Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading B

Section: Looking at Fossils (pp. 264–269)

FOSSILIZED ORGANISMS

fossil

1. The trace or remains of an organism that lived long ago, most commonly preserved in sedimentary rock, is a
- **a.** rock.
- **b.** fossil.
- **c.** meteorite.
- **d.** trace element.

2. Describe how organisms are preserved in sedimentary rock.

Small particles of sediment slowly deposit around the dead bones or shells of the organism. This creates a shape left inside the sedimentary rock, that may be discovered by a paleontologist.

3. Soft, sticky tree sap that can trap insects, frogs, and lizards, then harden is called amber.

4. Why are many frozen fossils preserved from the last ice age?

Cold temperatures slow down decay. There are still ice caps remaining that have not thawed since the last ice age. Inside these ice caps are frozen fossils like the Woolly Mammoth.

5. How long have the La Brea asphalt deposits preserved trapped organisms?

for 38,000 years.

6. The process in which minerals replace the pore space in an organism's hard tissue, or all an organism's tissues, is called petrification.

OTHER TYPES OF FOSSILS

7. What is a trace fossil?

A trace fossil is a preserved evidence of animal activity, for example, footprints of dinosaurs, or leftover deer bones eaten by a saber toothed tiger.

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

footprint **8.** trace fossil that can show how big an animal was and how fast it was moving

burrow **9.** trace fossil formed by the shelter of an animal, such as a clam, that buries itself in sediment

coprolite **10.** trace fossil formed from preserved animal dung

mold **11.** the impression left in sediment or rock where a plant or animal was buried

cast **12.** an object formed when sediment fills a mold and becomes rock

a. mold
b. coprolite
c. fooprint
d. cast
e. burrow

USING FOSSILS TO INTERPRET THE PAST

13. The history of life in the geologic past as indicated by the traces or remains of living things is the fossil record.

14. What are two reasons that the fossil record is incomplete?

Most organisms (especially those with soft bodies) never became fossils and many fossils have not been discovered yet.

15. In what kind of environment were marine fossils found on mountains in the Yoho National Park in Canada formed?

The fossils found in those mountains came from rocks that have been pushed up from below sea level.

16. How does fossil evidence of forests and freshwater organisms in Antarctica show that the climate there was warmer in the past?

In the past Antarctica was closer to the equator. This allowed for a warmer climate for forests to grow and fresh water to remain unfrozen.

17. What are two things scientists compare to help them interpret how life has changed over time?

1. similarities between different fossils and
2. similarities between fossils and living organisms.

DATING THE FOSSIL RECORD

in older rock layers **18.** Compared to fossils of organisms that lived more recently, fossils of more ancient life forms are found

a. in younger rock layers.
b. in older rock layers.
c. on top of rocks.
d. in either young or old rock layers.

Name _____ Class _____ Date _____

Directed Reading B *continued*

c. **19.** How do scientists find out the age of an index fossil?
- **a.** They date only the rock layer above the fossil.
- **b.** They date only the rock layer below the fossil.
- **c.** They date the rock layers above and below the fossil.
- **d.** They compare the fossil to present-day organisms.

d. **20.** Which of the following is NOT true of index fossils?
- **a.** They appear only in certain rock layers.
- **b.** They appear all over the world.
- **c.** They were organisms that lived during a short, well-defined geologic time span.
- **d.** They are hard to identify.

a. **21.** What do scientists use index fossils for?
- **a.** to date the rock layers they are found in
- **b.** to learn about the ocean floor
- **c.** to learn about the minerals they are found in
- **d.** to learn what ancient organisms ate

22. About how old are the rock layers where fossils of *Phacops*, a kind of trilobite, are found? How do scientists know?

40 million years old

23. About how long ago did ammonites called *Tropites* live?

between 230 and 208 million years ago.