

Geology 101, Fall 2007

Name:

**Assignment 2: Minerals and igneous rocks**

*Due Monday, October 8, noon*

**Define/distinguish** the following terms:

sedimentary versus igneous versus metamorphic

crystallization versus deposition

weathering versus erosion

magma versus lava

intrusive (plutonic) rock versus extrusive (volcanic) rock

texture versus grain size

pyroclastic flow versus lahar

porphyritic versus vesicular

If a mineral melts at 800°C, at what temperature does it freeze?

Quartz melts at about 600°C. A rock rich in quartz (but not entirely made of quartz) is heated to 650°C; describe what the rock would look like.

Mauna Kea is a broad shield volcano on the island of Hawai'i. The uppermost 1000 feet or so is, however, a composite volcano. Describe the history of the formation of Mauna Kea.