Earth Science 11 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blk: \_\_

**PET ROCK PROJECT**

**OBJECTIVE: to understand the rock cycle by investigating rocks and their mineral components.**

**PART 1: Pet Rock**

1. **Find** a rock. Your rock must be portable (**fit in the palm of your hand**), obtained legally, and

 interesting to you.

1. **Name** your rock. Its name is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. **Draw** your rock in the box below. Try your best to add as many **details** as you can.

**Label** colours, textures, size, etc…



1. **Break** your rock. Using a rock hammer, safely crack your rock to expose a fresh surface.
2. **Draw** the fresh surface of your rock. **Label** what you see – colours, textures, size, etc…
3. **Investigate** your pet rock by answering the following questions:
4. Where and when did you **find** your rock? Describe the location in detail. Why did you **choose** this rock to study?

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1. In what way does the **shape** and **texture** of your rock indicate how far it has travelled?

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1. What **type of rock** do you think you have? (*Igneous, sedimentary, or metamorphic?*)
2. Describe **why** you think it is this type of rock.

**Use the following pages in the textbook to get the rock name:**

*Igneous Rock – p. 119 Sedimentary Rock – p. 142 Metamorphic Rock – p. 146*

1. What is the **rock** **name** of the specific rock you have? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What **evidence** are you using to decide on the specific rock name?

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**PART 2: Rock Cycle**

Everybody has a story about their life. Your rock does too. Tell that story.

You are to creatively and scientifically **tell the story of your pet rock’s trip through the ROCK CYCLE**.

* Choose **one** storytelling method:

Option 1: **Film** - Option 2: **Comic Strip** - Option 3: **Short Story** - Option 4: **Song**

* Your Story through the Rock Cycle **must** include:
* Your rock changing from one kind of rock to another.
* You must **end with the same rock type** as you **start** with.
* **How** the rock changes from one type to the other (Which processes?)
* All three main rock types (***Igneous, Sedimentary,*** *and* ***Metamorphic*)**
* ***Sediment*** and ***Magma***
* **Images** illustrating the journey of your rock.



**PROJECT DATES**

Find your rock: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 1** due: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 2** due: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ROCK CYCLE STORY PLANNING:**

* Start with your rock type, and then decide the path through the rock cycle.
* Include **the main rock stages** and the **processes** that change the rock from one type to another.

YOUR PET ROCK - **Rock Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PET ROCK PROJECT RUBRIC**

*Learning outcome*: students will investigate the Rock Cycle by explaining the processes their Pet Rock undergoes to change from one rock type to another.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***CRITERIA*** | **Awesome! :D** | **Nice job! :)** | **Ok. :\** | **Bueller?** |
| **10-9** | **8-7** | **6-5** | **4-0** |
| **Rock Type****Information** | Includes a detailed description of the three rock types *(Extrusive and Intrusive Igneous, Sedimentary, Metamorphic).* Includes logical specific rock names examples. Also includes types of sediment and magma.  | Includes a description of the three rock types *(Igneous, Sedimentary, Metamorphic).* Includes specific rock names examples. Also includes types of sediment and magma.  | Includes the three rock types *(Igneous, Sedimentary, Metamorphic).* Also includes sediment and magma.  | Did not include information about the rocks, sediment, or magma. |
| **Processes**(HOW the rock changes) | Includes a detailed description of the processes between rock types, sediment, and magma. A logical, detailed, and creative path is chosen through the rock cycle.  | Includes a description of the processes between rock types, sediment, and magma. A logical path is chosen through the rock cycle. | Includes the processes between rock types, sediment, and magma. A path is chosen through the rock cycle. | Did not include information about the processes. |
| **Creative Process & Images** | Project shows effort and creativity. Many appropriate images are used to explain ideas. | Project shows effort. Appropriate images are used to explain ideas. | Project shows some effort. Some images are used to explain ideas. | Did not include effort or images. |