

Unit 9 – Earth’s Geologic History

Competency Goal 3:

The learner will build an understanding of the origin and evolution of the earth system.

Unit 9 Objectives:

- I can describe relative and absolute dating techniques.
- I can analyze statistical models (graphs) of radioactive decay.
- I can explain how fossils provide evidence of past life.
- I can describe the law of uniformitarianism.
- I can describe the law of superposition.
- I can describe the principle of cross-cutting
- I can describe the principle of original horizontality.
- I can list divisions of geologic time.
- I can describe the origin of the earth system.
- I can describe how the fossil record changed over time.
- I can relate North Carolina’s landforms to its geologic history.

Unit 9 Essential Questions

1. What is relative dating?
2. What is absolute dating?
3. What is an isotope?
4. How is an element’s half-life used to determine actual age?
5. How are different types of fossils formed?
6. How are major geologic changes observed in the fossil record?
7. What does the law of uniformitarianism state?
8. What does the law of superposition state?
9. What does the principle of original horizontality state?
10. What does the principle of cross-cutting state?
11. What is an unconformity?
12. What are the 4 major eras from oldest to present?
13. What is our present era and period?
14. What are the major lifeforms and events that occurred during the Paleozoic era?
15. What are the major lifeforms and events that occurred during the Mesozoic era?
16. What are the major lifeforms and events that occurred during the Cenozoic era?
17. How did Earth’s geosphere form?
18. How did Earth’s atmosphere form?
19. How did Earth’s hydrosphere form?
20. How did Earth’s biosphere form?
21. Describe North Carolina’s current landforms and how they relate to its geologic history.