Phylum Comparison Chart Key

SPONGES

Phylum Porifera

No symmetry or consistent body shape

Water flows through its body, full of canals

Spicules act as a skeleton to give it structure

No locomotion; stationary animal

Specialized cells, but not organized into organs or tissues

CNIDARIANS

Phylum Cnidaria

First muscles and nerves

Some have stinging structures (nematocysts)

Some free-drifting medusae

Some non-swimming polyps

Hollow body cavity for food

Digestive tract with the entrance being the exit

FLATWORMS

Phylum Platyhelminthes

Some of the simplest animals with bilateral symmetry

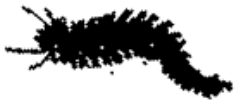
Tubular mouth (pharynx) at mid-body

Three tissue layers, but no body cavity

Digestive tract with the entrance being the exit

Most members are parasitic

ANNELIDS



Phylum Annelida

Bilateral phylum that added segmentation

Complete digestive tract with two ends

Fluid-filled compartments used for locomotion

Their active burrowing has affected global climate

Body design basically a tube within a tube

ARTHROPODS

Phylum Arthropoda

Champions of variations in appendages

Exoskeleton (outside skeleton) made of chitin and protein

First phylum to venture into the air

Pioneered jointed legs

More species than any other phylum

Complete digestive tract with two ends

Bilateral phylum that added segmentation

MOLLUSCS

Phylum Mollusca

Feeding device like a toothed, rasping tongue (radula)

Most have a calcium-carbonate shell

Muscular "foot" used to slide, dig, or jump

Some propel, using their siphon as a water jet

Mantle of tissue covering the body

Complete digestive tract with two ends

ECHINODERMS

Phylum Echinodermata

Five-part radial symmetry

Tube feet used for locomotion

Some spines are little pincers (pedicellaria)

Hard but flexible bodies with interlocking plates under thin skin

All members live in the ocean

Complete digestive tract with two ends

CHORDATES

Phylum Chordata

All have notochord; most have backbone

Increased complexity made possible by much more DNA

Most have inside skeleton of bones

Phylum to which humans belong

Jaws and skulls important in their evolution

Complete digestive tract with two ends

Bilateral phylum that added segmentation