**Test Date:** Monday May 8, 2017 (3rd period) / Tuesday May 9, 2017 (5th period)

**Chapter 16 Study Guide: Darwin’s Theory of Evolution**

* **16.1: Darwin’s Voyage of Discovery**
	+ **Vocabulary**
		- Evolution
		- Biological evolution
			* Convergent evolution
			* Divergent evolution
		- Fossil
	+ **Objectives**
		- State Charles Darwin’s contribution to science.
		- Describe the three patterns of biodiversity noted by Darwin.
		- Differentiate between convergent and divergent evolution.
* **16.2: Ideas That Shaped Darwin’s Thinking**
	+ **Vocabulary**
		- Artificial selection
	+ **Objectives**
		- Identify conclusions drawn by Hutton and Lyell about Earth’s history.
		- Describe Lamarck’s hypothesis of evolution.
		- Describe Malthus’s view of population growth.
		- Explain the role of inherited variation in artificial selection.
* **16.3: Darwin Presents His Case**
	+ **Vocabulary**
		- Adaption
		- Fitness
		- Natural selection
	+ **Objectives**
		- Describe the conditions under which natural selection occurs.
		- Explain the principle of common descent.
* **16.4: Evidence of Evolution**
	+ **Vocabulary**
		- Biogeography
		- Homologous structure
		- Analogous structure
		- Vestigial structure
	+ **Objectives**
		- Explain how geologic distribution of species relates to their evolutionary history.
		- Explain how fossils and the fossil record document the sescent of modern species ancient ancestors.
		- Describe what homologous structures and embryology suggest about the process of evolutionary change.
		- Explain how molecular evidence can be used to trace the process of evolution.
		- Explain the results of the Grants’ investigation of adaptation in Galapagos finches.