

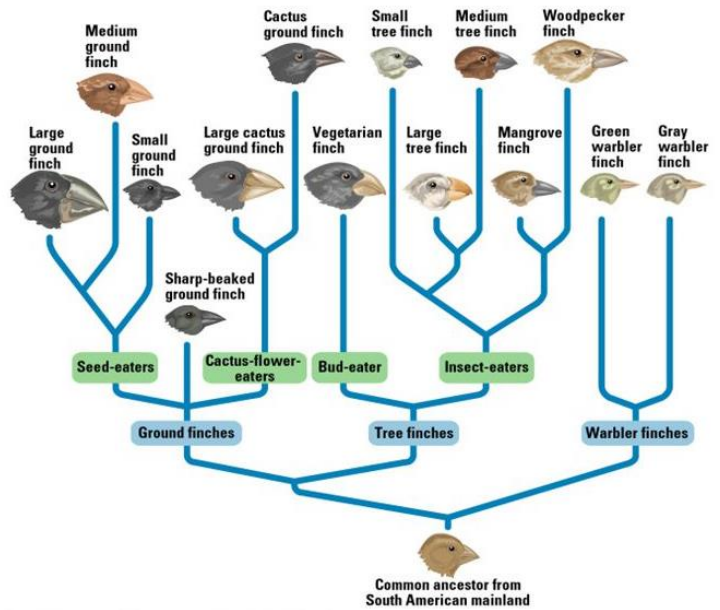
Study Guide: Unit 8 Test

HONORS BIOLOGY: EVOLUTION (Chapter 11)

Directions: The list below identifies topics, terms, and concepts that will be addressed on your Unit 8 Test. This list should help you focus your review. This is not a homework assignment you will turn into me.

Genetic Variation within Populations

- **Natural selection** acts on **phenotype**
- Darwin's Finches
- Gene Pool
- Gene Frequency
- Genetic variation comes from several sources
 - Mutations
 - Recombination
 - Meiosis
 - Crossing Over

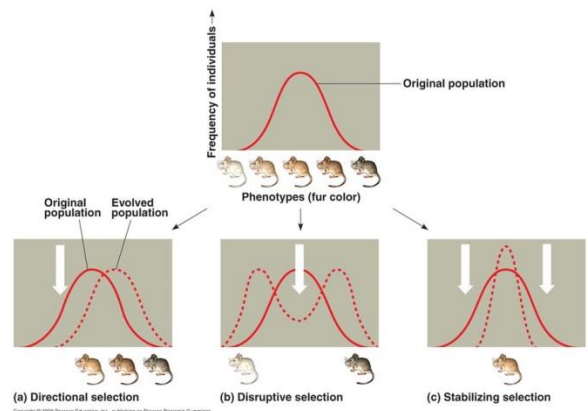


Natural Selection in Populations

- Microevolution
- Macroevolution
- Normal distribution (Bell curve)
- Distribution can change along 3 paths
 - Directional selection
 - Stabilizing Selection
 - Disruptive Selection (diversifying selection)

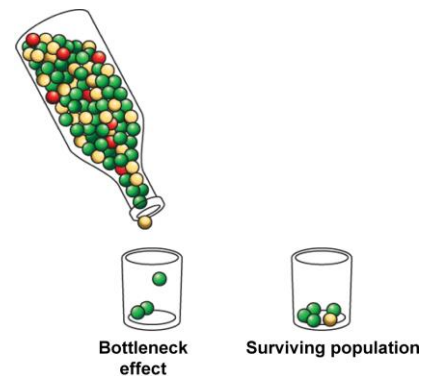
Other Mechanisms of Evolution

- Gene flow
- Genetic Drift
 - Changes in allele frequencies due to chance (Two ways this occurs)
 - Bottleneck Effect
 - Founder Effect
 - Effects of genetic drift
- Sexual selection



Hardy-Weinberg Equilibrium

- Describes populations that are **not** evolving (5 conditions)
- Hardy-Weinberg equation
 - Used to predict genotype frequencies in a population
 - If calculated frequencies match actual frequencies, then population in equilibrium



Speciation through Isolation

- Reproductive isolation
- Behavioral isolation
- Geographic isolation
- Temporal Isolation

Patterns of Evolution

- Convergent Evolution
- Divergent Evolution
- Coevolution
- Extinction
- Punctuated equilibrium
- Adaptive Radiation

