

Grade 4 – Assignment for week of (5/26 to 5/29)

Learning about Earth's Rock Cycle:

Last week we looked at the Earth's different types of rocks igneous, sedimentary, and metamorphic.

This week we will review how these rocks are made and look at the changing Earth. We will learn more details about rock formation through what is called the Rock Cycle.

Science Vocabulary Words-

Rock Cycle:	the slow, never-ending process of rocks changing
Weathering:	the breaking down of rock into smaller pieces
Erosion:	the movement of broken rock by wind or water
Volcano:	a mountain formed by lava and ash
Earthquake:	a shaking of the ground caused by underground energy

Task #1:

Science Vocabulary Words "Unscramble and Write"

Unscramble each of the following (groups of letters) to make a **science vocabulary word**.

Once you figure out the word, write the word, and *write a sentence using the word*.

Example:

(threa)

Earth ➤ *When the aliens visited planet Earth, their favorite food was chicken nuggets.*

Do the same for the next three (groups of letters) below:

(soronie)

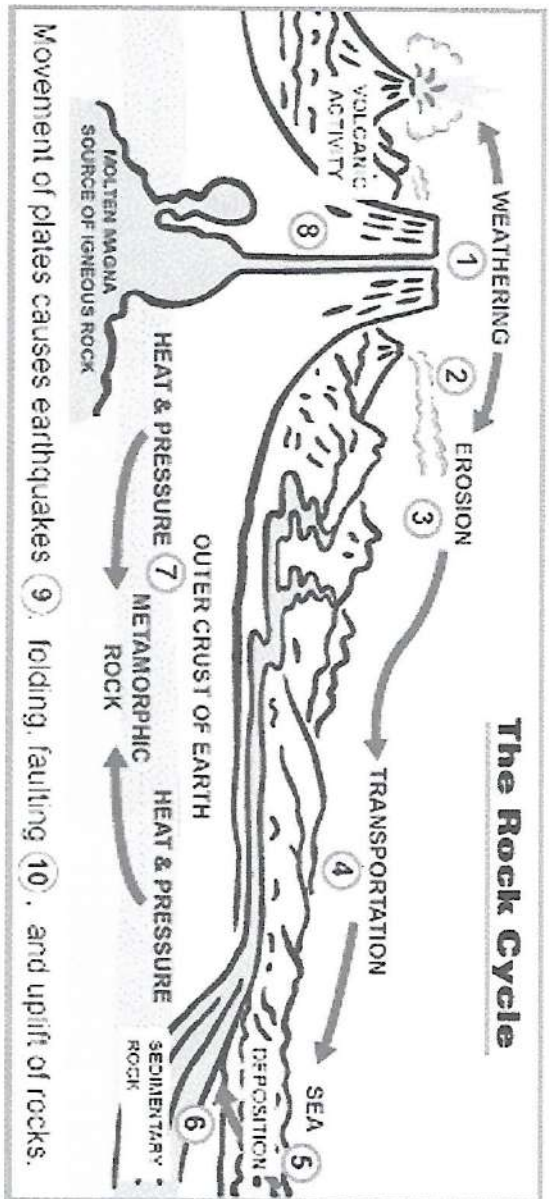
(tharqukaee)

(gerthaniew)

Task #2:

Read the page below called, "The Rock Cycle." You will use this information and your science vocabulary to answer questions on the following page called, "The Rock Cycle - Response Sheet."

Name: _____



Date: _____

The **rock cycle** is the slow and never-ending process of rocks being changed.

If rocks are heated and squeezed enough, they may melt. The molten rock can rise up to the surface in a volcano. This is how igneous rocks are made.

If rocks are broken down into smaller pieces, but stay in the same place, this is called **weathering**. If the broken pieces fall off, are washed away by water, or blow away in the wind, this is called **erosion**.

Gravel, sand, and mud are transported, or **moved**, by the rivers and currents in the sea. They begin to build up and make layers on the crust of the Earth.

After a long period of time, the weight of these layers causes them to become glued together, and sedimentary rock is made.

The Earth's plates rub and move across each other causing earthquakes. **Earthquakes cause enormous pressure** and sedimentary rock can be squashed and heated up to make metamorphic rock.

If rocks are heated and squeezed enough, they may melt. The molten rock can rise up to the surface in a volcano. This is how igneous rocks are formed.

Task #3:

Use the information from the previous page entitled, "The Rock Cycle," and your science vocabulary to answer the questions below on the page entitled, "Rock Cycle - Response Sheet."

The Rock Cycle – Response Sheet

1. Use a complete sentence to describe what the rock cycle is.

2. Use a complete sentence to tell about the process of weathering.

3. Use a complete sentence to tell how layers of gravel, sand, and mud are moved.

4. Use a sentence to explain what causes the pressure that makes metamorphic rock.

5. Use a sentence to explain how weathering and erosion helps to make sedimentary rock.

6. Use a sentence to explain how volcanoes help to create igneous rock.

Task #4:

Use what you have learned so far to complete (page 37), the multiple choice quiz below. Complete (page 37) by circling the letter that correctly answers the question. You can check your answers, listed on the answer key on the following page, when you are done.

Name _____ Date _____

Circle the letter of the best answer for each question.

- 1** If igneous rock cools off slowly, then its mineral grains will be
A small.
B clear.
C large.
D dark.
- 2** Which of the following is a property of gneiss?
A small mineral grains and no layers
B large crystals with layers called bands
C interlocking crystals with no bands
D small crystals that contain parts of plants and animals
- 3** Granite is used to construct buildings and homes because it is
A made of many different materials.
B a very hard rock.
C an igneous rock.
D made of different colors.
- 4** Each layer in a sedimentary rock
A was deposited at a different time.
B was formed by a volcano.
C is the same thickness.
D is a different color and very hard.
- 5** Giovanni poured sand of different colors into an aquarium each day for five days. The different colors formed layers on the bottom of the aquarium. Which of the following is true?
A The top layer was formed after the bottom layer.
B The different colors of sand were all mixed into one color.
C Large crystals formed as the water in the aquarium was heated.
D The layer of sandstone was once made up of living things.
- 6** Which type of metamorphic rock is mined from Earth and burned as fuel?
A granite
B limestone
C sandstone
D coal

Circle the letter of the best answer for each question.

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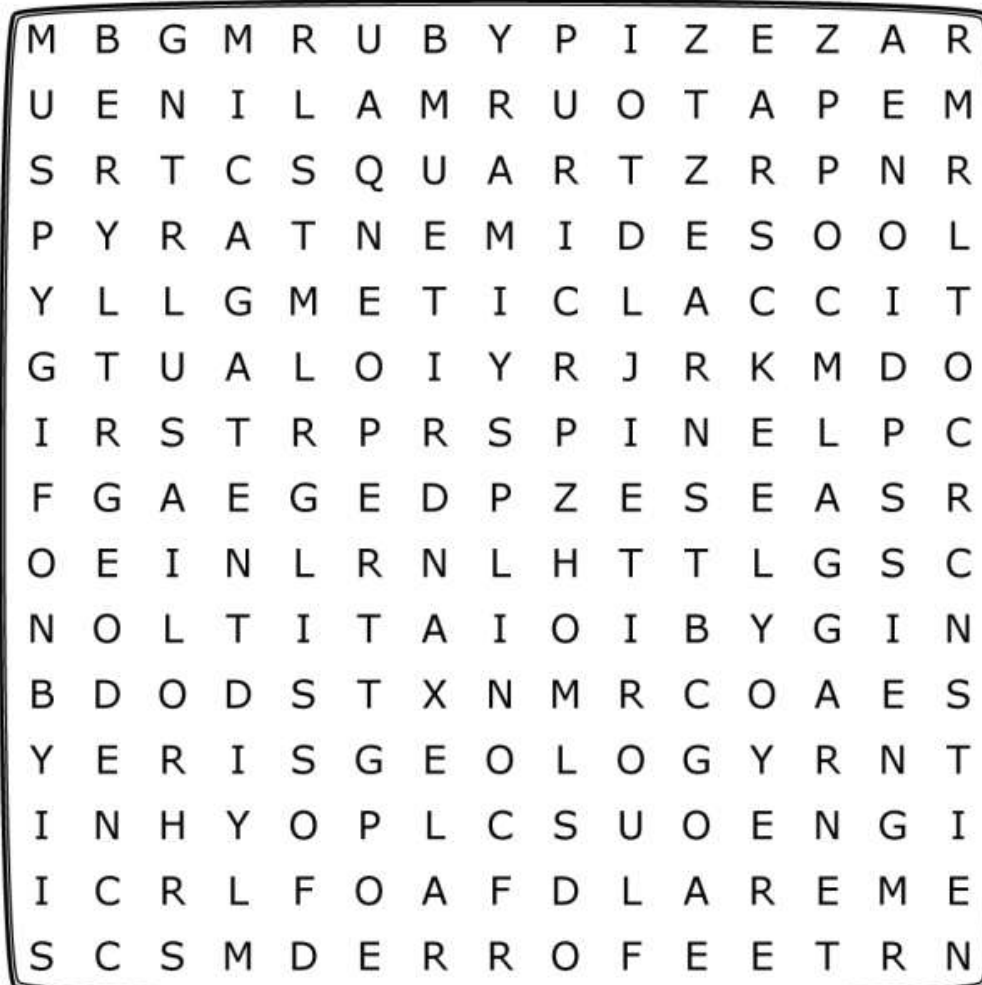
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Task #5:

Complete the word search below by finding the hidden words from the word list at the bottom of the page.

Rocks and Minerals Word Search



Agate	Garnet	Mineral
Alexandrite	Geode	Opal
Basalt	Geology	Quartz
Beryl	Gneiss	Rock
Calcite	Granite	Ruby
Crystal	Gypsum	Schist
Dolomite	Igneous	Sedimentary
Emerald	Jasper	Spinel
Feldspar	Limestone	Topaz
Fluorite	Metamorphic	Tourmaline
Fossil	Mica	Zircon