* Evolution defined
* 1. In a given population
* 2. Over time
* 3. Change in allele frequencies for characteristics
* the results of these changes-
  + characteristics change over time
    - physical
    - Behavioral
    - Chemical
  + Enough changes result in a new species
  + What is a species- a population or group of population whose members have the potential to interbreed in nature and produce viable offspring but do not produce viable off spring fertile off spring with members of other such populations

Reproductive isolation

* + Can be time separation (100 Years ago/ Day and night)
  + Can be physical separation(canyon/ River)
  + This is microevolution
* Before Darwin
  + Early Greek philosophers: Anaximander Etc: Simpler life forms preceded more complex ones
    - Aristotle: Species are fixed and do not evolve: had A great impact on western thinking
    - Archbishop James Usher: earth is 6000 yrs old & Aristotle is correct
    - Juedo- Christian biblical view: all species were individually designed by a divine Creator
* Monday 26, 2012
  + Century prior to Darwin, science was advancing
    - Carolus Linnaeus: binomial nomenclature, & classification hierarchy KPCOFGS
      * Kingdom
      * Phylum
      * Class
      * Order
      * Family
      * Genus
      * Species
    - Hutton: Geology- gradualism
    - Baron Cuvier- Catastrophism
    - Buffon-study fossils and that the earth is a lot older than 6000 years old because of fossils
    - Lamarck: Fossils are related to modern forms because life evolves; acquired characteristics are inherited (screwed up)
    - Charles lyell: “principles of geology” uniformitarianisum
  + Charles Darwin- (London Darwin’s house)
    - Hired on the Beagle as the captains compainain