**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_ Date:\_\_\_\_\_\_\_\_**

**Notes Organizer for PPT presentation The Theory of Evolution: Natural Selection and Artificial Selection**

* Charles \_\_\_\_\_\_\_\_\_\_\_\_ English scientist (1809 – 1882)
* Took the \_\_\_\_ \_\_\_\_\_\_\_\_\_ to South America
  + At the age of 21 took a job on HMS Beagle
  + Five year journey
  + Collected specimens
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Islands
  + As ship’s naturalist, Darwin studied and collected biological specimens (including fossils) at each port
* **Darwin and Natural Selection**
* For the next \_\_\_\_ \_\_\_\_\_\_\_\_\_, Darwin developed his theory.
  + Other scientists’ findings influenced Darwin….
    - Charles \_\_\_\_\_\_\_l
      * Geologic processes are result of gradual changes that happen over time
    - \_\_\_\_\_\_\_\_\_
      * Animals produce more offspring that can survive
      * Animals must struggle to survive
* **Darwin’s Conclusions:**
  + - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ possess an enormous reproductive potential
    - Population sizes remain \_\_\_\_\_\_\_\_ (Malthus)
    - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are limited
    - Individuals \_\_\_\_\_\_\_\_\_\_\_\_ for survival
    - There is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ among individuals in a population
    - Only the most fit individuals survive to \_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - Evolution occurs as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ accumulate over time
* **Adaptations** An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is any \_\_\_\_\_\_\_\_\_\_\_\_\_ that aids in an organism’s chance for survival.
* Types of adaptations:
  + **\_\_\_\_\_\_\_\_\_\_\_\_** – structural adaptation that enables one species to resemble another species
  + \_\_\_\_\_\_\_\_\_\_\_\_ -blending with surroundings
* **\_\_\_\_\_\_\_\_\_\_\_\_\_: Blending in with the environment to \_\_\_\_\_\_\_\_\_\_ from predators or prey.  
  Seasonal Color Changes**
* **Artificial Selection**
* Definition: breeding organisms with specific traits for those traits
* Selective Breeding
  + Most of the time occurs because of human preferences or needs.
  + Shows that organisms can change through breeding.
* Evolution is…

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Natural Selection

Definition: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for change in a population

* + **Favorable traits are chosen**
  + Change in *genotype* 🡪 genetics
  + a force in nature that works like artificial selection
  + Who or what has a better chance of survival long enough to \_\_\_\_\_\_\_\_\_\_\_\_\_\_.