Mechanisms of Evolution
Evolution: the change in organism over time often noted as a changes in the gene pool
Gene Pool: the different genes found in a population

Mechanism	Information	Diagram
Natural Selection	Organisms are born with variations in their traits caused by mutations The environment selects which organisms have the best traits for survival and reproduction These "best fit" organisms are able to pass their genes to the next generation	
Genetic Drift	Changes in the frequency of appearance of different alleles in a population due to chance The frequency of different alleles is relatively constant in a large population, a small population has a high chance of losing alleles	
Founder Effect	Occurs when a small sample of a larger population settles in a location separated from the rest of the population The settlers contain only a small number of the different alleles found in the larger population Alleles that were uncommon in the original population might be popular in the new population	
Bottleneck	Occurs when a population declines to a very low number of individuals then rebounds The gene pool of the rebound population is similar to the original population right before the population increased Genetic diversity potentially reduced	
Gene Flow	New alleles are introduced to a population by migration of breeding individuals The new alleles could become part of a populations gene pool Genetic diversity potentially reduced between the populations, but can increase genetic diversity within a population	
Nonrandom Mating	Random mating occurs when individuals mate by chance and not based on their genotype or phenotypes Nonrandom mating – inbreeding – changes the number of heterozygous individuals and increases homozygous individuals	
Assortative Mating	Occurs when individuals tend to mate with those that have the same phenotype	
Sexual Selection	Occurs when females select males based on their phenotypes	