**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Pd:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part 1: Read the sample rock biography below and answer the questions (4 Points)**

My Rock’s Biography By Ms. Hernandez

Imagine you are a rock sitting on a beach. You are a sharp rock with lots of edges. All you do is sit on the beach. Every day you sit. The sun shines on you, the wind blows on you, and sometimes other rocks and sand hit you. Even the waves crash on you. Sometimes the wind and rain are strong enough to move you from your spot on the beach. But they do not move you very far. Eventually you may even collide with other rocks, or you might get buried under the sand and water. **How long will it take before all of this “Weather Erosion” changes you from a sharp rock to a smooth rock?**

1. Estimate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(How many years)

As a buried rock, other rocks start to layer on top of you. Eventually those rocks begin to feel heavy. Layers of rock on top of layers of rock over many years and now you are deep below the Earth’s surface. As a rock you are very squished? Your shape is changing, and your starting to stick to other rocks around you. You don’t look like the same rock anymore. **What is causing you to stick to the other rocks near you? Why are you looking different?**

1. Explain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Many years pass, and you are buried even deeper than before. It is so deep, there are many layers of rock above you. It is like having 1000 blankets covering you. All of this pressure is making it very hot and you melt into other rocks. You no longer look like a rock because you’re transforming into a liquid. As a molten rock you eventually become magma and sit in a giant pool of liquid magma made from other types of melted rock. Now it is really hot and all the heat is causing more pressure to build. Like a tea kettle the pressure grows all around you. **If you are magma in a volcano, what happens when the pressure is too much?**

1. Explain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When the volcano erupts from all of the pressure, it sprays the magma to the top of the volcano, as the magma leaves the volcano it changes its name to lava. Since the magma/lava is no longer trapped deep below the Earth’s surface under extreme pressure and heat, it is able to cool off. As it cools, it turns into rock. It’s not the same rock as it was on the beach. It’s a different rock. Now it looks like a different rock. **Why does it look like a different rock?**

1. Explain: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 2: Choose a rock from the samples and complete the table below.**

|  |  |  |
| --- | --- | --- |
| **(2 Points)** Draw a picture of your rock with color and detail | **(2 Points)** Describe your rock’s properties  Ex: (Smooth, rough, sharp, heavy, dense, shiny, clear, sparkly, fragile, hard) | **(2 point)** Estimate how old you think this rock is and explain why… |
|  |  |  |

**Step 3: Use this rubric to write a “Rock Biography,” (Timeline for your rock). Make sure to add a question for the reader to answer after each paragraph.**

**~We are not able to really know the history of this specific rock, but we understand all matter on Earth is recycled into the Earth system many times during Earth’s history. This assignment requires you to show your understanding of the rock cycle by using your creativity and rock cycle knowledge.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **1 Point** | **2 points** | **3 points** |
| **Geologic Time**  **(Earth’s History)** | The story does not fully describe how long it takes for changes to occur in the Earth’s geology | The story describes 2 or more periods of geological time, representing how long it takes for changes to occur in the rock cycle. | The story describes 3 or more periods of geological time, representing how long it takes for changes to occur in the rock cycle. |
| **Types of Rock** Metamorphic  Igneous  Sedimentary | Only 1 type of rock is represented with an accurate description of how it is formed | Only 2 types of rock are represented with an accurate description of how it is formed | All 3 types of rock are represented with accurate descriptions of how they were formed. |
| **Natural Forces**  Compaction & Cementation  Cooling & Hardening  Weathering & Erosion | Only 1 natural force is represented with an accurate description of the process | Only natural forces are represented with accurate descriptions of the processes | All 3 natural forces are represented with accurate descriptions of the processes |
| **Making Connections & Showing Reasoning** | Has only 1 question for the reader and a place for them to answer | At least 2 paragraphs include a question for the reader and a place for them to answer | Each section/paragraph includes a question for the reader and a place for them to answer |
| **Illustrations** | Images support some of the rock cycle process/timeline | Images support most of the rock cycle process/timeline | Illustrations are in color and accurately support the rock cycle process/timeline |

Feedback:

Feedback:

Feedback:

Feedback:

Feedback:

**TOTAL: \_\_\_\_\_\_\_\_\_\_\_\_\_/ 25 Points Possible**