

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

---

## Review: Geologic Time

---

**Directions:** Carefully read over the checklist of items that you need to know for the “Geologic Time” test. Be sure to attend extra help if you have any questions.

### EARLY EVOLUTION

- Term to Know: outgassing
- Earth Science Reference Tables: Geologic History of New York State
- Earth is 4.6 billion years old
- Earth separated into its layers according to density
- The Cambrian Explosion [Burgess Shale] began the great diversity of life on Earth

### RELATIVE DATING

- Terms to Know: uniformitarianism, relative dating, original horizontality, correlation, fossil
- Superposition states that the oldest layer is usually the oldest and youngest is on the top
- Intrusions are an exception to superposition and are younger than the rock they crosscut
- Contact Metamorphism is younger than the rock they crosscut
- Faults are younger than the rock they crosscut
- Folds are an exception to superposition
- Index Fossils are used to identify a geologic period and used to correlate
- To be considered a good index fossil it needs to meet two criteria:
  1. The organism existed over a large geographic area
  2. The organism existed over a short time
- Geologic Time Markers represent a specific date in a rock sequence [volcanic eruptions]
- Know how to interpret a rock cross-section and sequence rock formation and events

### ABSOLUTE DATING

- Terms to Know: absolute dating, radioactive decay, isotope
- Half-life is the time required for half of a radioactive product to decay to a stable product
- Nothing can change half-life... NOTHING!
- Earth Science Reference Tables: Radioactive Decay Data
- Carbon-14 [C-14] is used to date recent organic remains
- Carbon-14 can only accurately date to 50,000 years
- Uranium-238 [U-238] is used to date really old rocks