**Phylum Platyhelminthes** (FLATworms)  
3 CLASSES

- **Class Trematoda** (flukes)
- **Class Cestoda** (tapeworms)
- **Class Turbellaria** (free living planarians)

**Phylum Nemertina** (ribbon worms)

- Proximal end of body
- Proximal end of body

**Phylum Cnidaria**

- 3 CLASSES
- Hypothetical common ancestor

**Phylum Porifera** (sponges)

- 3 TYPES

**Phylum Platyhelminthes**

**Phylum Nemertina**

- Proboscis in rhynchocoel
- Closed Circulatory System
- Complete digestive system

**FIGURES TO KNOW:**

**Phylum Platyhelminthes:**
- Fig. 3.1 - Know that A represents three body layers (not 2 as in Cnidaria)
- Fig. 3.2 - 1, 2 (also GVC), 3, 4, 5 (under the pharynx), 6, 7
- Fig. 3.3 - Realize that Turbellarians are monoecious (=hermaphroditic)
- Fig. 3.4 - All; change proboscis to pharynx, strike pharyngeal cavity, change ‘mouth’ to ‘pharyngeal opening’, ‘intestinal branch’ = ‘intestinal caecum/caeca’
- Fig. 3.5 - Know oral sucker, pharynx, caeca, ventral sucker, uterus, yolk gland, eggs, ovary, seminal receptacle, testes
- Fig. 3.6 - Know general life cycle of tapeworms (2 hosts)
- Fig. 3.7 - A, D, E, & 1, 2, 6, 8, 10, 11, 17, 18

**Phylum Nemertina:**
- Fig. 4.1 - A-D, note location of proboscis/rhynchocoel in relation to digestive tract.
- Fig. 4.2 - All of A; all of B, except epidermal glands & connective tissue/muscle layer.
- Fig. 4.3 - Fill in labels & know all