Science Homework **Mrs. Hernandez** **February 3-7, 2020**

Sections: 4A,B,C,D,E

Date	Homework	Parent Signature
Monday	➔ Complete "Matching Moon Phases" ➔ Begin Moon Phases Calendar	
Tuesday	➔ Earth's Movement and Moon Phases Test ➔ No Homework ➔ Continue Moon Phases Calendar	
Wednesday	➔ Complete "Rock Worksheet" ➔ Continue Moon Phases Calendar	
Thursday	➔ Complete "Three Types of Rocks Question Sheet" ➔ Continue Moon Phases Calendar	
Friday	➔ Complete "Labeling the 3 Types of Rocks" ➔ Continue Moon Phases Calendar	

Reminders

- **Parents**: Don't forget to initial your child's HW Cover Sheet every night.
- **HW due Monday, February 10th**
- **Earth's Movement and Moon Phases Test changed to Tuesday, February 4th**
- **Moon Phases Calendar project begins tonight, Monday Feb. 3rd**

Science Vocabulary

Earth's rotation: from east to west on it's axis, creates the change from night to day

Earth's revolution: causes visual variations of parts of the sky (orbit around the sun)

Satellite: any object that orbits or revolves around another object.

Magma: rock that has been melted deep within the Earth where the temperature is extremely high (molten rock)

Lava: magma that reaches the Earth's surface

Igneous rock: formed when molten rock is cooled

Metamorphic rock: from when igneous and sedimentary rocks are exposed to extreme heat and pressure

Sedimentary rock: made up of smaller pieces of rocks and fossilized organisms such as: sand, shells, and the remains of plants and animals

Matching Moon Phases

Read the description on the left and match it with the Moon phase on the right. Please put the letter of the Moon phase on the far left blank line and draw a line to the matching word.

Example:

1.__b__ The opposite of dark is…

a. gold b. light

_____ 1. The Moon is almost directly between the Sun and Earth (start of cycle).

_____ 2. The Moon is almost directly between the Sun and Earth (cycles starts again.

_____ 3. A bit of the Sunlit side of the Moon shows, with the Sunlit side being on the right.

_____ 4. Two weeks have passed since the new Moon. We see the entire face of the Moon shining.

_____ 5. The Moon is three-quarters of its way around Earth.

_____ 6. The Moon is a quarter of its way around Earth.

_____ 7. A bit of the Sunlit side of the Moon shows with the light side being on the left.

_____ 8. The Moon is between full Moon and last quarter

_____ 9. The Moon is increasing in light between a first quarter Moon and a full Moon.

_____ 10. The Moon is decreasing in light between a full Moon and a last quarter Moon.

a. Waning Gibbous Moon

b. Full Moon

c. New Moon

d. Waxing Crescent Moon

e. First Quarter Moon

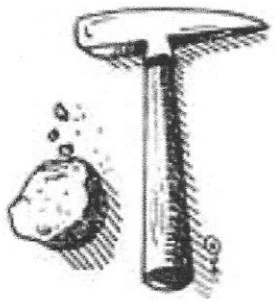
f. Waxing Crescent Moon

g. Last/3rd Quarter Moon

h. Waxing Gibbous Moon

i. Waning Gibbous Moon

j. New Moon



Name _____
Hour _____ Date _____

Rock Worksheet

Directions: Read the information below carefully and answer the questions that follow on the back side of this paper. Answer the questions as completely as possible.

Rocks and Minerals

The ground we walk on, build on, and grow gardens on is made of rock. All the rocks in the world are made up of chemicals called **minerals**. Minerals are solid, inorganic (not living) substances found in and on the earth. Most are chemical compounds, which means that they are made of two or more elements. For example, the mineral sapphire is made up of aluminum and oxygen. A few minerals such as gold, silver and copper are made of a single element. Minerals are considered to be the building blocks of rocks. Rocks can be a combination of as many as six types of minerals. Through a microscope, a rock shows that it is made of crystals of different minerals, all growing together like a puzzle.

Three types of rocks make up the Earth's crust. Rocks are formed in three different ways to produce igneous, metamorphic, and sedimentary rocks. Igneous rocks form when molten magma cools and solidifies. Metamorphic rocks form when a rock is chemically changed by heat or pressure to form a new rock type. Sedimentary rocks form when fragments of rocks and other debris are cemented together.

Igneous Rocks

When a candle burns, a runny wax is formed that trickles down its side and solidifies. Igneous rocks are formed in a similar way. The rocks solidify from a mass of molten rock, such as when a lava flow cools and hardens. Because of the heat needed to form igneous rocks, they are sometimes called "rocks of fire." There are two main types of igneous rock: extrusive and intrusive. Extrusive types form when molten rock comes to the surface and cools quickly, as with lava. This produces a very fine-grained rock. Intrusive rocks are those that solidified underground, cooling slowly to produce coarse-grained rocks. Examples: Granite, basalt, obsidian.

Sedimentary Rocks

Sedimentary rocks are formed when sediment (bits of rock plus materials such as shells and sand) get packed together. They can take millions of years to form. You never know what you might find in a sedimentary rock since many rocks of this type are made up of lots of other rocks, or even animal remains, all stuck together. Sedimentary rocks are built up of particles laid down as layers or beds of sediment and are later buried , compressed, and cemented into a solid mass. Most rocks that you see on the ground are sedimentary. Examples: Sandstone, shale, limestone.

Metamorphic Rocks

Metamorphic rocks are igneous or sedimentary rocks that have been transformed by heat, pressure, or both. Metamorphic rocks are usually formed deep within the Earth, during a process such as mountain building. When you bake bread, you mix flour, yeast, and water together and bake in a hot oven. In a similar way, heat and pressure from the overlying rocks, may change the nature of the rocks below. This process is called metamorphosis, which means "change." Examples: Schist, slate, marble.

Did You Know?

Most of the ocean floor is made of basalt. This igneous rock continues to flow from the Earth through an underwater mountain ranges known as "mid-ocean ridges"?

Questions - Please write your answers in complete sentences!

1. What is the difference between rocks and minerals?

2. How many types of rocks make up the Earth's crust?

3. What are the names of the 3 types of rocks?

4. How are igneous rocks formed?

5. What is another name for igneous rocks?

6. What is the difference between to two types of igneous rocks?

7. How are sedimentary rocks made?

8. How are metamorphic rocks made?

9. What does the word "metamorphosis" mean?

Name _____ Date _____

Three Types of Rocks Question Sheet

1. What is the difference between rocks and minerals?

_____

_____

2. Name 3 types of rock on Planet Earth.

_____ _____ _____

3. How are sedimentary rocks formed?

_____

_____

4. How are igneous rocks formed?

_____

_____

5. How are metamorphic rocks made?

_____

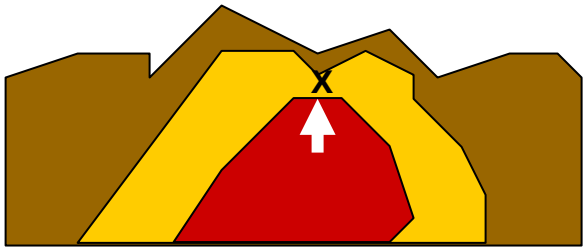
_____

Name _____ Date _____

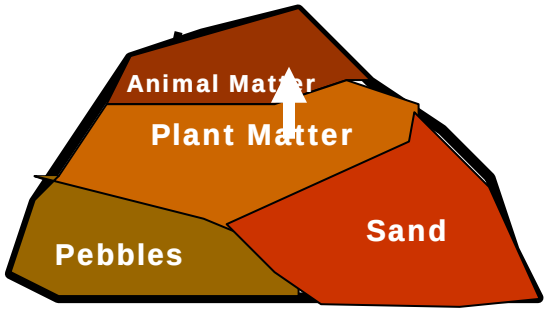
Label the Three Types of Rocks

Rocks are classified according to how they are formed. **Igneous rocks** are formed when hot molten rock cools and hardens. **Sedimentary rocks** are formed when very small pieces of rock settle and harden. **Metamorphic rocks** are formed by adding heat and pressure to igneous and sedimentary rock.

Label the type of rock that is being formed in each picture:



1. _____



2. _____

3. _____