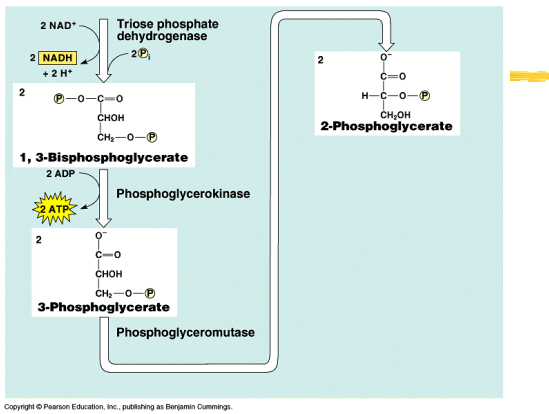


Figure 9.9 A closer look at glycolysis: energy payoff phase (Layer 4)

