Section: Looking at Fossils

FOSSILIZED ORGANISMS

1. What is the name for the trace or remains of an organism that lived long ago, most commonly preserved in sedimentary rock?
   a. sediment
   b. fossil
   c. cast
   d. mold

2. Most fossils are preserved in
   a. asphalt.
   b. ice.
   c. sedimentary rock.
   d. igneous rock.

3. Which of the following organisms is commonly found preserved in rock?
   a. clam
   b. jellyfish
   c. insect
   d. worm

4. Some of our best insect fossils are preserved in
   a. amber.
   b. rock.
   c. ice.
   d. asphalt.

5. Which of the following is an example of an organism whose tissue has been replaced by minerals?
   a. a shell preserved in rock
   b. petrified wood
   c. a frozen mammoth
   d. an insect trapped in amber

6. The La Brea asphalt deposits have been trapping and preserving organisms
   a. for less than 10,000 years.
   b. for less than 500 years.
   c. for at least 38,000 years.
   d. for 1 million years.

7. In 1999, scientists removed remains of a wooly mammoth from what material?
   a. asphalt
   b. ice
   c. wood
   d. amber
OTHER TYPES OF FOSSILS

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

8. any naturally preserved evidence of an animal’s activity
   ______ a. mold

9. a cavity in rock where a plant or animal was buried
   ______ b. trace fossil

10. an object created when sediment fills a mold and becomes a rock
    ______ c. cast

11. What can animal tracks tell about the animal that left them?

12. What can a coprolite tell about the animal that left it?

USING FOSSILS TO INTERPRET THE PAST

13. Which of the following statements about the fossil record is true?
    ______ a. Most organisms never became fossils.
    ______ b. Scientists know more about organisms that had soft body parts than about organisms that had hard body parts.
    ______ c. Scientists have learned nothing about the history of life on earth from fossils.
    ______ d. The fossil record is complete.

14. The fossil record does NOT reveal information about which of the following?
    ______ a. past climates
    ______ b. ancient seas
    ______ c. the solar system
    ______ d. environmental change
Directed Reading A continued

USING FOSSILS TO DATE ROCKS

15. How is an index fossil useful to geologists in establishing the age of the rock layer in which they find it?

16. Imagine that you found a *Tropites* fossil. How old is the rock surrounding it?

17. Imagine that you found a *Phacops* fossil. How old is the rock surrounding it?
Looking at Fossils

USING KEY TERMS

Complete each of the following sentences by choosing the correct term from the word bank.

- cast
- index fossils
- mold
- trace fossils

1. A ________________ is a cavity in rock where a plant or animal was buried.

2. ________________ can be used to establish the age of rock layers.

UNDERSTANDING KEY IDEAS

3. Fossils are most often preserved in
   a. ice.
   b. amber.
   c. asphalt.
   d. rock.

4. Describe three types of trace fossils.

   ____________________________

5. Explain how an index fossil can be used to date rock.

   ____________________________
   ____________________________
   ____________________________

6. Explain why the fossil record contains an incomplete record of the history of life on Earth.

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Section Review continued

7. Explain how fossils can be used to determine the history of changes in environments and organisms.

MATH SKILLS

8. If a scientist finds the remains of a plant between a rock layer that contains 400 million-year-old *Phacops* fossils and a layer that contains 230 million-year-old *Tropites* fossils, how old could the plant fossil be? Show your work below.

CRITICAL THINKING

9. **Making Inferences** If you find rock layers containing fish fossils in a desert, what can you infer about the history of the desert?

10. **Identifying Bias** Because information in the fossil record is incomplete, scientists are left with certain biases concerning fossil preservation. Explain two of these biases.