# **Evolution**

Introduction

### What is Evolution?

- Describe it
- What causes it?

# **Evolution Topics**

- Evidence for evolution
- Microevolution
  - What is this?
- Macroevolution
  - Speciation

## Adaptation & Change

- All living things are different
  - Diversity
  - Many living things have similarities
- All living things are "adapted" to their environment
  - Adaptation: a trait or set of traits that improves survival and reproduction

What similarities are obvious? How are they different? How is each adapted to its habitat?



#### **Evolution**

- Cumulative changes in characteristics of populations of organisms in successive generations
  - This does not include individual change or development



≠ Evolution

#### How is this Evolution?

- Lyrebird Evolution
- Hint: Female Lyrebirds do not sing this way
- Males attract mates by singing
  - Females prefer partners that can sing
  - Over time, their songs have become more elaborate
    - Mimicry

#### **Evidence of Evolution**

- Rocks, fossils
- Comparative anatomy, embryology
- Geographic distribution
- Genetics
- Keep evidence and mechanisms of evolution as separate thoughts...

### **Evidence of Evolution**

 Complete the Evidence of Evolution homework