Part 2 Animal Kingdom Test [Chordate]

Friday, December 9, 2016

Section 30-1

* 4 criteria to be classified as a Chordate
* Cladogram
* Difference between a nonvertebrate chordate and vertebrate chordate.
* How is the endoskeleton of a vertebrate similar to the exoskeleton of an arthropod? How are the different?
* What are the two groups of nonvertebrate chordates?
* Know what an adult tunicate is missing with respect to Chordate criteria.
* What does an adult lancelet have that an adult tunicate does not?

Chapter 33

* Most ancient chordates were most closely related to which invertebrate?
* What is the significance of Pikaia? What was it first thought to be? Where were the fossils found?
* Be able to use a cladogram to answer questions
* Be able to explain the two evolutionary trends in vertebrates
  + Adaptive radiation
  + Convergent evolution
* What are the six living groups of vertebrates today? Which is the largest?
* Why does body temperature need to be controlled?
* Know the characteristics of an endotherm and an ectotherm
* Understand the need, or lack there of, for food in endotherm and ectotherm.
* Form and function in chrodates
  + Feeding
    - Significance with respect to homeostasis
    - Length of the digestive tract for a carnivore vs an herbivore.
  + Respriation
    - What are the two basic structures for respiration that a chordate may have?
    - Explain how gas exchange occurs across the gills.
    - Overview of gas exchange in the lungs
    - What changes with respect to lungs when moving from amphibians to mammals?
    - What do the alveoli provide to aide in gas exchange?
    - What is unique about air flow in birds?
  + Circulation
    - How do circulatory systems maintain homeostasis?
    - What type of circulatory system do animals that use gills have?
    - What type of circulatory system do animals that use lungs have?
    - What happened during chordate evolution with respect to oxygen-poor and oxygen-rich blood?
  + Excretion
    - What is the purpose of an excretory system?
    - What is the main excretory organ in most vertebrates?
  + Response
    - Compare the nervous system of nonvertebrate chordates with vertebrate
    - What is the cerebrum and discuss its level of development in birds and mammals.
    - What is the purpose of the folds found in the brains of mammals and birds?
  + Movement
    - Do nonvertebrates have bones? Muscles?
    - What are the two systems that support a vertebrate’s body?
  + Reproduction
    - What is the trend in fertilization for vertebrate?
    - Oviparous—eggs develop outside the mother’s body [all birds, most fish and amphibians]
    - Ovoviviparous-egg develops in the mother’s body [shark]
    - Viviparous- developing embryo obtains nutrients from the mother’s body. [ mammals]

Go over all guided readings, as well as chapter questions that were assigned.

The test will consist of Multiple Choice, Matching, True and False and Short Answer.