Concept 2 – Analyzing Descent with Modification: A Darwinian View of Life

(Ch 22)

**AP Bio 11 - Mechanisms of Evolution**

Concept 2: Analyzing Descent with Modification: A Darwinian View of Life (Chapter 22)

Part 2: Evidence for Evolution

Key Ideas:

* Fitness
* Adaptation
* Mutations
* Variation
* Evolution
* Natural Selection
* Darwin vs Lamarck

**Evidence for Evolution**

1. Direct observations

* Evolution of antibiotic-resistant bacteria

2. The fossil record

* Past organisms were different, changes have occurred

3. Homology and Convergent Evolution

* Homologous Structures: variations on a structural theme: wing, flipper, hand; vestigial
* Analogous Structures: similar adaptations to similar environments: fin, flipper; streamlined body
* Convergent Evolution:

4. Biogeography

* Geographic distribution of species: continental drift from Pangaea