**Notes: Darwin’s Theory of Evolution**

**Biology 12 Outcome 16 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evolution** is the change in the \_\_\_\_\_\_\_\_\_\_\_\_\_ characteristics of populations over successive generations. These characteristics are the expressions of \_\_\_\_\_\_\_\_ that are passed on from parent to offspring during \_\_\_\_\_\_\_\_\_\_\_\_.

Evolution



Darwin: developed his theory of evolution through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ selection through understanding the following:

|  |  |
| --- | --- |
|  **Artificial Selection (Selective Breeding)**Ear of corn vector illustrationthe process where \_\_\_\_\_\_\_\_\_\_\_\_ identify \_\_\_\_\_\_\_\_\_\_\_\_\_ traits in animals and plants and use these traits to develop desirable phenotypic traits by breeding. It is an artificial or human-made process that is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ process.  | Waterfalls in nature vector illustration**Natural Selection**takes place in \_\_\_\_\_\_\_\_\_\_\_\_ populations within natural \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is how \_\_\_\_\_\_\_\_\_\_\_\_\_\_ thought organisms evolved and believed it was a \_\_\_\_\_\_\_\_\_\_ process.  |

Based on 3 Concepts:

1. **Struggle for Existence**
* Increase in \_\_\_\_\_\_\_\_\_\_\_\_\_ rates makes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as there will be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ food, living space and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to live available.
1. **Survival of the Fittest**
* The ability for an organism to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in an environment is called its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Thought fitness was a result of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which are inherited characteristics that increase an organism’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of survival.
1. Decent with Modification
* Over long periods of time \_\_\_\_\_\_\_\_\_\_\_\_\_ selection produced organisms that have different structures and have different niches and \_\_\_\_\_\_\_\_\_\_\_.
* Believed all organisms are related to each other through “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”.. last universal common ancestor.





Summary of Darwin’s Theory of Evolution:

**V** Organisms show \_\_\_\_\_\_\_\_\_\_\_\_\_\_, which is heritable.

**O** Organisms produce more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**C** Therefore, there is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for limited \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**A** Organisms with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ best suited to their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will out-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ others.

**R** These organisms will have more successful \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and passing on of their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ traits to their \_\_\_\_\_\_\_\_\_\_\_\_\_\_ while others \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or leave \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ offspring.

**\*The process of natural selection causes species to change over time. \***

