

WHAT TO KNOW ABOUT AMPHIBIANS

Review:

Vocab list

Frog Body Systems sheet

Chapter ?'s

Frog Lab

Amphibian flow chart

Metamorphosis diagram

CLASSIFICATION:

Know the **KINGDOM: Animalia**; **PHYLUM: Chordata**; **SUBPHYLUM: Vertebrata**; **CLASS: AMPHIBIA**; and **ORDER: Anura** for frogs

Name the three main **ORDERS** of amphibians and be able to give examples, and their Latin meanings.

Anura “tail-less” Urodela “visible tail” Apoda “leg-less”

CHARACTERISTICS

What Characteristics do all **AMPHIBIANS** share?

(Thin moist skin; Clawless feet; Aquatic larva changes to terrestrial adult; Ectothermic (Cold blooded); Gills/lungs/skin for respiration; 3 chambered heart; Closed 2-loop circulation; Eggs without shells/extra membranes)

BODY ORGANS

BE ABLE TO IDENTIFY AND NAME PARTS IN A DIAGRAM

(outsides, body organs, mouth openings/structures, reproductive)

Be able to **NAME**, give **FUNCTIONS**, & body **SYSTEM** of all organs

(including **BRAIN**: Brain lobes are same as a fish)

Note especially the organs that are “new/improved” that we haven’t seen before.

(Ex: Lungs, small & large intestine, ileum, cloaca, vent, glottis, Eustachian tubes, gullet, oviducts, fat bodies)

How are **CUTANEOUS** & **PULMONARY** respiration different?

Where are **BILE**, **TRYPSIN**, **INSULIN**, **GLUCAGON**, & **THYROXINE** made?

What is the function of these substances? How is **GLUCAGON** different from **GLYCOGEN**?

CIRCULATORY:

How are capillaries, veins, and arteries different? How is an amphibian heart changed from a fish’s heart? Be able to trace the path of blood flow in a frog’s body? *Note: blood only goes through sinus venosus when returning from body not from lungs!* Where is the **HIGH** oxygen blood? Where is the **LOW** oxygen blood? Where does the **PULMONARY**, **RENAL**, **HEPATIC**; **CORONARY** circulation go? How are frog red blood cells different from human RBC’s? (amphibian RBC’s have cell nuclei; ours don’t)

REPRODUCTIVE:

Where does fertilization happen? Be able to explain: amplexus; What happens during metamorphosis? How are frog larvae (tadpoles) similar to fish? (excrete nitrogen waste as ammonia through gills & as urine made by kidneys, breathe with gills; have lateral line; two chamber heart; 1 loop circulatory system)

ADULT vs LARVA (tadpole)

How is respiration in an adult frog different from a tadpole?

What kind of nitrogen waste does each produce? How is nitrogen waste removed in each?

MISCELLANEOUS:

What does **ECTOTHERMIC** mean?

Be able to explain **HIBERNATION/ ESTIVATION** ; How do fat bodies help with these processes?

ANIMAL COMPARISONS (How are they alike OR different?)

Be able to compare **ADULT FROGS** to **TADPOLES**.

Be able to compare **FROGS** to **FISH** and to other organisms you have dissected.

