**Video Study Guide: Earth Revealed  
Episode 13: Volcanism**

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=13> . 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. Why does magma rise to the surface?
2. Where are most of the world's active volcanoes?
3. What is pillow lava?
4. Describe the Hawaiian hotspot.
5. Describe basaltic (mafic) magma and why it commonly forms shield volcanoes.
6. What are rift zones?
7. Why are the volcanoes around the Pacific rim called composite volcanoes?
8. What common gasses occur in composite (intermediate) magmas?
9. What factors influence the explosiveness of volcanoes?
10. Discuss andesitic (intermediate) magmas associated with composite volcanoes.
11. Describe pumice and how it is formed.
12. Discuss viscosity and how it relates to the formation of pahoehoe and aa lavas.
13. How do lava tubes form?
14. Describe cinder cones and how they differ from composite and shield volcanoes.
15. What tectonic settings are most volcanoes associated with?
16. What is obsidian and how is it formed?
17. Discuss the clues that volcanologists use to predict eruptions.
18. Discuss how volcanoes relate to ore deposits and geothermal energy.
19. What are some of the beneficial aspects of volcanoes?