	Key invertebrate phyla							
Characteristics	Porifera	Cnidaria	Platyhelminthes	Nematoda	Annelida	Molllusca	Arthropoda	Echinodermata
Examples of Organisms	*Sponges*	Hydras, jellies, sea anemones, corals	Flatworms, Tapeworms, Flukes	Trichinella Spiralis	Giant australian earth worm	Octopuses, snails, slugs, oysters, clams, and squids	Crustaceans, insects, spiders	Starfish
Number of Tissue layers in Embryo	*Doesn't Apply*	*2; ectoderm and endoderm*	3; ectoderm endoderm mesoderm	**3**	3; ectoderm, endoderm, and mesoderm	3; ectoderm, endoderm, and mesoderm	three	**3**
Tissue versus organ level development	*Quasi tissue level*	*Tissue level*	Tissue level	**Organ** Level	**Organ** Level	Yes organ level	organs	**Organ** level
True muscle cells?	*No*	*No; have epithelio-muscular cells*	Some turbellarians use undulating muscle motion for motility	yes	yes	Yes, muscular foot	**Yes**	Yes
Symmetry? Cephalization?	No No	Radial No	Bilateral symmetry Yes – not in tapeworms	Bilateral yes	Bilateral yes	Bilateral and cephalization	Bilateral Yes	Bilateral No
Coelom? Type?	Acoelomate	no	acoelomates	pseudocoelom	True coelom	pseudocoelom	coelomates	Yes Enterocoelom
Digestive tract? Type?	Filter Feeding	Gastrovascular cavity	Gastrovascular cavity except in tapeworms	**alimentary canal**	**alimentary canal**	Yes, 2 ended, coiled in visceral mass	One way	Yes Glands and Incomplete DS
Circulatory system? Type?	No	No	no	no	Yes closed	Yes, open circulatory system	Open circulatory system	Maybe Water Vascular System?
Nervous System? Type?	No	Non-centralized nerve net	Ventral nerve cords throughout body and ganglia at anterior end	Yes nerve cord and ganglion	Yes nerve cords and ganglion	Yes, nerve ring around the esophagus	Eyes, olfactory receptors, and antennae on anterior end	Yes Central Disk
Other	**;)**	Cnidae in cnidocyte hydrozoans, cubazoans, anthzoans, scryphozoans nematocytes	Some are parasitic (fluke and tapeworms), turbellarians monogenea trematoda and cestoda, schistosoma disease, marine organisms.	Have a cuticle	Hermaphrodites, but can cross fertilize	3 main body parts: muscular foot, visceral mass, and mantle. Radula- to scrape up food.	Jointed appendages, segmentation, exoskeleton made of protein and chitin	Tubed Feet