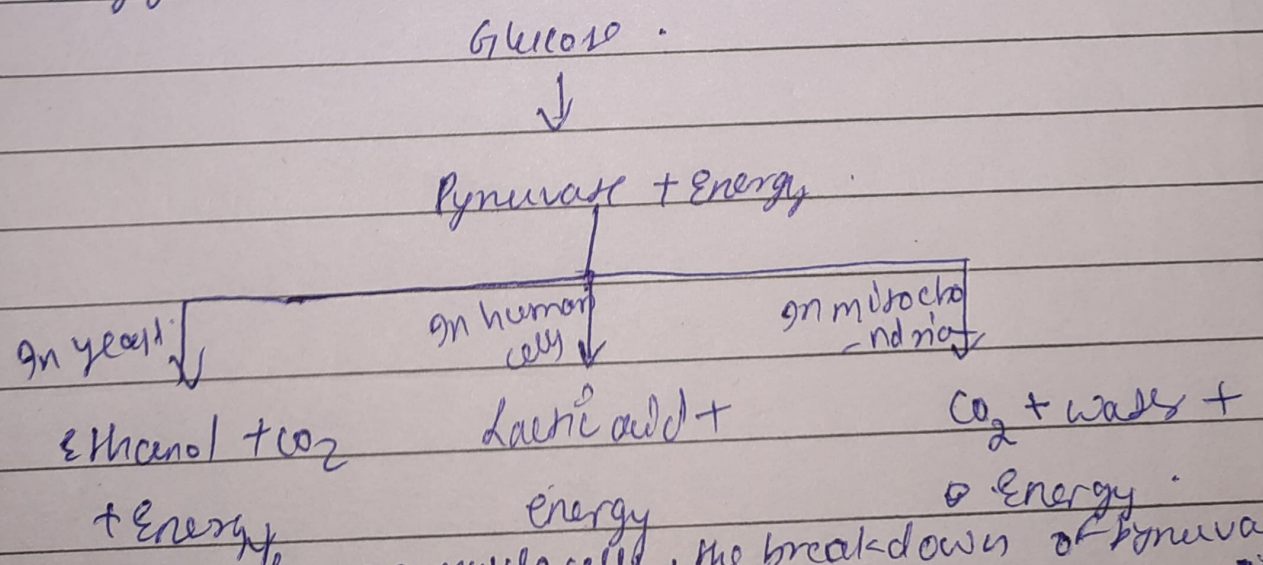


1: Aerobic Respiration
 => It takes place in the presence of oxygen.
 => Glucose is broken down to release energy.
 => It involves the exchange of gases b/w the organism and the outside environment.
 => It can be found in cytoplasm and mitochondria.

Anaerobic Respiration
 => It does not take place in the absence of oxygen.
 => Glucose is broken down to release some energy and lactic acid.
 => Exchange of gases is absent.
 => It can be found only in cytoplasm.

2: ~~Glucose~~ Glucose is first broken down in the cell cytoplasm into three carbon molecule called pyruvate. Pyruvate is further broken down by different ways to provide energy. The breakdown is as follows -



On yeast & human muscle cells, the breakdown of pyruvate occurs in the absence of O₂ whereas in mitochondria its breakdown is the presence of O₂.

Aerobic Respiration

- ⇒ It occurs in the presence of O_2 .
- ⇒ It occurs in cytoplasm and mitochondria.
- ⇒ It always releases CO_2 and H_2O .

Anaerobic Respiration

- ⇒ It occurs in the absence of O_2 .
- ⇒ It occurs only in cytoplasm.
- ⇒ It releases lactic acid.

Anaerobic respiration occurs in the roots of some waterlogged plants, ^{some} parasitic worms etc.