

Chapter Review

USING KEY TERMS

1. In your own words, write a definition for each of the following terms:
superposition, geologic column, and geologic time scale.

For each pair of terms, explain how the meanings of the terms differ.

2. *uniformitarianism* and *catastrophism*

3. *relative dating* and *absolute dating*

4. *trace fossil* and *index fossil*

UNDERSTANDING KEY IDEAS

Multiple Choice

5. Which of the following does not describe catastrophic change?
- widespread
 - sudden
 - rare
 - gradual
6. Scientists assign relative ages by using
- absolute dating.
 - the principle of superposition.
 - radioactive half-lives.
 - carbon-14 dating.

Chapter Review continued

7. Which of the following is a trace fossil?
- an insect preserved in amber
 - a mammoth frozen in ice
 - wood replaced by minerals
 - a dinosaur trackway
8. The largest divisions of geologic time are called
- periods.
 - eras.
 - eons.
 - epochs.
9. Rock layers cut by a fault formed
- after the fault.
 - before the fault.
 - at the same time as the fault.
 - There is not enough information to determine the answer.
10. Of the following isotopes, which is stable?
- uranium-238
 - potassium-40
 - carbon-12
 - carbon-14
11. A surface that represents a missing part of the geologic column is called a(n)
- intrusion.
 - fault.
 - unconformity.
 - fold.
12. Which method of radiometric dating is used mainly to date the remains of organisms that lived within the last 50,000 years?
- carbon-14 dating
 - potassium-argon dating
 - uranium-lead dating
 - rubidium-strontium dating

Short Answer

13. Describe three processes by which fossils form.

14. Identify the role of uniformitarianism in Earth science.
