**Cellular Respiration Notes**

Cellular Respiration: The breakdown, or digestion, of food to get energy from the food.

* Used by all cells to carry out life processes; Ex. Moving, breathing, reproducing cells
* This process releases the energy stored in chemical bonds in glucose (C6H12O6)

Cellular respiration reaction:

C6H12O6 + 6O2 ----------------🡪 6CO2 + 6H20 + 38 ATP

(It’s the opposite of photosynthesis!)

Photosynthesis:

6CO2 + 6H20 + light energy -------------🡪 C6H12O6 + 6O2

**1. Glycolysis (splits glucose)**

In Cytoplasm

**2 Pyruvates**

In mitochondrion

Without Oxygen (Anaerobic)

Fermentation

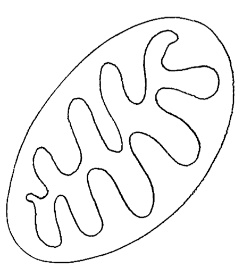
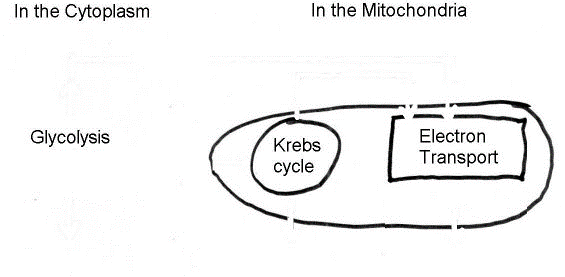
* Muscles create Lactic Acid
* Yeast/Bacteria create Ethanol alcohol

With Oxygen (Aerobic)

2. Krebs Cycle

3. Electron Transport System

In Cytoplasm



Glucose (C6H12O6)

34 ATP

Without Oxygen

Mitochondrion

2 ATP

2 ATP

With Oxygen

Fermentation: Ethanol or lactic acid

Glycolysis:  
Glucose splits to become 2 Pyruvates

Cell membrane