Evolution Unit Test Study Guide
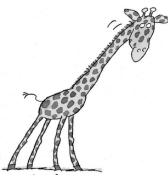
Your Evolution Unit Test will be on: _____

Prescribed Learning Outcomes: B1a, C1a, C1b, C1c, C1d, C1e

How you will be asked to demonstrate the PLOs for this unit:

Please be aware that all notes, homework, activities, etc. completed throughout the course of this unit will serve as study material for your test.

- know the definitions of and be prepared to use/apply all vocabulary terms

- describe, label and/or identify the basic structure of deoxyribonucleic acid (DNA) with reference to the following terms:
    - double helix
    - sugar-phosphate backbone
    - nitrogenous bases (A, T, C, G)
    - complementary base pairing (A-T, C-G)
    - nucleotide

- explain the role of DNA, RNA, amino acids, and proteins in evolution

- discuss/describe how embryological relationships between organisms are used as evidence for evolution

- describe the process of and evidences for evolution (using both Lamark's theory (of acquired characteristics), which is now known to be incorrect, and Darwin's theory (of natural selection), which is the modern theory of evolution)

- use and/or draw a phylogenetic tree

- describe how the five agents of evolutionary change (mutation, genetic drift, gene flow, non-random mating, and natural selection) affect the genetic make-up (i.e. allelic frequencies) of a population

- differentiate among and give examples of convergent evolution (producing analogous structures), divergent evolution (producing homologous structures), and speciation

- discuss and provide examples of adaptations in predators and prey, as well as how their adaptations affect each other (coevolution)

- compare and contrast the gradual change model with the punctuated equilibrium model of evolution