## Nematoda (Roundworms)

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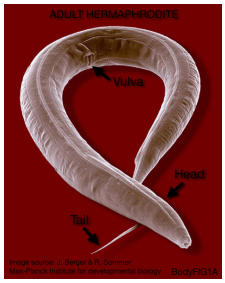
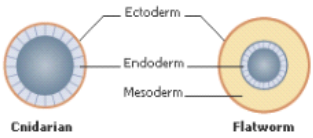
- Have a false body cavity: not a true fluid-filled, tissue-lined body cavity
- Digestive tract has two openings - mouth and anus
- Body plan: "tube within a tube"




### Feeding

- Many free-living forms are predators with grasping mouth parts to catch and eat small animals.
- Other eat decaying matter, and several types are parasitic and cause disease in humans.


### Respiration, Circulation & Excretion

- rely on diffusion; no internal transport

### Response

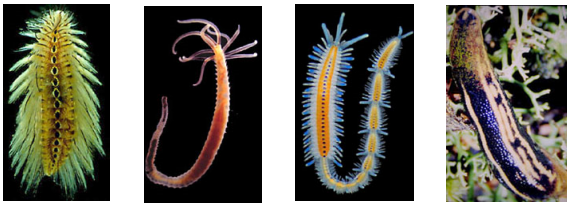
- simple nervous system with several ganglia
- nerves transmit sensory information and control movement

### Reproduction

- Sexual: most species have separate sexes
- Internal fertilization: male deposits sperm inside female

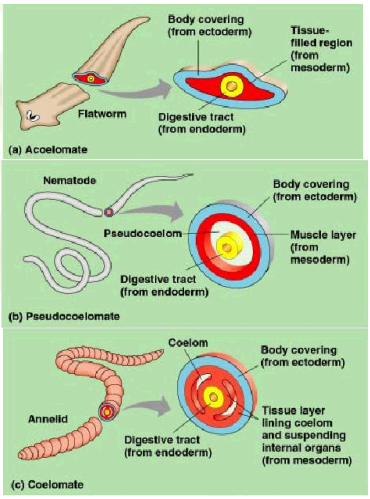
## Annelida (Segmented Worms)

- Ringlike appearance, or "segmented" body parts
- Segments separated by septa
- Many have bristles, or setae, attached to each segment
- Have a true coelom that is lined with tissue came from mesoderm (middle layer)



### Feeding

- Many use a pharynx; some have sharp jaws to attack prey.
- Earthworms: pharynx pumps food and soil into a tube called the esophagus.
- Food enters the crop where it is stored, and then through the gizzard, where it is ground into small pieces




Flat

Round

Segmented

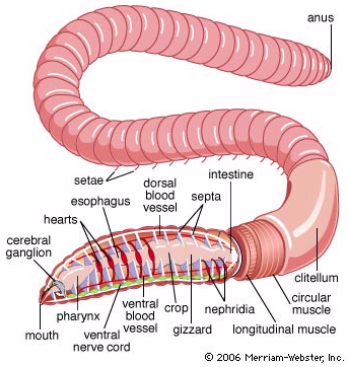
Circulation

• Closed circulatory system: blood is contained within a network of blood vessels

Respiration

• Aquatic annelids have gills

• Earthworms take in oxygen and release carbon dioxide through their moist skin




Reproduction

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• Most reproduce sexually.

• Two worms attach to each other, exchange sperm, then store it.

• When eggs are ready, the clitellum secretes a mucous ring into which eggs and sperm are released and fertilization takes place.

• The ring slips off the worm and forms a protective cocoon from which young worms hatch weeks later.

https://www.youtube.com/watch?v=4eNz3Si6uhc

Oligachaete reproduction