**The Principles and Laws Used in Relative Dating Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Uniformitarianism** First proposed by James Hutton in the late 1700s, this doctrine states that the physical, chemical, and biological laws that operate today have operated throughout Earth’s history. This is summarized in the statement, “The present is the key to the past.”

**Principle of Original Horizontality** Sedimentary rocks, when deposited, form nearly horizontal layers or strata. Therefore, if strata are no longer horizontal, it is because they have been folded or inclined by the movements in the Earth’s crust.

**Law of Superposition** In any sequence of undisturbed sedimentary rocks (or surface deposited lava flows and layers of volcanic ash), the oldest rock is always at the bottom and the youngest is at the top.

**Principle of Inclusions** Any piece of rock or rock unit that is contained within another rock or rock unit is called an inclusion. The surrounding rock or sediment into which the piece of rock exists is the matrix or groundmass.

**Principle of cross-cutting** Whenever a fault or intrusive igneous rock cuts through an existing feature, it is younger than the structure it cuts. For example, if an igneous intrusion cuts through a sandstone layer, the sandstone had to be there first and, therefore, is older than the intrusion

Go to the following website:

<http://facweb.bhc.edu/academics/science/harwoodr/GEOL101/labs/dating/index.htm>

Follow the instructions on the page. Complete Relative Dating #1 and #2. When you finish and have verified your answers, write the correct sequences on the back of this page

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