

Name: _____

SUMMATIVE Date: _____

Chapter 3 (Lessons 4-5)

The Rock and Fossil Record

Vocabulary:

1. **Fossil** – the trace or remains of an organism that lived long ago, most commonly preserved in sedimentary rock
2. **Trace fossil** – a fossilized mark that is formed in soft sediment by the movement of an animal
3. **Cast** – a type of fossil that forms when sediments fill in the cavity left by a decomposed organism
4. **Mold** – a mark or cavity made in a sedimentary surface by a shell or other body
5. **Index fossil** – a fossil that is found in the rock layers of only one geologic age and that is used to establish the age of the rock layers
6. **Geologic time scale** – the standard method used to divide the Earth’s long natural history into manageable parts
7. **Eon** – the largest division of geologic time
8. **Era** – a unit of geologic time that includes two or more periods (2nd largest division)
9. **Period** – a unit of geologic time into which eras are divided (3rd largest division)
10. **Epoch** – a subdivision of geologic period (4th largest division)
11. **Extinction** – the death of every member of a species

Things to Know:

1. Amber is hardened tree sap. Petrified wood is an example of mineral replacement. Preserved footprints would be an example of a trace fossil. Most fossils are found in sedimentary rock.
2. Freezing temperatures will slow down an organism’s decay. Shells and bones are the part of an animal that is more commonly preserved.
3. Paleozoic era ended with the largest mass extinction in Earth’s history. Mesozoic era where birds and small mammals began to evolve. We are currently in the Cenozoic era.
4. The rock and fossil record represents geologic time. Earth’s history is 4.6 billion years. The fossil record is incomplete because most organisms never became fossils.
5. Marine fossils discovered on mountaintops tell scientists that the rocks on mountaintops were once below the ocean’s surface.
6. Scientists think that climate change may have caused dinosaurs to become extinct.
7. The boundaries between geologic time intervals represent major changes that have taken place on Earth.
8. Concept mapping showing Geologic history of Earth including the four eons Hadean, Archean, Proterozoic, Phanerozoic. The Phanerozoic is broken up into three eras Paleozoic (old life), Mesozoic (dominated by reptiles), and Cenozoic (dominated by mammals)