

Name _____

Class _____

Date _____

Evolution Readings

1. [Jean Lamarck's "Zoological Philosophy."](#)

- What is the role of the environment in Lamarck's explanation?
- What scientific approach is suggested by Lamarck's statement: "Nothing of all this can be considered as hypothesis or private opinion; on the contrary, they are truths which, in order to be made clear, only require attention and the observation of facts."
- Was Lamarck's explanation scientific? Why or why not?
- Can you propose any other explanations for Lamarck's observations about the disuse and use of organs?

2. [Alfred Russel Wallace's "On the Tendency of Varieties to Depart Indefinitely from the Original Type."](#)

- How would you characterize Wallace's idea, "The life of wild animals is a struggle for existence?" How is Wallace's view scientific?
- Wallace claims that "useful variations will tend to increase, unuseful or hurtful variations to diminish." How does this occur? What evidence does he cite?
- How does Wallace's explanation differ from Lamarck's?
- What do you think of Wallace's critique of Lamarck's hypotheses?

3. [Excerpts from Charles Darwin's *On the Origin of Species*.](#)

- What led Darwin to formulate his ideas about the origin of species?
- On what did he base his explanations?
- What did Darwin propose as the origin of species?
- Was Darwin's explanation scientific? Why or why not?
- How did Darwin attempt to determine how modifications of a species are accomplished?
- How did Darwin explain the incomplete nature of his ideas?

After reading all three scientists' views of evolution, answer this question:

What was the relationship of Lamarck's and Wallace's work to Darwin's?

In the space below, create a chart (we've worked a lot with Venn diagrams feel free to use one of those if you'd like) to compare and contrast Lamarck, Wallace, and Darwin's theories, and identify the connections between each evolutionary theory.