

A body plan in which the left and right sides are mirror images of each other

Arrangement in which organisms have an irregularly shaped body without symmetry

The internal and external structure and form of an organism

Depression formed when cells of the blastula move inward to form the digestive system

Classification SYSTEM that groups organisms based on their *"shared derived characters"*

System of naming organisms that uses a two part scientific name consisting of a genus name and a species identifier

A specific layer of cells in an embryo from which certain organ systems develop

Plan in which body parts are arranged around a central axis as seen in jellyfish or starfish

the evolutionary history of a species or taxonomic group

Hollow ball of cells that forms when a zygote divides repeatedly by mitosis

Pattern of embryonic development in which cells "twist" as they divide and cells decide early what they will become

Branch of biology that names and groups organisms according to their characteristics and phylogeny

Type of nitrogen waste made from ammonia by the liver and excreted by humans and other mammals

A layer of cells in the gastrula that gives rise to MUSCLE and to the interior body linings

The outer covering on an animal's body

The head end of an organism

The back end of an organism

The "tummy" side of an organism

The top surface or back of an organism

Maintaining the balance of water and ions in the body

An internal skeleton

Skeleton found on the outside of an animal's body

Joining of the sperm and egg outside of the female's body

Joining of the sperm and egg inside the female's body

Animals **WITH** a backbone ; includes fish, amphibians, reptiles, birds, & mammals

Animals **WITHOUT** a backbone; includes sponges, jellyfish, mollusks, echinoderms, and arthropods

Body cavity or space around the internal organs which forms within the mesoderm of animals

Type of development in which organisms hatch or born with an appearance similar to that of an adult only smaller

A type of circulatory system in which the circulatory fluid (blood) is contained inside vessels

Any eukaryotic heterotrophic multicellular organism that can move and reproduce made of specialized cells which contain DNA

A type of circulatory system in which the circulatory fluid (blood) is NOT contained within blood vessels and flows around loose inside the body cavity and tissue spaces

Type of NITROGEN WASTE that is the least toxic and requires the least amount of water to dilute which is excreted by birds, insects, and reptiles

DIAGRAM used in CLADISTICS that shows evolutionary relationships between organisms based on "shared derived characters"

Organism in which the blastopore develops into the mouth and whose embryos have determinate spiral cleavage; Includes all invertebrates except echinoderms

Concentration of nerve tissue and sensory organs at the anterior end of an organism

Type of development in which organisms hatch as an immature larva and must undergo metamorphosis to become an adult (Ex: Caterpillar to butterfly)

Type of NITROGEN WASTE that is the most toxic and requires the most water to dilute which is excreted by animals that live in water

Pattern of embryonic development in which cells stack up on top of each other as they divide and decide later on what they will become"

DIAGRAM used by the 6 Kingdom system that shows evolutionary relationships between organisms based on comparisons of morphology, fossils, embryology, DNA, etc.

Organism in which the blastopore develops into the anus and whose embryos have indeterminate radial cleavage Includes all vertebrates & echinoderms

BILATERAL SYMMETRY

RADIAL SYMMETRY

ASYMMETRY

PHYLOGENY

MORPHOLOGY

TAXONOMY

OPEN CIRCULATION

CLOSED CIRCULATION

BLASTULA

BLASTOPORE

INDIRECT DEVELOPMENT

AMMONIA

OSMOREGULATION

DIRECT DEVELOPMENT

URIC ACID

CLADOGRAM

PHYLOGENETIC TREE

PROTOSTOME

DEUTEROSTOME

ANIMAL

CLADISTICS

INDETERMINATE
RADIAL CLEAVAGE

DETERMINATE
SPIRAL CLEAVAGE

EXTERNAL
FERTILIZATION

INTERNAL
FERTILIZATION

BINOMIAL
NOMENCLATURE

GERM LAYER

MESODERM

INTEGUMENT

DORSAL

VENTRAL

ANTERIOR

POSTERIOR

ENDOSKELETON

EXOSKELETON

VERTEBRATES

INVERTEBRATES

COELOM

CEPHALIZATION

UREA