

The Geology of Pacific Northwest Volcanoes, Mountains and Earthquakes

Mid Term I: Study Guide

Introduction to Geology:

What is geology? What is physical geology? Name some internal and external processes. What are the two types of time? What are they based upon? What is the scientific method? What is the difference between an hypothesis and a theory? How old are the universe and our solar system?

Can you describe thermal convection (in a ramen pot and in the Earth)? What is the source of heat in the Earth? Why are there different layers inside the Earth? What do you know about the density of different earth layers? What is the radius of the Earth?

What is a mineral? What is a crystal? What is a rock? What are the three rock types? How does cooling time affect crystal size? Can you describe the rock cycle (the major pathways)? What are some differences between the oceans and the continents? What are the two major factors when studying isostasy?

What are superposition, Original Horizontality, Lateral Continuity, and Cross Cutting Relations? What are the different kinds of unconformities? What is a half-life? What are fossils? What is stratigraphy?

What is an element? What are the masses and charges of protons, neutrons, and electrons? What is the mass number (atomic weight)? What is the atomic number?

Plate Tectonics (part 1):

Name and explain some of the evidences for plate tectonics and continental drift. How do magnetic anomalies form in oceanic crust? How are volcanic chains and seamount chains (like the Hawaiian Islands and the Emperor Seamount Chain) formed? What are some assumptions that form the basis for this interpretation of the formation of these volcano and seamount chains?