**Evolution Outline**

**People**

Lucretius Lamarck Darwin

Lyell Malthus Miller

**4 Points in Darwin’s Theory** **Evidence of Evolution**

1. Variations Fossils

2. Adaptations Homologous Structures

3. Evolution Vestigial Structures

4. Fossils DNA/RNA

Artificial Selection

**Microevolution** **Macroevolution**

Natural Selection Continental Drift

Genetic Drift Mass Extinction

Gene Flow Genes

Mutation Paedomorphosis

Sexual Selection Rates of Growth

Homeotic Genes

Stromatolites

Population

Gene Pool

Relative Fitness

Bottleneck Effect

**Origins of the Earth**

**Origins of Life**

1. Abiotic Synthesis of amino acids and nitrogenous bases

2. Formation of polymers = proteins and RNA

3. Protocells

4. Self-Replication RNA **Speciation**

Reproductive Isolation

Hybrid

Sexual Selection

Habitat Differentiation

Polyploidy

Allopatric

**Adaptive Radiation** Sympatric

New Resources Gradualism

New Niches Punctuated Equilibrium

New Challenges

**Adaptations Evolution of Humans**

Behavioral Hominid vs. Hominin

Physiological Convergent vs. Divergent

Structural Differences between Humans and Primates

Australopithecus