



INTRODUCTION TO EVOLUTION

The Journey of Charles Darwin



Name: _____ Date: _____ Block: _____

15-1 The Puzzle of Life's Diversity

Please define the following words:

1. **Evolution:** _____

2. **Theory:** _____

3. **Fossil:** _____

4. Of all the places he visited on his 5-year voyage aboard the HMS Beagle, which place influenced Darwin's ideas about evolution the most? _____
5. Although they were close together, the individual Galapagos Islands had very different climates! Please describe the climate in the following locations:
 - a. **Hood Island:** _____
 - b. **Isabella Island:** _____
6. Based on the information found in **figure 15-3**, what would you predict the vegetation and rainfall are like on **Pinta Island**? Be sure to justify your guess: _____

7. On the Galapagos Islands, Darwin observed that the **characteristics** of many animals and plants:
 - a. All looked alike
 - b. Varied from island to island
 - c. Were acquired through use

15-3 The Puzzle of Life's Diversity

1. After working on his theory of evolution for almost 25 years, Darwin was contacted by a man who had independently come to the same conclusion about evolution through the process of **natural selection**. What was the name of this "other discoverer?" _____
2. The natural differences between individuals of a species are referred to as... _____

3. Variations among individuals that is heritable (able to be passed from parent to offspring) is a result of... _____

4. Farmers would often choose to breed only the largest hogs, the fastest horses, or cows that produced the most milk. What is the name of the process of preferential breeding? _____
5. High birth rates and a shortage of basic needs like food and living space force organisms to compete for resources. Darwin called this _____
6. Predators that are faster or have an effective way of ensnaring other organisms can catch more prey. Those prey that are faster, better camouflaged, or better protected avoid being caught. These characteristics would make it more likely that an organism would survive and reproduce in its environment, and were referred to as _____ by Darwin.
7. How is **fitness** related to **adaptation**? _____

8. How is natural selection **similar** to artificial selection? _____

9. How is natural selection **different** from artificial selection? _____

10. Why do species today look different from their ancestors? _____

11. Look back in time and you will find common ancestors by tigers, panthers, and cheetahs. Look farther back, and you will find ancestors that these felines shared with horses, dogs, and bats. Farther back still are the common ancestors of mammals, birds, alligators, and fishes. If we look far back enough, logic concludes, we could find the common ancestors of all living things. What is this **principle** called and **what does it state**? _____

12. In addition to the enormous amount of DNA evidence available to us today, Darwin argued that evidence for evolution could be clearly seen in at least 5 other places. Please list and briefly describe the sources of evidence.
 - a. _____

 - b. _____

 - c. _____

 - d. _____

 - e. _____
