

Section 105 : Animal Physiology

I Metabolism : All the chemical processes that take place inside cells, tissues & organs

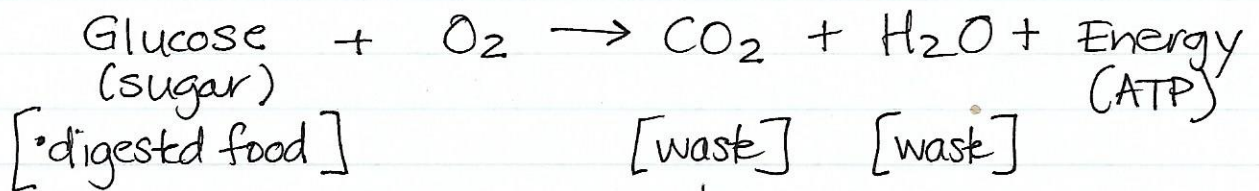
(A) includes :

- breaking down chemical materials
- building up others.

chemicals are broken down to release energy & get rid of waste products

chemicals are put together to form new cells or create materials needed by the body

(B) Cellular Respiration : process by which all animals get energy they need.



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* humans give off by breathing/exhaling

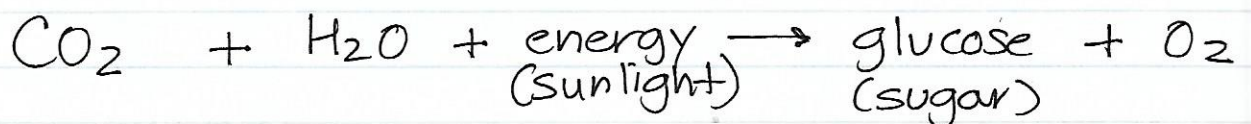
(C) All animals need O₂; Different ways of getting O₂

- lungs
- moist skin (worms)
- spiracles (small openings on body) insects
- gills (fish)

Section 107: Plant Physiology

I. Chlorophyll: pigment in all plants
(A) gives them green color
(B) Allows plants to go through Photosynthesis.

II. Photosynthesis: energy from the sun is used to fuel a chemical rxn between H_2O & CO_2 to produce glucose + O_2 .



(A) Plants take in CO_2 through tiny openings on underside of leaf [stoma]

(B) O_2 expelled during photosynthesis also leaves from openings [stoma].

(C) Roots take in H_2O for photosynthesis & transport through Xylem to plant parts

(D) Phloem transports sugars made during photosynthesis to other parts of plant.

III. Cellular Respiration: like animals, plants get energy from respiration.