

## The Theory of Evolution and Charles Darwin

- I. Introduction
  - A. Theory of evolution had powerful repercussions on science, philosophy, and religion
  - B. 1785 James Hutton, earth's development by natural causes
  - C. 1833 Sir Charles Lyell, Principles of Geology
  - D. 1800's Jean Baptiste Lamarck, organisms change to adapt to the changing environment, Ex: giraffe
  - E. 1809-1882 Charles Darwin
  
- II. Charles Robert Darwin
  - A. Born in England, Feb. 12, 1809 – father a physician and also grandfather
  - B. Mother died when he was 8 years old – raised and pampered by aunts, sisters, and the large Wedgewood family
  - C. In school, he enjoyed collecting specimens and chemical investigations. This led to conflict with the headmaster who stressed the classics.
  - D. Age 16 went to study medicine at University of Edinburgh; repulsed by surgery without anesthetics.
  - E. Father sent him to University of Cambridge to study divinity.
  - F. Professor John Stevens Henslow, a cleric and botanist encouraged Darwin.
  - G. First Tour 1832
    - Age 22, at the recommendation of Henslow, Darwin went on a three week tour with geology professor at Cambridge to study geologic formations in North Wales
  - H. Second Tour – HMS Beagle
    - August 1831, age 22, went on a study to the Americas to study chronometric stations. (The study of time)
    - For five years he studied geologic and biologic specimens.
      - 1. Shells 45 feet above the base of the sea cliffs.
      - 2. Witnessed earthquakes in Chile
      - 3. Examined islands which seemed to be formed from volcanic events
      - 4. Found fossil shells at 12,000 feet of extinct species
  - I. Returned to England in 1836, and welcomed by the scientific world.
    - Note books - species problem
  - J. Thomas Malthus' An Essay on the Principle of Population
    - This results in Darwin's principle of natural selection
  - K. Nov. 24,, 1859, first issue of On the Origin of Species by means of Natural Selection
  - L. Clergy reacted.
  - M. 1871 the Descent of Man