Phylum Comparison Key

Phylum Porifera	**Phylum Cnidaria**	**Phylum Platyhelminthes**	**Phylum Annelida**
			
No symmetry or consistent body shape	First muscles and nerves	Some of the simplest animals with bilateral symmetry (equal on both sides of the center line)	Bilateral symmetry
Water flows through its body, full of canals	Some have stinging structures (nematocysts)	Tubular mouth (pharynx) at mid-body	Segmented bodies
Spicules act as a skeleton to give it structure	Some free-drifting (medusa)	Three tissue layers, but no body cavity	Complete digestive tract; two ends!
No locomotion: sessile(stationary) animal	Some sessile (polyps)	Digestive tract with one hole; the entrance is also the exit	Fluid-filled compartments used for locomotion
Specialized cells, some for filtering plankton, some for digestion, some for defense. Not organized into organs or tissues.	Hollow body cavity for food	Many marine members are free-swimming	Body design basically a tube within a tube
	Digestive tract with only one hole; the entrance is also the exit	Many members are parasitic	

Phylum Arthropoda	**Phylum Mollusca**	**Phylum Echinodermata**	**Phylum Chordata**
			
Champions of variations in appendages	Feeding device like a toothed, rasping tongue (radula)	5-part, radial (wheel-like) symmetry	All have notochord; most have backbone
Exoskeleton (outside skeleton) made of chitin and protein	Most have a soft body with a hard, calcium-carbonate shell (shell can dissolve in low pH waters)	Tube feet used for locomotion	Increased complexity made possible by much more DNA
First phylum to venture into the air	Muscular “foot” used to slide, dig, or jump	Some spines are little pincers (pedicellaria)	Most have inside skeleton of bones (not tunicates)
Pioneered jointed legs	Some propel, using their siphon as a water jet	Hard but flexible bodies with interlocking plates under thin skin	Phylum to which humans belong
More species than any other phylum	Mantle of tissue covering the body	All members live in the ocean	Jaws and skulls important in their evolution
Complete digestive tract with two ends	Complete digestive tract with two ends	Complete digestive tract with two ends	Complete digestive tract with two ends (thankfully)
Bilateral symmetry with segmentation (head-thorax-abdomen)			Bilateral symmetry with segmentation