

1. Darwin's theory of evolution included all these ideas except one:

- A. Inheritance of acquired characteristics
- B. Natural selection
- C. Descent from a common ancestor
- D. Adaptation of a species to environmental change
- E. Variation among members of a species
- F. Differential reproduction

2. Which is FALSE about Darwin?

- A. His trip on the Beagle went all around South America
- B. He published "On the Origin of Species" in 1859
- C. He was a poor student and earned a degree in divinity, not in biology
- D. As a boy he was an avid collector and naturalist
- E. He formulated his theory of evolution at sea, finishing "Origin" during his trip on the Beagle

3. The concept that the natural laws, and the biological and geological processes that affected the earth in the past, are still in operation today (and vice versa) is called:

- A. Catastrophism
- B. Spontaneous generation
- C. Uniformitarianism
- D. Inheritance of acquired characteristics
- E. Stratification
- F. paleontology

4. Who first wrote about how all species including humans tend to over-reproduce, leading to a struggle for survival? A. Darwin B. Lamarck C. Malthus D. Wallace E. Mendel

5. He wrote a theory of evolution by natural selection at the same time as Darwin:

- A. Lyell
- B. Lamarck
- C. Malthus
- D. Wallace
- E. Mendel

6. The geologist who rewrote Hutton, used Uniformitarianism, inspired Darwin, and disproved Catastrophism: A. Lyell B. Lamarck C. Malthus D. Wallace E. Mendel

Consider how Darwin might have explained the evolution of long necks in giraffes.

7. He would have begun with the knowledge that long ago, when giraffes had shorter necks:

- A. There was variation in the height of giraffes
- B. There was spontaneous generation
- C. There were two kinds of giraffes, long neck ones and short neck ones
- D. Giraffes were destined to evolve long necks, and strived to do so.
- E. All of these

8. He would say that the species changes, adapts, evolves in a particular environment, such as one where the food is high in the trees, because:

- A. Some individuals have certain physical characteristics (such as a longer than average neck) that allows them to survive better and have more babies.
- B. Individuals all change due to stretching their necks
- C. Both of these

9. The result is that:

- A. Since the tallest ones have more babies than the average height ones, and the shortest ones have slightly fewer, the average giraffes will get slightly taller over generations.
- B. The species of giraffes with short necks became extinct, leaving only the long neck species.
- C. The giraffes who stretched their necks by using them more passed on that characteristic: their babies were born with longer necks than their parents had been born with.
- D. All of these.

10. Darwin's theory was different from Lamarck's in that Darwin said:

- A. Environment does not affect evolutionary change in a species
- B. No species ever become extinct
- C. Evolutionary change takes place in whole populations of animals, not in individuals
- D. All of these

PRINT FIRST NAME _____ LAST _____

Bonus question: How did Boucher de Perthes show that Thunderstones were NOT the result of lightning strikes?

Baby Blues

