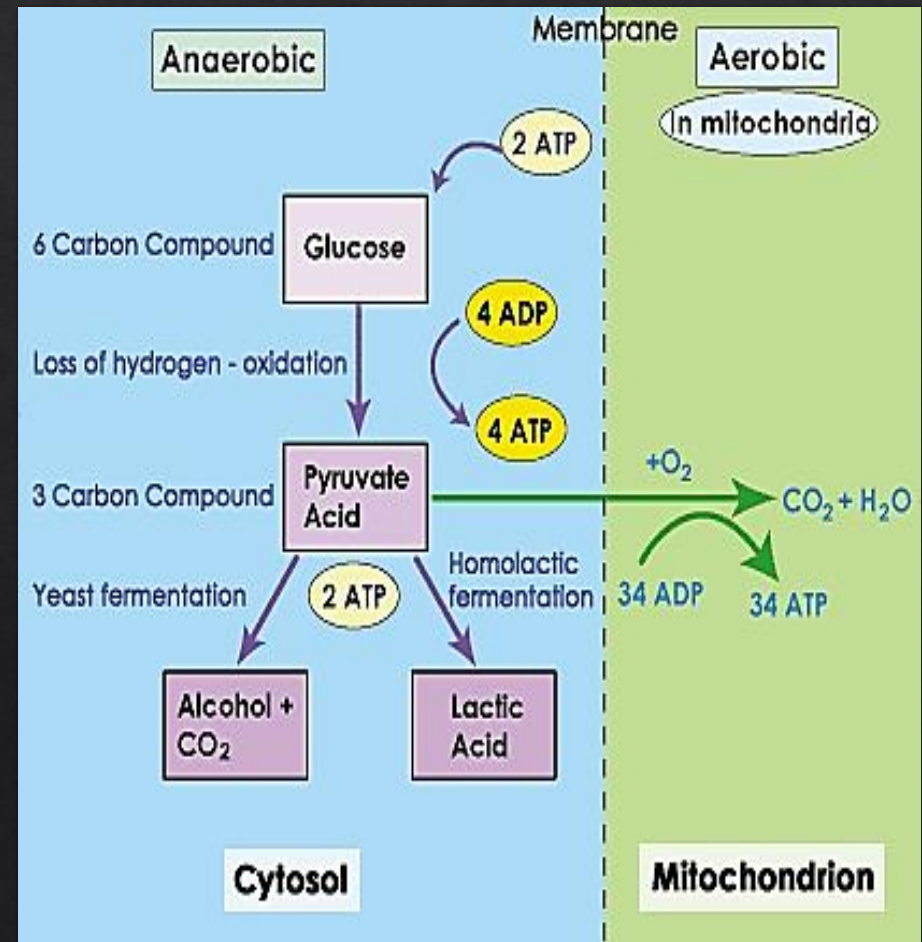


# Glycolysis and Fermentation

**EQ:** How does glycolysis lead to the two types of fermentation?

◇ **Glycolysis** is a release of the energy from glucose in the cytoplasm.

- **Input:**
  - one glucose ( $C_6H_{12}O_6$ )
- **Output:**
  - Two pyruvic acid
- Uses 2 ATP to make 4 ATPs.
- **TWO PATHWAYS**
  - Aerobic or Anaerobic



# Glycolysis and Fermentation



- Anaerobic Respiration Occurs when no oxygen is available to the cell.
  - Also called fermentation.



- There are 2 types of fermentation:
  - Alcohol Fermentation
  - Lactic Acid Fermentation



# Glycolysis and Fermentation

## Alcoholic Fermentation

- Occurs in bacteria, yeast, and plants.
- Produces alcohol, CO<sub>2</sub> and a small amount of energy.



## Lactic Acid Fermentation

- Occurs in muscle cells
- Produces lactic acid in muscles during exercise when the body cannot supply enough oxygen to the tissues— causes burning sensation in muscles

