**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_#\_\_\_\_\_**

**Slotted Notes: Cellular Respiration**

**What is Cellular Respiration?**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the process by which cells obtain energy from glucose.
* Cells \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ simple food molecules (sugar) and release the energy they contain.
* Cellular Respiration is very different than the life process called Respiration, which “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.

**How does Cellular Respiration work?**

* CR takes place in \_\_\_\_\_\_\_\_\_\_ stages.
* The first stage takes place in the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and molecules of glucose are broken down (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**-no oxygen used).
* The second stage occurs in the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, and there, small molecules are broken down into even smaller molecules (**aerobic**- needs oxygen).
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is released at both stages.

**What is the equation for Cellular Respiration?**

* C6H12O6 + O2-----> CO2 + H2O + Energy(ATP)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_+Oxygen -----> \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_+Water+Energy

**What is Fermentation?**

* Some cells are able to obtain energy from food \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ using energy.
* These organisms (single-celled, don’t need oxygen) obtain their energy through the process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Fermentation does \_\_\_\_\_\_\_\_\_\_\_\_ give off as much \_\_\_\_\_\_\_\_\_\_\_\_\_ as Cellular Respiration.

**Photosynthesis vs. Cellular Respiration**

* Both involve the \_\_\_\_\_\_\_\_\_\_\_\_ chemical compounds, but are the \_\_\_\_\_\_\_\_\_\_\_\_\_ processes.
* CR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_CO2, while Photosynthesis \_\_\_\_\_\_\_\_\_ up CO2 in the atmosphere.
* CR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ O2, but Photosynthesis \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it.
* Photosynthesis requires energy from the \_\_\_\_\_\_\_\_\_\_\_\_\_, Cellular respiration gets energy from breaking down the chemical bonds in sugar molecules.