Biology 211 Exam 2 Study Guide

Chapter 33—Introduction to Kingdom Animalia:

Vocabulary:
- Blastula
- Blastopore
- Cambrian Explosion
- Deuterostomes
- Diploblasts
- Diploid
- Gastrula
- Gastrulation
- Haploid
- Homeobox (Hox) genes
- Protostomes
- Triploblastic

Concepts:
- Characteristics of animals
- Early embryonic development stages
- Three germ layers
  - What tissues arise from each layer?
- Brief history of animal life on Earth
  - Neoproterozoic, Paleozoic, Mesozoic, Cenozoic
- Three hypotheses of Cambrian Explosion
- Three types of symmetry
- Three types of coelomates
- Spiral vs radial cleavage
- Determinate vs indeterminate cleavage

Chapter 34—Invertebrates (Calcarea/Silicea and Cnidaria):

Vocabulary:
- Choanocytes
- Choanoflagellates
- Gastrovascular Cavity
- Polyp
- Medusa

Concepts:
- Characteristics of sponges
- What protist is the closest relative to animals?
- Four classes of Cnidarians
- Two body forms of Cnidarians

34—Invertebrates (Lophotrochozoans):

Vocabulary:
- Cephalization
- Lophophore
- Parapodia
Radula
Trochophore

Concepts:
Platyhelminthes
Major difference between body plan of free-living and parasitic organisms
Types of reproduction in different types of hosts
Examples of Platyhelminthes
Annelida
Segmentation
Ecological importance of earthworms
Mollusca
Body plan and parts
One class that does not have radula

Chapter 34—Invertebrates (Ecdysozoans):
Vocabulary:
Chitin
Collagen
Cuticle

Concepts:
Nematoda
Exoskeleton is made of...
Examples of Nematoda
Arthropoda
Four characteristics of why they are successful
Four major subphyla (examples of each)
Which group is most successful?
Three major adaptations of Insecta
Benefit of jointed appendages

Chapter 35—Vertebrates:
Vocabulary:
Albumen
Allantois
Amnion
Chorion
Dorsal hollow nerve cord
Endothermic
Exothermic
Neural Crest Cells
Notochord
Pharyngeal slits
Post-anal tail

Concepts:
Four characteristics of all Chordates
Four characteristics of all vertebrates
Phylogenetic tree of when certain characteristics had risen
Major events in vertebrate history
Three types of mammals
How jaws formed
Birds adaptations for flight