

Early Evolutionary Thinkers

Name: _____ Period: _____

Lamarck

1. What are 2 observations that Lamarck makes and what is the inference he makes based on these observations?
2. What observation can you come up with which disproves the inference of Lamarck?
3. Can you propose any other explanations for Lamarck's observations about the disuse and use of organs?

Wallace

4. What do you think of Wallace's idea that "The life of wild animals is a struggle for existence?" How is his view scientific?
5. Wallace claims that "useful variations will tend to increase, unuseful or hurtful variations to diminish." How does this occur? What are 2 evidences he cites?
6. What does this have to do with allele frequency in a population?
7. How does Wallace's explanation of the change in species over time differ from Lamarck's?
8. What do you think of Wallace's critique of Lamarck's hypotheses?

Darwin

9. What event in Darwin's life led him to formulate his ideas about the origin of species?
10. How did Wallace influence Darwin? Whose papers ended up being published first?
11. Why did Darwin think the environment (external conditions) was not solely responsible for modifications in species? What are 2 evidences that he cites?
12. How did Darwin attempt to determine how modifications of a species are accomplished?
13. How was the work of Mendel important to Darwin (hint: think about the answer to number 12)?
14. How did Darwin explain the incomplete nature of his ideas?
15. What did Darwin think the main means of modification for species was?

Quiz: Lamarck

1. How did Lamarck explain the change in a species over time?
2. Explain one observation Lamarck used and the inference he drew from it.
3. Using the words trait and allele frequency explain how evolution actually occurs.

Quiz: Wallace

1. How did Wallace explain the change in a species over time?
2. Explain one observation Wallace used and the inference he drew from it.
3. Using the words trait and allele frequency explain how evolution actually occurs.

Quiz: Darwin

1. How did Darwin explain the change in a species over time?
2. Explain one observation Darwin used and an inference he drew from it.
3. Using the words trait and allele frequency explain how evolution actually occurs.