

Animal Biology Prescribed Learning Outcomes (PLOs)

PLO #	Description of PLO	Suggested Achievement Indicator(s)
G1	analyse how the increasing complexity of animal phyla represents an evolutionary continuum	a compare phyla in terms of <ul style="list-style-type: none"> - levels of organization - cell, tissue, organ, organ system - cephalization - development of a coelom - symmetry - reproduction
		b describe the life functions animals need to survive, including <ul style="list-style-type: none"> - feeding - respiration - internal transport - excretion - reproduction - response and motility
		c compare the advantages and disadvantages of different ways animals carry out their life functions (e.g., filter feeding vs. fluid feeding, parasitic vs. free-living, asexual vs. sexual reproduction, sessile vs. motile)
G2	analyse the increasing complexity of the Phylum Porifera and the Phylum Cnidaria	a examine members of the Phylum Porifera and identify their unifying characteristics
		b describe how poriferans carry out their life functions
		c examine members of the Phylum Cnidaria and identify their unifying characteristics
		d describe how cnidarians carry out their life functions
		e compare polyp and medusa with respect to structure, general function, and motility
		f suggest the advantages of a motile form in the life cycle of a cnidarian
		g explain the evolutionary significance of colonial (poriferan) versus multicellular (cnidarian) lifeforms
		h describe the ecological roles of sponges and cnidarians

PLO #	Description of PLO	Suggested Achievement Indicator(s)	
G3	analyse the increasing complexity of the Phylum Platyhelminthes, the Phylum Nematoda, and the Phylum Annelida	a	examine members of the Phylum Platyhelminthes and describe their unifying characteristics
		b	describe how platyhelminthes carry out their life functions
		c	examine members of the Phylum Nematoda and describe their unifying characteristics
		d	describe how nematodes carry out their life functions
		e	examine members of the Phylum Annelida and describe their unifying characteristics
		f	describe how annelids carry out their life functions
		g	describe the physical changes that were necessary for flatworms and roundworms to become parasitic
		h	evaluate the characteristics of a successful parasite
		i	describe human disorders that are caused by non-segmented worms
		j	compare platyhelminthes, nematodes, and annelids with respect to evolutionary changes
		k	describe the ecological roles of platyhelminthes, nematodes, and annelids
G4	analyse the increasing complexity of the Phylum Mollusca, the Phylum Echinodermata, and the Phylum Arthropoda	a	examine members of the Phylum Mollusca and describe their unifying characteristics
		b	describe how molluscs carry out their life functions
		c	examine members of the Phylum Echinodermata and describe their unifying characteristics
		d	describe how echinoderms carry out their life functions
		e	examine members of the Phylum Arthropoda and describe their unifying characteristics
		f	describe how arthropods carry out their life functions
		g	compare how molluscs, echinoderms, and arthropods have evolved to adapt to different niches
		h	demonstrate a knowledge of the diverse ecological roles of molluscs, echinoderms, and arthropods
G5	relate the complexity of the form and function of vertebrates to the evolutionary continuum of animals	a	examine members of the Subphylum Vertebrata and describe their unifying characteristics
		b	compare members of two or more classes of vertebrates
		c	compare the vertebrates and invertebrates in terms of increasing complexity, with reference to characteristics including <ul style="list-style-type: none"> - endoskeleton vs. exoskeleton - presence or absence of vertebral column - closed vs. open circulatory system
		d	describe the diverse ecological role of vertebrates