MR. NUSSBAUM
LEARNING + FUN

**Rock Types Compare and Contrast Reading Comprehension**
**Name _____**

The three main types of rocks that exist are igneous, sedimentary, and metamorphic. They all look a little bit different, and they are all created in different ways. Igneous rocks are formed when hot liquid magma cools. This can happen under the surface of the earth or on top of the surface of the earth during a volcanic eruption. When this happens the liquid magma turns into a hard solid and crystals are formed. These crystals make up an igneous rock and can be so small that you need a microscope to see them, or, they can be as big as the size of your hand! Pumice and granite are examples of igneous rocks. Sedimentary rocks are formed when broken pieces of other types of rocks travel from other places on the earth's surface and come together to harden over a very long period of time. Sedimentary rocks can form at the bottom of oceans, at the bases of mountains, in rivers, floodplains, and deltas to name a few. Examples include limestone, sandstone, and coal. Believe it or not, chalk is a type of sedimentary rock! Metamorphic rocks start out as one kind of rock, and then turn into another kind of rock when they are exposed to heat and pressure. They are normally found inside the earth's crust because the weight of all of the rocks laying on top of them are able to squeeze them and heat them into something new. Marble is an example of a metamorphic rock.

These rock types are all different but they all have the same super power - they can all change their identity and turn into each other! A sedimentary rock can be melted and then re-harden to form an igneous rock. An igneous rock can be broken down into tiny pieces and then team up with other tiny broken pieces and harden into a sedimentary rock. A sedimentary rock can be squeezed and heated and turn into a metamorphic rock. Even though it may take millions of years, rocks are always changing due to this process called the rock cycle, a cycle that is happening all over the earth's surface.

1. **Which of the following would be unlikely?**
    a. Discovering a rock that is millions of years old
    b. Finding a metamorphic rock that was never a different kind of rock
    c. Igneous rocks forming from a volcanic eruption
    d. Finding a sedimentary rock at the bottom of the ocean

2. **Which of the following best explains how metamorphic rocks are formed?**
    a. Metamorphic rocks are formed under extreme pressure and heat
    b. Metamorphic rocks are formed from the melting of other rocks
    c. Metamorphic rocks are formed from the hardening of fragments of other types of rock
    d. Metamorphic rocks are formed in large bodies of water

3. **Which is NOT true?**
    a. A sedimentary rock can turn into an igneous rock
    b. An igneous rock can become a metamorphic rock
    c. Only the metamorphic rock is not part of the rock cycle
    d. Coal is a type of sedimentary rock.

4. **Which of the following does the author think you'll be surprised to know?**
    a. Chalk is a kind of sedimentary rock
    b. Marble is a type of metamorphic rock
    c. Sedimentary rocks can become metamorphic rocks
    d. Igneous rocks can be formed during volcanic eruptions

5. **To which of the following questions would "because they can change form" be the answer?**
    a. Why are rocks always changing?
    b. How are rocks like super heroes?
    c. What makes sedimentary rocks different from the other two types of rock?
    d. Why are rocks so important to the study of Earth?

6. **Which of the following best describes the rock cycle?**
    a. The process by which rocks are transported
    b. The process by which rocks are classified
    c. The process by which rocks change
    d. The process by which rocks are discovered

7. **Which of the following completes the analogy?**

    **marble : metamorphic rock ::**
    a. bird: hawk
    b. dove : sparrow
    c. sparrow : dove
    d. hawk : bird