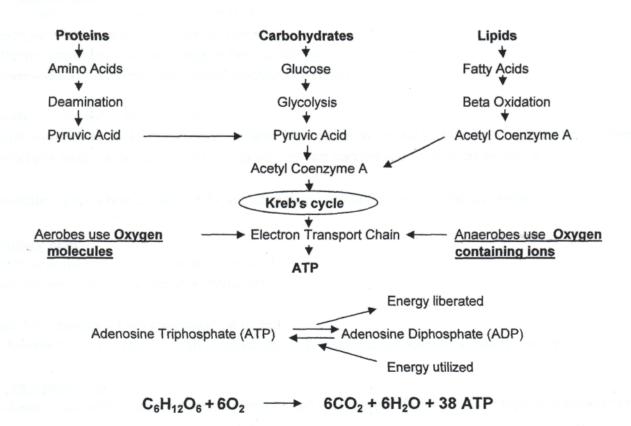
## Cellular Metabolism and Energy

- \* Sun is the ultimate source of energy
- \* When chemical bonds are made, energy is utilized: When they are broken energy is released.
- \* Anabolism is building larger molecules from simple molecules: utilizes energy
- \* Catabolism is breaking down larger molecules into smaller molecules: releases energy
- \* Endergonic reaction: energy is absorbed
- \* Exergonic reaction: energy is released
- \* For energy to be formed, all nutrients need to go through a metabolic pathway called Kreb's cycle Citric Acid Cycle, Tricarboxylic Acid (TCA) cycle

These nutrients enter the chemical pathway at different levels: Glucose at glycolysis level; Amino acid at pyruvic acid level and fatty acids at Acetyl coenzyme A levels



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