

Mechanisms of Evolution Notes Organizer

1.) Define *species*.

- a. Are horses and donkeys members of the same species? Why or why not?
- b. Are lions and tigers members of the same species? Why or why not?

2.) Who was **Charles Darwin**?

- a. Darwin made his most significant observations when he traveled to the _____ on the *HMS Beagle*.
- b. Summarize Darwin's observations of the island finches.
- c. Summarize Darwin's conclusions based on his observations.
- d. Define *adaption*.
- e. Define *evolution*.

3.) What is a scientific theory?

4.) Summarize the *theory of evolution*.

5.) Evolution occurs through the process of _____ .

- a. What is another name for natural selection?
- b. Explain the concept of natural selection.
- c. What is meant by the "*fitness*" of an organism?

6.) List the three major factors which affect the process of natural selection.

- a.
- b.
- c.

7.) Complete the following chart.

	<i>Overproduction</i>	<i>Competition</i>	<i>Genetic Variation</i>
Definition			
Examples			
Impact on Natural Selection			

8.) What are two examples of evolution in action?

- a.
- b.

9.) Describe the process through which bacteria evolve to become resistant to certain antibiotics.

10.) Describe the process through which insects evolve to become resistant to pesticides.

11.) List four major sources of *evidence for evolution*.

a.

b.

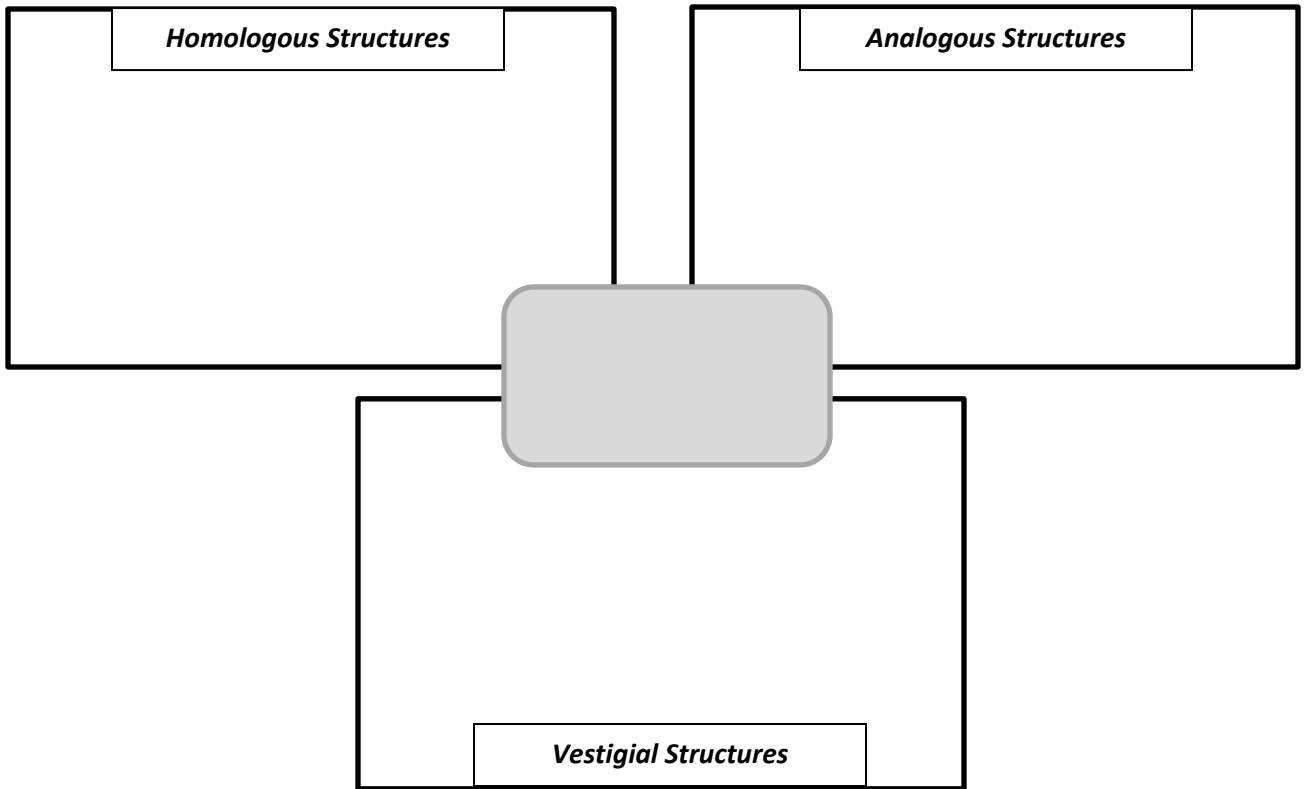
c.

d.

12.) Use the t-chart to describe the two ways in which we can determine the age of a fossil.

Relative Dating	Absolute (Radiometric) Dating

13.) Fill in the following organizer regarding the three types of anatomical evidence which provide us with information regarding evolutionary relationships.



14.) Describe the evolutionary evidence provided to us through biochemical molecules such as DNA and protein.

15.) Describe the evolutionary evidence provided to us through embryological development.