

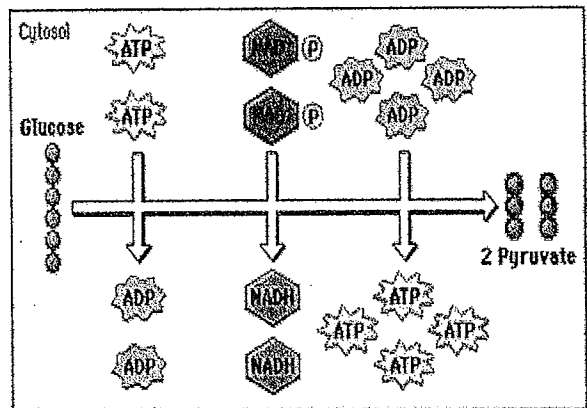
# I. Cellular Respiration

## II. Overview of Aerobic Cellular Respiration

- A. The process by which \_\_\_\_\_ break down the chemical bonds in \_\_\_\_\_ (food) to produce \_\_\_\_\_
- B. ALL \_\_\_\_\_ use cellular respiration to make \_\_\_\_\_
- C. **Begins with GLUCOSE.**
  - a. \_\_\_\_\_ make glucose.
  - b. \_\_\_\_\_ have to “eat” glucose.
- D. Chemical energy from food must be converted into a \_\_\_\_\_ form of energy.
  - a. Organic molecules are \_\_\_\_\_ into \_\_\_\_\_ that can be \_\_\_\_\_ by the intestines.
  - b. These \_\_\_\_\_ travel in the blood and \_\_\_\_\_
  - c. Cellular respiration takes place within the cell transforming the energy in \_\_\_\_\_ into \_\_\_\_\_

## III. Glycolysis: First Stage of Cell Respiration

- A. Splits one molecule of \_\_\_\_\_ into \_\_\_\_\_ molecules of \_\_\_\_\_ (pyruvic acid).
- B. Glycolysis is an \_\_\_\_\_ (without oxygen) process.
- C. Occurs in the \_\_\_\_\_ of the cell.
- D. Takes ENERGY to make ENERGY!
  - a. \_\_\_\_\_ to break down glucose
  - b. \_\_\_\_\_; **NET gain of** \_\_\_\_\_ to do cell work.
  - c. \_\_\_\_\_, energy carrier molecule, also made \_\_\_\_\_
  - E. \_\_\_\_\_ then move to the \_\_\_\_\_ to produce additional \_\_\_\_\_ molecules.



## IV. Second Stage of Cell Respiration

- A. What happens after glycolysis depends on cell conditions.
  - a. **Aerobic environment** ( \_\_\_\_\_ )
  - b. **Anaerobic environment** ( \_\_\_\_\_ );
- B. **Two pathways are possible: Aerobic Respiration;** \_\_\_\_\_ of all ATP Production  
**Anaerobic Respiration;** \_\_\_\_\_ of ATP Production