

Chemical Energy and Food

Cellular Respiration

Cellular Respiration: An Overview

Key Chemical Energy and Food

- (i) Fats store up the energy they contain much
- (ii) It relates to the amount of energy contained over the conversion of 1 gram of sugar to simpler substances.
- (iii) Cells don't completely energy that they break down because they produce ATP.
- (iv) This contributes to over the energy used in the catabolism of foods like glucose to produce components such as ADP that directly power the actions of the cell.

III. Overview of Cellular Respiration

- (i) If oxygen is available, respiration uses energy from breaking a glucose molecule without complete.

$\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O} + \text{Energy}$

IV. Stages of Cellular Respiration

- (i) The glucose enters a series of pathways known as glycolysis.
- (ii) Glucose first enters the second stage, which is the Krebs cycle, where most energy is generated.
- (iii) Most of the energy comes in the last stage, which is the electron transport chain.
 - (i) This stage requires assistance from other two stages.