

Directed Reading A

Section: Earth's Story and Those Who First Listened THE PRINCIPLE OF UNIFORMITARIANISM

Write the letter of the correct answer in the space provided.

- _____ 1. Who is responsible for outlining the principle now called uniformitarianism?
- Albert Einstein
 - James Hurst
 - James Hutton
 - Charles Lyell
- _____ 2. The principle of uniformitarianism states that
- the geologic processes once at work are now changing.
 - Earth changes only at certain times and only after certain events.
 - Earth is uniform and unchanging; it has always been as it is now.
 - the same geologic processes have been at work throughout Earth's history.
3. Which of the following processes was NOT observed by Hutton when he developed the idea of uniformitarianism?
- Rivers carry rock particles upstream.
 - In time, new rock will be raised and create new landforms.
 - Rock particles are deposited and form new layers of sediment.
 - Rock is broken down into smaller particles.

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|--|----------------------|
| _____ 4. the principle that states that past geologic processes can be explained by current geologic processes | a. James Hutton |
| _____ 5. the principle that states that geologic change occurs suddenly | b. catastrophism |
| _____ 6. rare, sudden events that cause change | c. Charles Lyell |
| _____ 7. the author of <i>Theory of the Earth</i> | d. catastrophes |
| _____ 8. the author of <i>Principles of Geology</i> | e. uniformitarianism |

Directed Reading A *continued*

MODERN GEOLOGY—A HAPPY MEDIUM

9. During the late 20th century, scientists challenged uniformitarianism again. What do these scientists believe about catastrophes?

10. What present-day evidence suggests that the extinction of dinosaurs was the result of a catastrophic event?

PALEONTOLOGY—THE STUDY OF PAST LIFE

Match the correct definition with the correct term. Write the letter in the space provided.

- | | |
|--|---------------------------|
| _____ 11. the study of past life using fossils | a. paleontology |
| _____ 12. scientists who study past life using fossils | b. fossils |
| _____ 13. remains of organisms preserved by geologic processes | c. paleontologists |
| _____ 14. the study of the history of the Earth | d. geology |