Phylum Chordata
Includes: Tunicates, Lancelets, and Vertebrates (which include Fish, Amphibians, Reptiles, Birds and Mammals)

It's easy to find an example of the chordate body plan—just look in the mirror. But it's more difficult to see which features we share with the rest of the chordates.

Chordates have their skeletons on the inside, a design that allows for growth without the need for molting. Of the approximately 50,000 living chordates, 97% are vertebrates — animals whose skeletons include a backbone.

Three features are present in all chordates. These include a stiffening rod, called a notochord that in many members (e.g., the vertebrates) is replaced during development by a bony, vertebral column. The discs between the vertebrae are the remains of the notochord. Another chordate feature is a hollow nerve structure called a dorsal nerve cord that in most members becomes the spinal cord and brain. Also included in the chordate body plan are structures called pharyngeal gill slits, or clefts. In evolution the skeletal elements of the anterior gills came to function as jaws and jaw supports, and in some animals take on a variety of other functions. (Our gill slits close up when we're still embryos.)

Chordate Features:

- Notochord: an elongate rod-like structure located above the gut and below the nerve cord
- Dorsal nerve cord: a hollow tube that in most differentiates into a brain anteriorly and a spinal cord posteriorly
- Gill clefts: structures located behind the mouth and in front of the esophagus
- Segmented muscles (except for tunicates)
- Post-anal tail

Chordate Fact:
Fewer than five percent of the animals that ever lived on earth have backbones.

Word Bank
Pharyngeal gill slits: these are openings between the pharynx, or throat, and the outside
Anterior: nearer the head
Posterior: nearer the rear end