

Getting in to the Fossil Record

An On-Line Fossil Lab



This lab activity will be completed entirely on-line. You will be visiting several web sites devoted to fossils, the fossil record, and geologic history. Visit the web sites listed and explore the information presented. As you do so, record brief responses to the questions below. This activity will be collected and counted as a lab.

Destination #1: "Getting in to the Fossil Record"

<http://www.ucmp.berkeley.edu/education/explorations/tours/fossil/9to12/intro.html>

Click the links at the bottom of the page to continue through the site. Some pages may require you to click on an image or answer a question before the link appears to guide you to the next page.

1. View the animation about getting into the fossil record, and write several sentences summarizing how a dinosaur can become a fossil.

2. The word "fossil" means what (from Latin)?

3. What are paleontologists?

4. Fossils can be body parts of ancient organisms, or they can be traces. Give five examples of traces.

1.

2.

3.

4.

5.

5. Which type of organism do you think is most likely to be preserved? One that gets buried quickly or one that gets buried slowly?

6. What are three biotic factors that can affect an organism after death?

1.

2.

3.

7. What is an abiotic factor that can prevent the organism from becoming preserved, AFTER it has been buried?

8. What is a mold?
9. What is a cast?
10. What is amber?
11. What type of animal might become preserved in amber?
12. Where in the US is a tar pit found?
13. What type of animal might become preserved in a tar pit?
14. Which is more likely to fossilize? Hard parts or soft parts?
15. Of all the organisms alive today, what percentage is most likely to be preserved as fossils?
16. What are three ways in which a fossil can be destroyed after it has formed?
 - 1.
 - 2.
 - 3.
17. Which type of rock is most likely to contain fossils? Igneous, sedimentary, or metamorphic?

Destination #2: "The geologic Time Scale in Historical Perspective"

<http://www.ucmp.berkeley.edu/exhibit/histgeoscale.html>

1. Explain the contributions of Nicholas Steno to geology.
2. What was William Smith's contribution to geology?
3. The beginning of the Phanerozoic is marked by what occurrence?
4. What are the three divisions (Eras) of the Phanerozoic Eon?
 - 1.
 - 2.
 - 3.
5. What do the following terms mean?
 1. "zoic"

Name: _____ Date: _____ Period: _____

2. "Cen"

3. "Meso"

4. "Paleo"

6. What major group of animals dominated the Mesozoic Era?

Destination #3: "Frequently Asked Questions About Paleontology"

<http://www.ucmp.berkeley.edu/FAQ/faq.html>

1. What are coprolites?

2. What are the practical uses of paleontology?

3. How do paleontologists know how old fossils are?

4. Fossils that are most useful for correlation tend to be:

1.

2.

3.