Evolution Notes

I. Mutations-random changes in DNA

* Results in variation of traits
* Traits passed to the next generation
* Can be:
  + Beneficial
  + Harmful
  + Neutral

II. Gene Flow- exchange of genes between two populations

* Leave a population or join a new population
* Leave=less diversity
* Join=more diversity

III. Genetic Drift-change in frequency of alleles

* Caused by:
* Disease
* Starvation
* Natural Disaster
* Bottlenecking: when a population goes from large to small
  + Can lead to speciation-the development of a new species
* Example: Cheetahs: around 1000 years ago, population drastically decreased; around 100 years ago, bottlenecking occurred again. Current Cheetah species believed to be descendants of three female cheetahs.

IV. Microevolution: little variation in ONE species

* Ex: dogs

V. Macroevolution: drastic variation that prevents breeding: results in 2 or more species.

* Ex: snails with inverted coil (spin) can no longer mate with normal shell coil=new species of snail (recall definition of species)