Phylum

Porifera

Sponges

Marine animals without true tissue, use flagellated cells to draw water and food into the body

Phylum Cnidaria

Jellyfish, Sea anemones & Coral

Soft bodied, aquatic invertebrates that use stinging tructures called nematocysts to paralyze and capture prey

Radial Symmetry

Body parts revolve around a central axis as seen in jellyfish and starfish

Phylum

Platyhelminthes

Flatworms

First animals to show bilateral symmetry and cephalization

Bilateral Symmetry

Organisms that have sides which are mirror images of each other

Cephalization

Concentration of nerve cells at the anterior end of the body

Phylum Nematoda

Roundworms

One way digestive system with separate mouth and anus

Phylum Annelida

Earthworms, Marine worms & Leeches

First organisms with a body cavity lined with epithelial cells (Coelom)

Class Oligochaeta

Earthworms

Worms with few bristles

Class Polychaeta

Marine Worms

Worms with many bristles

Class Hirudinea

Leeches

All are *parasitic-*obtain nutrition from host

Phylum Mollusca

Chitons, Gastropods, Octopods, Bivalves

All have a shell at some point in their life cycle

Chitons

Marine mollusks consisting of 8 overlapping shells

Class Gastropoda

Snails & Slugs

Snails are characterized by a heavy coiled shell while slugs only have an internal shell

Class Bivalvia

Clams, Mussels & Oysters

Characterized by two shells separated by a valve which controls opening and closing of the shells

Class Cephalopoda

Octopods, Squid, & Nautiloids

Advanced muscular, circulatory, respiratory, and nervous systems make them efficient predators

Phylum Arthropoda

Exoskelton & Jointed Appendgages

Sub-Phylum

Trilobitomorpha

Extinct Arthropods

Sub-Phylum Chelicerata

Spiders, Scorpions, Ticks, & Mites

Sub-Phylum Crustacea

Crabs, Lobster, & Crayfish

Sub-Phylum Uniramia

Centipedes, Millipedes, & Insects

Phylum Echinodermata

Sea Urchins, Sea Cucumbers,

& Starfish

Phylum Chordata

All chordates possess a notochord, a rod-like structure which may become part of the vertebral column

Sub-Phylum Vertebrata

Chordates with a backbone

Ectotherms

Fish, Amphibians, & Reptiles

Organisms that rely on the external temperature to maintain their own temperature

Endotherms

Birds and Mammals

Birds and Mammals have the ability to maintain a constant body temperature without the aid of the environment

Class Agnatha

Jawless fish such as lamprey and hagfish, cartilaginous skeleton

Class

Chondrichthyes

Cartilaginous fish such as Sharks, Skates, & Rays, with biting jaws, gill slits, and lateral lines used for detection of movement

Class Osteichthyes

Bony fish such as Salmon, Trout, & Bass which have a swim bladder and an operculum

Operculum

A bony plate that covers the gills of fish belonging to Class Osteichthyes

Class Amphibia

Frogs, Toads, & Salamanders

Characterized by their soft, moist, skin, 2 stage life cycle with the juvenile living in water and the adult living on land, and the need to lay eggs in water

Class Reptilia

Snakes, Lizards, Turtles, Tortoises & Dinosaurs

Characterized by dry scaly skin, an amniotic egg, internal fertilization; they are the first fully terrestrial vertebrates

Amniotic Egg

Provides a self-contained environment for a developing embryo, it is an egg with a hard outer shell

Class Mammalia

Dogs, Wombats, Horses etc..

Characterized by the following: Warm blooded, 4 chambered heart, give birth to live young, covered in fur, fleshy lips, diaphragm, live birth, and females produce milk to nourish offspring

Order Monotremata

Monotremes are mammals such as the duck-billed platypus and anteaters that lay eggs

Order Marsupialia

Kangaroos, Possums, & Koalas are Marsupials, mammals that give birth to immature young that are raised in a pouch

Placental Mammals

Mammals such as Dear, Rabbits, & Moose

Animals that are characterized by the presence of a placenta, which facilitates exchange of nutrients and wastes between the blood of the mother and that of the fetus

Viviparous

Mammals such as humans that give birth to live young

Gestation Period

Length of time a mother carries a fetus, from pregnancy to birth