**Video Study Guide: Earth Revealed  
Episode 11: Evolution Through Time**

Read the questions first. Then answer them while watching this episode of "Earth Revealed". If you miss it in class you are still responsible for the viewing this segment and answering the questions. The video is available online at http://www.learner.org/vod/video.html?sid=78&po=11. The index for these programs is online at http://www.learner.org/progdesc/index.html?uid=78 . If you do not have an internet connection at home, view it after school or during study hall in the media center. Each segment is 30 minutes long.

1. What does the fossil record suggest about early life on earth?
2. Describe the ways fossils can be formed.
3. Summarize why the preservation of life is skewed towards marine organisms.
4. What are prokaryotic cells?
5. What are eukaryotic cells, and what makes them more advanced?
6. How did the advent of eukaryotes fuel evolutionary change?
7. What is the significance of the Cambrian Explosion, and what does it represent?
8. Describe the early Paleozoic.
9. What happened in the mid-Paleozoic?
10. How did the increase in free oxygen contribute to the expansion of life on land?
11. What happened to the carbon dioxide in the atmosphere?
12. Discuss mass extinctions.
13. What new life forms appeared in the Mesozoic?
14. How have paleontologists changed their theories about dinosaurs?
15. What may have caused the mass extinction at the end of the Mesozoic?
16. How did tectonics affect evolution at the beginning of the Cenozoic?
17. What was preserved at Rancho La Brea?
18. Why are microfossils important to the understanding of ancient environments?
19. Discuss Darwin's theory of evolution.
20. What is punctuated equilibrium?
21. What effect are humans having on the earth's biosphere?