

## Exam 2 Study Guide

### Volcanoes – Chapter 7

- Where volcanoes occur – diverging, subduction, hot spots (volcanoes in the U.S.)
- High viscosity lava: explosive, slow moving, 70% silica, high gas content
- Low viscosity lava: quiet, fast moving, 50% silica, low gas content
- Pahoehoe vs. aa flows
- Volcanic Cones: Shield, Composite, Cinder (know examples and characteristics of each)
- Miscellaneous eruptions: fissure, calderas, geysers, fumaroles
- Tephra/Pyroclastics: ash, scoria/cinder, bombs and blocks
- Pyroclastic Flow/Nuee Ardent – glowing cloud
- Lahar: volcanic mudflow
- Volcano studies: earthquakes, gases, bulging/tilting, thermal, hydrological monitoring, eruptive history
- Strange, but true, volcano stories
- Volcano Uses

### Rivers and Flooding – Chapter 8

- Geologic work of streams: erosion, transportation, deposition
- Drainage basins: Mississippi River
- Gaging stations record changes in discharge and velocity, water quality, etc.
- Meandering rivers and floodplains: oxbow lakes, levees, terracing, erosion on the outside bend of a stream and deposition on the inside bend
- Floods: slow-rising vs. flash flood
- Monsoons in AZ
- Flood hazard prevention
- Urbanization, flood plain encroachment
- Taming rivers using: dams, channelization, levees
- Flood Probabilities
- Flood hazard reduction

*Pay special attention to tables, boxes, diagrams. Schedule is subject to change. Most topics are listed here, but it may not be a complete list of what you will be tested on.*