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AP Biology

EUKARYOTES: ANIMALS: VERTEBRATES

8. In the table below outline the key characteristics that distinguish the five subgroups of the Vertebrates by making notes on the following: (1) body structure & type of body covering, (2) structure used for gas exchange, (3) structure of heart, (4) ectotherm vs. endotherm, (5) mode of fertilization (internal vs. external), (6) mode of development (internal vs. external & what kind of egg), and (7) any other notable characteristics. Also include examples of organisms in each group.

VERTEBRATE SUBGROUP	BODY	GAS EXCHANGE	HEART	ECTO- VS. ENDOTHERM	FERTILIZ-ATION	DEVELOP-MENT	OTHER	EXAMPLES
Fishes	Jawless	Gills	2 chamber	Ecto therms	External	External	no bone-fin	Hagfish
	Cartilaginous	Gills	2 chamber	Ecto therms	Internal	External	no bone	Sharks
	Bony	Gills	2 chamber	Ecto therms	Internal ~~External~~	~~Internal~~	Deoxygenated blood through-out heart	Trout
Amphibians	4 strong limbs moist thin skin	Lungs Gills Skin	3 chamber	Ecto therms	External	External aquatic eggs	Spend part or all of life in water	Frogs salamanders Caecilians
Reptiles	4 legs lizard-looking snake-like	Lungs	2 atria 1 ventricle (partially divided by septum)	Ecto therms	1. Oviparity ext 2. Ovoviviparity 3. Viviparity ~~int. and ext.~~	~~Ovoviviparity~~ ~~Viviparity~~ Amniotic egg int. and ext.	Once dominated Earth, until extinction, where mammals took over	Dinosaurs Turtles Lizards Snakes Crocodiles
pg. 840 Birds	Feathers wings lightweight skel Beak	Lungs	4-chamber rapid heartbeat	Endo therms	~~Oviparity~~ Oviparity Internal	~~Oviparity~~ Amniotic eggs	Come in many colors sizes, and ~~Size~~ wingspans	Duck Bluejay Cardinal Tucan
Mammals	Hair Milk (mammary gland = mammal) single jawbone specialized teeth	Large lungs alveoli	4-chamber completely divided with muscular wall	Endotherms	Internal	External	Most specialized very diverse	Lynx Human giraffe mouse

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