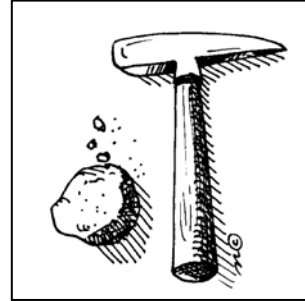


Name _____ Date _____ Period _____

What Can We Learn From The Rock Record?

Go to the following web site:

www.ucmp.berkeley.edu/education/explotime.html



- a. Click on: "Getting Into the Fossil Record."
- b. Click on: "Level 1."
- c. Navigate through the module by exploring the pages thoroughly.
- d. As you work through the activity, respond to the following questions:
 - 1) Name five kinds of trace fossils.
 - 2) Find the **walnut**. How did it become a fossil?
 - 3) What happened to the mammoth?
 - 4) Why are the mouse and the jellyfish being compared?
 - 5) Why is it difficult for an organism living in the rainforest to become a fossil?
 - 6) What are two reasons why so many organisms never become part of the fossil record?
 - 7) What are two ways that geologic processes can destroy a fossil?
 - 8) Why isn't igneous rock a good place to look for fossils?

9) Find the **map of Montana**. What are two things to keep in mind when you are looking for a fossil like T. rex? What do the colors and letters represent?

10) You are a paleontologist at a fossil dig site in the Gobi Desert. You find a site filled with many fossilized leaves, teeth, bones, eggs and even footprints from a variety of creatures. But you find no trace of insects. One possible explanation is that no insects lived in the Gobi at that time. What is another possible explanation for the lack of insects?

Geologic Time:

Return to the menu page by retyping the URL on the front page.

- a) Click on: "Understanding Geologic Time."
- b) Click on: "Student Start."
- c) Navigate through the module by exploring the pages thoroughly.
- d) As you work through the activity, respond to the following questions:

11) Find the **book**. Find any page in the book and describe what is happening there.

12) Find the word *superposition*. What does it mean?

13) Find the **woman scientist**. What is she studying? What will she learn?

14) Find the **Jura Mountains**. What country are they in and what period was named for them?

15) What do the periods on the geologic time scale represent?

16) What is a eurypterid?

17) When did ammonites become extinct?

Post-Test

18) What is a fossil?

19) Preserved bones and tracks are two types of fossils. Describe three other types of fossils.

20) Which is most likely to fossilize: a clam or a jellyfish? Explain your answer.

21) Why is a quick burial helpful in the fossilization process?

22) In what type of rock would you most likely find fossils? Circle the best answer below.

- a. igneous
- b. metamorphic
- c. sedimentary
- d. all of the above

23) Once a fossil has been formed, it still might not become part of the fossil record. Describe two natural processes that might destroy the fossil.

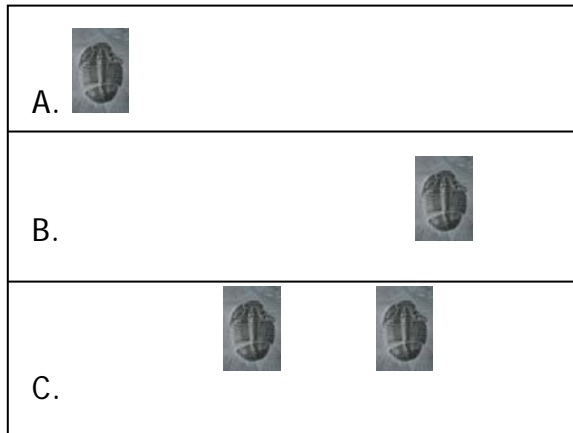
24) Of all the organisms alive today, what percentage do you think will eventually become fossils? Circle the best answer below.

- a. Less than 10%
- b. 10-25%
- c. 25-50%
- d. More than 50%

25) Current scientific evidence shows that the Earth is:

- a) less than 1 million years old
- b) between 3 and 4 billion years old
- c) more than 4 billion years old

26) Look at the diagram below representing layers of rocks and the fossils buried in them.

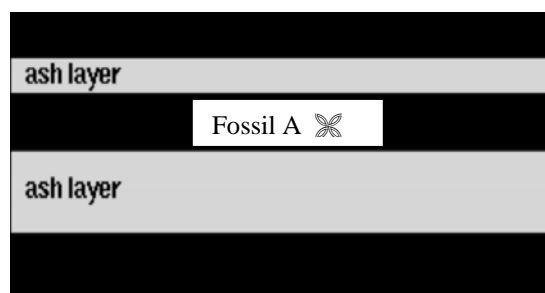


- a) Circle the oldest layer.
- b) Explain how you can tell which layer is the oldest.

27) What is the difference between relative and absolute age?

28) Look at the diagram below and then answer this question:

We can date the layers of volcanic ash using radiometric dating, but how can we determine the absolute age of fossil A?



29) The diagram below shows a portion of the Geologic Time Scale. What do the divisions of time represent?

- a) the names of famous scientists
- b) major changes in flora (plants) and fauna (animals)
- c) Latin terms for lengths of time

P H A N E R O Z O I C	P A L E O Z O I C	PERMIAN
		CARBONIFEROUS
		DEVONIAN
		SILURIAN
		ORDOVICIAN
		CAMBRIAN

30) Isn't earth science awesome?