Rocks

Mount Rushmore is an amazing sight, with the faces of four presidents carved into a giant rock mountain. But even a small rock you find in your yard is pretty amazing. After all, most rocks have been around for millions of years. Some are billions of years old!

Types of Rock

INTRO Rocks come in many sizes. A grain of sand can be considered a very tiny rock. Small, smooth rocks you can hold in your hand are called pebbles. A boulder is a very large rock that is detached, or separate from, other rocks. Some boulders are so big you can climb on them.



A scientist who studies rocks is called a geologist. Geologists will tell you that there are three main kinds of rocks on earth, and each kind started in a different way. The three types have long names that are a little difficult to say.

ONE The first type of rock is **igneous**, which means "fire rocks," and is a good description of how they were formed. Most come from deep inside the earth's core where it is so hot that rocks are in a liquid form called magma. Magma that cools very slowly inside earth's crust creates one kind of igneous rock. Another kind of igneous rock forms after a volcano erupts. Liquid magma is called lava when it reaches the earth's surface and blasts out of a volcano. When the lava cools, it creates igneous rock.

About a quarter of the rocks on earth are igneous. The most common type is granite. Granite has big clumps of crystals that are either gray, white, pink, or red. Granite is often used as a building material, and can be found in everything from kitchen counters to bridges.

TWO The second major type of rock is sedimentary. It means "sitting rock."

This type of rock is formed from igneous rocks that break down into smaller pieces and fall to the ground or to the bottom of a lake or river. After many years, layers of these tiny pieces of rock pile on top of one another. The layers eventually cement together to form sedimentary rock.

Sedimentary rock also can be created from the shells of tiny sea creatures that fall to the bottom of the ocean and get smashed together under the weight of the water. Sedimentary rocks formed close to the shore have mostly sand in them, such as sandstone.

THREE The third major type of rock is metamorphic. Metamorphic means "changed form," and that is exactly what these rocks are. They start out as either igneous or sedimentary, but over time extreme heat or pressure causes them to change into a different kind of rock. For example, limestone eventually can turn into marble. Metamorphic is the least common type of rock.



CONCLUSION The next time you get a pebble in your shoe, take a minute to study it closely before you throw it away. That little pebble may be billions of years old. Maybe it came from a volcano, or maybe it traveled all the way from the center of the earth. Or maybe it was once part of the shell of a sea creature. Mount Rushmore is an amazing carved rock, but even the smallest, most ordinary rock is amazing, too!

LIVEWORKSHEETS

1. How long have **most** rocks been around?
   - **A.** 4 years
   - **B.** millions of years
   - **C.** billions of years

2. What do we call a rock that is big enough to climb?
   - **A.** a pebble
   - **B.** a boulder
   - **C.** a geologist

3. Which type of rock comes from a volcano?
   - **A.** igneous
   - **B.** sedimentary
   - **C.** metamorphic

4. What might limestone turn into after a long time?
   - **A.** sandstone
   - **B.** marble
   - **C.** magma

5. Which kind of rock can be made from sea shells?
   - **A.** igneous
   - **B.** sedimentary
   - **C.** metamorphic

6. Which sentence is TRUE?
   - **A.** Half the rocks on earth are igneous.
   - **B.** There are more sedimentary rocks than metamorphic rocks
   - **C.** Extreme heat or pressure creates sedimentary rocks.

Read the passage again and write short answers. ***(2 marks each)***

7. What happens when lava cools?

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8. Where did sandstone most probably form?

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LIVEWORKSHEETS