

Earth Science Chapter 10: Study Guide

*** Since this chapter is so long, there will be a take home portion of the test. Directions will be given out as we get closer to the date of the test. ***

Section 1

- Definitions

Fossil	Petrified fossil	Scientific theory
Sedimentary rock	Carbon film	Evolution
Mold	Trace fossil	Extinct
Cast	Paleontologist	

- Know how fossils form, where fossils are normally found and what most fossils form from
- Know the types of fossils and how they form
- Know how some organism have been preserved and by what methods
- Know what type of scientist studies fossils and what else they do
- Know what a fossil record is
- Know what evidence fossils can provide about the past
- Know what the fossil record reveals
- Know how the fossil record supports the theory of evolution

Section 2

- Definitions

Relative age	Extrusion	Unconformity
Absolute age	Intrusion	Index fossil
Law of superposition	Fault	

- Be able to compare the relative age and the absolute age of a rock
- Know how the law of superposition is used to determine the relative age of a rock
- Know what else scientists study to determine the relative age of a rock and how they help to determine the relative age
- Know how index fossils are useful
- Know what characteristics a fossil must have to be useful as an index fossil

Section 3

- Definitions

Atom	Radioactive decay
Element	Half-life

- Know what it is called when elements break down
- Know what type of elements are considered radioactive
- Know what happens when radioactive elements decay in igneous rocks
- Know that the rate of decay of each radioactive element is constant
- Know what geologists use radioactive dating is used to determine
- Be able to use the table on page 325 to answer questions
- Be able to determine what percentage of radioactive element will be left after a certain number of half-lives

- Know what type of rock radioactive dating does not work well on

Section 4

- Definitions

Geologic time scale

Era

Period

- Know what time scale geologists use to show Earth's history and how scientists order rocks
- Know what the divisions in the geologic time scale depend on
- Know what the earliest span of time is called and the three following eras
- Know what eras are subdivided into
- Be able to place the eras in the correct order
- Know the names of the periods

Section 5

- Definitions

Comet

Continental drift

- Know the approximate age of the earth
- Know how scientists were able to determine the age of the earth
- Know how the earth took shape
- Know what formed on the surface of the earth during the Precambrian Time
- Know what type of organisms were the first to form fossils
- Know why photosynthesis is important in our history

Section 6

- Definitions

Invertebrate

Amphibian

Mass extinction

Vertebrate

Reptile

Mammal

- Know what the Cambrian Explosion is
- Know at least one example of an invertebrate
- Know what the first vertebrates were
- Know the differences between vertebrates and invertebrates
- Know during which period animals began to invade the land
- Know what some scientists believe caused the mass extinction at the end of the Paleozoic
- Know which era is called the "Age of the Reptiles"
- Know what scientists believe caused the mass extinction at the end of the Cretaceous Period
- Know what organisms did not survive the mass extinction of the Cretaceous Period
- Know what era is called the "Age of the Mammals"
- Know which period had a series of ice ages
- Know when modern humans evolved