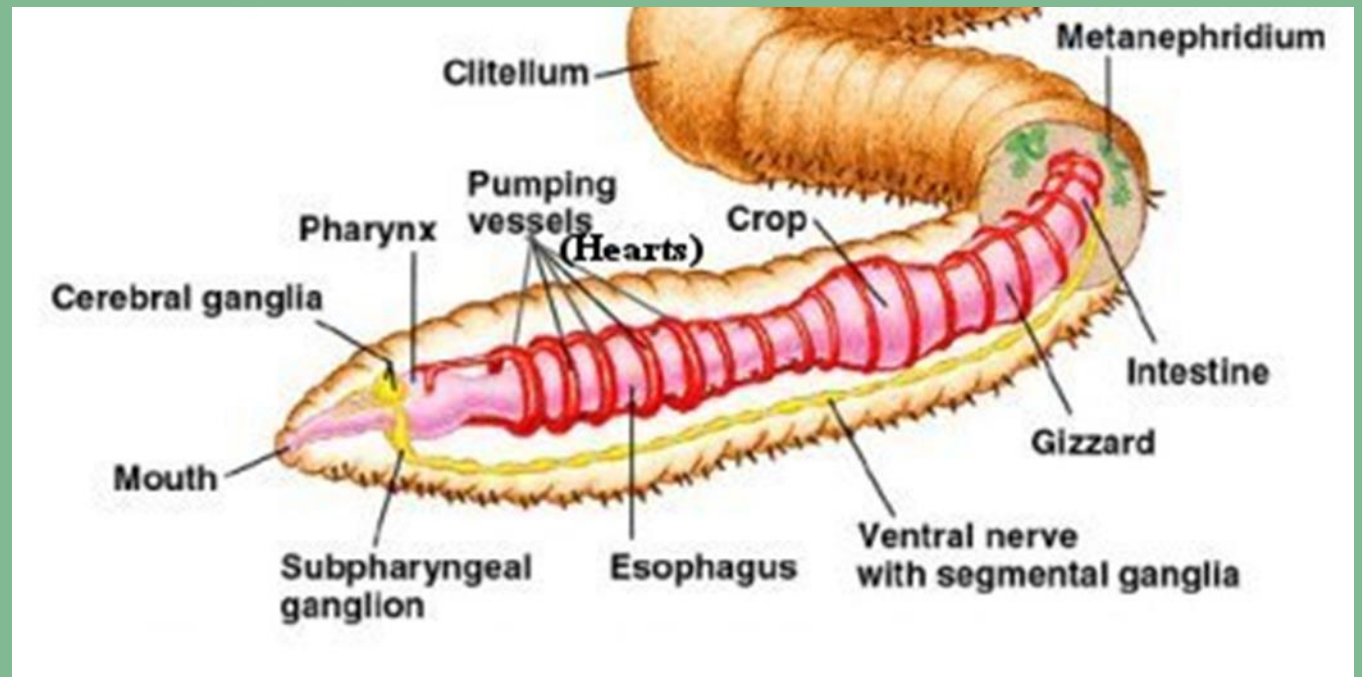


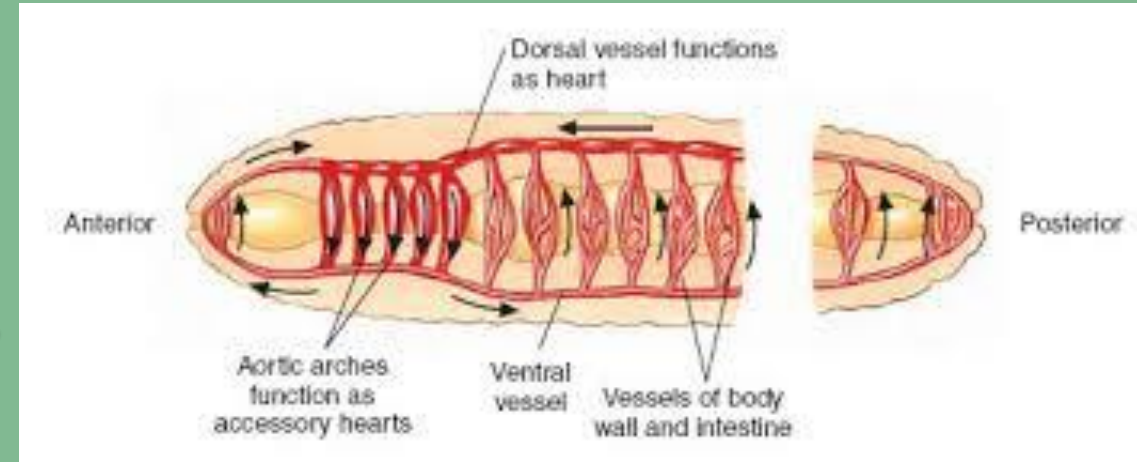
- Earthworms

- pharynx pumps food and soil into the esophagus.
- The food then moves through the crop, where it can be stored.
- It then moves through the gizzard, where it is ground into smaller pieces.



CIRCULATION

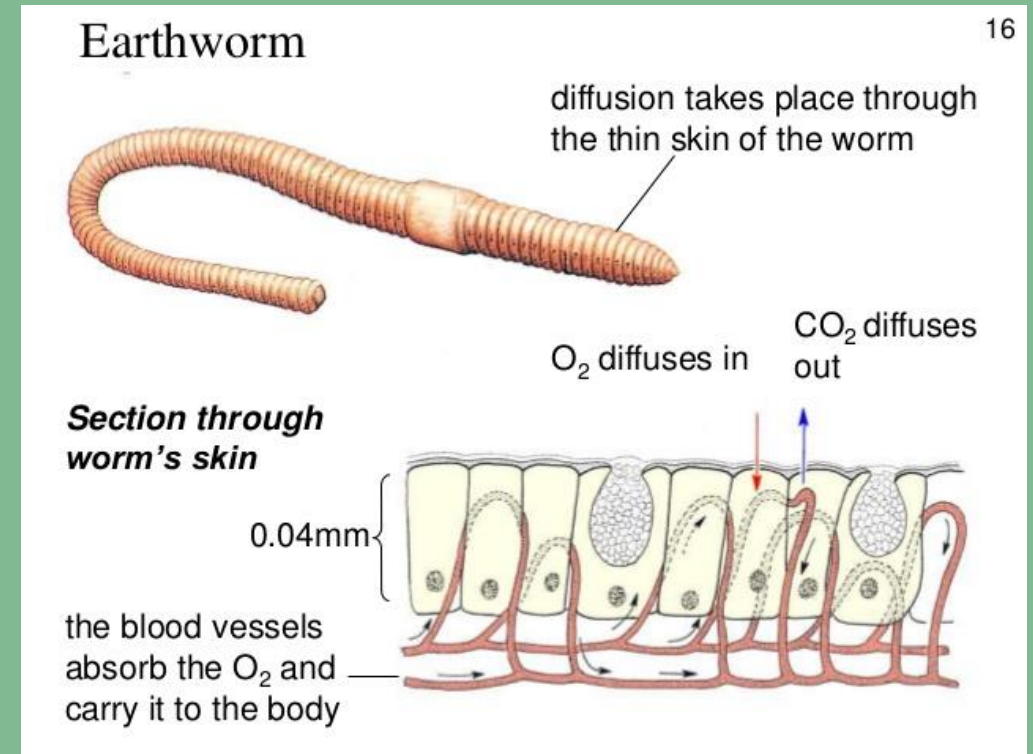
- Annelids typically have a closed circulatory system
 - blood is contained within a network of blood vessels
 - Ventral and Dorsal Vessels
 - Smaller vessels connect dorsal to ventral
 - Supply blood to internal organs
 - Dorsal blood vessel function like a heart
 - Contracts and pumps blood





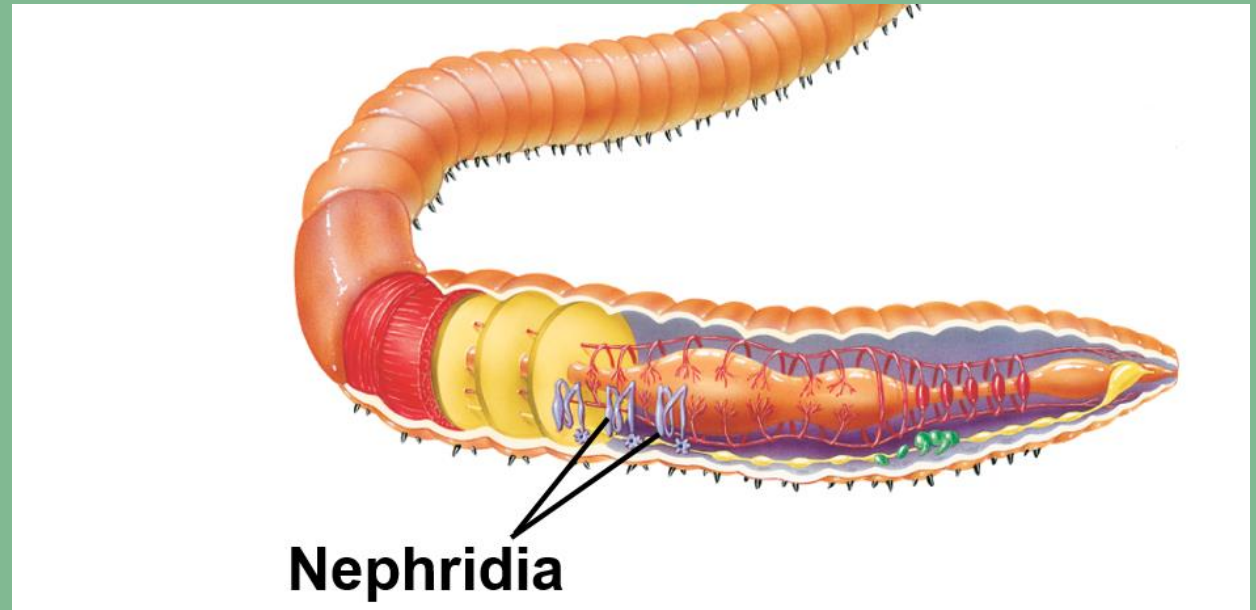
RESPIRATION

- Aquatic annelids often breathe through gills.
 - Feather duster worms
- Land-dwelling annelids take in oxygen and give off carbon dioxide through their moist skin
 - Diffusion
 - Secrete a thin protective coating of mucus which keeps skin moist



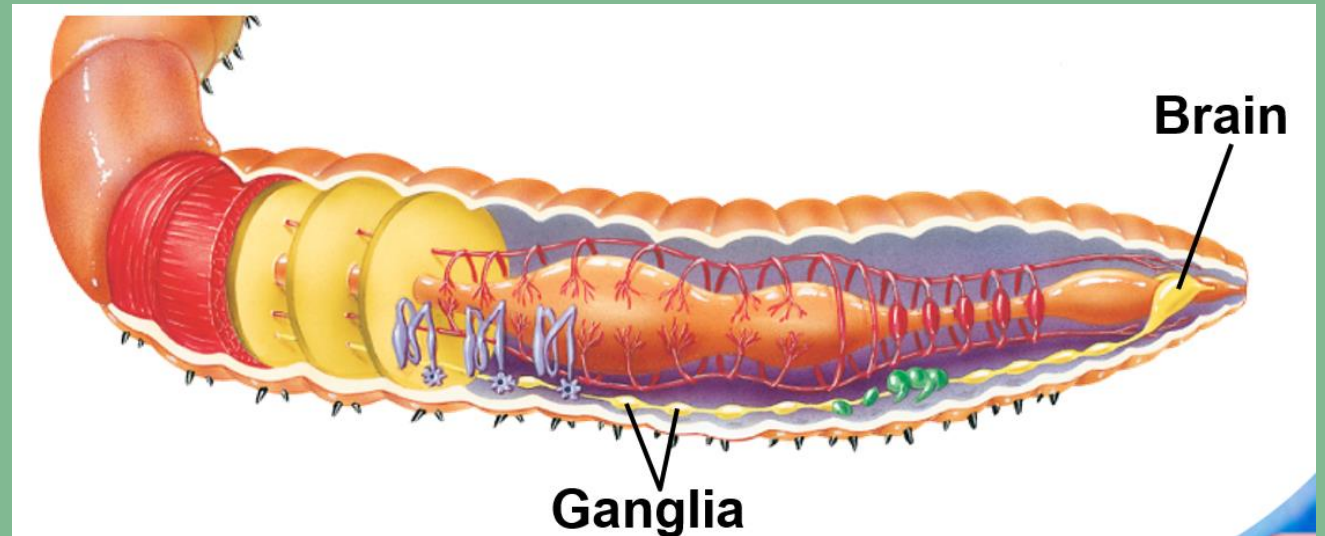
EXCRETION

- Two types of waste
 - Digestive waste
 - Passes through anus
 - Cellular Waste
 - Eliminated by nephridia
 - Filter fluid in coelom



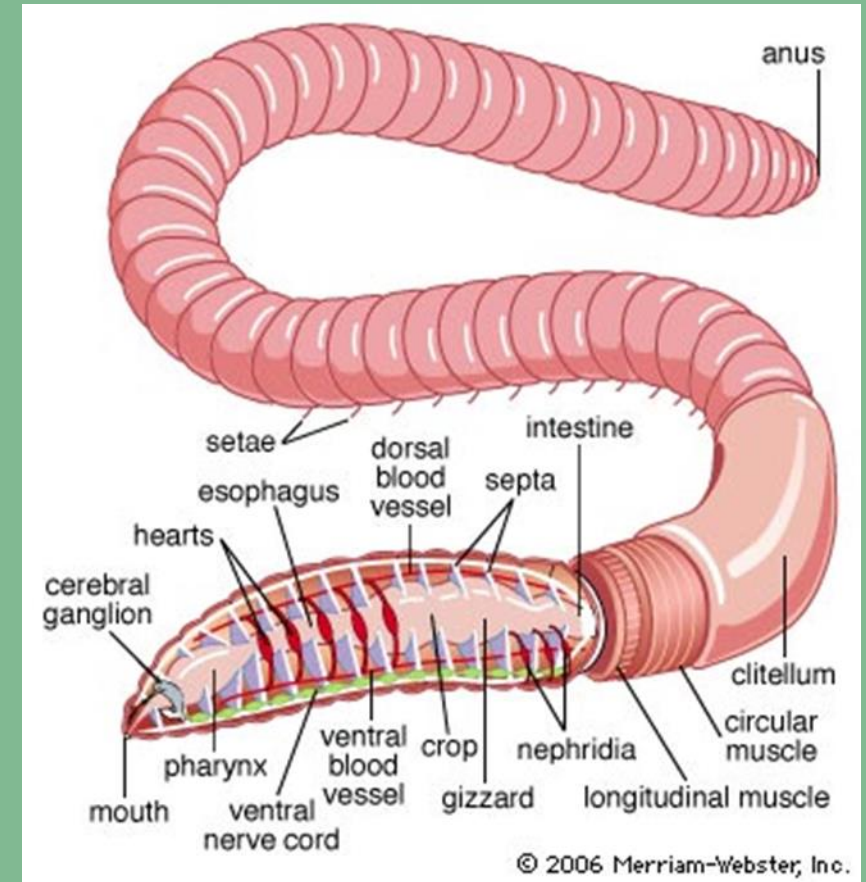
RESPONSE

- Most annelids have a well-developed nervous system
 - consisting of a brain and several nerve cords.
- Free living marine
 - Developed sense organs
 - Sensory bristles
 - Statocysts
 - Chemical receptors
 - Light detection



MOVEMENT

- Annelids have two groups of body muscles that function as part of a hydrostatic skeleton.
 - Longitudinal muscles
 - Front to rear
 - Contract to make worm shorter and fatter
 - Circular muscles
 - Around each segment
 - Contract to make worm longer and thinner
- These muscles contract alternatively to move



REPRODUCTION

- Most annelids reproduce sexually.
- Earthworms are hermaphrodites.
 - Two worms attach to each other, exchange sperm
 - store the sperm in special sacs.

