

Name _____

Rock Cycle

Learn facts about the rock cycle.

Read the passage and answer the questions.

The rock cycle is a continuous process that happens over millions of years. This cycle makes new rocks, destroys old rocks, and reuses the materials in Earth's crust over and over again. If you begin with a whole rock on Earth's surface, the first part of the process is weathering. **Weathering** is the natural process of breaking down rocks. There are three types of weathering: physical, chemical and biological. After weathering, these small pieces of rock now get moved around; this is called erosion. **Erosion** can happen different ways: by gravity, by water, by wind, or by ice. **Deposition** is next. This is when the particles are deposited somewhere new, like where a river meets the ocean. During deposition, particles of rock are laid down in layers. Next comes **compaction**, during which the layers of rock push down on each other and the pressure on the lower layers increases. These particles begin to stick together; this is called **cementation**. **Sedimentary** rock is formed. Sandstone, shale, and limestone are examples of sedimentary rock. Deep within the Earth's crust there is a lot of pressure and heat. Any rock that is put under high pressure and heat will go through metamorphosis. Different types of rocks turn into different kinds of **metamorphic** rock: limestone can change into marble, shale into slate. Deeper in the Earth's crust it gets very hot. Rocks melt and turn into magma. Molten rock can harden intrusively (underground) or extrusively (above ground). Magma that cools slowly, over hundreds of thousands of years, under Earth's surface, crystallizes to form **intrusive igneous** rocks. This kind of rock is made of large grained, angular crystals. Magma can also come to the surface, like in a volcanic eruption. This forms **extrusive igneous** rocks like basalt and pumice. This cycle is not a perfect circle, and not all rocks go through all of the processes.