**Cellular Respiration Overview: Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ HR.\_\_**

* Transformation of chemical \_\_\_\_\_\_\_\_\_\_\_\_\_ in food into chemical \_\_\_\_\_\_\_\_\_\_\_ cells can use: \_\_\_\_\_\_\_\_\_
* These \_\_\_\_\_\_\_\_\_\_\_ proceed the same way in \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_. Process is called \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Overall Reaction:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Breakdown of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ begins in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* At this point life \_\_\_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_\_ forms and \_\_\_\_\_\_\_\_ pathways.

--- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cellular respiration (aka \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

--- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cellular respiration

**Reactions:**

* Glycolysis

--- Series of reactions which break the 6-carbon \_\_\_\_\_\_\_\_\_\_\_\_\_ molecule down into two 3-carbon molecules of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

--- Yields \_\_\_ \_\_\_\_\_\_\_\_ molecules for every \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ molecule broken down.

**Anaerobic Cellular Respiration:**

* No \_\_\_\_\_\_\_\_\_\_\_\_ used= ‘\_\_\_’aerobic
* Results in \_\_\_\_ \_\_\_\_\_\_\_\_ ATP.
* End products such as \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_ (in plants) or \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ (muscle cells).

**Aerobic Cellular Respiration:**

* \_\_\_\_\_\_\_\_\_\_\_\_ required= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_ more sets of \_\_\_\_\_\_\_\_\_ which occur in a specialized \_\_\_\_\_\_\_\_\_\_ within the cell called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

--- 1. \_\_\_\_\_\_\_\_\_ Cycle

--- 2. Electron \_\_\_\_\_\_\_\_\_\_ Chain

**Kreb’s Cycle:**

* Completes the breakdown of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

---Takes the \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_ it down.

--- Carbon Dioxide, Water and Hydrogen Ions are formed along with \_\_\_\_\_ more \_\_\_\_\_\_\_ for the \_\_\_\_\_\_\_\_\_\_.

**Electron Transport Chain:**

* \_\_\_\_\_\_\_\_\_\_\_\_ carriers loaded with \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ from the Kreb’s Cycle move to this chain-like series of \_\_\_\_\_\_\_\_\_\_(staircase).
* As \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drop down stairs, \_\_\_\_\_\_\_\_\_\_\_\_ is released to form a total of \_\_\_\_\_ \_\_\_\_\_\_\_\_\_.

**Energy Tally:**

* **\_\_\_\_\_\_\_ ATP for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vs. \_\_\_\_\_ ATP for \_\_\_\_\_\_\_\_\_\_**

**--- Glycolysis \_\_\_\_\_ ATP**

**--- Kreb’s Cycle \_\_\_\_\_ ATP**

**--- Electron Transport Chain \_\_\_\_\_ ATP**

**Total: \_\_\_\_\_ ATP**