

## Study Guide for Midterm Exam #1

Disclaimer: This is a summary of some of the highlights from the class that may appear on Exam #1, but you should note that any subject that was covered in lecture or lab or the book may appear on the exam regardless of whether or not it appears on this study guide.

### Chapter 1: Formation of the Earth & Plate Tectonics

What is a scientific hypothesis and what 2 aspects are contained in a proper hypothesis?  
How is Pluto different from the major planets?  
How did the Earth form?  
What are the *Crust, Mantle, & Core* made of (rock or metal) and where are they located?  
Where are the *Lithosphere, Asthenosphere, Liquid Core, and Solid Core* located?  
What is the theory of Plate Tectonics and what are the 3 types of plate boundaries?

### Chapter 3: Igneous Rocks

How are igneous rocks classified?  
What are the 3 major types of plutonic rocks?  
What are the 3 major types of volcanic rocks?  
How do *mafic* rocks differ in composition/appearance from *intermediate* and *felsic* rocks?  
What factors control the viscosity of magma?  
What factor determines the explosiveness of an eruption?

Additional terms to know: *pumice, obsidian, coarse-grained, fine-grained, porphyritic, magma, lava*

### Chapter 4: Volcanoes & Volcanic Hazards (week 3)

What are the differences between *composite cones, shield volcanoes, and cinder cones*?  
What type of eruption is most common at *composite cones* vs. *shield volcanoes*?  
What type of rock forms *composite cones* vs. *shield volcanoes*?  
What other eruptive styles/types of volcanoes were discussed in class?  
What were the major volcanic hazards discussed in class?  
What are the major volcanic hazards associated with **Mt. St. Helens & Mt. Rainier**.

Additional terms to know: *pyroclastic flow, lahar*

### From lab & lab handout:

What physical properties are used to identify minerals?  
What are 3 ways to distinguish between quartz and calcite?