You should do fine on Exam 1 if you study the following:

- the scientific method
- age of the Earth (Bishop Ussher’s date and today’s accepted date)
- catastrophism & uniformitarianism...who were the players, and the basis for each argument.
- conditions necessary for concoidal fracture
- different chemical bond types in minerals
- main elements that comprise the Earth’s crust
- relationship between size of atom and charge
- relationship between size of atom and bond strength
- the basic building block of all silicate minerals
- basic structures of common silicates: olivine, pyroxene, amphibole, mica, quartz & feldspars
- main parts of the earth (core, mantle, crust) and what comprises them
- facts about ocean crust and continental crust
- behavior of seismic waves below the Earth’s surface and what boundaries they define
- facts about the three types of plate boundaries
- modern-day examples of plate boundaries
- variation in silica content with magma type
- variation of temperature with magma type
- what “part” of the Earth experiences partial melting to produce the three magma types
- relationship between magma type and plate tectonics
- the two main controls on explosivity of volcanos
- relationship between magma composition, silica polymerization and magma viscosity

**Terms:**

- mineral
- dike
- sill
- stock
- batholith
- xenolith
- cinder cone
- shield volcano
- caldera
- pillow lavas
- polymerization