WHAT TO KNOW ABOUT BIRDS

Review:

Vocab list
Bird Body Systems sheet
Chapter ?'s
Flow chart: characteristics & bird orders
Pigeon Lab
Bird Diagrams (Body, Feather, Egg)
Blue comparison sheet

**** WHAT MAKES THEM FLY****
****Be able to tell how each body system is modified to help in flight. Give examples****

CLASSIFICATION/CHARACTERISTICS

***Know THE CLASSIFICATION LEVELS for PIGEONS: Kingdom (ANIMALIA), phylum (CHORDATA), subphylum, (VERTEBRATA); class (AVES); ORDER (Columbiformes).**
Be able to give their Latin meanings.
***What Characteristics do all BIRDS share?**
(Wings; feathers; beak; Endothermic (warm blooded), lay amniotic eggs; super efficient respiratory system, Light weight, rigid skeleton; 4 chamber heart

BODY ORGANS

BE ABLE TO IDENTIFY AND NAME PARTS IN A DIAGRAM
(outsides, body organs, feathers, amniotic egg)
Be able to NAME, give FUNCTIONS, & body SYSTEM of all organs
Note especially the organs that are "new/improved" that we haven't seen before. (Ex: syrinx; air sacs; colic caeca; furcula; pygostyle; sternum; pectoralis; cere; ureters, missing urinary bladder)
Where are BILE, TRYPSIN, INSULIN, GLUCAGON, & THYROXINE made?
What is the function of these substances? How is GLUCAGON different from GLYCOGEN? What kind of nitrogen waste do birds excrete ? WHY?

CIRCULATORY:

How is bird heart changed? complete septum) How many chambers are in a bird heart? How many loops in its circulation? Be able to trace the path of blood flow in a bird's body? Where does the PULMONARY and SYSTEMIC circulation go? Where is the HIGH oxygen blood? Where is the LOW oxygen blood? Which side of the heart carries which? Which heart parts are missing? How are capillaries, veins, and arteries different? What is the largest blood vessel going to/returning from the lungs? What is the largest artery going to/returning from the body? Why is the left ventricle larger than the right? How are mammal red blood cells different from other vertebrates you have studied? (BIRDS & fish, amphibian, and reptile RBC's have cell nuclei; ours don't)

REPRODUCTIVE:

Where does fertilization happen? What advantages does internal fertilization provide? (increases chances of sperm finding egg; allows for shell to be added) How are bird eggs different from reptile eggs (calcium carbonate in shells to make them hard) How are oviparity, ovoviviparity, and viviparity different? What kind of development do birds have? What are the parts in an amniotic egg? What do they do? What's different about reproductive organs in female birds? (only one ovary/oviduct on left; shrink when not being used) What is the difference between precocial and altricial babies? Where are they laid and why?

MISCELLANEOUS:

What do ectothermic and endothermic mean? What advantages does being endothermic have over being ectothermic? What is the difference between osmoregulation and thermoregulation? Where did birds come from evolutionarily?
What does the location of a bird's eyes have to do with their kind of vision?
What cues do birds use to navigate? What is molting? Migration?

ANIMAL COMPARISONS (How are they alike OR different?)

Be able to compare BIRDS to REPTILES and to other organisms you have dissected