

Geology 101, Fall 2006

Name:

Assignment 5: Earthquakes and solid Earth geophysics

Due Wednesday, November 8 at noon

Distinguish the following terms:

focus (hypocenter) vs. epicenter

P-seismic wave vs. S-seismic wave

Love waves vs. Rayleigh waves

vertical vs. horizontal acceleration during an earthquake

Richter magnitude scale vs. Modified Mercalli intensity scale

displacement vs post-earthquake creep

seiche vs. tsunami

Mohorovicic discontinuity (Moho) vs. Benioff-Wadati zone

Does the ground literally “turn to liquid” during **liquefaction** in an earthquake? What actually happens? Where did liquefaction occur during the February 28, 2001 Nisqually earthquake?

How are earthquakes due to fault or plate motion different from earthquakes that occur when magma moves underneath a volcano?

What does the “**S-wave shadow**” tell us about the Earth’s interior structure?

What is **seismic wave refraction**, and what do geophysicists use this for?