Evolution and Classification Test Study Guide

* Summarize Darwin’s principles of natural selection

- cause and effect of environmental factors on evolutionary processes

- different kinds of natural selection (stabilizing, directional, disruptive)

* Analyze how allele frequencies are affected by environmental changes
* Bottleneck/Founders
* Genetic drift
* Gene flow
* Gene pool
* Mutation
* Migration/Isolation
* Hardy-Weinberg
* Factors needed for genetic equilibrium
* Draw conclusions on how the cumulative effects of adaptations lead to speciation and biological diversity

-speciation

-factors that lead to speciation

* Analyze evidence that supports evolution

- Homologous structures

-vestigial structures

-Embryonic similarities – (how things hatch – live birth or lays eggs – asexual, sexual)

-convergent evolution (analogous characters, derived characters, ancestral characters)

* Classify organisms based on evolutionary relationships

-identify organisms using a dichotomous key

-domains

-classification system/taxonomy

-Phylogenetic trees

-Create a cladogram - clades

 - derived characters