

A Trip Through Geologic Time ▪ *Guided Reading and Study*

Fossils

This section explains what fossils are and how they form.

Use Target Reading Skills

As you preview the section headings and visuals, write what you know about the topic in the box What You Know. As you read the section, complete the What You Learned box.

What You Know
1. Fossils come from ancient organisms.
2.

What You Learned
1.
2.

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Introduction

1. The preserved remains or traces of living things are called _____.
2. List three things that scientists learn by studying fossils.
 - a. _____
 - b. _____
 - c. _____

How a Fossil Forms

3. Is the following sentence true or false? Most fossils form when living things die and are buried by sediments. _____
4. Is the following sentence true or false? Fossils are usually found in igneous rock. _____
5. The type of rock that is made of hardened sediment is _____.
6. Why do only the hard parts of organisms generally leave fossils?

7. Is the following sentence true or false? Fossils can form when the remains of an organism decay. _____
8. Circle the letter of each sentence that is true about molds and casts.
 - a. Both molds and casts copy the shape of ancient organisms.
 - b. A mold forms when the hard part of an organism is buried in sediment.
 - c. A cast is a hollow area in sediment in the shape of an organism.
 - d. Molds and casts do not show details of the organism's structure.
9. Fossils in which minerals replace all or part of an organism are called _____ fossils.
10. Is the following sentence true or false? Petrified fossils can form when the minerals in water make a copy of the organism. _____
11. What is a carbon film?

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12. Is the following sentence true or false? A carbon film forms when minerals preserve the delicate parts of an organism. _____

13. Circle the letter of each trace fossil.

- a. footprints
- b. animal trails
- c. animal shells
- d. burrows

14. What can a scientist infer by looking at fossil footprints?

15. What are three ways that the remains of organisms have been preserved?

- a. _____
- b. _____
- c. _____

Change Over Time

16. Scientists who study fossils are called _____.

17. Is the following sentence true or false? Paleontologists classify organisms based on the organisms' similarities and when they lived.

18. All the information that paleontologists have gathered about past life is called the _____.

19. Circle the letter of each sentence that is true about the fossil record.

- a. It provides evidence for the history of life on Earth.
- b. It shows that organisms have changed over time.
- c. It reveals that complex organisms have given rise to simpler organisms.
- d. It provides evidence to support the theory of evolution.

20. Is the following sentence true or false? It is very difficult for scientists to learn about Earth's past environments by studying fossils.

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21. Circle the letter of the environment in which coal can form.

- a. warm, shallow seas
- b. cold, icy regions
- c. warm, swampy regions
- d. cold ocean bottoms

22. What is a scientific theory?

23. The gradual change in living things over long periods of time is called _____.

24. Is the following sentence true or false? The fossil record shows that millions of types of organisms have evolved _____.

25. A type of organism that no longer exists and will never again live on Earth is _____.