

Volcanoes - Chapter 4

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1. List the sequence of events leading to the eruption of Mount St. Helens on May 18, 1980.

2. List some of the effects of this eruption.

3. What are the three factors that determine the nature of a volcanic eruption and how do they affect the viscosity of a magma?

4. Compare, contrast, and give examples of 3 different types of igneous rock compositions.

Rock type	basalt	andesite	rhyolite
composition			
Silica content			
viscosity			

Rock type	basalt	andesite	rhyolite
fluidity			
gas content			
amount of pyroclastics			
volcanic landforms			

5. Describe these types of volcanic materials:

pahoehoe flow

aa flows

lava tubes

pillow lavas

volcanic gases (volatiles)

pyroclastic materials

welded tuff

cinders

bombs

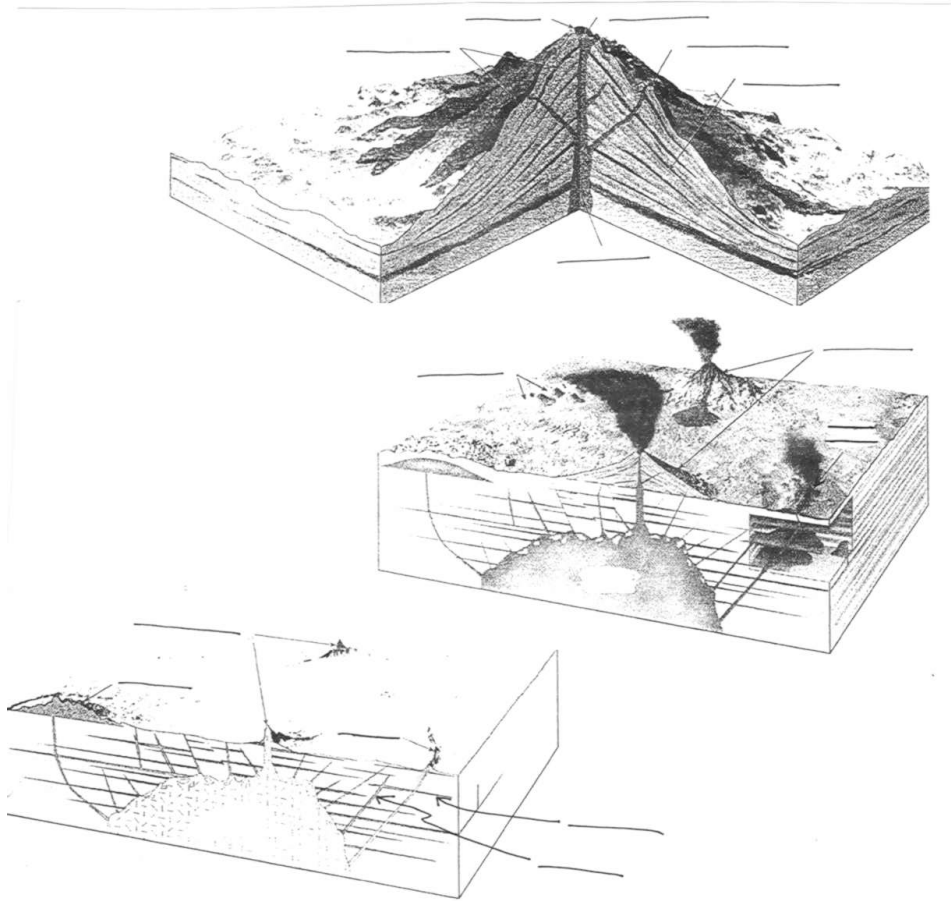
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flood basalts

lava domes

6. Label these landforms on the diagrams below: vent, crater, lava flow, dike, sill, conduit or pipe, volcanic neck, composite cone, cinder cone, fissure eruption, batholith, caldera



8. Compare, contrast, and give examples of 3 different types of volcanic environments: hot spots, subduction zones, and oceanic rifts.

characteristic	hot spots	subduction zones	oceanic rifts
rock type			
violence of explosion			
fluidity of lava			
silica content of lava			
examples			
types of hazards			
safe distance			

9. Write an essay (one paragraph or at least half a page) on volcanoes, based on your reactions to the movies, the lecture, and any other experiences you have had with volcanic activity.