Corinne Sherry Biology CPE 4/25/14

Introduction to cellular respiration ATP

- Adenosine triphosphate
- "Currency" of biological energy
- A-P-P-P
- A source of energy

When water is added, it becomes ADP

- It becomes ADP
- Adenosine diphosphate
- A-P-P
- This generates energy

When a phosphate it taken off, it becomes energized Adenosine

- Part of ATP
- Made of adenine and ribose

Electrons are not comfortable in the bonds, and want to be anay from each other When the phosphate group comes off, energy is created from electrons going to a lower energy state.

Breaking off of a phosphateg

- Occurs in the blesence of water through hydrolysis
- the other phosphate groups
- The lonely phosphate group needs the phosphate molecules to share electrons with an oxygen molecule
- OH from water goes to the phosphate molecule
- The molecules within a phosphate group share electrons interchangeably

* When you cleave off a phosphate group, it generates energy, which can drive all sorts of biological functions like growth, movement, and impulses

Introduction to cellular respiration cont.

Glucose = energy

Cellular respiration

- Produces energy which is used to produce 38 ATP or heat
- Formula:
- C6H12O6 + 6O2 (Cellular respiration) \rightarrow 6CO2 + 6H2O

Glycolysis

- Is the breaking up of glucose
- It breaks it up from a 6 carbon molecule into 2, 3 carbon molecules
- It need 2 ATPs to generate 4 ATPs in the absence of oxygen (anaerobic)