


# Types of Cells



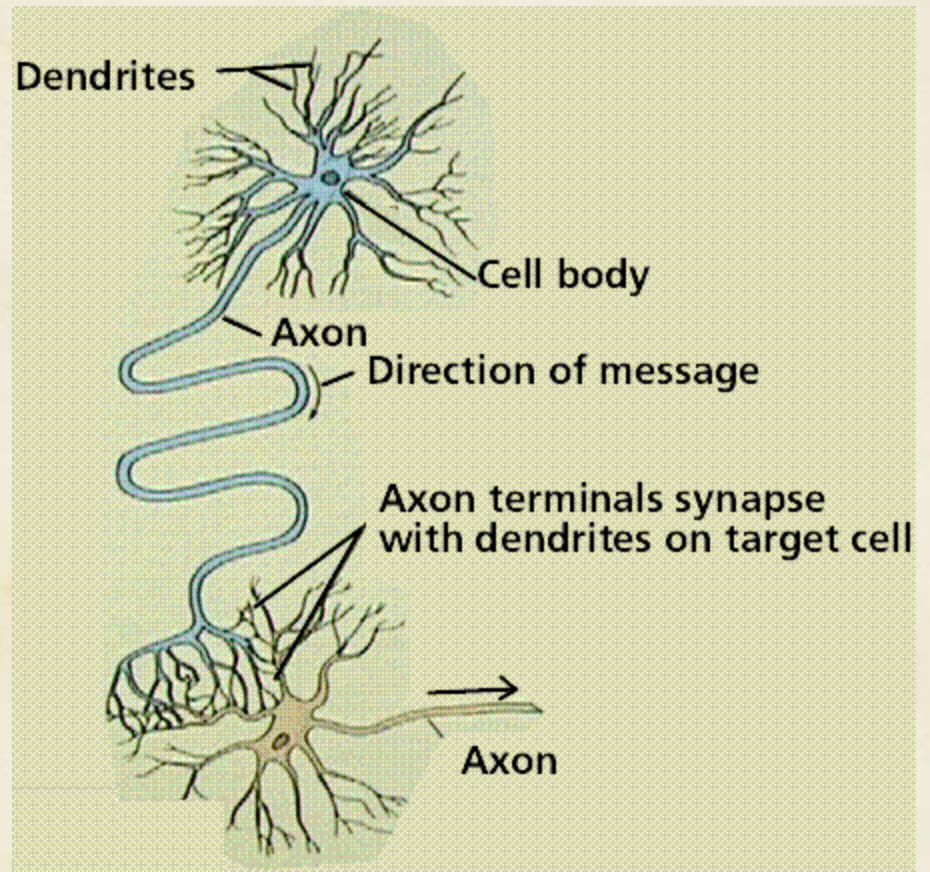


# Types of Cells

- Organs in animals are composed of a number of different tissue types
- These cells are designed for a particular job

# Nervous cells

- Helps stimulus and control response.
- Nerve cells are called neurons



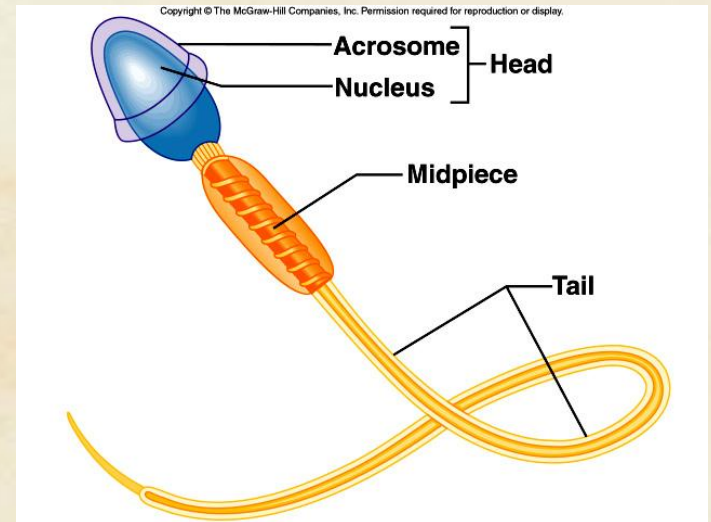
# Ovum (egg)

- Female reproductive cell or gamete
- It contains yolk for developing young
- Contains  $\frac{1}{2}$  the number of chromosomes
- Developed in the ovals



# Sperm

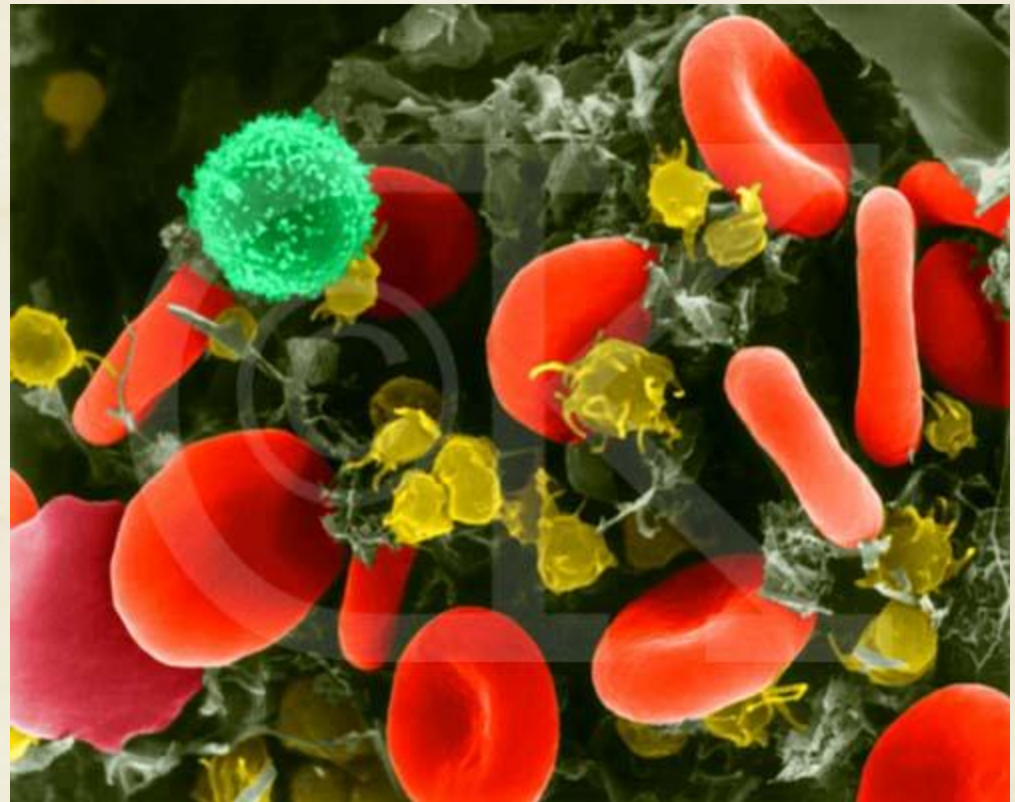
- Male reproductive cell or gamete
- Has a small tail to provide movement
- Head contains enzymes
- Developed in the testis





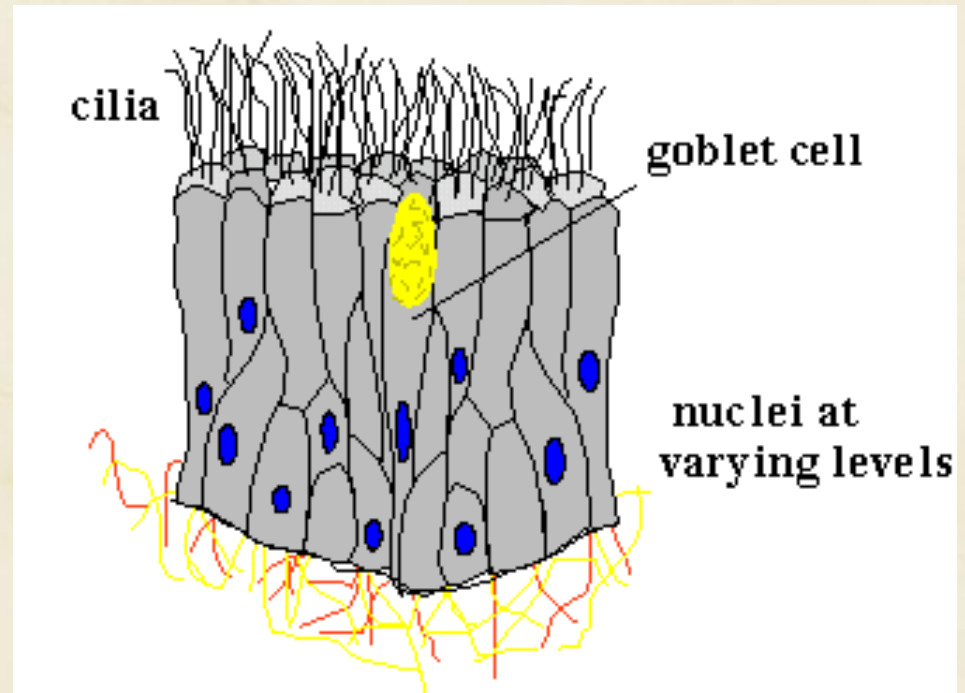
# Blood cells

- Red and white blood cells



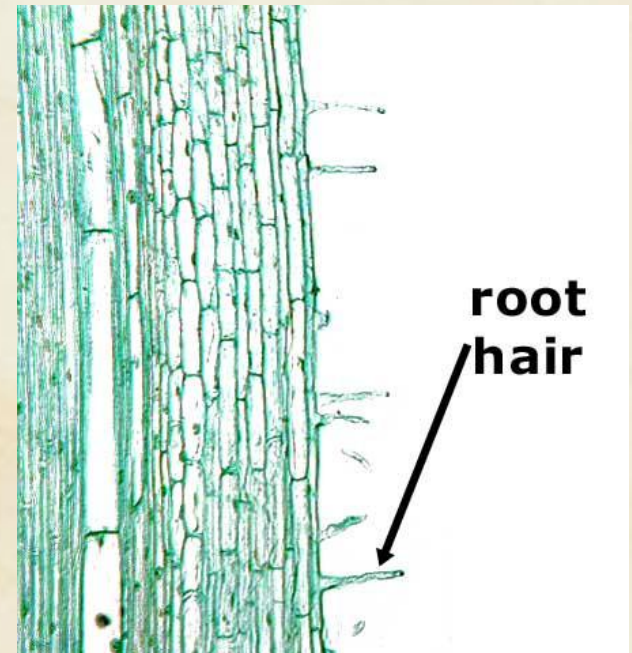
# Ciliated Cells

- Line air passages and fallopian tubes
- Filter the air



# Root Hairs

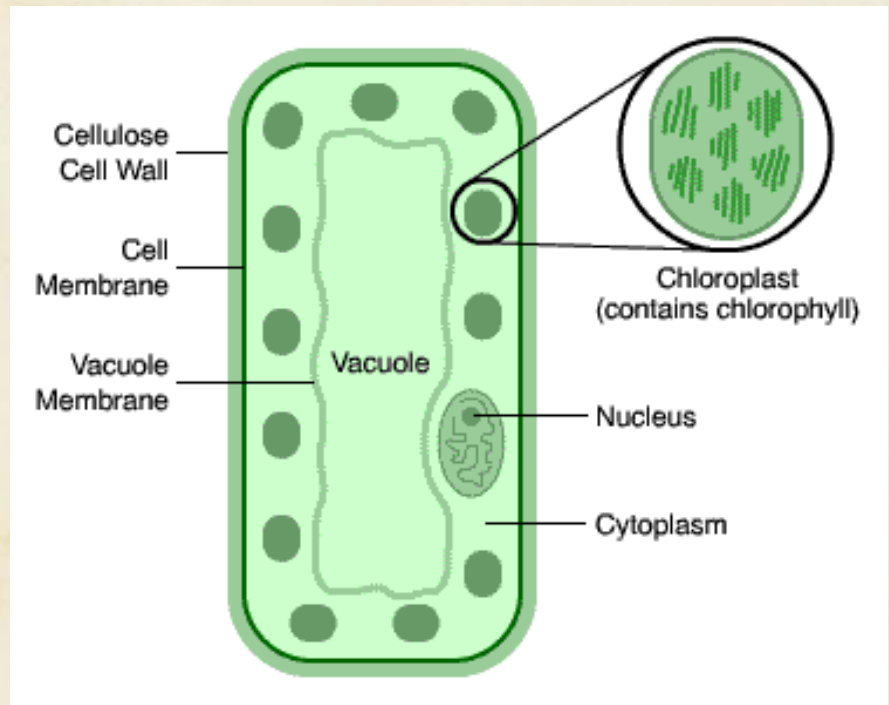
- Designed for absorbing water and nutrients
- Help increase surface area of the root
- Thin cell walls





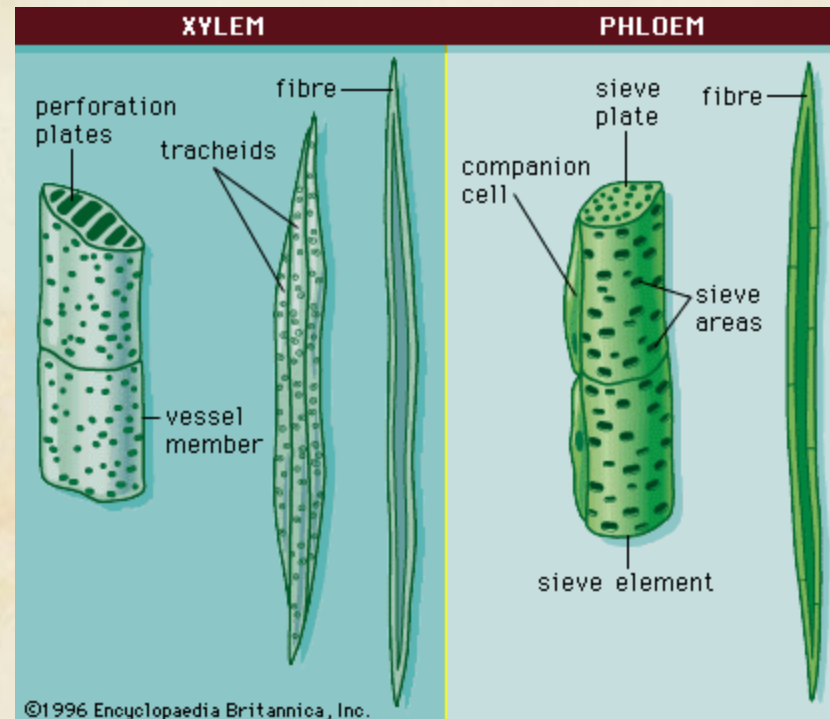
# Palisade Cells

- Specialised cells in the leaf where the majority of photosynthesis takes place



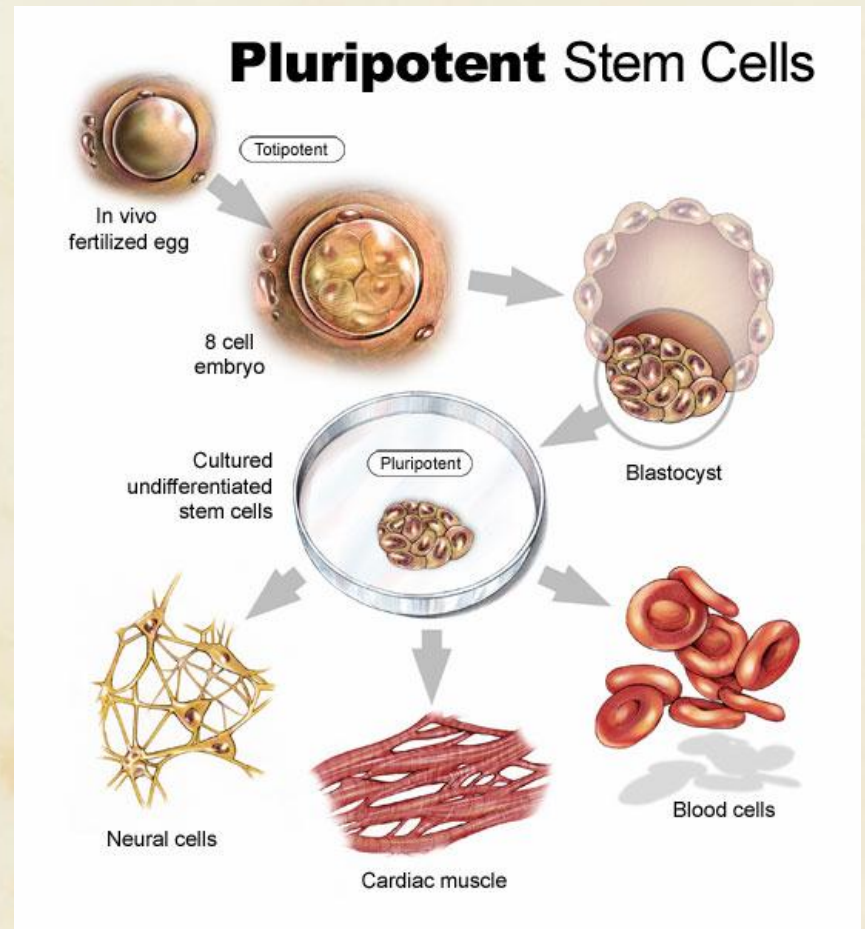
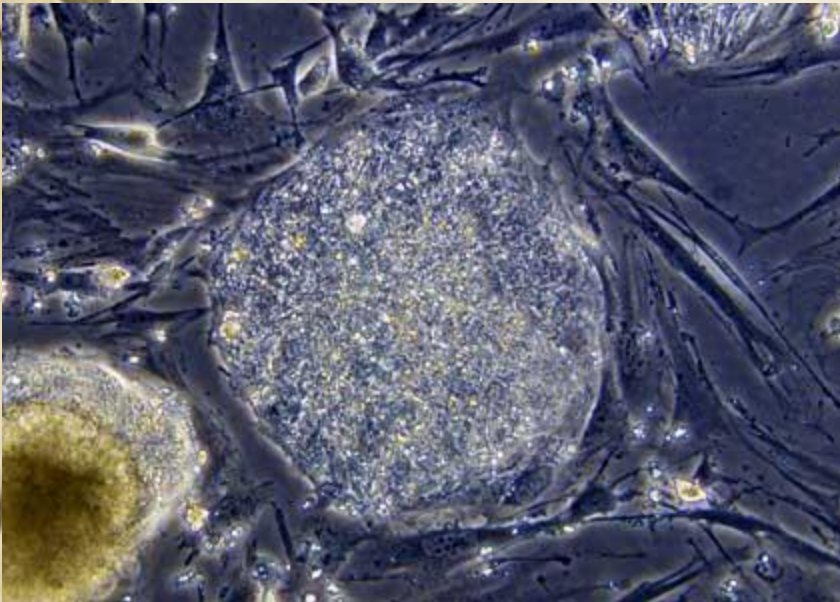
# Phloem and Xylem


- Conducts sugars through the plant
  - Two way street
- Conducts water in the plant
  - One way street (up)



# Stem Cells

- Specialized cell that can differentiate into any type of cell.



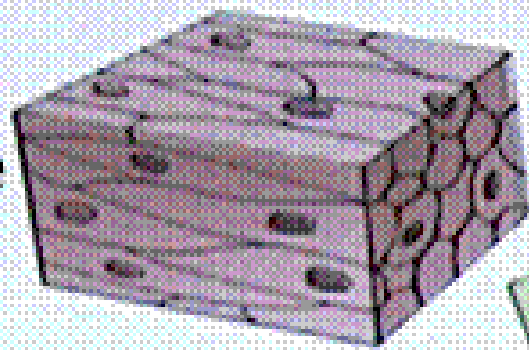


# Cells, Tissues, Organ, Organ Systems

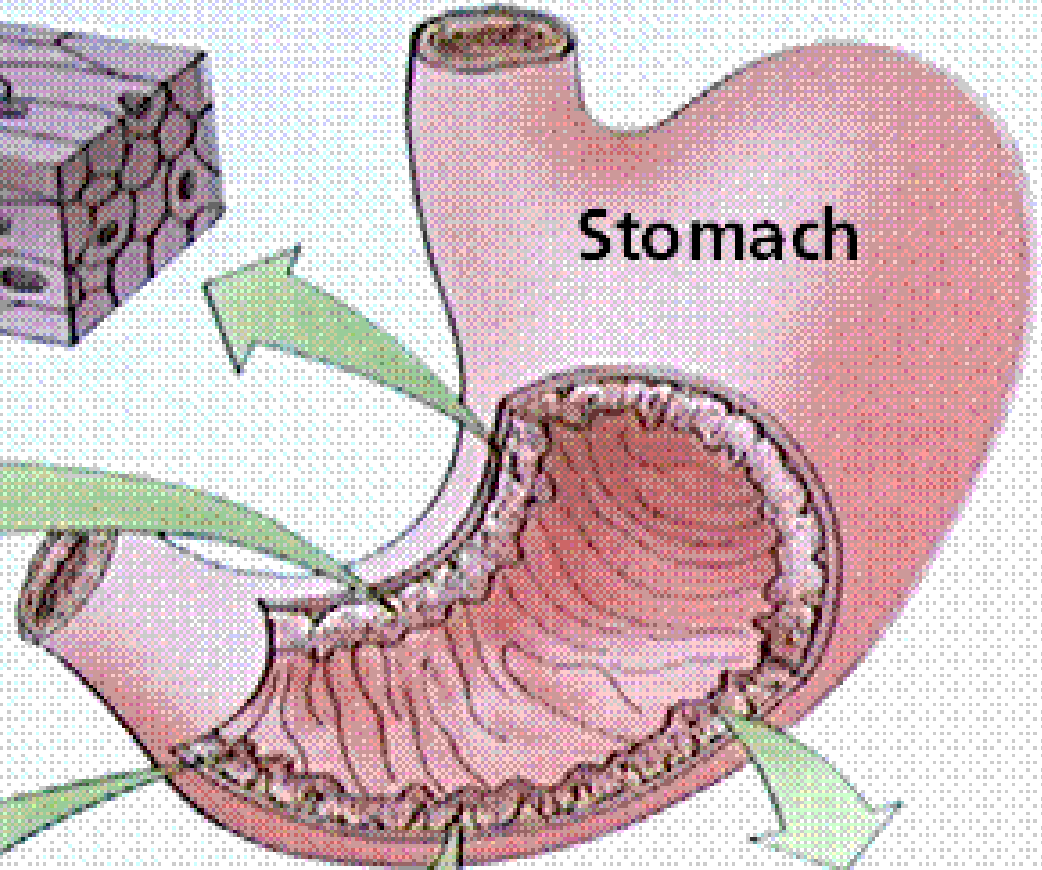
- Tissue – group of similar cells
- Organ – group of different tissue working together
- Organ system – group of organs working together



**Smooth muscle tissue**



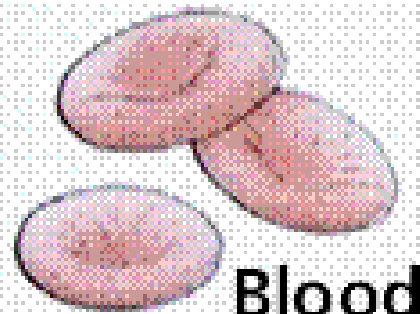
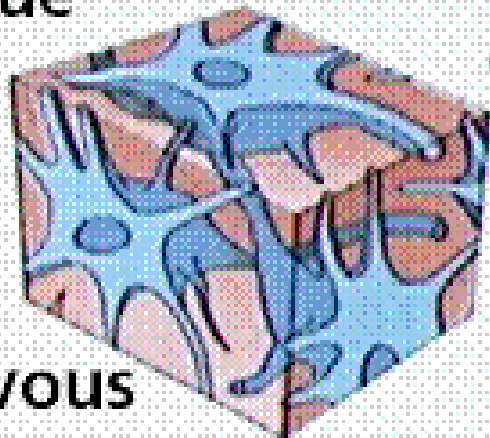
**Stomach**



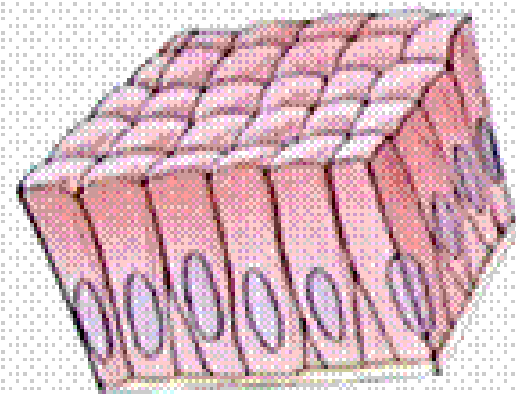
**Loose connective tissue**



**Nervous tissue**

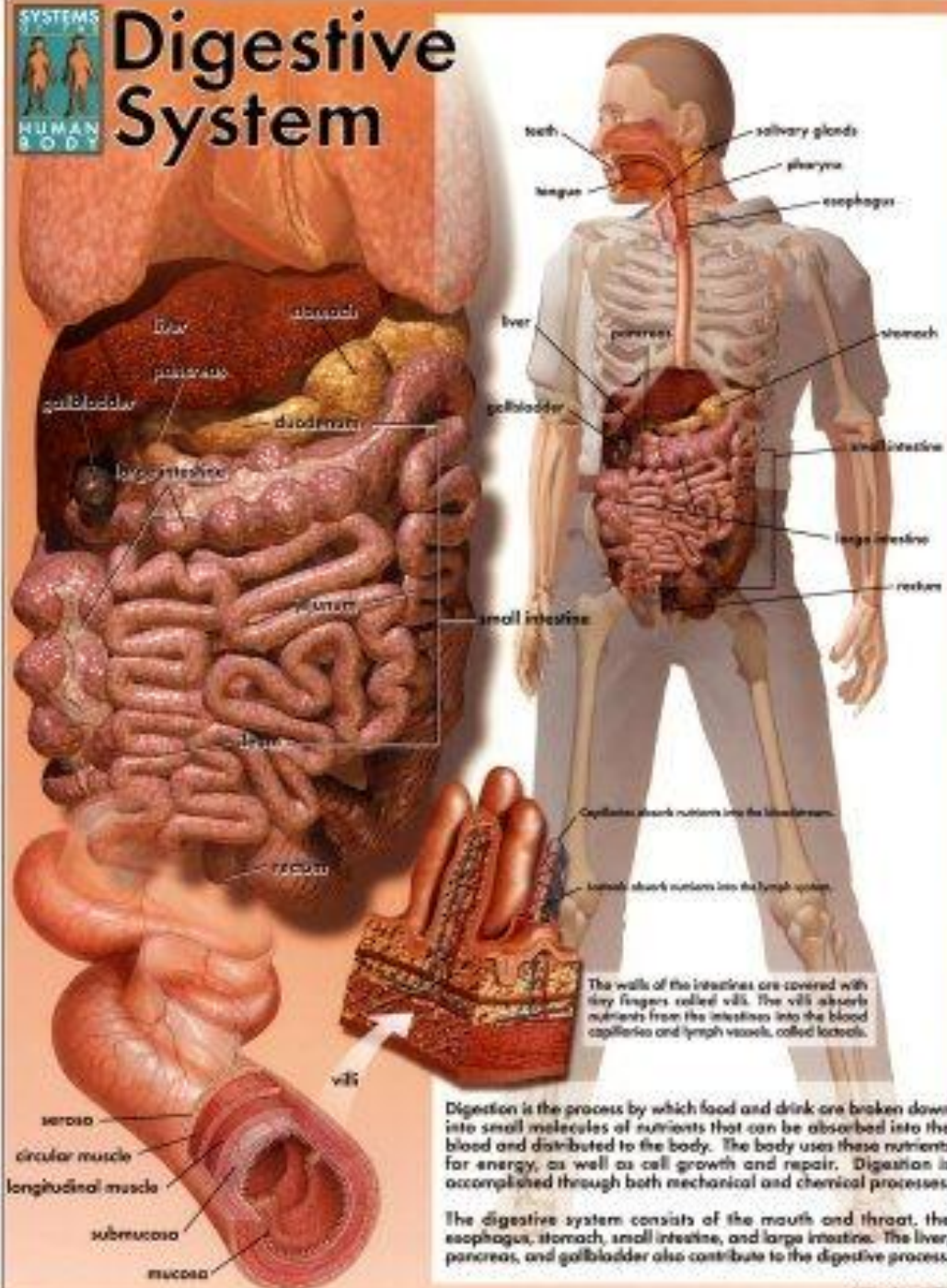


**Blood**



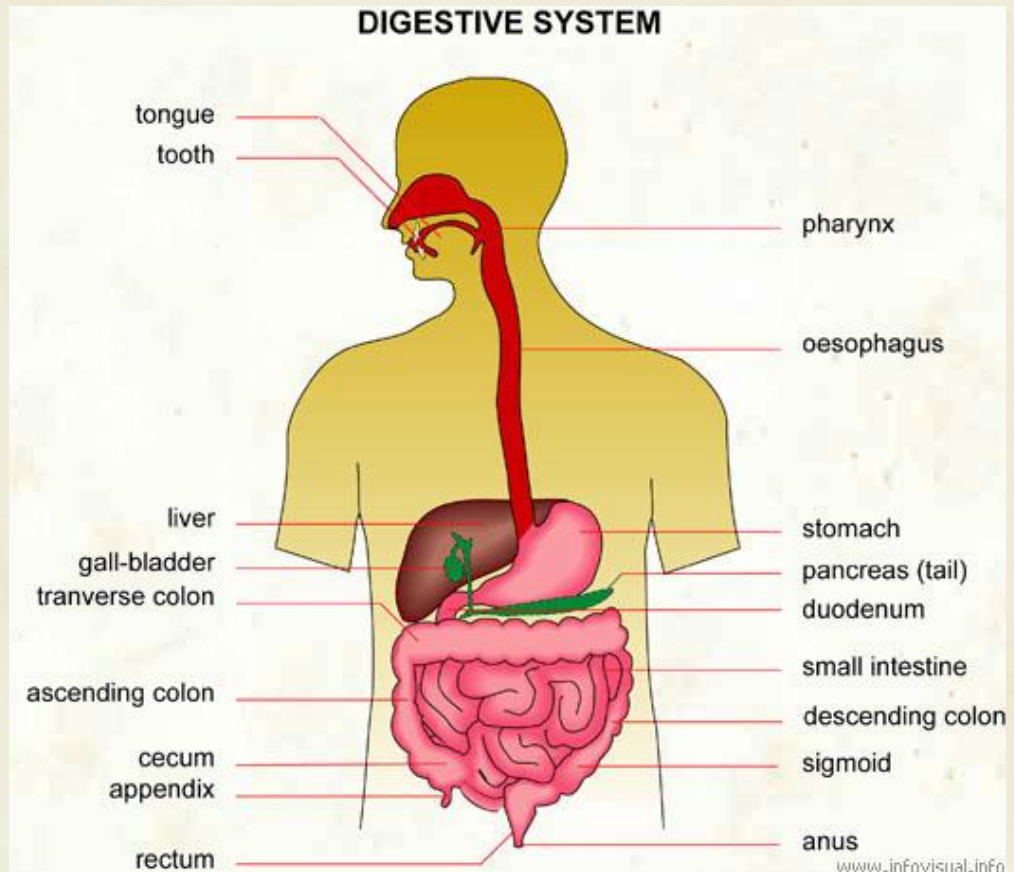
**Columnar epithelium**

# Digestive System



# Organ Systems

- Digestive – breaks down and absorbs food





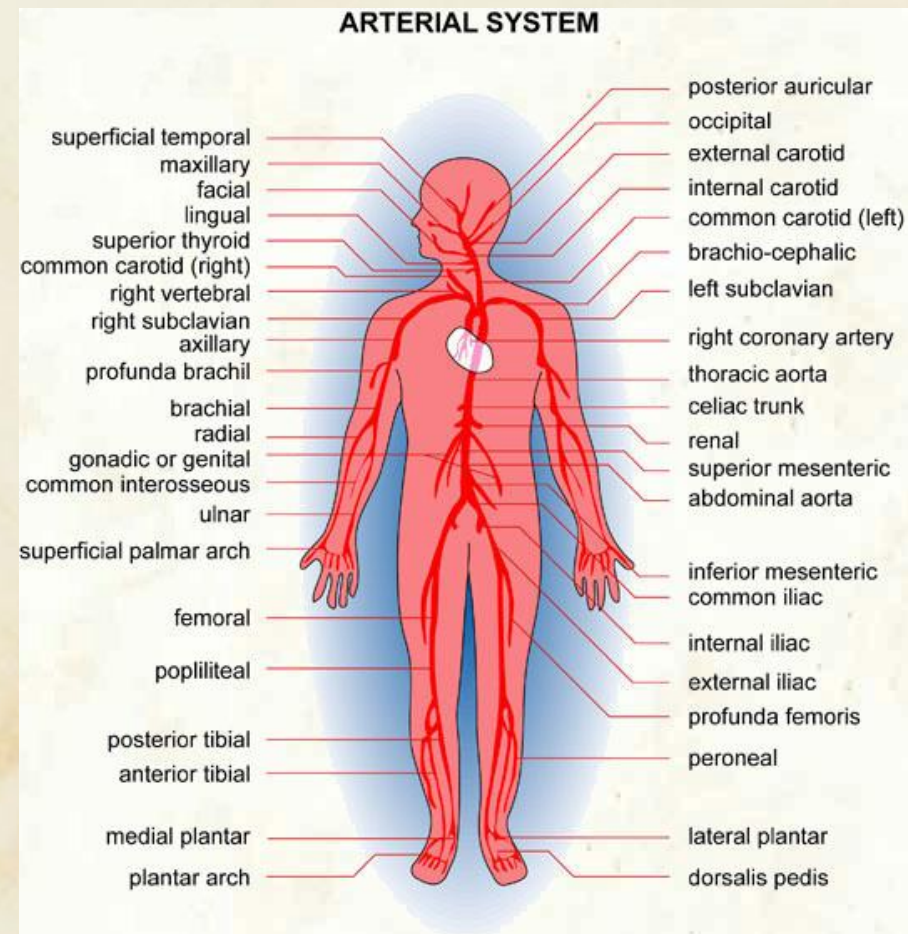
# Digestive Organs

- Oesophagus
- Stomach
- Intestine
- Liver
- Gallbladder
- Pancreas
- Capillaries



# Organ Systems

- Circulatory – transports material around the body in blood



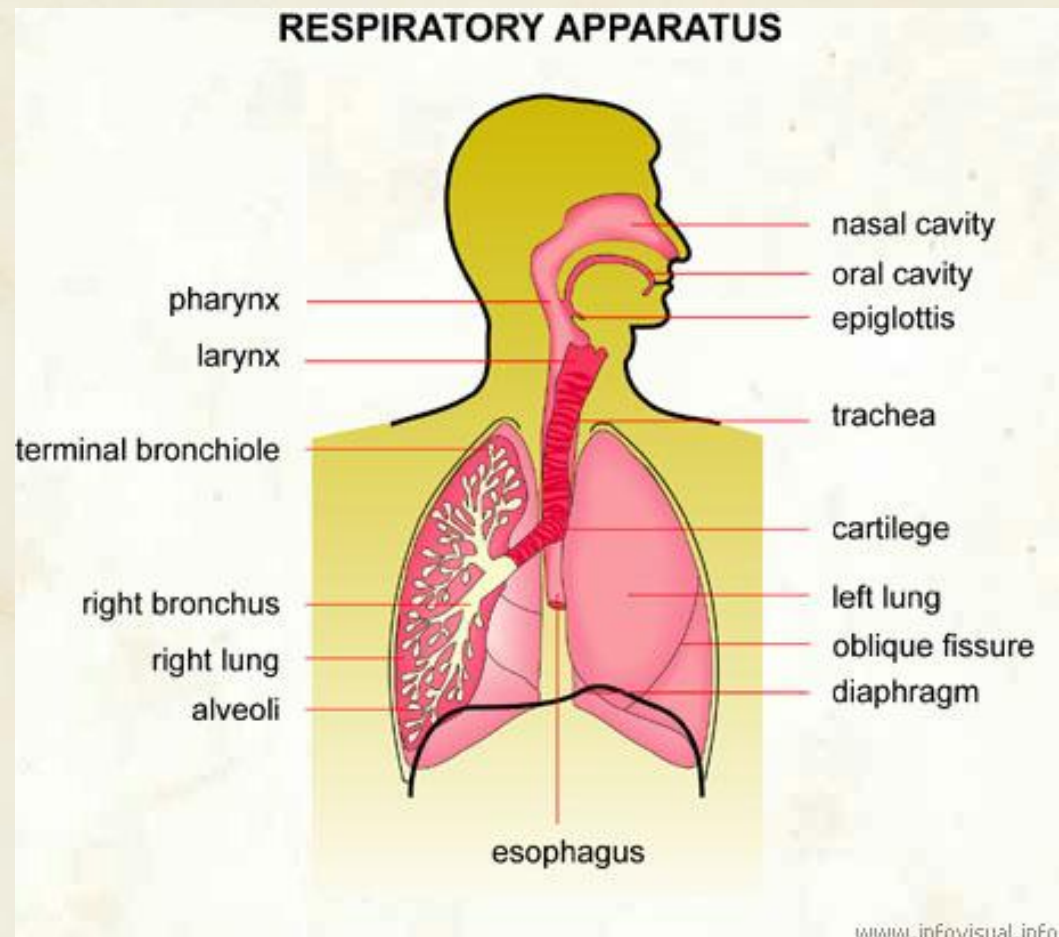


# Circulatory Organs

- Heart
- Artery
- Veins
- Capillaries

# Organ Systems

- Respiratory – takes oxygen into the body





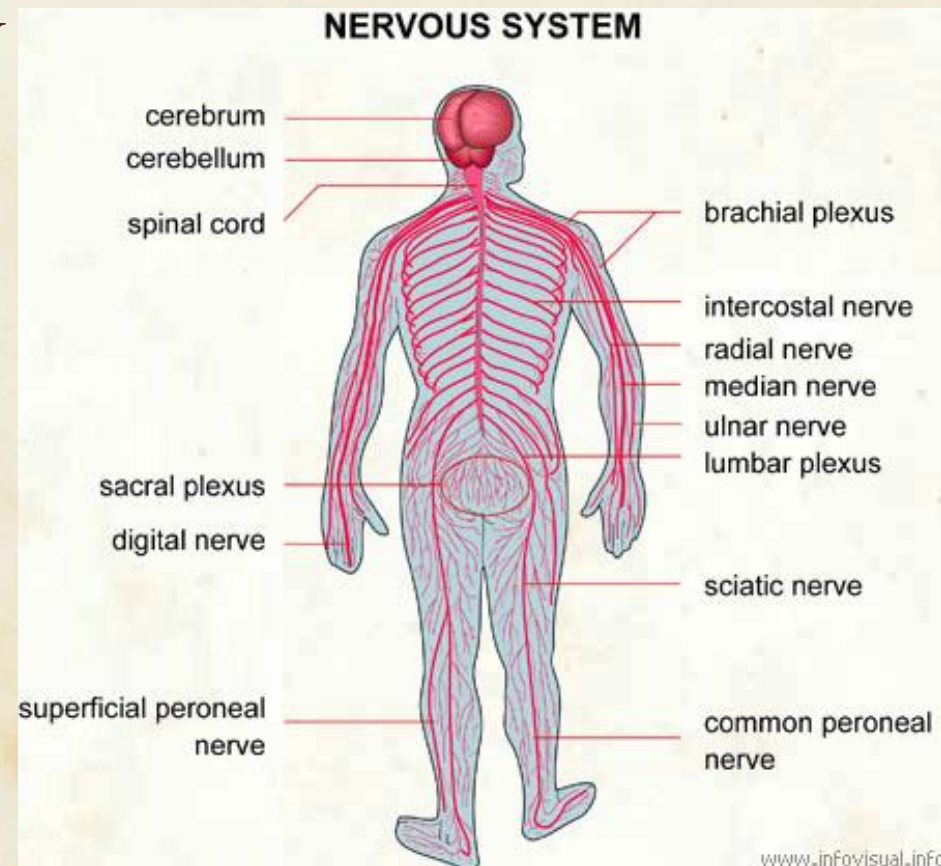
# Respiratory Organs

- Lungs
- Rib muscles
- Ribs
- Diaphragm
- Alveoli
- Capillaries



# Organ Systems

- Nervous – detects the environment and controls the body



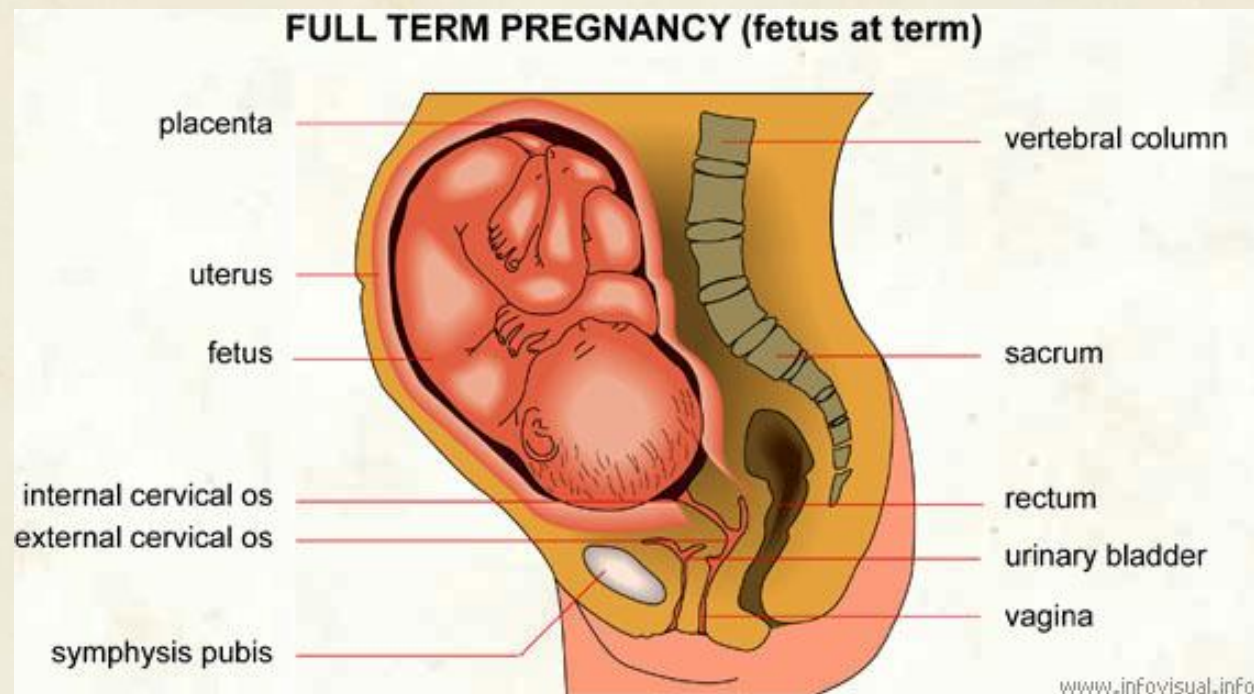


# Nervous Organs

- Neurons
- Brain
- Spinal cord

# Organ Systems

- Reproductive – produces new individuals



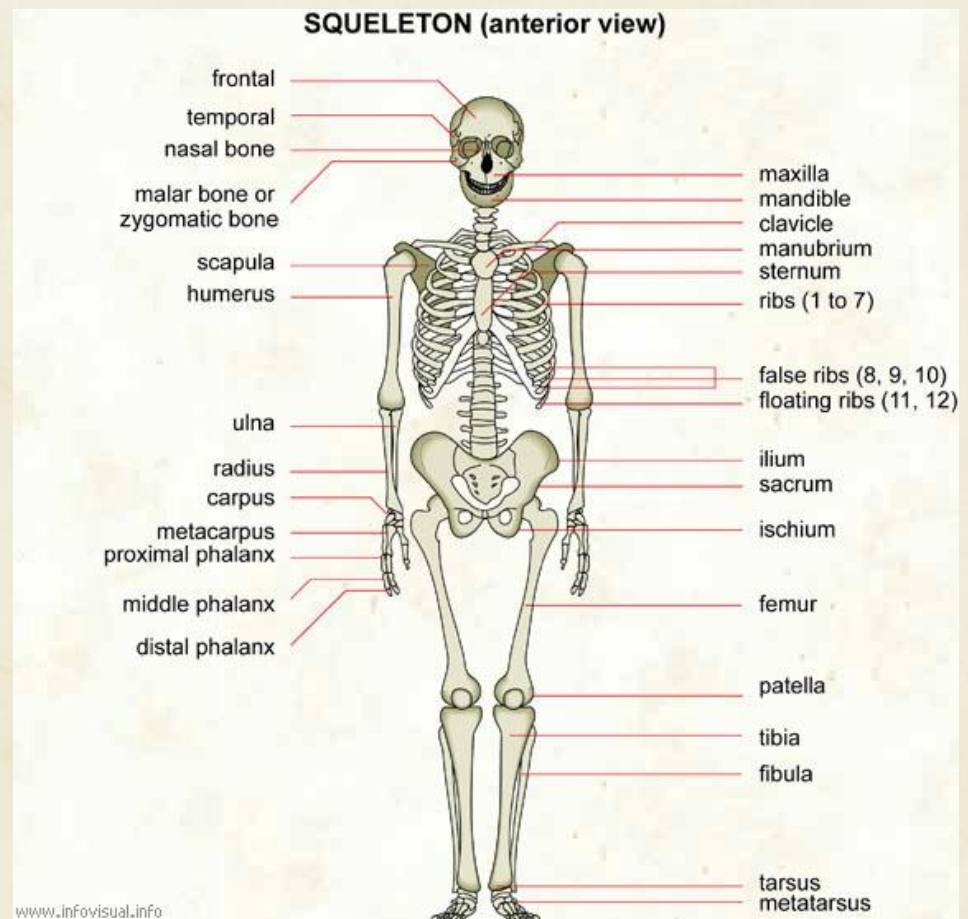
# Reproductive Organs

- Ovaries
- Uterus
- Testis
- Penis



# Organ System

- Skeletal – allows for movement



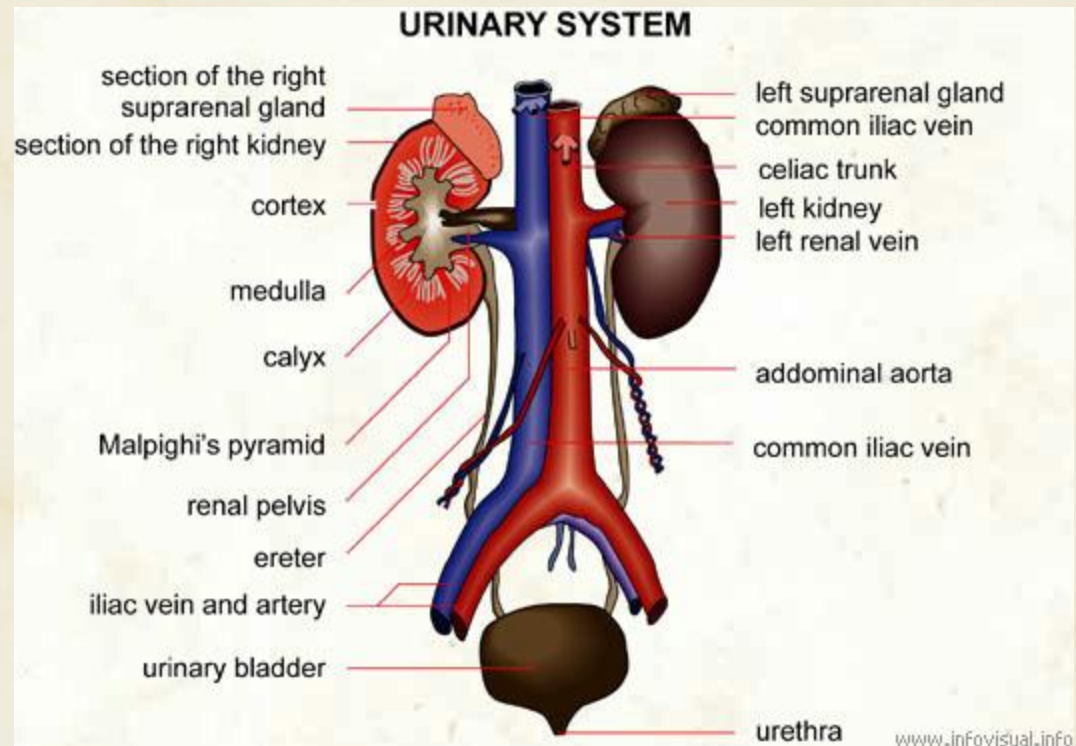


# Skeletal Organs

- Cartilage
- Bone

# Organ System

- Excretory – removes waste from the body





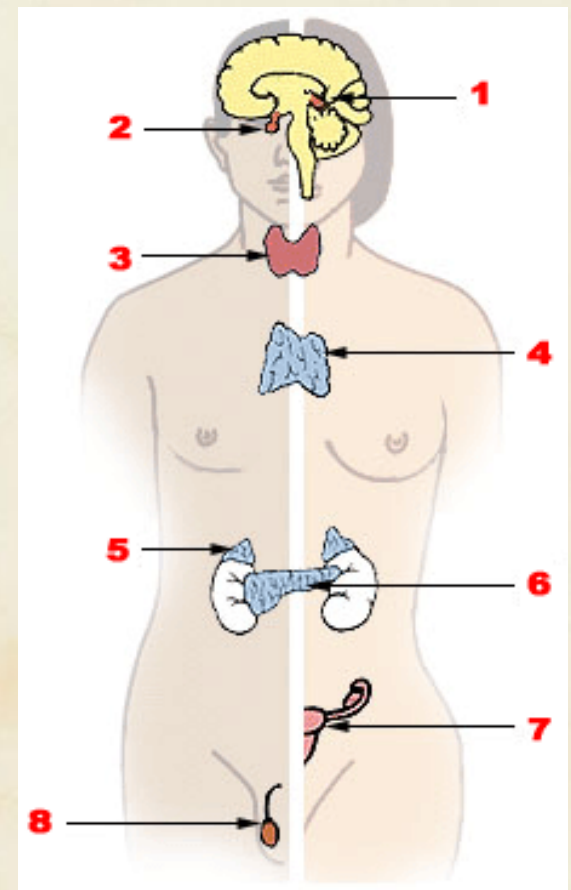
# Excretory Organs

- Kidney
- Bladder



# Organ System

- Endocrine System – produces and discharges hormones

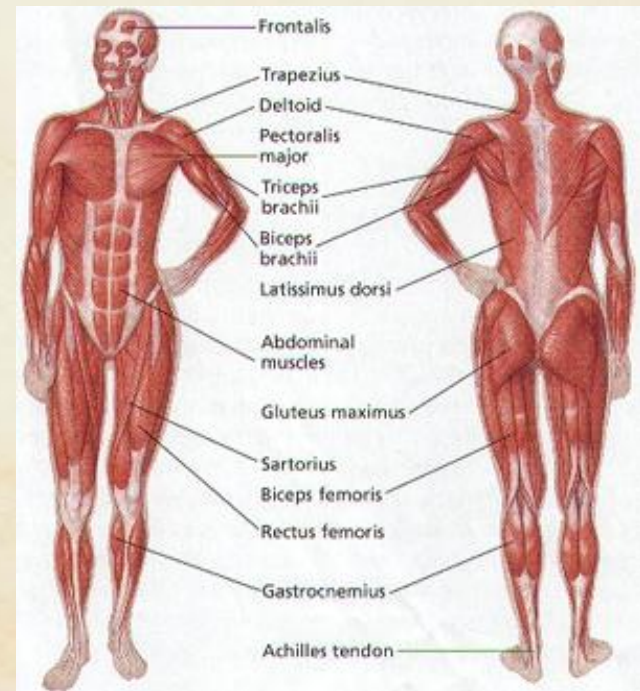


# Endocrine Organs

- Thyroid
- Pancreas
- Ovaries
- Testes

# Organ Systems

- Muscle System – attached to bones to help with movement



# Muscle Organs

- Muscles
- Tendons





# Plants





# Vascular System

- Moves water and nutrients throughout the plant



# Vascular System

- Xylem – moves water
- Phloem – moves nutrients