

## Grade 4 – Assignment for week of (5/18 to 5/22)

### Learning about Earth's Rock Types:

So far we have learned about landforms being made of plates and how the continents move. This week we will take a closer look at the Earth's different types of rocks.

### Science Vocabulary Words-

Rocks:	A natural material made up of one or more mineral
Molten:	Rock that is melted by heat, like hot lava
Igneous Rock:	Rock formed when melted rock cools off and hardens
Sediment:	Bits of sand, mud, or small rocks broken down from bigger rocks
Sedimentary Rock:	Rocks formed by layers of sediment squeezed together over time
Metamorphic Rock:	Changed rocks made when other rock types get heated up and squeezed

### Task #1: Vocabulary Art-

Choose (3) of the science vocabulary words, and create word art. Word art is where you use drawing to make a picture of the vocabulary word that shows what the word means.

See below an example for the science vocabulary word **Earth**:



## Task #2:

Read the page below called, "Types of Rocks." You will use this information and your science vocabulary to answer questions on the following page called, "Types of Rocks Response Sheet."

Name \_\_\_\_\_

### Types of Rocks

Date \_\_\_\_\_

A rock is made up of one or more minerals. Unlike minerals, rocks are not crystals. Rocks are formed near the Earth's surface, deep in the crust, or in the Earth's mantle. There are many different kinds of rocks. **Rocks are classified into three groups called, igneous, metamorphic, and sedimentary.**



**Rocks that form when melted rock hardens are called igneous rocks.** When molten rock, like lava through a volcano, cools off, igneous rock is formed. Fast cooling rocks form small crystals and slow cooling rocks form large crystals. Some igneous rocks are granite, obsidian, basalt, and pumice.



**When rocks are changed by heat or pressure, but are not completely melted, they form metamorphic rock.** Metamorphic rocks are compacted by pressure and heat deep inside the Earth. Some metamorphic rocks are marble, slate, and quartzite. Coal is a metamorphic rock burned for fuel.



**Sedimentary rock is rock that has formed from sediment, like sand, mud, and small pieces of rocks.** Over long periods of time, these small pieces are squeezed as they are buried under more and more layers of sediment. The bottom layer of sedimentary rock is the oldest and each layer after is formed at a different time. Eventually, they are compressed into sedimentary rock. Some sedimentary rocks are sandstone, shale, and limestone.

**Task #3:**

Use the information from the previous page entitled, "Types of Rocks," and your science vocabulary to answer the questions below on the page entitled, "Types of Rocks Response Sheet."

Name \_\_\_\_\_ **Types of Rocks - Response Sheet** Date \_\_\_\_\_

**After reading about different types of rocks, answer the following questions:**

1. Use a complete sentence to name the three groups that rocks are classified into.

---

---

---

2. Use a complete sentence to explain how igneous rocks are formed.

---

---

---

3. Use a complete sentence to tell what metamorphic rocks are.

---

---

---

4. Use a complete sentence to explain how sedimentary rocks are made.

---

---

---

**Task #4:**

Use the pictures below to observe some examples of different types of rocks and minerals. You will use this information to complete the following page called, "Observing Rock Types."



**Task #5:**

Use what you have learned, your science vocabulary, and the pictures above to do the following:

**Observing Rock Types**

1. Take a close look at the Igneous Rock called **Pumice** on the previous page:

**Pumice** is made during volcanic eruptions. If you look closely at its picture you may see tiny holes. Pumice is also very light and can even float until it soaks up the water.

How do you think **Pumice** got all its tiny holes?

---

---

---

2. Take a close look at the Sedimentary Rock called **Sandstone** on the previous page:

**Sandstone** is made on top of Earth's Crust and is made up of mostly of the minerals quartz and feldspar. You can see what quartz and feldspar look like on the Rocks and Minerals page.

Why do you think that **Sandstone** comes in most any color?

---

---

---

3. Take a close look at the Metamorphic Rock called **Gneiss** on the previous page:

**Gneiss** is made underground from very high temperatures and pressures. If you look closely you can see light and dark bands or layers which make up the rock.

How do you think these layers in **Gneiss** are made and what are they made of?

---

---

---