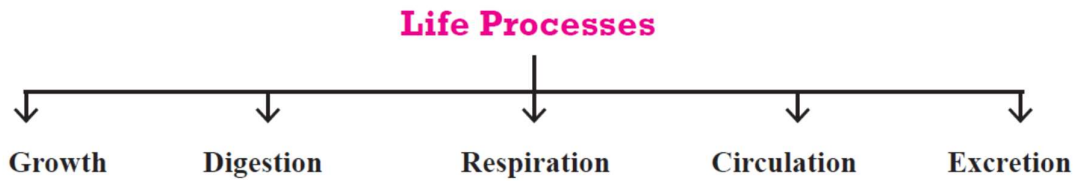


LIFE PROCESSES

FOCUS POINTS



Nutrition in Plants

↓
Plants are autotrophs.
↓
Can make their own food.

Nutrition in Animals

↓
Animals are heterotrophs.
↓
Depends on plants or other animals for their food.

Autotrophs $\xrightarrow{\text{Use}}$ Simple inorganic material $\xrightarrow[\text{into}]{\text{Convert}}$ Complex high energy molecules (Carbohydrates)

Heterotrophic Nutrition

Holozoic

Animals take in solid food and breakdown inside the body.
E.g., Amoeba, animals.

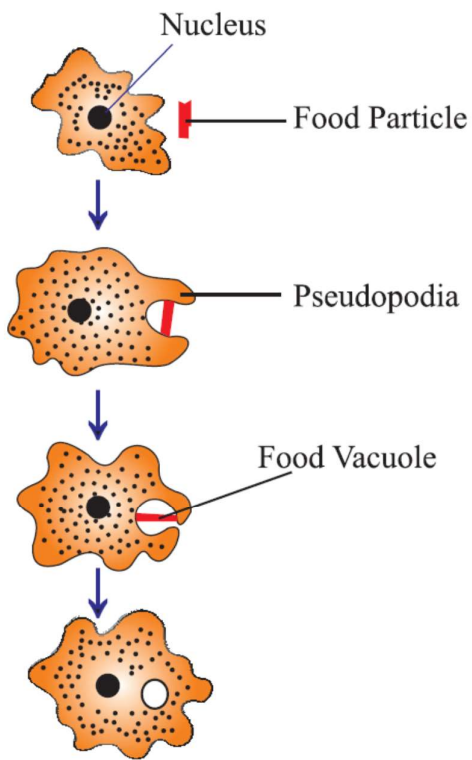
Saprophytic

Organisms feed on dead, decaying matter.
E.g., Fungi.

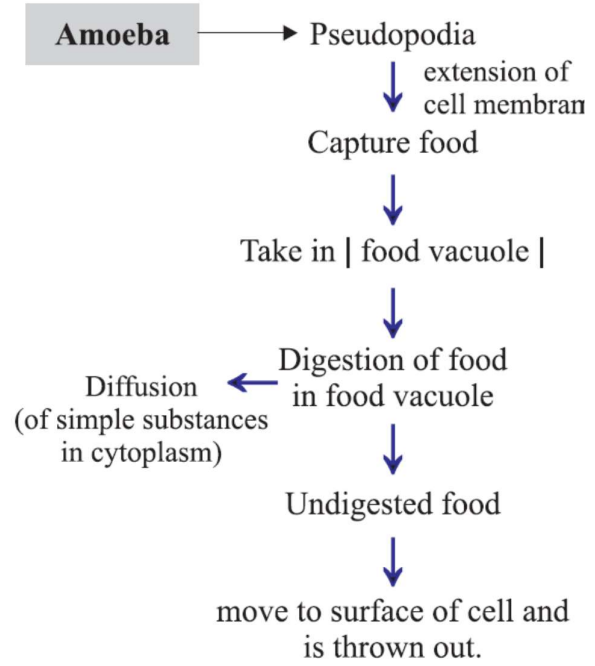
Parasitic

Parasites live inside or outside other organism (host) and derive nutrition from it.
E.g., Cuscuta (plant parasites), Ticks etc.

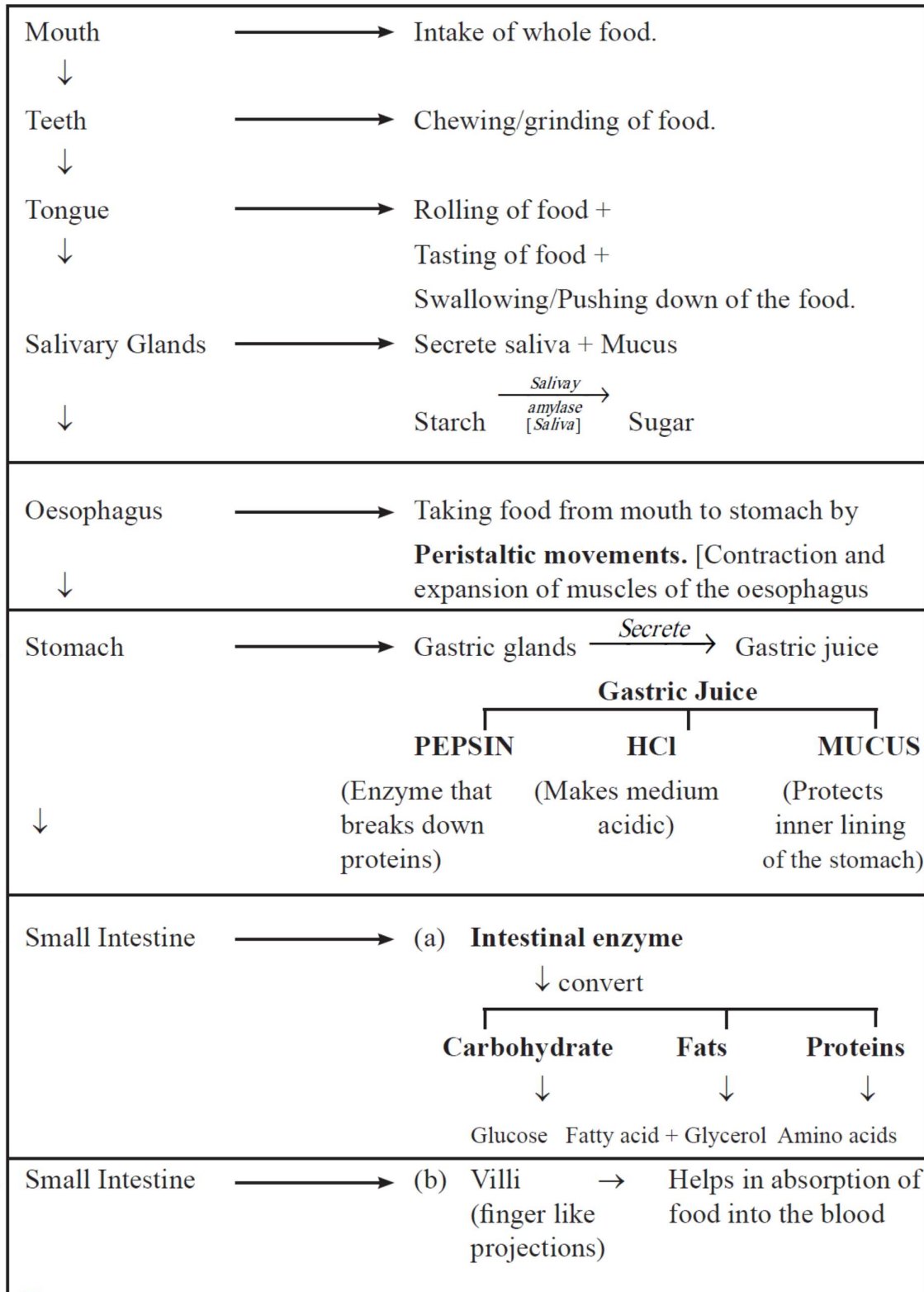
(i) Amoeba

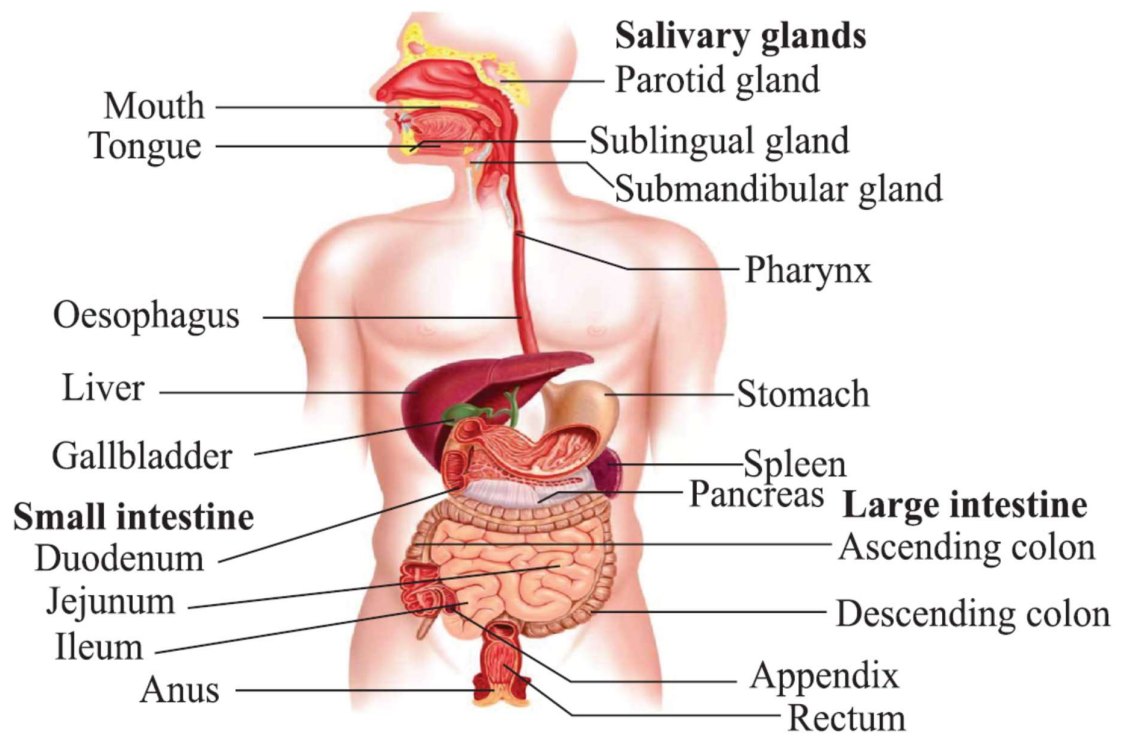
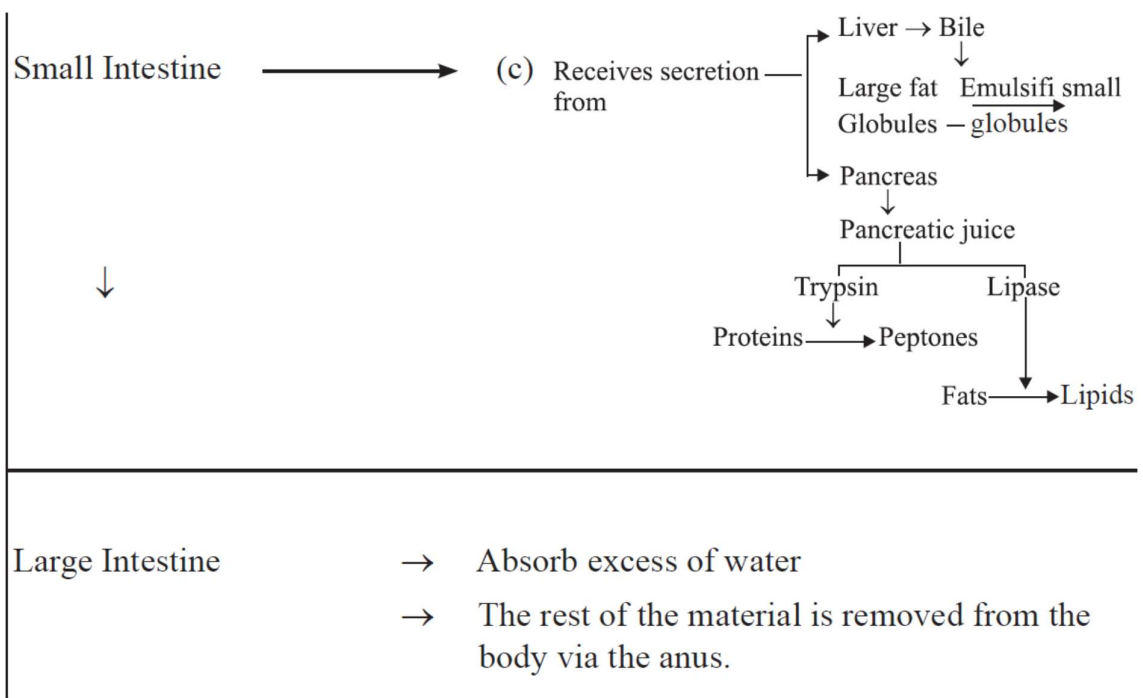


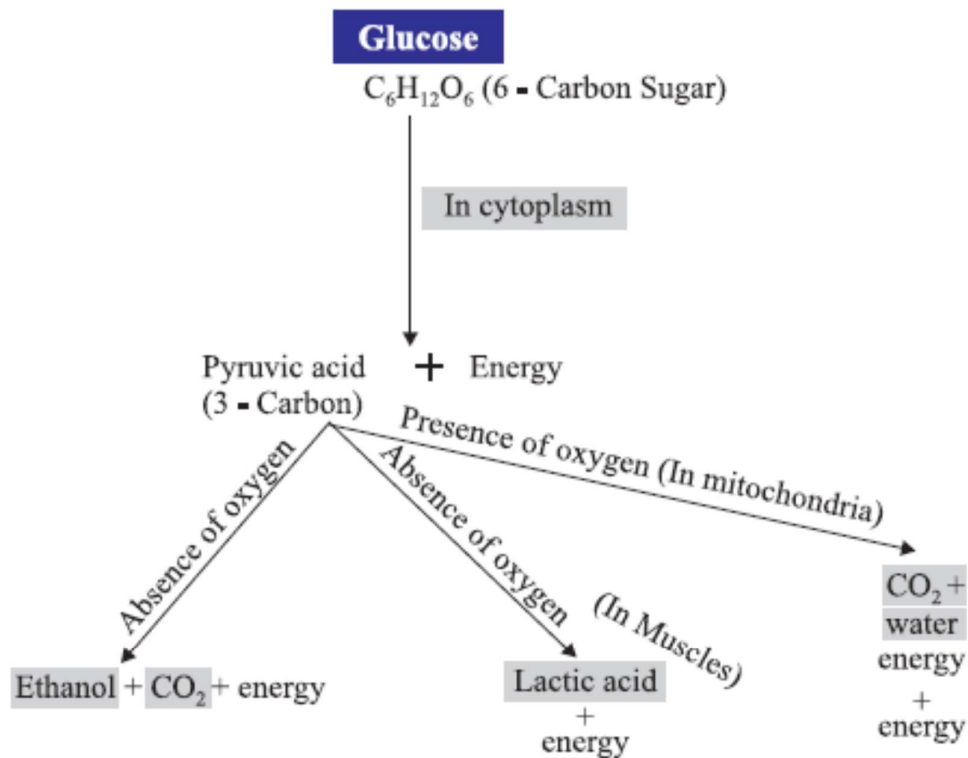
Nutrition in Amoeba



Nutrition in Human Beings







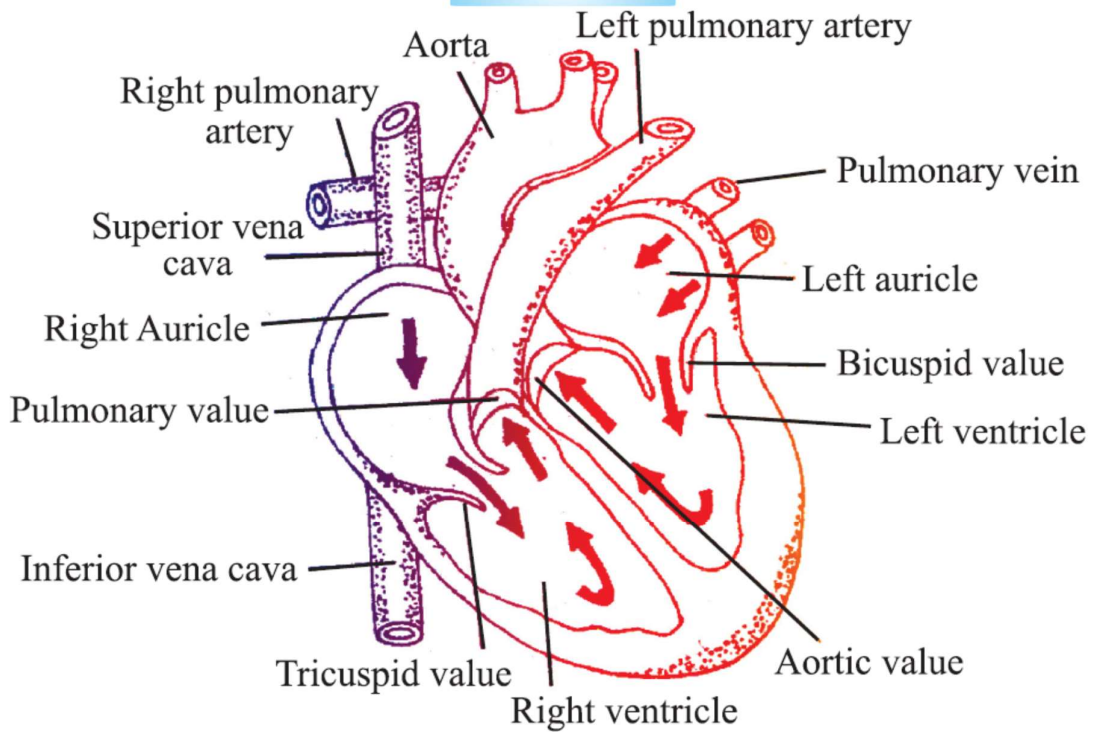
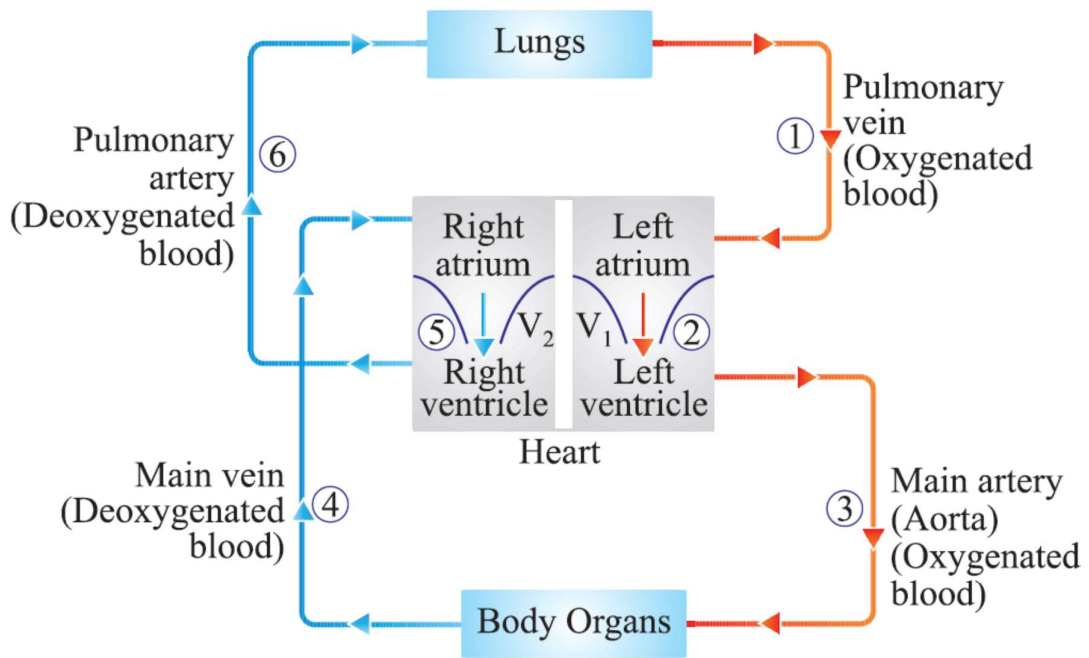
Respiration

Aerobic

- Takes place in the presence of oxygen
- Occurs in mitochondria
- End products are CO_2 and H_2O
- More amount of energy is released

Anaerobic

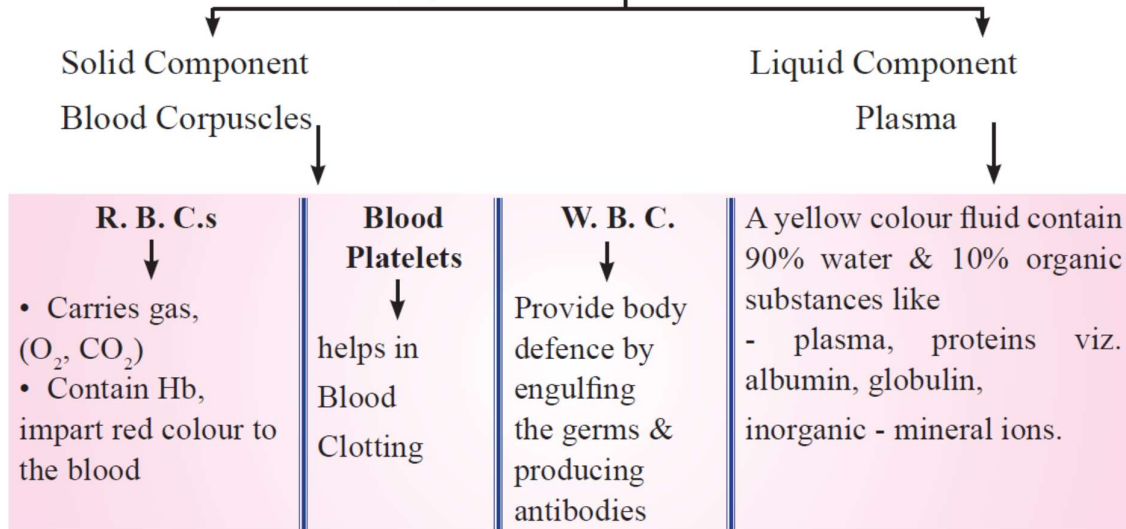
- Takes place in the absence of oxygen
- Occurs in cytoplasm
- End products are alcohol or lactic acid
- Less amount of energy is released



Direction of blood flow through human heart

Blood

(A fluid connective tissue)



Transportation in Plants

There are two main conducting pathways in a plant.

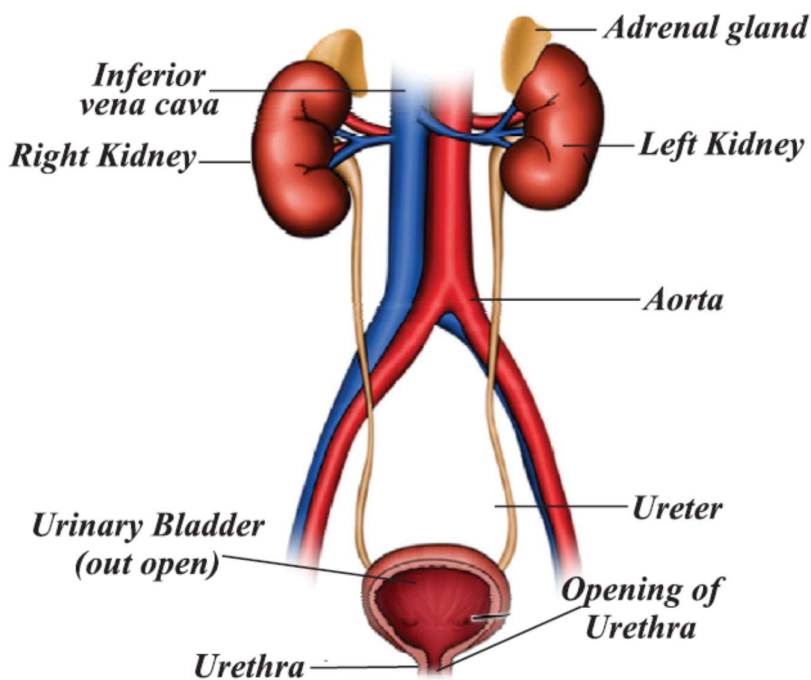
Xylem

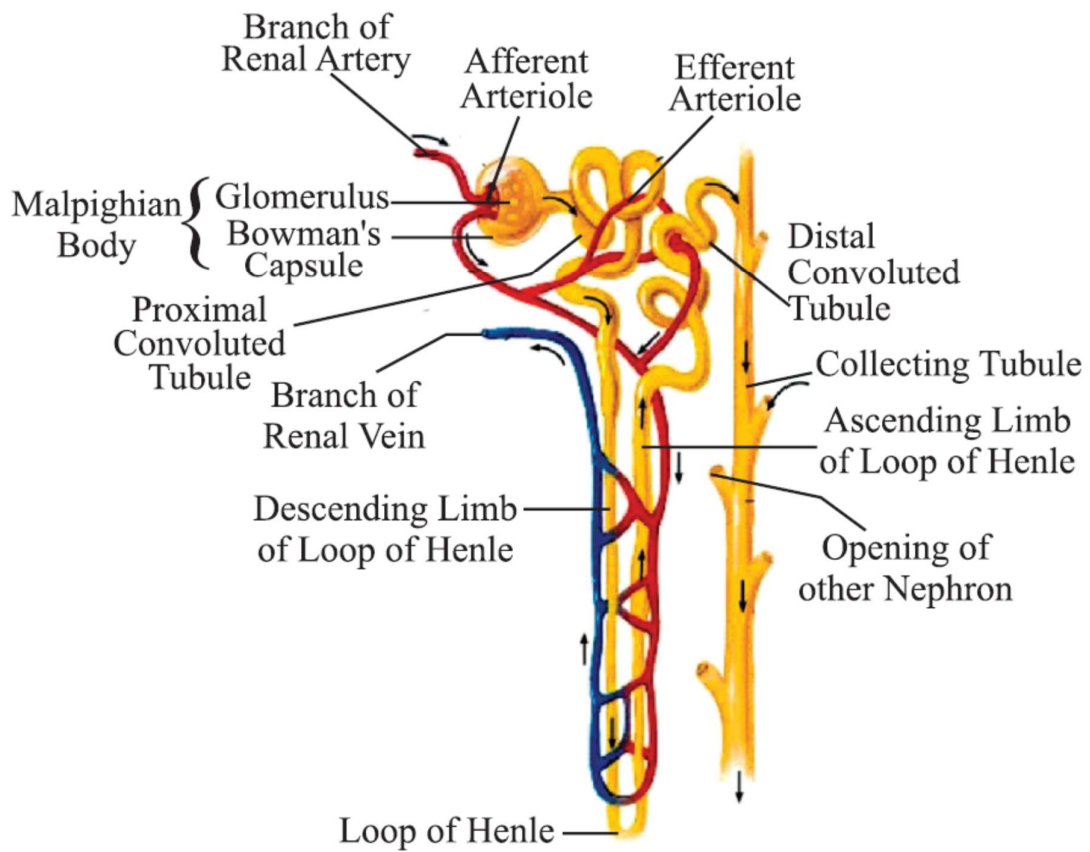
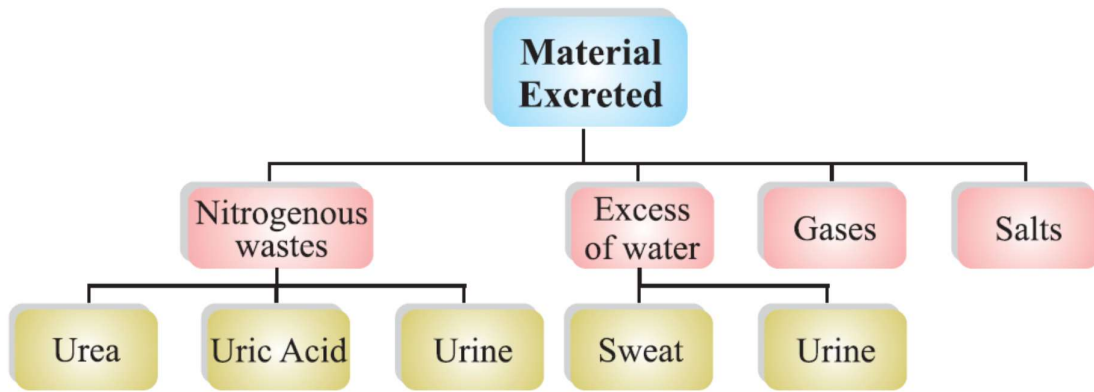
Carries water & minerals from the roots to other parts of the plant.

No energy is used.

Phloem

1. Carries product of photosynthesis from leaves to the other parts of the plant.
2. Energy is used from ATP.





Structure of a Nephron