**Evolution Study Guide**

**Goals**

1. Explain the concept of evolution as the interactions between genetic changes and a constantly changing environment.
2. Explain how changes in the genetic make-up of a population may alter biodiversity through speciation and extinction.
3. Explain how evolution is evidenced from the fossil record, comparative anatomy, genetics, molecular biology, and examples of natural selection.

**Vocabulary and concepts**

Evolution

Natural selection

Artificial selection

Struggle to survive

Speciation

Fossils

Heritable variation

The struggle to survive

Decent with modification

Biodiversity

Geologic time (deep time)

Relative dating

Radioactive dating

Comparative anatomy

Vestigial structures

Embryology

Allele frequency

Common genetic code

Directional selection

Stabilizing selection

Disruptive selection

Genetic Drift

Mutations

Variation

Fitness

Speciation

Behavioral Isolation

Geographic isolation

Temporal isolation

Common descent

Adaptive radiation

Divergent evolution

Convergent evolution

Gradualism

Punctuated equilibrium

Endosymbiotic theory

Endomembrane infolding