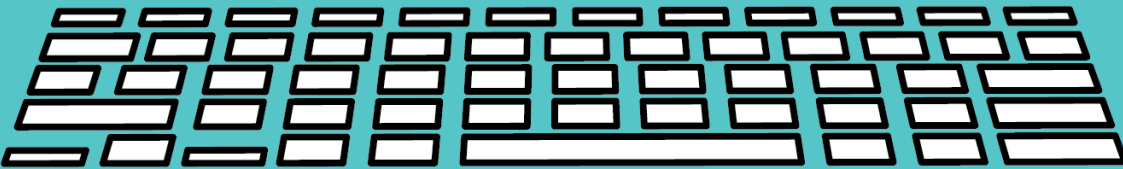


THE EARTH IS MADE OF DIFFERENT TYPES OF ROCKS. METAMORPHIC ROCKS

Short Answer	Type Answer Here
1. How many main types of rock are there?	
2. What is melted rock inside a volcano called?	
3. What's the process of layers of sediment squishing together?	
4. Shifting plates create volcanic activity & what else?	
5. What does the word "morph" mean?	
6. What is it called when compacted layers bond?	
7. What are layers of sediment called?	
8. What does the word "ignis" mean?	



Short Answer	Type Answer Here	Fill in the Blank	Type Answer Here
1. How many main types of rock are there?		9. ___ and rivers erode rock.	
2. What is melted rock inside a volcano called?		10. ___ includes rock, minerals, plants, and organic matter.	
3. What's the process of layers of sediment squishing together?		11. ___ happens when heat melts the rock inside the earth's crust.	
4. Shifting plates create volcanic activity & what else?		12. Heat in the earth comes from pressure, friction & ___.	
5. What does the word "morphology" mean?		13. Igneous rocks form from ___ or magma.	
6. What is it called when compacted layers bond?		14. ___ heat bakes the rock inside the crust, causing ___ to form.	
7. What are layers of sediment called?		15. Pressure within the earth's crust cause ___ plates to shift.	
8. What does the word "ignis" mean?		16. ___ occurs when molten rock cools off and hardens.	



ROCK CYCLE

Rocks spend most of their lives below the earth's surface. Over millions of years, they can shift, melt, and return to the surface, and return below the earth's surface. This never-ending process is called the rock cycle. Igneous, sedimentary, and metamorphic rocks are the three main types of rock in the rock cycle. The rock cycle is a continuous process that changes one type of rock into another.

Igneous rock is named after the word "igneus" which means fire. Igneous rocks form from lava or magma that has cooled and solidified in the earth's crust.

Sedimentary rock is formed at the bottom of oceans and lakes. Sediment includes rocks, minerals, plants, and organic matter, including fossils. Rivers, streams, and wind carry the sediment. Eventually it settles in layers and hardens.

Metamorphic rock is named after the word "morphé," which means change. Heat and pressure within the earth's crust cause tectonic plates to shift. This changes the composition of the rock.

There is a general order to the rock cycle. Intense heat melts rock below the earth's surface, creating molten rock. A volcano erupts, spewing magma (melted rock) to the earth's surface. Upon cooling, this rock becomes igneous rock.

Now the rock breaks up into fragments due to weather or erosion. Glaciers and rivers erode rock. The constant flow of water breaks rocks into tiny bits and smooths out the remaining rock. These rock fragments, called sediment, flow by rain and river to coasts, sea beds, and lakes. Here they build up in layers and harden. These layers of sediment become sedimentary rock. Over millions of years, more rock layers cover the original layers, which push deeper into the earth's crust.

Pressure builds from layers of sediment that has hardened. Heat from below the earth's surface combined with pressure changes sedimentary rock into metamorphic rock. At this point, the cycle begins again. However, the rock cycle doesn't always take this order. Rocks can change in any order.

Below the earth's surface, there is intense heat, pressure, and melting. This affects the rock below the surface, changing igneous and sedimentary rock into metamorphic rock. Extreme heat melts rock below the surface, causing molten rock. This magma (molten rock) spews out of the earth

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in volcanic eruptions, which turns it into igneous rock. Then the weathering process begins again, and the cycle continues.

Many physical processes, both on and below the earth's surface, create the rock cycle: cooling, melting, heat, weathering, deposition, erosion & transport, compacting, cementing, and pressure.

Cooling occurs when molten rock cools off and hardens. An example of this is when lava spews rock out from a volcano. This rock solidifies in the air or on the earth's surface.

Melting happens when heat melts the rock inside the earth's crust. This creates molten rock, a thick liquid.

Heat inside the earth comes from pressure, friction, and radioactive decay. Heat from pressure is similar to pressing your hands together very hard. You'll feel the heat. When you rub your hands together, you can feel the heat from friction. Heat bakes the rock inside the crust, causing crystals to form.

Weathering breaks down rocks, soil, and minerals naturally. The atmosphere, water, or living things can break rock apart. With weathering, rock moves slowly, if at all.

Erosion begins with the sun. The sun's energy creates movement with water, wind, and ice, and gravity transport rocks and soil to new locations. Transportation happens in a variety of ways. For instance, when pebbles move along a shore, grains travel by wind, or the sea carries salt.

Compacting is the process of layers of sediment squishing together. The weight of layers on top creates a lot of pressure. These layers are called strata.

Cementation happens when compacted layers bond and stick together.

Pressure within the earth's crust causes tectonic plates to move. Shifting plates create volcanic activity. Volcanoes and earthquakes were once deeply buried under the earth. The pressure of tectonic plates rubbing against each other causes the formation of volcanoes.

Scientists think that weathering, erosion, and deposition would stop if there were no more uplift. They believe that the planet couldn't support any life without all of these processes in the rock cycle.

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