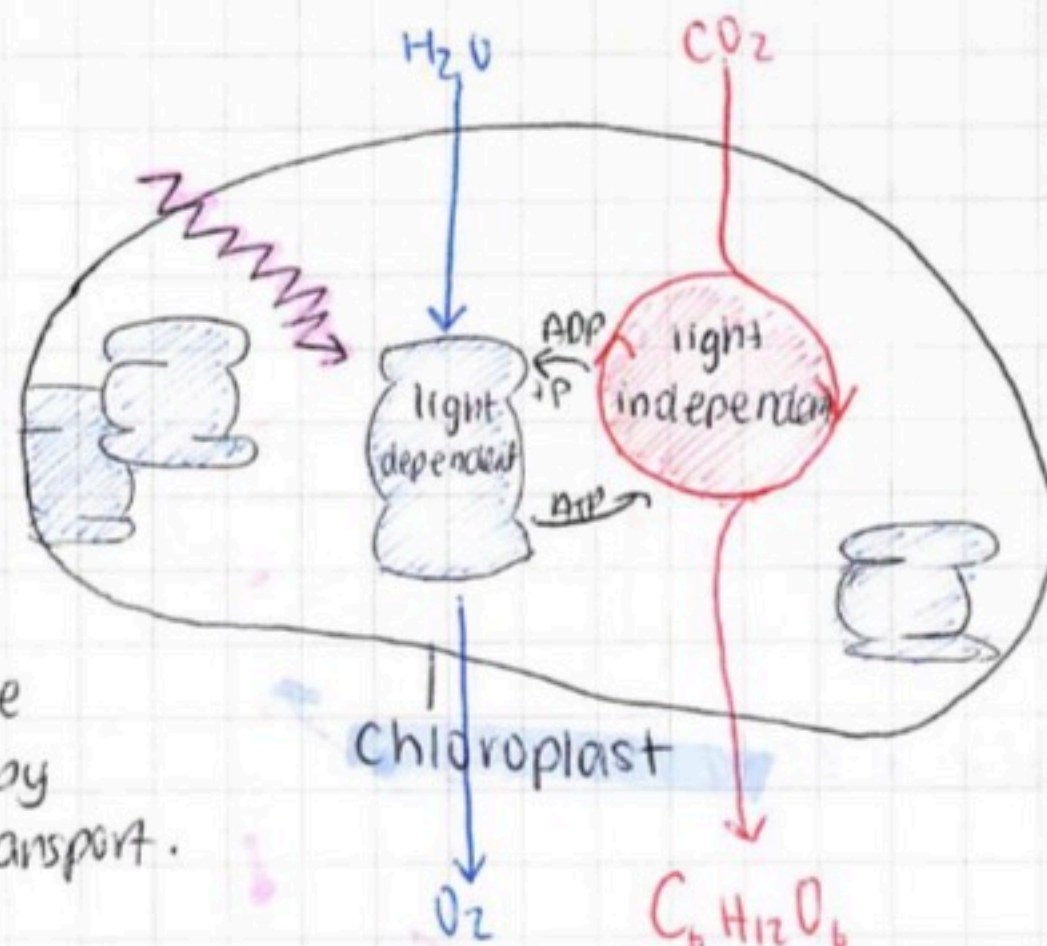
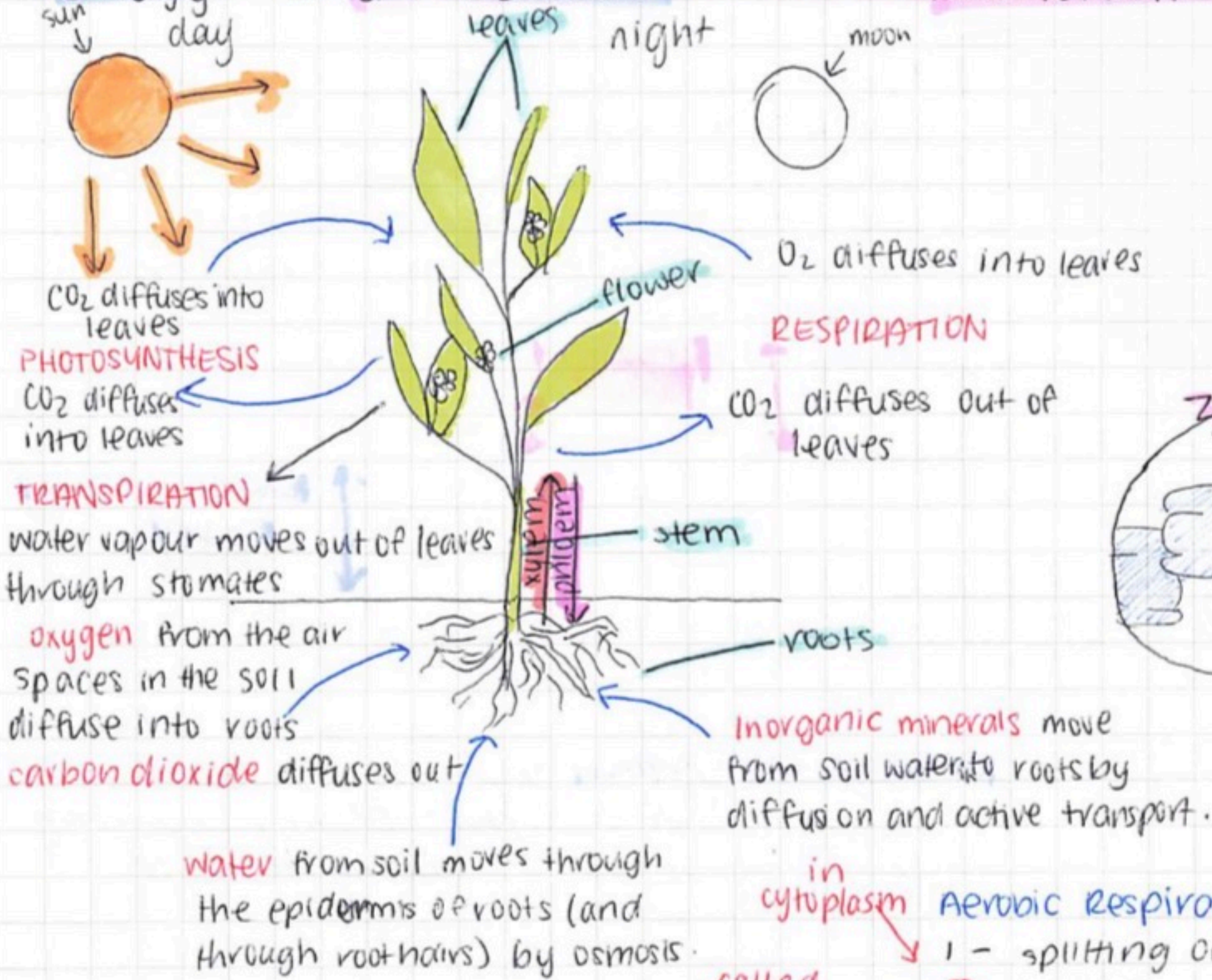


Biology - Mod 1 Revision

BIOCHEMICAL PROCESSES

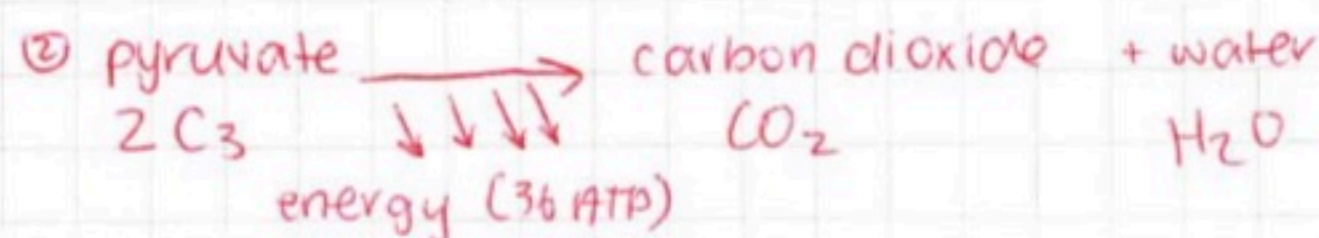
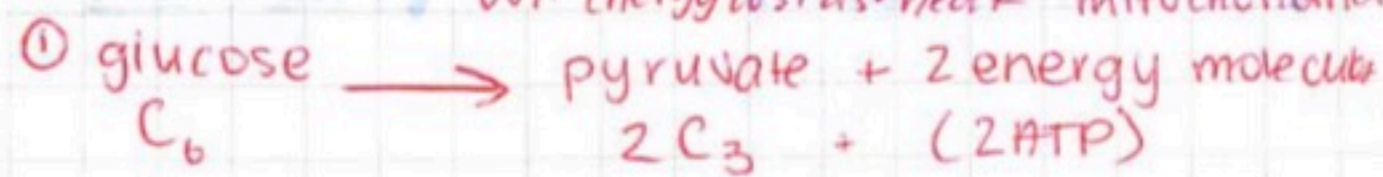


Aerobic vs. Anaerobic Respiration

O ₂	uses O ₂	no O ₂ needed
ATP	provides 36 ATP	provides 2 ATP
efficiency	high	low
products	CO ₂ H ₂ O ATP	lactic acid and ATP in animal tissue
location	mitochondria	in cytoplasm

Aerobic Respiration occurs in 2 stages:

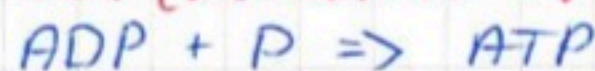
- 1 - splitting of the 6 carbon sugar to 3 carbon sugars
- 2 - combining with oxygen to produce CO₂



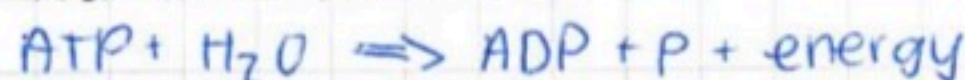
Chemical energy in glucose → heat energy + other forms of energy needed by organism

organic molecules need for growth, maintenance, and repair.

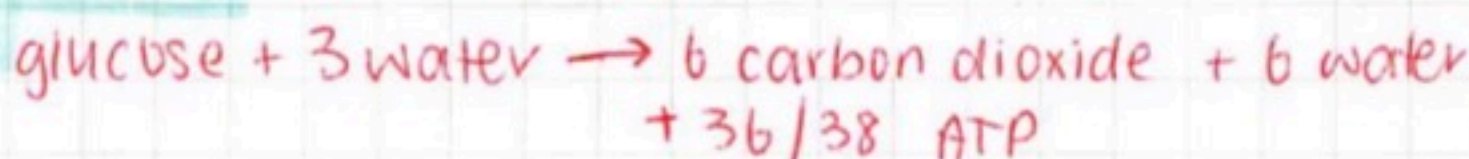
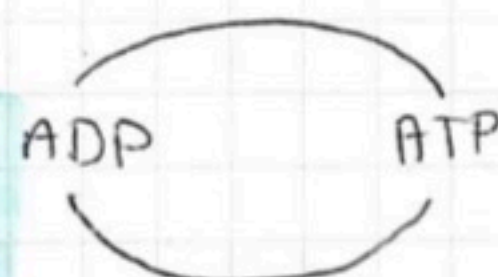
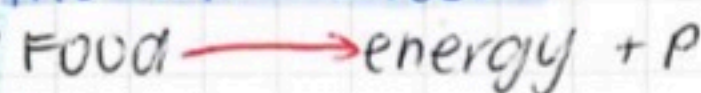
energy is released and stored in another molecule called an **energy intermediate**, which are the immediate source of energy for organisms. most common is **ATP**, which is 39% of ~~atp~~ energy from glucose. to convert ATP into energy, you need **ADP (adenosine diphosphate)**.



to release the energy, ATP is hydrolysed (reacted with water)



THE ATP CYCLE



PLANT FUNCTIONS

leaves gain sunlight to perform photosynthesis

flowers have pollen to reproduce

stem serves as a highway for transport of nutrients, and allows leaves to reach heights with more sunlight

roots absorb nutrients and minerals from soil, and anchor plant to the ground.