AP Bio Ch.23 Key Vocabulary and Concepts

Vocabulary:

**microevolution**

**genotype**

**phenotype**

**loci (locus)**

**allele**

**heterozygosity**

**geographic variation (isolation)**

**cline**

**population**

**gene pool**

**Hardy-Weinberg Principle (with 5 conditions)**

**gene flow**

**genetic drift**

**founder effect**

**bottleneck effect**

**relative fitness (compared to others in the population)**

**directional selection**

**disruptive selection**

**stabilizing selection**

**adaptive evolution (match to the environment)**

**sexual selection**

**sexual dimorphism**

**intrasexual selection**

**intersexual selection**

**heterozygote advantage**

**frequency-dependent selection**

Ch.22 Key concepts:

**Hardy-Weinberg equation is a mathematical test for sexually reproducing, diploid organisms to see if evolution is occurring in a population at one gene locus with two possible alleles (simplest model). If the phenotype matches the genotype so that p2 + 2pq + q2 = 1.0, then no evolution is occurring. (Know the 5 conditions)**

**Populations evolve over time, individuals do not evolve.**

**Genetic variation is necessary for evolution, and allele combinations are varied through sexual reproduction. The only other way to introduce variation is through mutation.**

**Diversity is good in a population (hybrid vigor).**

**Evolution is the change over time (good or bad or neutral).**

**Selection is condition that determines how genes (alleles) persist in a population.**

**Adaptation is changing to fit the condition of the environment.**

**Selection →evolution→adaptation**