

AP Biology

TEXT: *Biology*, Campbell and Reece

7th Edition

Chapter 22

Descent with Modification: A Darwinian View of Life

Guided Reading

1. What were the two major points of Darwin's publication "The Origin of Species"?

2. Define the following terms:
 - a. Natural selection

 - b. Evolutionary adaptation

 - c. Evolution

 - d. Taxonomy

3. Detail the impact/position/contribution to evolutionary theory made by the individuals below. Also include a timeframe of the contributions of each person.
 - a. Aristotle

 - b. Linnaeus

 - c. Cuvier

 - d. Lyell

 - e. Lamarck

 - f. Malthus

 - g. Hutton

4. How does catastrophism relate to the ideas of gradualism?
5. How did the Voyage of the Beagle impact Darwin's research?
6. How did Alfred Wallace impact Darwin in his work?
7. What part did adaptation play in Darwin's thinking?
8. What did Darwin mean by descent with modification?
9. What did Mayr take from Darwin's work – summarize the observations and inferences.
10. How did the concept of artificial selection impact Darwin's ideas?
11. What three word phrase summarizes Darwin's mechanism of evolution?
12. Explain the evolution of Drug Resistance in bacteria in terms of natural selection.

13. Define the following terms:

a. Homologous structures

b. Vestigial structures

c. Analogous structures

14. What is biogeography and why is it important to the study of evolution?

15. How do the fossil record and sedimentary rock provide evidence to evolution?