

# Classification fundamental of Animal kingdom

# Classification of Animal Kingdom

- Animal kingdom including Phylum ( Porifera, Coelenterata, Platyhelminthes, Aschelminthes, Annelida, Arthropoda, Mollusca, Echinodermata, Chordata)

# Classification of Animal Kingdom is based on various fundamental features

- Levels of Organization,



Cells



Tissues



Organ



Organ System



Organism



Cells



Tissues



Organ

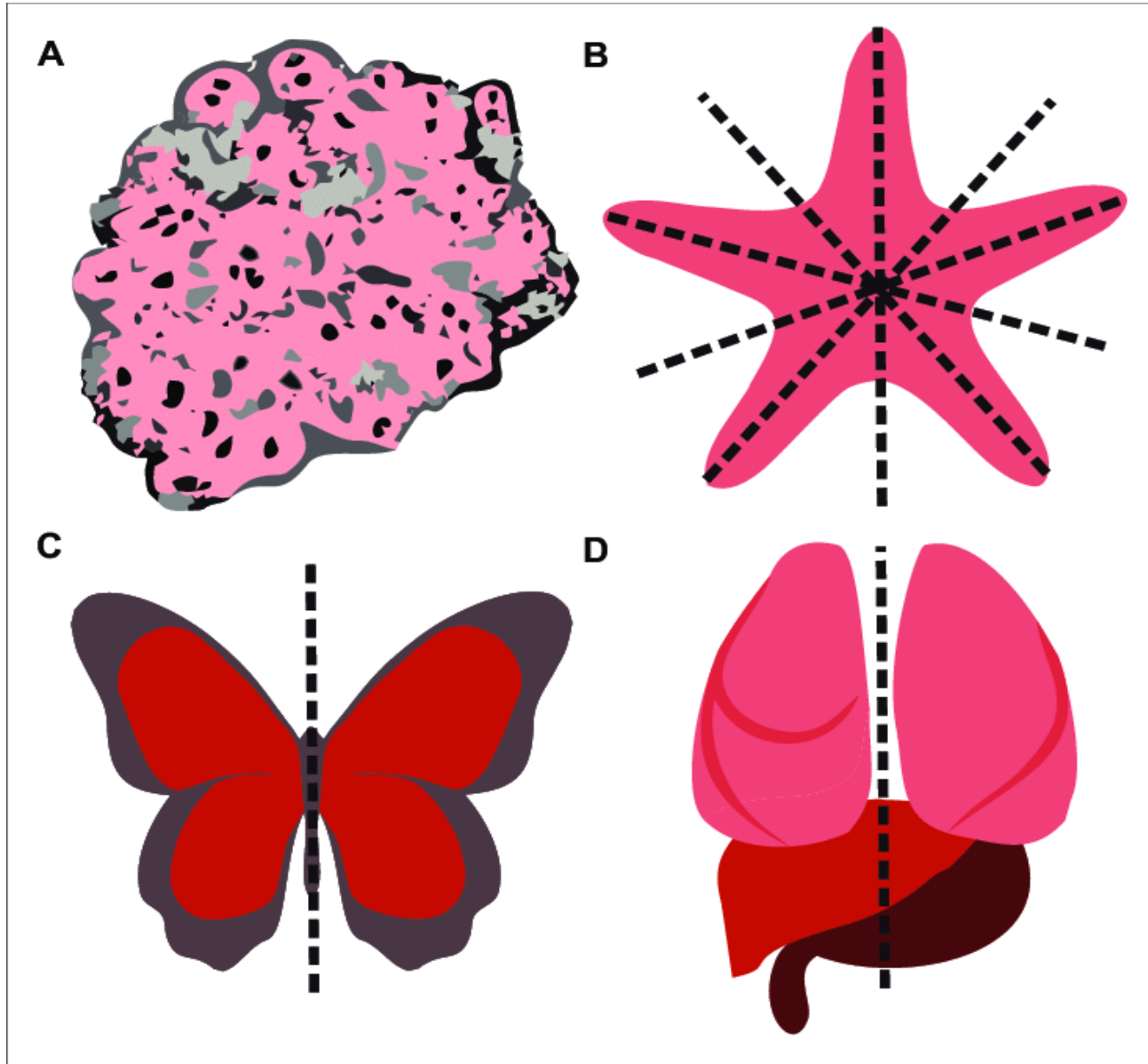


Organ System



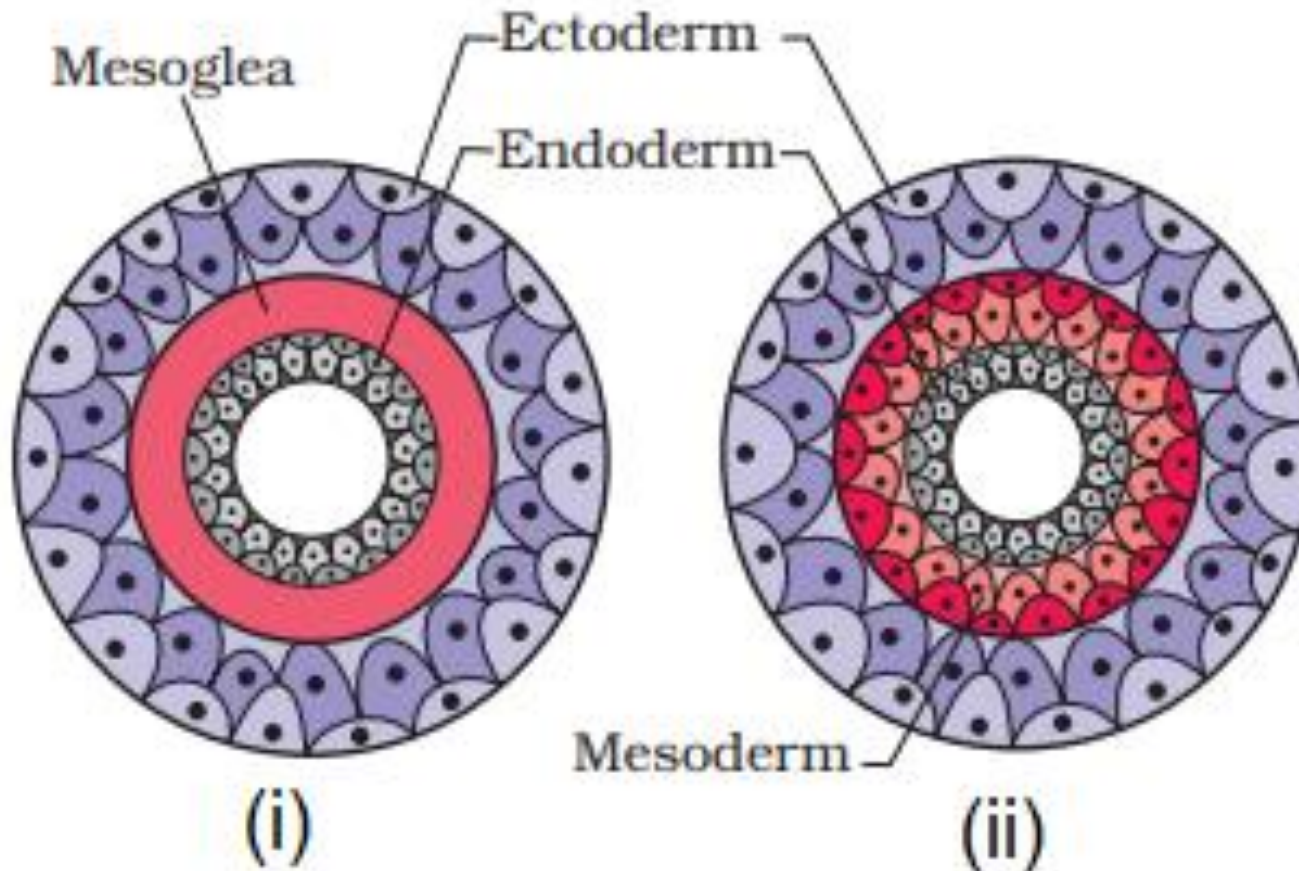
Organism

# Symmetry



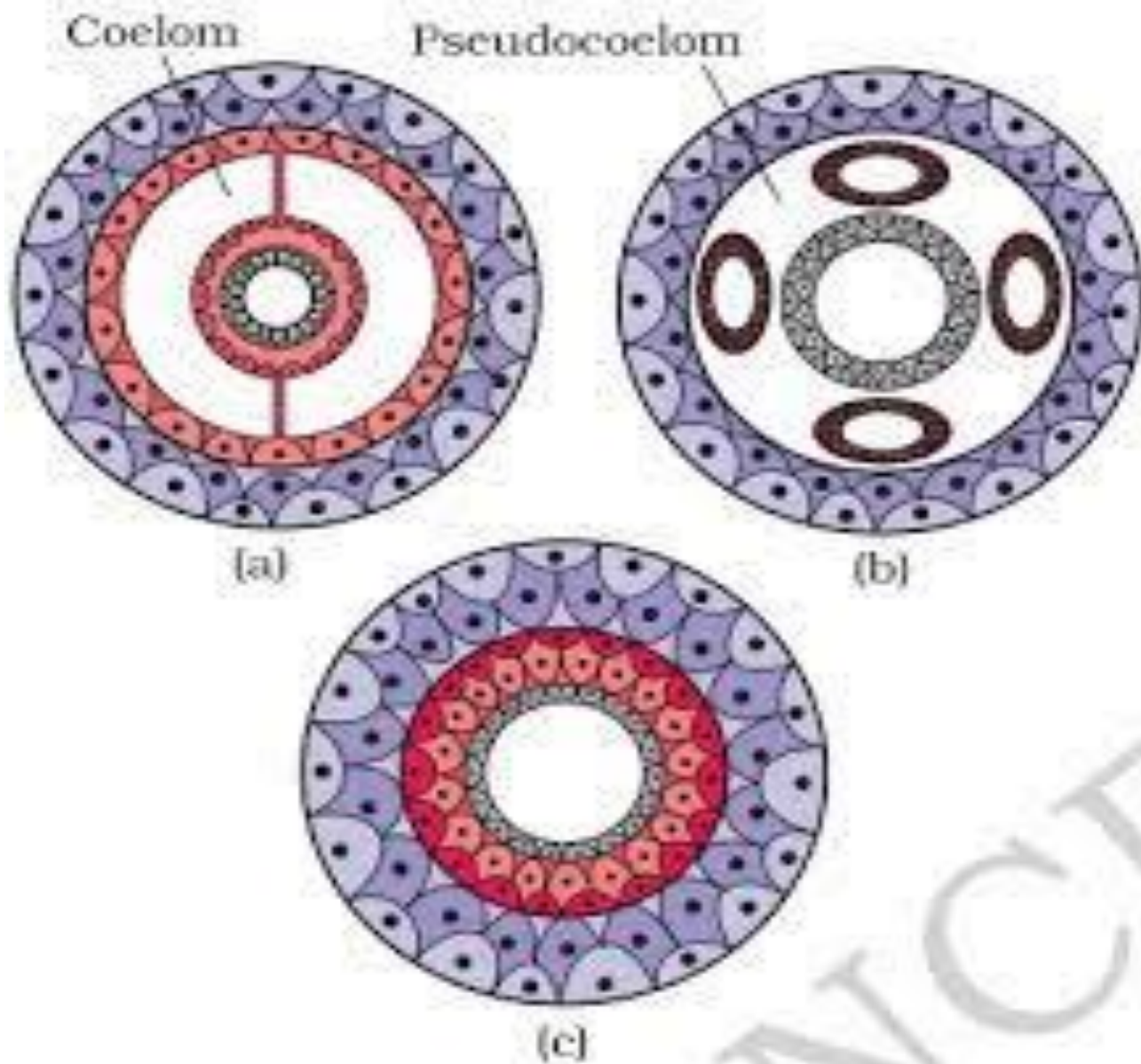
# Embryonic development

- Diploblastic and Triploblastic Organisation





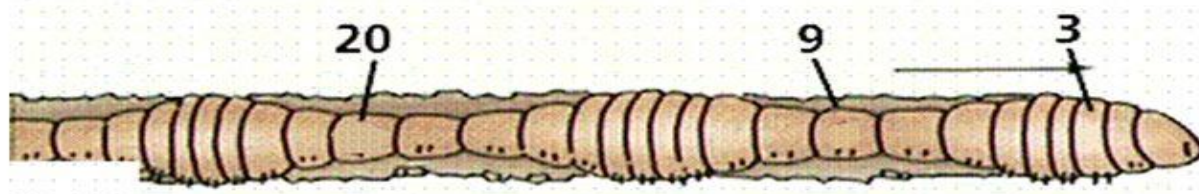
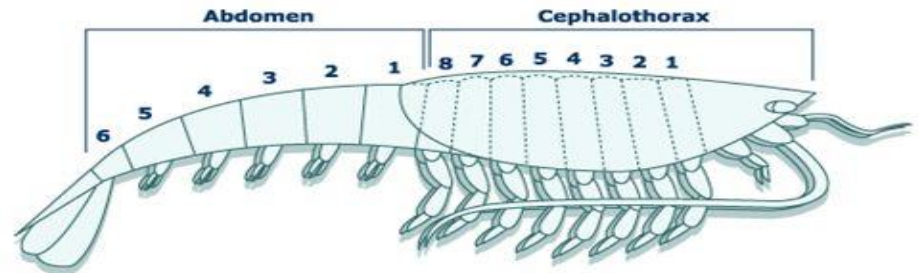
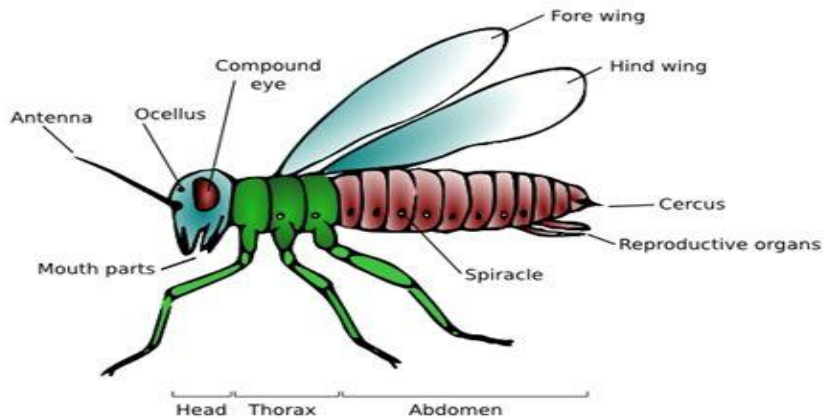
# Coelom



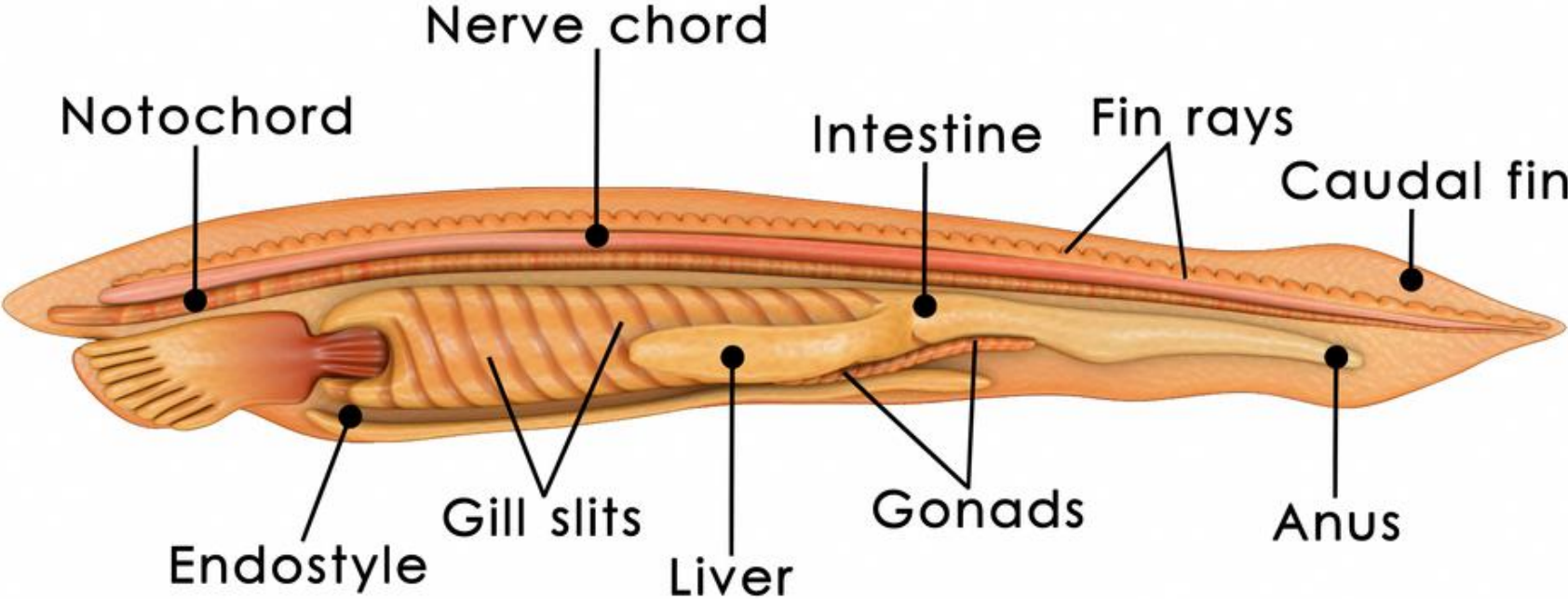
# Segmentation

## Animal Diversity

- Segmentation



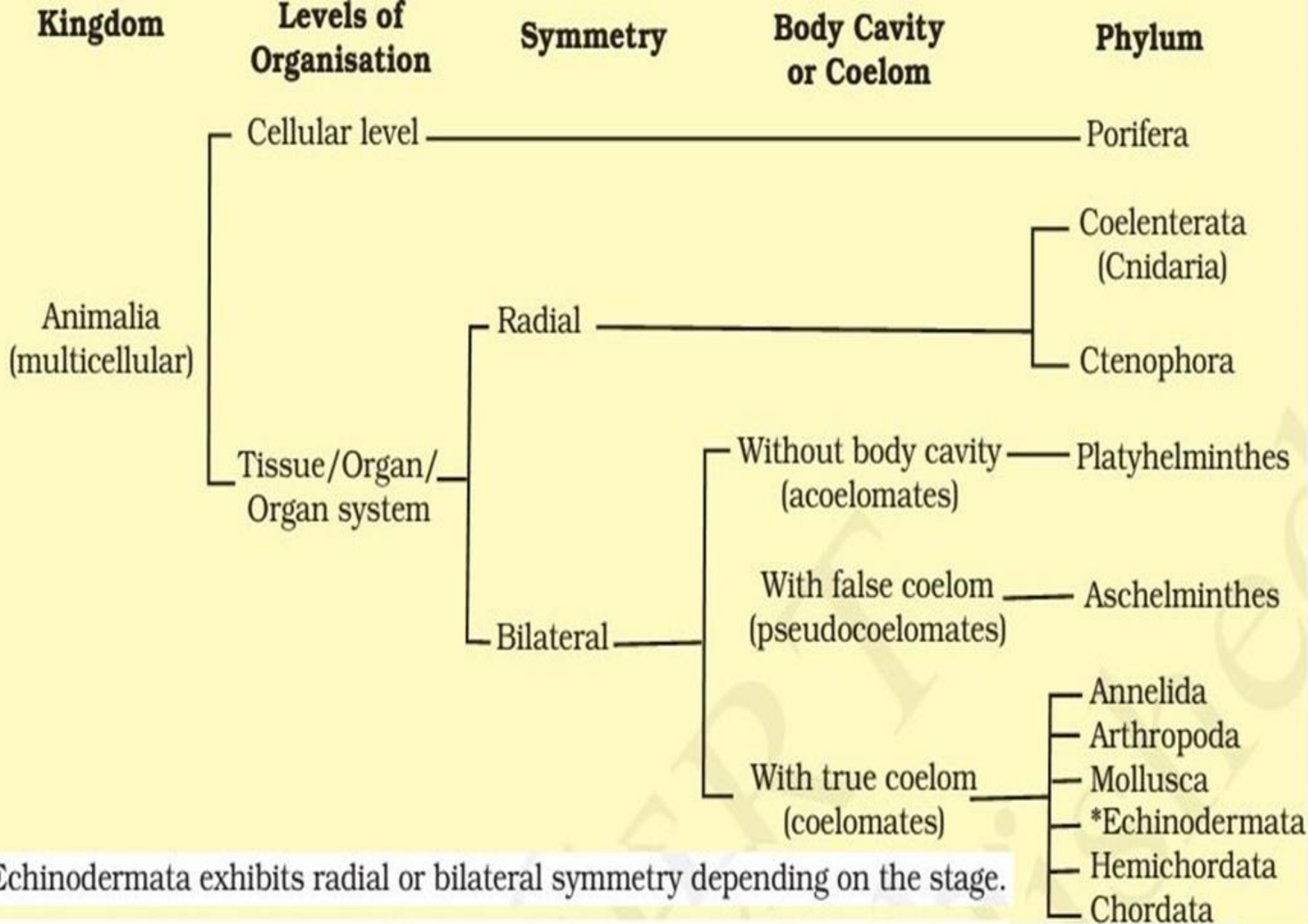
# Notochord





# Animal Kingdom is classified into

- **Phylum – Porifera**
- **Phylum – Coelenterata (Cnidaria)**
- **Phylum – Ctenophora**
- **Phylum – Platyhelminthes**
- **Phylum – Aschelminthes (Nemotoda) Annelida**
- **Phylum – Arthropoda**
- **Phylum – Mollusca**
- **Phylum – Echinodermata**
- **Phylum – Hemichordata**
- **Phylum – Chordata**

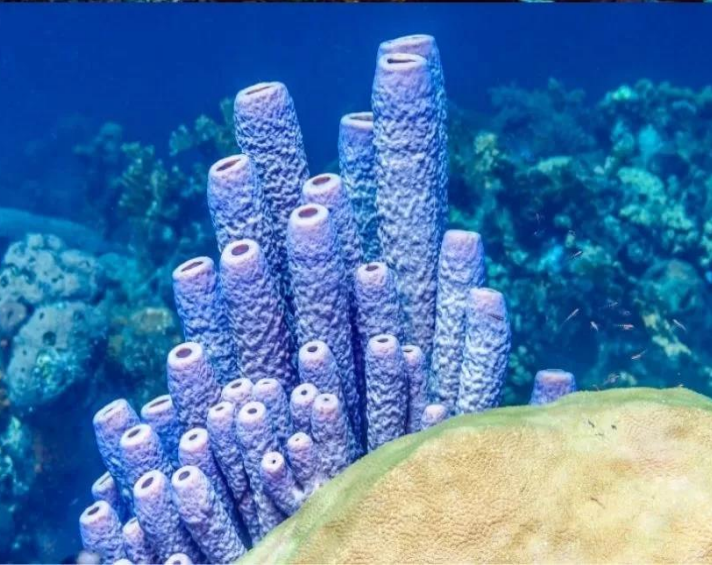


\*Echinodermata exhibits radial or bilateral symmetry depending on the stage.

Broad classification of Kingdom Animalia based on common fundamental features

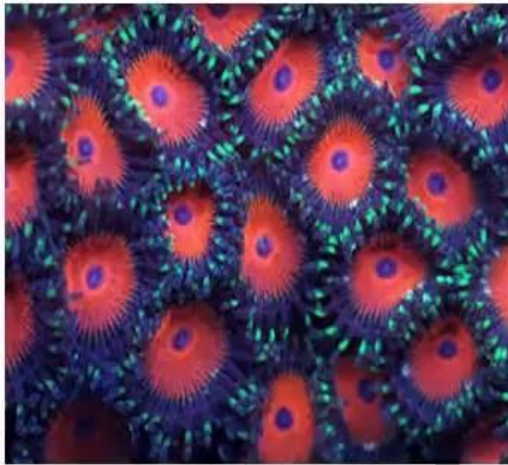


# Phylum – Porifera





# Phylum – Coelenterata (Cnidaria)



PHYLUM - COELENTERATA

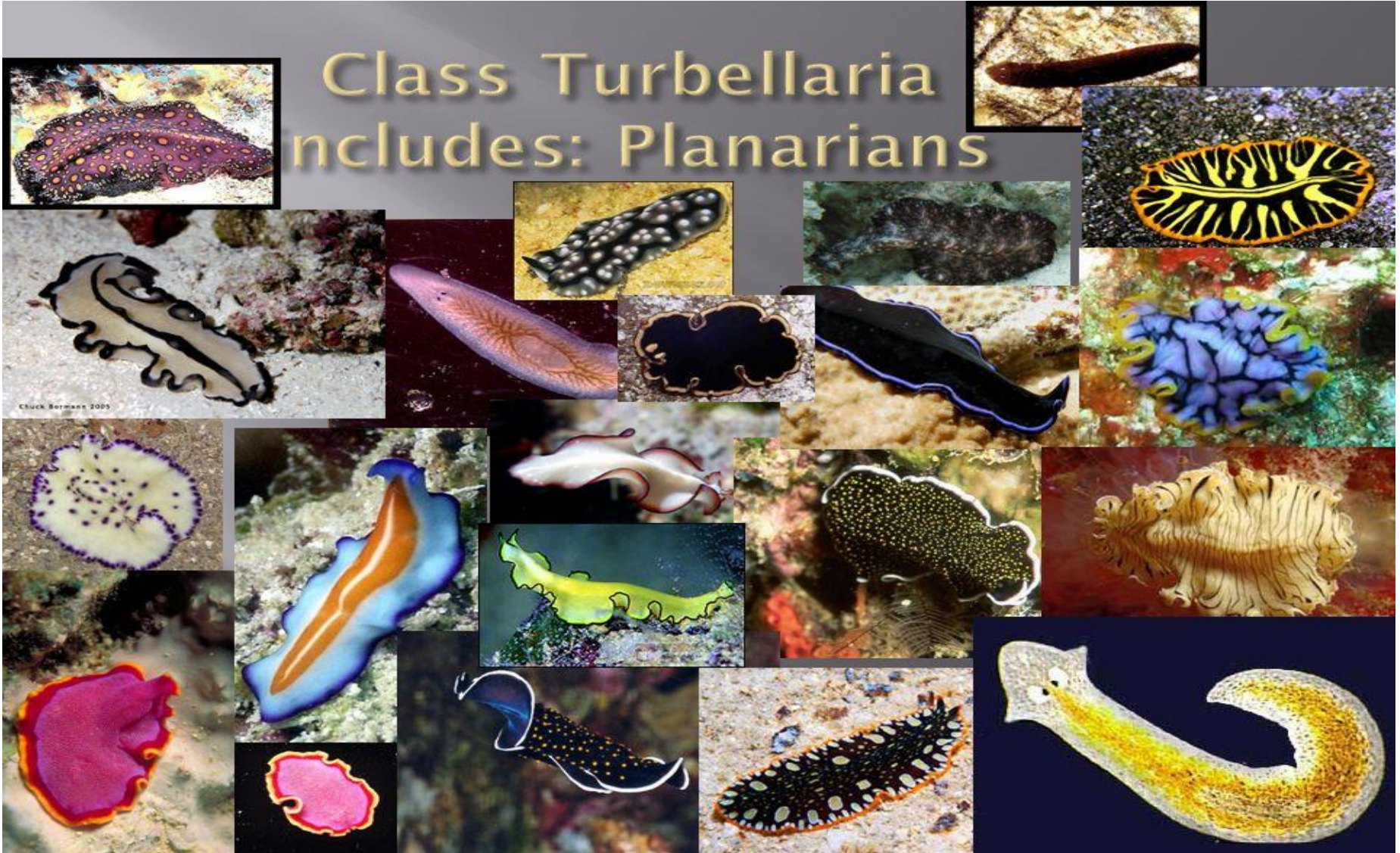
# Phylum – Ctenophora





# Phylum – Platyhelminthes

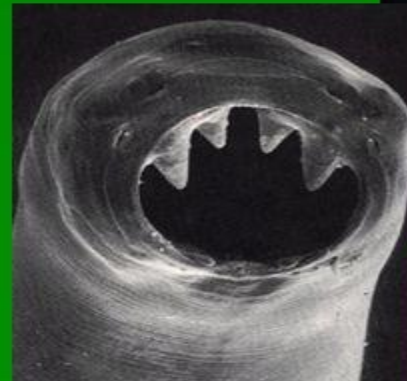
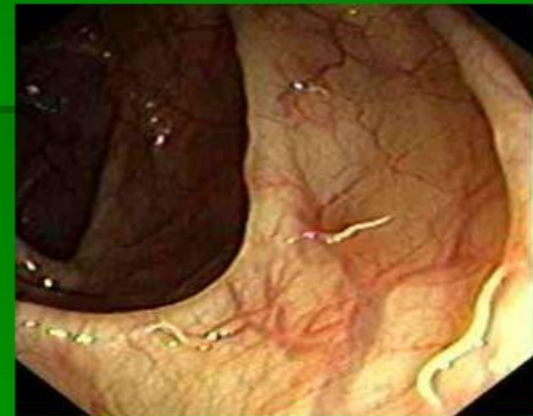
Class Turbellaria  
includes: Planarians





# Phylum – Aschelminthes (Nemotoda)

## Phylum Nematoda



# Phylum – Annelida



*Alitta succinea*



*Glycera* sp.



Earthworm

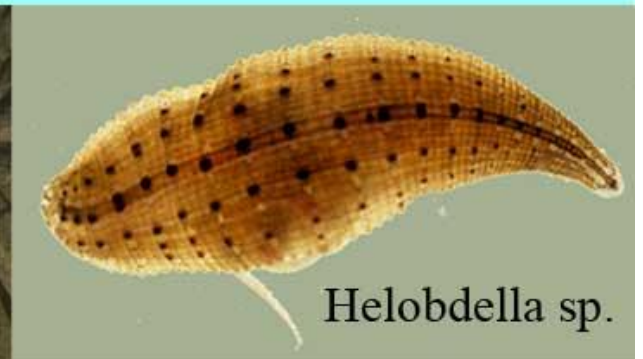
## Phylum Annelida



*Hirudo medicinalis*



*Urechis caupo*



*Helobdella* sp.



# Phylum – Arthropoda

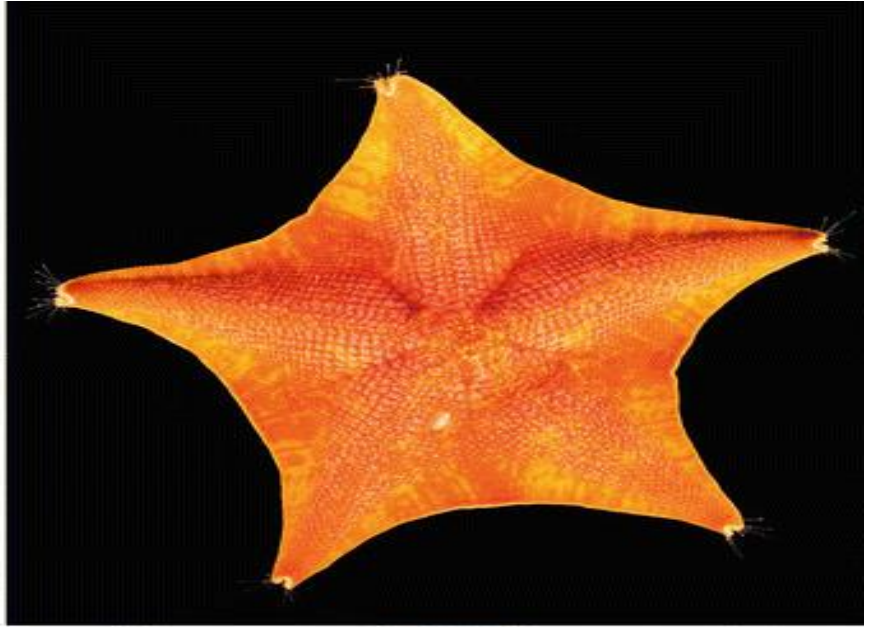
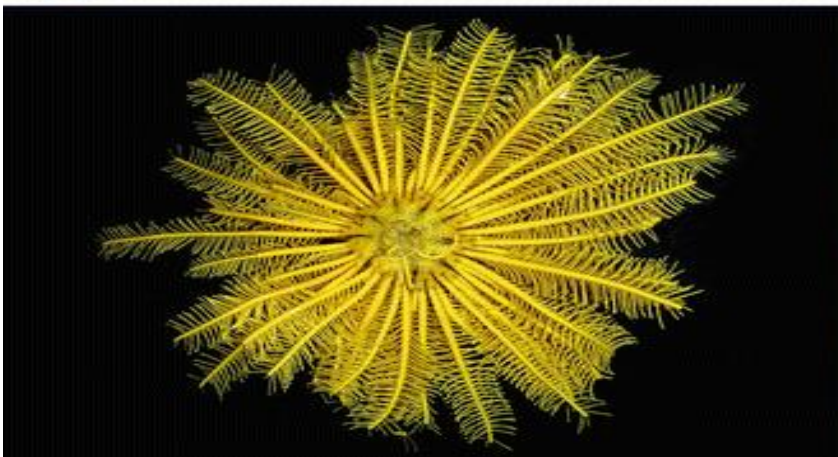
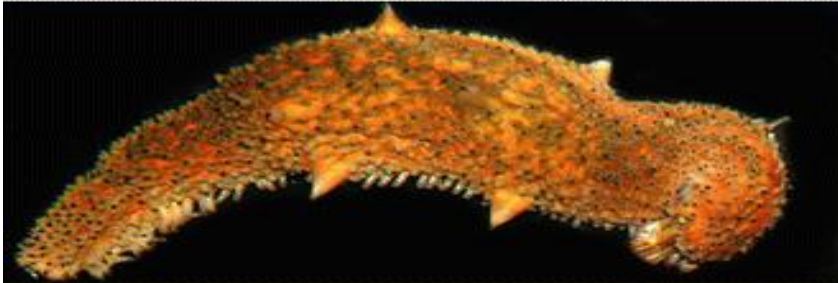


# Phylum – Mollusca





# Phylum – Echinodermata



# Phylum – Hemichordat

## Early Deuterostomes and their modern counterparts



*Shankouclava anningense*  
Tunicata  
Early Cambrian  
Maotianshan Shale, China



Modern Sea squirt  
(*Ciona intestinatlis*)  
Tunicata Ascidiacea



*Pikaia gracilens*  
Cephalochordata  
Middle Cambrian Burgess  
Shale, Canada

Modern Lancelet  
(*Branchiostoma lanceolatum*)  
Cephalochordata  
Amphioxiformes



*Tetragraptus fruticosus*  
Graptolithina  
Ordovician, Canada



*Spartobranchus tenuis*  
Enteropneusta  
Middle Cambrian Burgess Shale,  
Canada



Modern Acorn Worm  
(*Saccoglossus* sp.)  
Enteropneusta Harrimaniidae



Modern Rhabdopleura  
(*Rhabdopleura compacta*)  
Pterobranchia  
Rhabdopleurida