

Biology Section 3 Notes

Animal Classification

- Domain Eukarya;
- Kingdom Animalia
- Multicellular organisms
- Digest food in internal digestive cavity
- Animals digest

Animal Group Differentiation

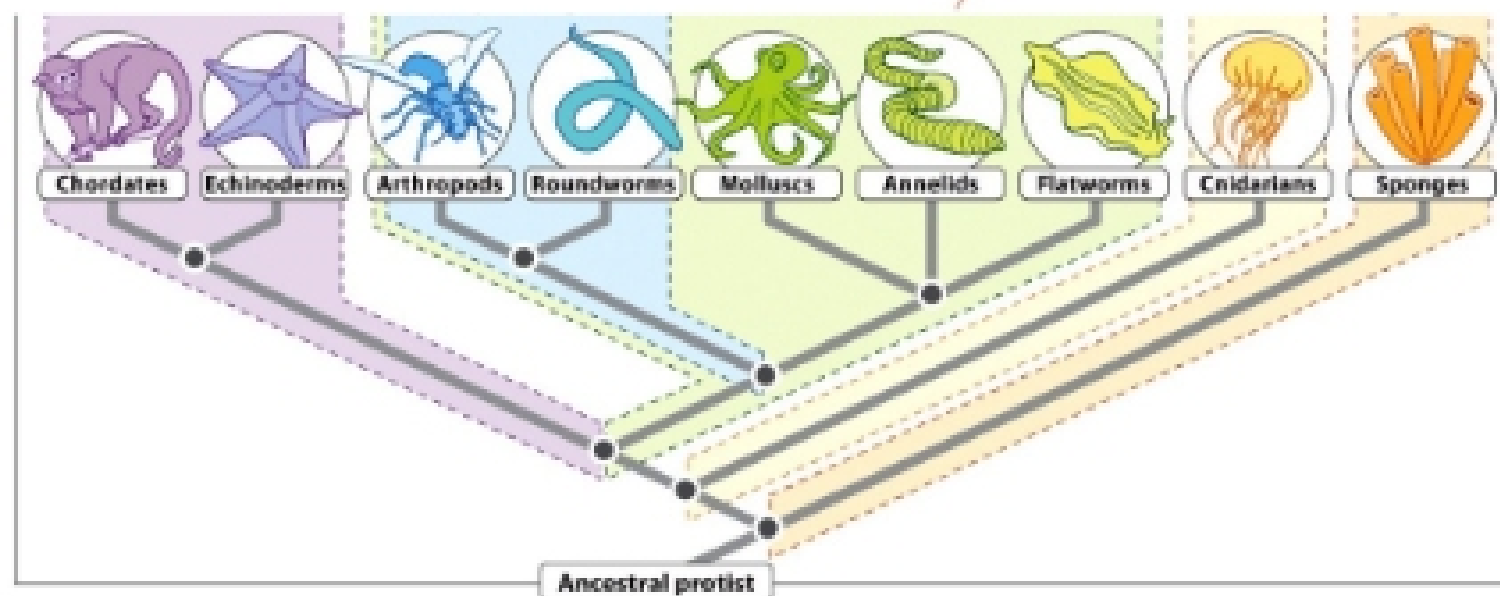
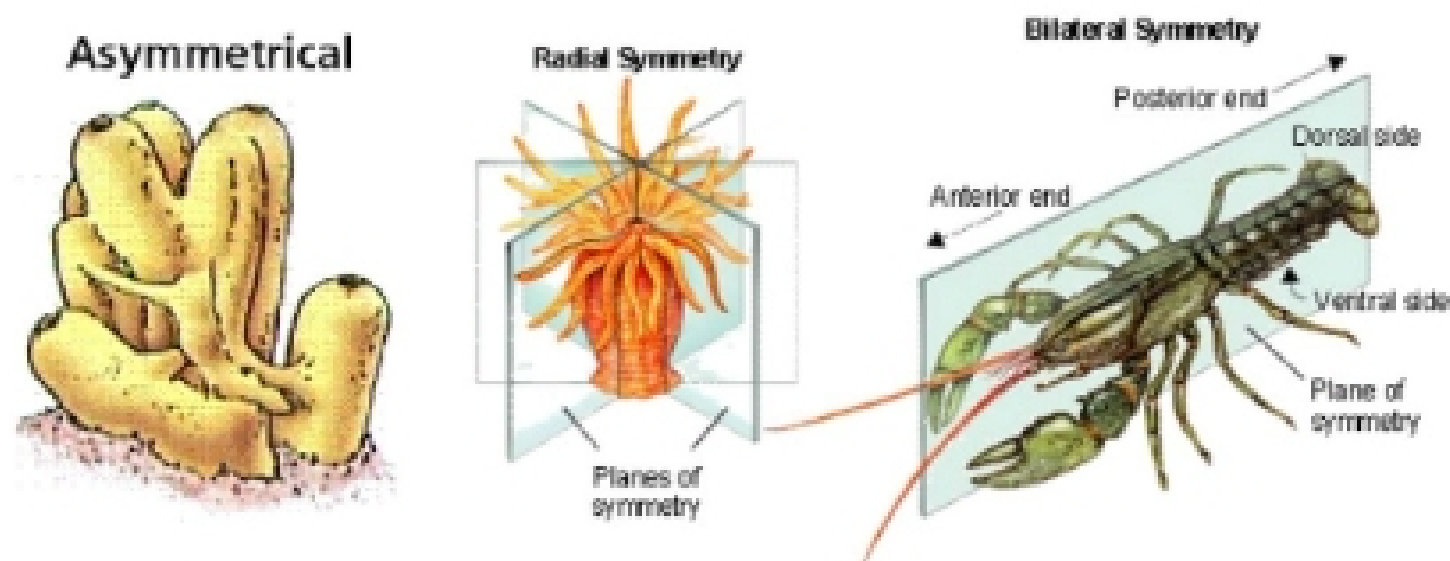
- Does the animal have true tissue?
- NO true tissues: sponges
- True Tissues: everything else

Sponges

- Hermaphroditic- produce both eggs and sperm (at different times)

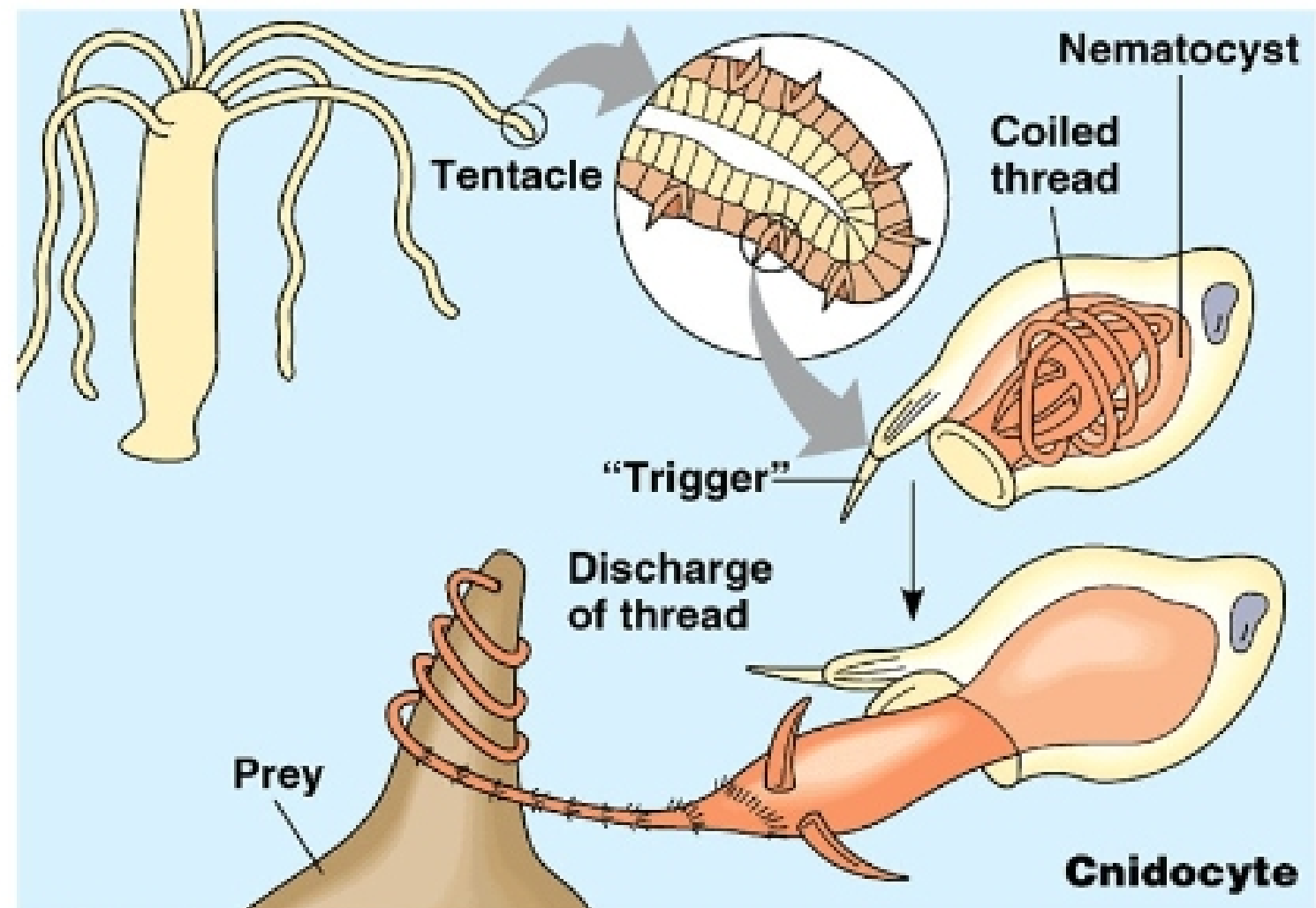
What type of Symmetry does The animal Have?

- Radial symmetry: multiple planes divide the organism into mirror images
- Bilateral Symmetry: only one plane divides the organism into mirror images-
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Cnidarians

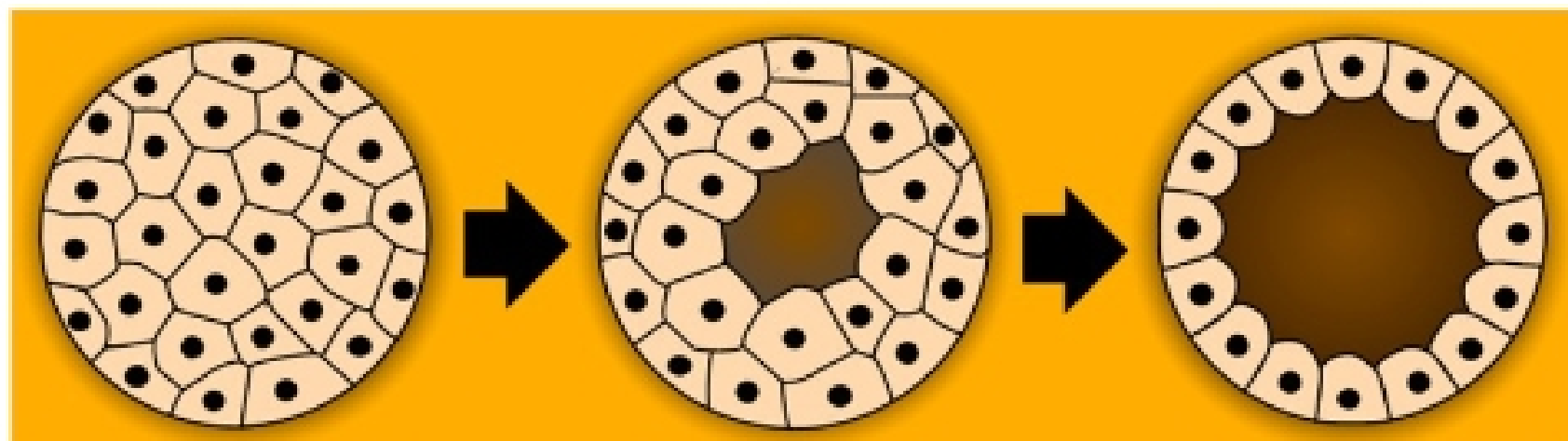
- Hydra/Medusa/Jellyfish



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During development, In which direction does the gut form?

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- **Gastrulation:** when the cells divide in such a way that creates a cavity called a gastrula.
- **Protostome ("Mouth First")**
 - The gut develops from front to back.
 - Antrhopods-Sponges
- **Deuterostome ("Mouth second")**
 - The gut develops from back to front.
 - The formation of the digestive tract is the first thing that develops in an animal.
 - Chordates-Echinoderms (Humans-Starfish)

Annelids

- Segmented worms; Earthworms, Leaches

Flat Worms

Molluscs

- Cephalization

Does the animal molt as it grows?

- Molting: shedding an exoskeleton (hard outer layer) and replacing it with a larger one at regular intervals.
- Molluscs don't Molt, round worms and arthropods DO

RoundWorms

- 200,000 egg/day
- Some can cause elephantitis: extreme and grotesque swelling.
- C. Elegans- 1st multicellular organism to have it's entire genome sequenced.

Arthropods

- 75 % of all animals are arthropods

Echinoderms

- "Spiny Skin" water vascular system

Movie Questions

How do insects use chemical weapons?

- acid-firing beetle : shoots acid at mongoose to prevent being eaten

stick insects: Same deal

European wood ants: Fire

Bombardier beetle: shoots acid out of it's abdomen

How does the lizard mimic the acid-firing beetle?

- He walks like him so he will fool the mongoose and other potential predators

What is the honey bee's great innovation?