Name _____ Key
Period _____ Date _____

Unit 13 Notes Earth's History
Earth Science

I. Sequence of events

a. As we look at the Earth, we find clues to its origin, how it's changed and to evolution of life on Earth.
b. Our planet has existed for about 4.6 billion years.
c. Rocks preserve clues to the Earth's History.
d. Relative age - a comparative age – age expressed as "younger" or "older" without specifying units of measure. Example: this rock is older.

II. Uniformitarianism

a. Uniformitarianism - a principle that assumed that forces that acted upon the Earth's crust in the past are the same as those that are active today.
   i. "The present is the key to the past."
   ii. Mountains wear down the same way today as they have done in the past.

III. Law Superposition

a. The rock layers on the bottom of an undisturbed rock exposure are usually the oldest.
b. The rock is always older than the process that changed it.
c. Intrusions and Extrusions are both younger then the rock they move through.
   i. intrusions are igneous rocks that formed from magma beneath the surface of the crust. Never reached the surface. Has contact metamorphism on the rock above it.
   ii. extrusions are igneous rocks that formed from lava at the surface of the crust. Reached the surface. NO contact metamorphism on the rock layer above.
d. Folds and Faults are both younger then the rock they affected.
   i. folds are bends in rock strata (layers).
   ii. Sometimes folding can overturn rock strata so that older rock lies on top of younger rock.

IV. Fossils

a. Fossils - are naturally preserved remains or impressions of once living things.
b. The pattern of evolution on Earth is at least partially preserved in the rock record.
c. Fossils are generally found in sedimentary rock.
d. Fossil evidence indicates that
   i. A wide variety of life forms have existed in the past.
   ii. Many of the life forms have become extinct (species died out.)
   iii. That human existence has been very short compared to geologic time.
e. Geologists have divided the Earth's history into time units based upon the fossil record.