

## **BIOLOGY 11**

### **ADAPTATION & EVOLUTION WORKSHEET**

1. In one or two sentences, sum up each theory of evolution
  - a. Lamarck
    - Acquired Traits
    - Desire to change
    - Offspring inherit traits gained by parent
  - b. Darwin
    - survival of the fittest
    - natural variation, struggle for existence, adaptations, strong survive
  - c. Punctuated Equilibrium
    - theory of evolution where the speed of change occurs rapidly at certain times of environmental change
  
2. What is the only direct evidence showing that organisms changed through time (evolved)?  
fossil evidence
  
3. Name and briefly explain the three indirect pieces of evidence taxonomists' use.
  - a. Comparative anatomy
    - Homologous structures indicate shared history
  
  - b. Biochemistry, Chemical Similarities
    - shared genetic/protein sequences can indicate common ancestors and a shared history
  
  - c. Embryological Similarities
    - growing fetuses from vastly different animals look similar through various aspects of their embryological development. suggests descent of modern organisms from simple to complex (fish to human)