**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_**

**Earth History Test**

***Directions:***

Fill in the blank for each sentence with one of the words below. (1 point each)

***Layers Weathering Index rock column sample plateau calcite***

***Correlation Limestone Shale Sandstone Sediment differential erosion***

**1**. When rocks are broken down in the mountains it is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**2**. A rock that fizzes upon contact with acid is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**3**. A rock formed from compacted particles of sand is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**4.**  A rock that is made from clay and silt and often contains plant fossils is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**5**. A large, nearly level area of land that has been uplifted is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. The mineral \_\_\_\_\_\_\_\_\_\_ will fizz in contact with acid.

**7**. Geologists draw a \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ to show the sequence of rock layers in an area.

**8.**  Flat deposits of rock that cover a large area are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**9.** When geologists work to find a relationship or connections between rock layers from two or more locations, we say that they are making a rock \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**10.** Material that is broken down by weathering and erosion is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**11**. When a landform is made of both soft and hard rocks, the rocks will wear away at different rates in a process called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**12**. Fossils that help geologists determine the age of rock layers are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fossils.

**13**. Geologists take a rock \_\_\_\_\_\_\_\_\_\_and note where it comes from to study an area.

***Directions: Circle the correct answer to complete the sentence. (2pts)***

**14.**  Sediments that settle in a basin form ***curved* layers OR *horizontal layers*** that later become sedimentary rock.

**15.**  The best index fossils come from organisms that lived **all over the world for a short period of time OR in one location for a long period of time.**

**16.** Explain with words and pictures the processes that create sediments which then become a layer of sedimentary rock. In your explanation include:

 - The source of the sediments and how that becomes sediment (2pts)

 - The processes that transports the sediments (2pts)

 - How and where the sediments end up. (2pts)

**17.**

**18.** Given that mudstone is a soft rock and sandstone is harder, label the parts of this formation as sandstone or mudstone. (1 pt)

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**19.** What geologic events could have caused horizontal sedimentary layers to appear no longer horizontal, or for older layers to be on top of younger layers? (2 pts)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Use the cross-section drawing to answer questions 20-22.***



**20.** The Colorado River started eroding the Grand Canyon 6 million years ago. Which two layers did the Colorado River erode through first? (1 pt) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explain why you think those two layers eroded first. (1 pt)

**21.** If you could return to the Grand Canyon one million years from now, what layer of rock might you observe at river level? (1pt) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Explain why ( 1pt) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**22.** Change the drawing to show what the rock layers and the grand Canyon might have looked like six million years ago. (1pt)

Explain why you changed the drawing the way you did. (1pt)

 \_\_\_\_\_

 ***Directions: Correlate the rock columns to answer the following questions (4 points)***



**23.** Which is older, the Moenkopi Formation or the Navajo Sandstone? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is your evidence? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**24.**  Which is older, the Moenkopi Formation or the Coconino Sandstone? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is your evidence? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**25.** Complete the rock cycle diagram below using the words and phrases in the word bank (4 pts)

WORD BANK

heating and cooling

heat and pressure

sedimentary

erosion and deposition

 igneous

 metamorphic