**ES202 Video Exercise – Earth Revealed Geology Time Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Watch the video and answer the following review questions.**

1. Based on the Book of Genesis in the Bible, what was the estimated age and birth date of the Earth proposed by Bishop Usher three centuries ago.
2. True or False: modern geoscience supports the hypothesized age proposed by Bishop Usher.
3. What is the estimated scientifically-derived age of the Earth.
4. True or False: the first human fossils appear in the rock record after the disappearance of dinosaur fossils in the rock record.
5. The Father of Modern Geology is a Scotsman named \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. Hutton’s observation that sediment layers truncate others at an angle, this idea is termed an \_\_\_\_\_\_\_\_\_\_\_.
7. Hutton’s theory that the present day processes are the key to past Earth History is referred to the principal of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. The principal of \_\_\_\_\_\_\_\_\_\_\_\_ suggests that in a layered sequence of rocks, the layers on the bottom are older than the layers on top.
9. True or False: sedimentary rocks are deposited in horizontal layers perpendicular to the gravitational pull of the Earth.
10. True or False: the law of cross-cutting relations is based on the types of fossils contained in sedimentary rocks.
11. True or False: formations of rock layers can be traced or correlated to similar beds across river canyons and the landscape.
12. True or False: Plant and animal fossils that are preserved in sedimentary rocks can be used to correlate rock layers in time and space across the landscape.

**MORE ON BACK**

1. The Law of \_\_\_\_\_\_\_\_\_\_\_\_\_ that fossil biologic forms change through time, from oldest to youngest.
2. List the names of the primary periods of the geologic time scale discussed in the video, that are named after geographic localities where these types of rocks are found:
3. Madam Curie was the scientist to first discover the phenomena of \_\_\_\_\_\_\_\_\_\_\_.
4. Define the term “isotope”
5. True or False: daughter isotopes decay into a stable product referred to as a parent isotope.
6. List the radioactive isotope contain in all living organisms:
7. The rate of decay of radioactive isotope is termed \_\_\_\_\_\_\_\_\_\_\_\_.
8. The rate of Carbon-14 is \_\_\_\_\_\_\_\_\_\_\_ years.
9. What is the age limit of using C-14 for age dating based on experimental data?
10. Why is Uranium 235 isotope useful age dating very old rocks?
11. What is the name of the instrument that is used to measure the amount of parent and daughter isotopes in any given rock sample.
12. Describe the difference between relative age dating and absolute radiometric age dating of rock sequences.