

TEST NAME: **8.E.2 Post-Assessment**  
TEST ID: **313552**  
GRADE: **08**  
SUBJECT: **Life and Physical Sciences**  
TEST CATEGORY: **My Classroom**

**10/31/14, 8.E.2 Post-Assessment**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

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

1. Which data can be directly determined by studying ice core samples?
  - A. changes in plant life
  - B. changes in animal life
  - C. changes in climate patterns
  - D. changes in energy resources
  
2. Where is evidence **most often** found to represent a record of Earth's history?
  - A. air, lava, and fossils
  - B. water, air, and rocks
  - C. lava, water, and ice cores
  - D. rocks, fossils, and ice cores
  
3. Several different fossils were found in rock layers in a geologic column. Above these rock layers, the fossils were almost nonexistent. Which **most likely** explains these observations?
  - A. A nonconformity occurred.
  - B. All the organisms migrated.
  - C. A period of mass extinction occurred.
  
4. What can be concluded about the age of fossils in undisturbed rock layers?
  - A. The top layer has the oldest fossils.
  - B. The bottom layer has the oldest fossils.
  - C. The top layer has the oldest and youngest fossils.

5. What is the **best** description for how trace fossils are different from fossils of an organism's remains?
- A. Trace fossils are fossilized tracks and other evidences of an organism's activity.
  - B. Trace fossils are fossilized waste of an animal.
  - C. Trace fossils are parts of the original organism.
6. A rock cliff of parallel rock layers is slanted at an angle. What is this **most likely** evidence of?
- A. deposition
  - B. erosion
  - C. fault
7. If a metamorphic rock contains an intrusion of igneous rock, which rock is the oldest?
- A. The igneous rock is older.
  - B. The rocks are the same age.
  - C. The metamorphic rock is older.
8. Why are index fossils used as guides to determine the age of rocks?
- A. Each index fossil lived during a specific geologic time period.
  - B. All index fossils lived during all the periods of geologic time.
  - C. Index fossils are very rare and are not commonly found in rocks.
9. Which **best** describes a fossil that helps determine the relative age of a rock layer?
- A. trace fossil
  - B. index fossil
  - C. radioactive fossil
  - D. unconformity fossil

10. The rock layers below were dated using the radioactive decay method.

Layer	Age of Layer
W	50,000 years old
X	150,000 years old
Y	75,000 years old
Z	20,000 years old

If the layers have been undisturbed, which **best** represents their arrangement from bottom to top?

- A. W, X, Y, Z
  - B. X, Y, W, Z
  - C. Z, W, Y, X
  - D. Z, Y, X, W
11. A rock sample is arranged in four undisturbed layers, W, X, Y and Z, as shown in the diagram below.

<b>W</b>
<b>X</b>
<b>Y</b>
<b>Z</b>

Which is **most likely** true about the layers according to the law of superposition?

- A. W is the oldest rock layer and Z is the youngest rock layer.
- B. W is the youngest rock layer and Z is the oldest rock layer.
- C. X is the youngest rock layer and W is the oldest rock layer.
- D. X is the oldest rock layer and Y is the oldest rock layer.

12. Which **best** describes how ice cores can provide scientists with evidence for climate change over a period of time?
- A. Ice cores form only during ice ages.
  - B. Dark rings in the ice core indicate climate change.
  - C. The temperature of the ice core is lower in layers formed when temperature is colder.
  - D. The concentration of gases in the ice core indicate colder or warmer temperatures.
13. Which generalization can be made about the relative age of a fossil found in a sedimentary rock bed?
- A. The fossil is younger than the rock layer above it.
  - B. The fossil was formed before the rock layer that contains it.
  - C. The fossil and the rock were formed in different environments.
  - D. The fossil was formed around the same time as the rock that contains it.
14. Which method provides the **most** accurate age of a rock sample?
- A. superposition
  - B. relative dating
  - C. radioactive dating
  - D. index fossil identification
15. A scientist finds an index fossil in layers of rock in both Africa and South America. What does this indicate about the ages of the rocks?
- A. The African rock is older.
  - B. The South American rock is older.
  - C. The rocks are younger than the fossils.
  - D. The rocks are approximately the same age.

16. The half-life of potassium-40 is 1.3 billion years. An igneous rock is found with 25% potassium-40. What is the absolute age of this rock?

- A. 1.3 billion years
- B. 2.6 billion years
- C. 3.9 billion years
- D. 5.2 billion years