

Invertebrates

	Porifera (Sponge)	Cnidaria (jellyfish)	Annelida (earthworm)	Mollusca (squid)	Arthropoda (grasshopper)
Body Plan	Body Cavity, asymmetrical	radially symmetrical, 2 stages; polyp and medusa	Bilateral symmetry Segmented bodies and have a true coelom	Bilateral symmetry Foot, mantel, shell, and visceral mass	fewer body segments and highly specialized appendages
Feeding	Filter Feed	natocytes paralyze their prey; goes into the gastrovascular cavity and extracellular digestion	pharynx pumps food and soil into esophagus Moves to the gizzard	can be herbivores , carnivores , filter feeders, detritivores, or parasites has stomach, coelom, cilia, intestine, and anus	can be herbivores, carnivores, or omnivores have pincers, fangs, or sickle-shaped jaws
Respiration	Rely on movement of water through bodies, Diffusion	Diffusion through body walls	Aquatic annelids breathe through gills Land annelids breathe through the skin	if aquatic, then it has gills inside mantle cavity if not, the mantle cavity is filled with blood vessels	breathe through a network of branching tracheal tubes and through spiracles
Circulation	Doesn't have a circulatory	Doesn't have a circulatory system, relies	Closed circulatory system	either open or closed	open circulatory system with

	system, relies on Diffusion	on Diffusion	Dorsal and ventral blood vessels	circulatory system with a simple heart	a heart
Excretion	Rely on movement of water through bodies, Diffusion	Diffusion through body walls	Digestive waste passes out the anus Cellular waste eliminated by nephridia	cells release waste that has nitrogen in form of ammonia. Nephridia removes ammonia from blood	excrete using malpighian tubules
Response	Produce toxins that make them unpalatable, can't respond to changes in environment	Both forms have nerve nets. Have statocyst cells that helps determine the direction of gravity. They have Ocelli to detect light	Brain and several nerve cords	nervous system varies with the mollusks Clams have a simple system while octopi and squids have complex systems	have a brain and a well developed nervous system sophisticated sense organs such as eyes taste receptors
Reproduction	Both sexual & asexual, most from egg & sperm, internal fertilization	Both sexual and asexual; external fertilization. Polyp= asexual (budding) medusa= sexual	most reproduce sexually -some hermaphrodites	snails and 2 shelled mollusks reproduce sexually with external fertilization Tentacled mollusks reproduce sexually	internal fertilization some males are able to place sperm inside females others deposit sperm packet that

				with internal fertilization	females could pick up
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