

Geology 101, Fall 2004

Assignment 1: Identifying minerals and reading maps

Define/distinguish the following terms:

topographic map	second law of thermodynamics
relief map	convection
geologic map	hotspot
scale	convergent boundary
contour line	divergent boundary
gradient	transform boundary
vertical exaggeration	subduction
geologic units	spreading ridge (center)
formation	chemical element
time period	electron, proton, neutron
Quaternary Period	atom
Tertiary Period	ion (anion, cation)
contact	mineral
fault	rock
plate	crystal
plate tectonics (note the spelling!)	hardness
lithosphere	specific gravity
asthenosphere	cleavage
crust	fracture
mantle	luster
core	streak
density	silicate tetrahedron

Look up the **atomic symbol** for the following elements (for instance, the element carbon is symbolized by the letter "C"):

aluminum

argon

calcium

gold

hydrogen

iron

lead

magnesium

nickel

oxygen

potassium

sodium

silicon

silver

sulfur

titanium

uranium

Write the **name** of the ion next to its symbol and complete the symbol by showing the ion's **electrical charge**.

SiO₄

CO₃

S

O