

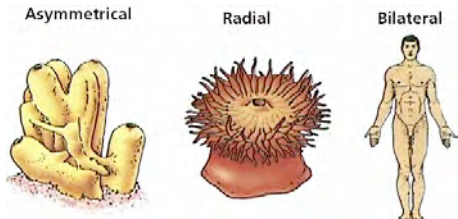
**Animals**

**Characteristics**

- Animals are heterotrophs
- Animals digest their food inside the body
- Animals have a type of locomotion
- Animals are multicellular.
- Animal cells DO NOT have cell walls
- Embryonic development from a fertilized egg is similar in many animal phyla.

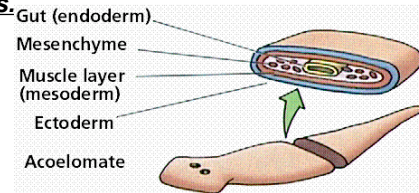
**Body Plans & Adaptations**

- Animals have a variety of body plans and types of symmetry that are adaptations.
- **Animals may be asymmetrical, radially symmetrical, or bilateral symmetrical.**



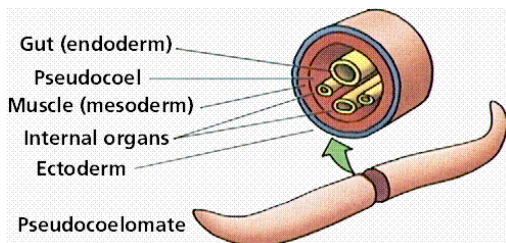
**Body Plans & Adaptations**

- **A coelom is a fluid-filled body cavity that supports internal organs.**
- Flatworms and other **acoelomate** animals have **flattened, solid bodies with no body cavities.**



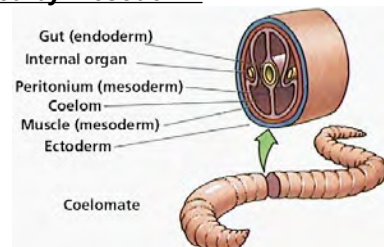
**Body Plans & Adaptations**

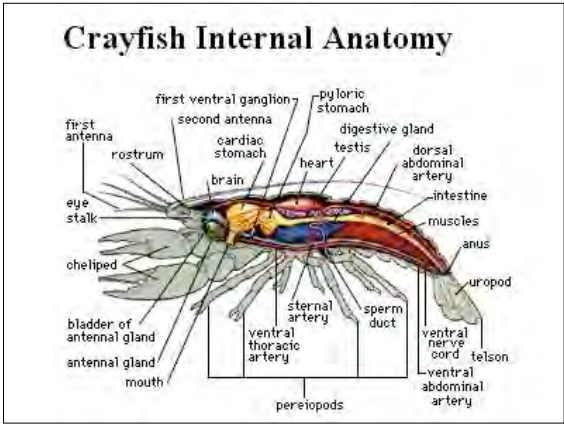
- Animals such as roundworms have a **pseudocoelom**, a **body cavity that develops between the endoderm and mesoderm.**



**Body Plans & Adaptations**

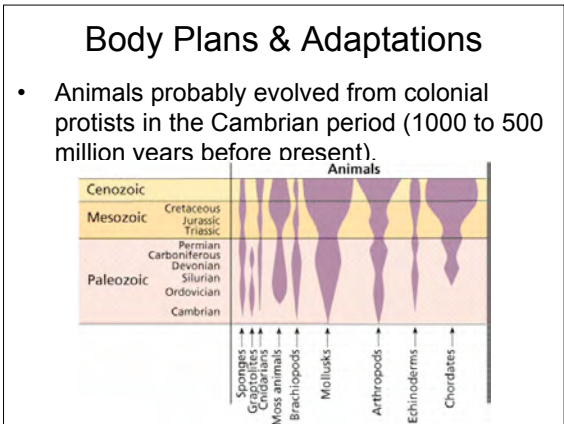
- **Coelomates** animals such as humans and insects **have internal organs suspended in a body cavity that is completely surrounded by mesoderm.**





### Body Plans & Adaptations

- **Exoskeletons provide a framework of support on the outside of the body.**
- **Endoskeletons provide internal support.**



### Invertebrates & Vertebrates

- **Animals without a backbone are called an invertebrate.**
- **Animals with a backbone are called a vertebrate.**

- Examples:
  - Sponges
  - Cnidarians
  - Worms (Round & Flat)
  - Mollusks
  - Segmented Worms
  - Arthropods
  - Echinoderms
  - Invertebrates Chordates
- Examples:
  - Fishes
  - Amphibians
  - Reptiles
  - Mammals