



The Rock Cycle

A learn-along activity sheet to accompany the Gillespie Museum's *ROCK CYCLE* video/resources

The Rock Cycle is a geological concept that illustrates how the three main types of rock—**sedimentary, metamorphic, & igneous**—are related, by describing the conditions required to transform one type into another.

Use the word bank below, and the rock cycle diagram from page-2, to fill in the blanks in the following section on the **three rock types** and the **rock cycle**.

Sedimentary Rocks

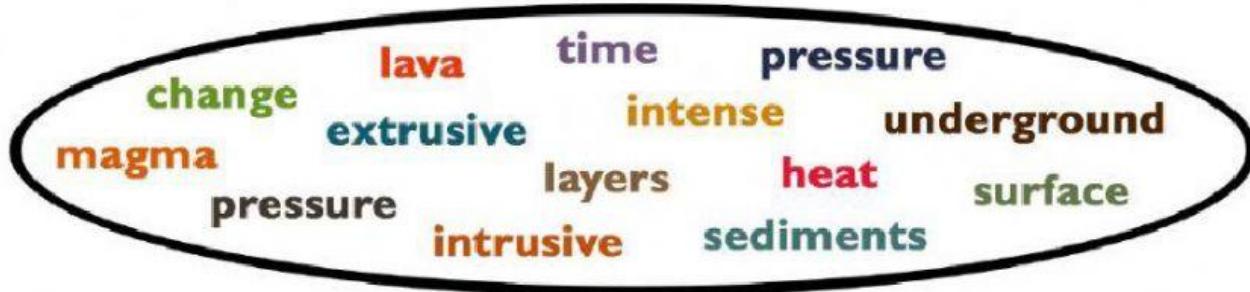
When rocks and minerals are worn and broken down into small pieces by water, wind, or ice, the resulting particles are called _____. The movement of these eroded particles to a new location is called **deposition**, which often results in distinct _____ of sediments building up in a particular area. Sedimentary rocks form near the _____ of the earth. It can take a lot of _____, but eventually, if sediments become compacted by _____ from the weight of water or overtopping earth, they can solidify into rocks like limestone, sandstone, and shale.

Metamorphic Rocks

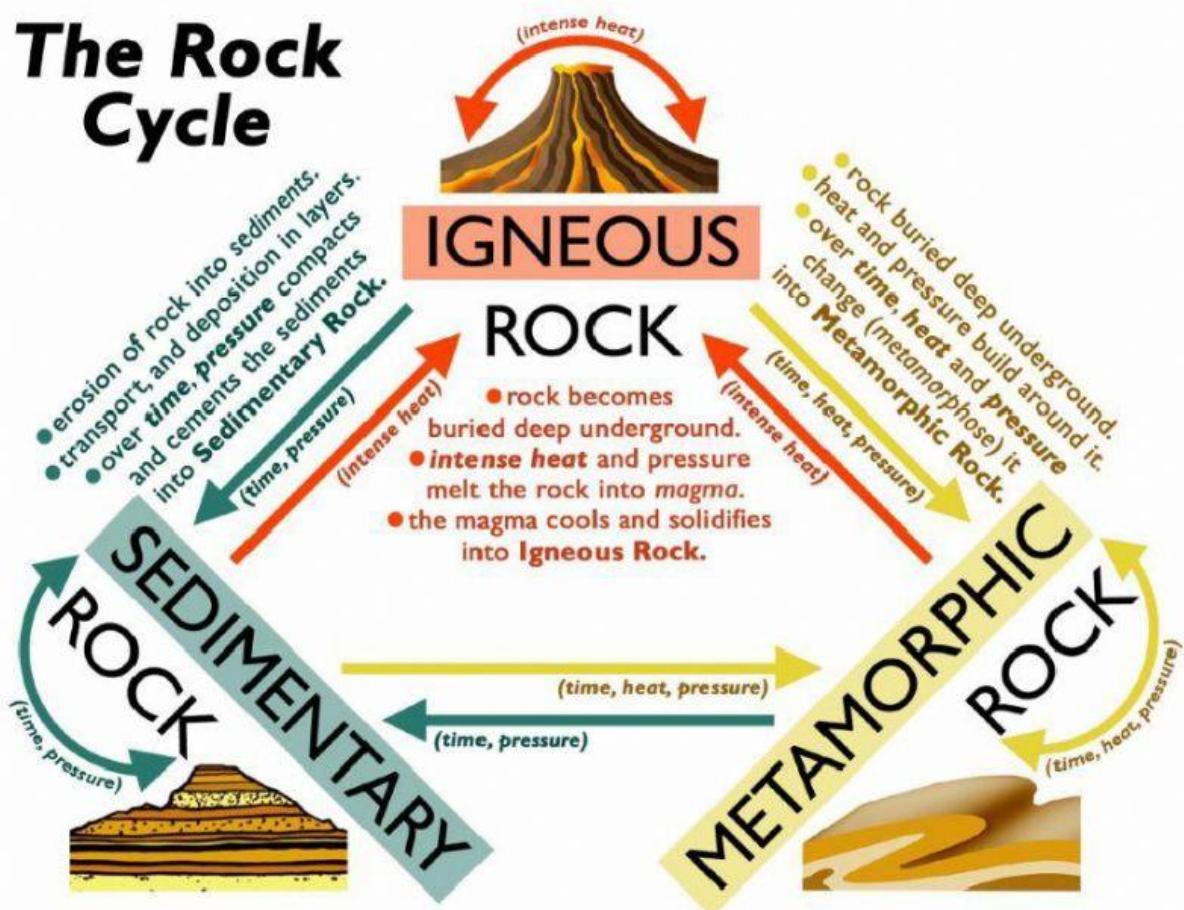
When a rock becomes buried deep _____ by natural geological processes, conditions can arise that will _____ the rock's chemistry, and turn it into a completely different kind of rock. Over much time, if enough _____ and _____ build up around the old rock, it will eventually **transform** into a new, metamorphic rock, like marble, quartzite, or slate.

Igneous Rocks

When rocks underground become exposed to the _____ heat resulting from geological processes occurring in the earth's interior, they can actually melt. Melted, or molten rock located below the ground level is called _____, but if melted rock becomes exposed on the earth's surface through volcanic activity it is called _____. When **magma** is able to cool and solidify underground, it forms _____ igneous rocks, like granite. When **lava** cools above ground, _____ igneous rocks, like basalt, obsidian, and pumice, are formed.



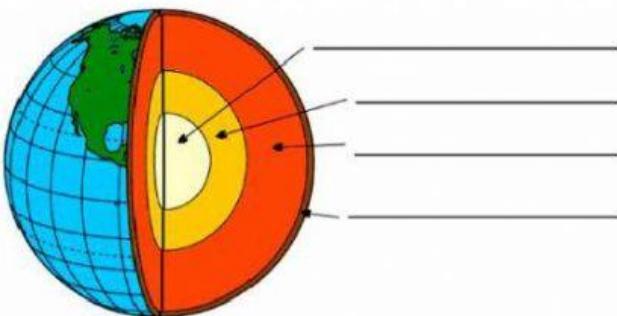
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Complete this section about the **earth** and the **matter** which makes it up.

Correctly label the diagram with the layers of the earth (**crust**, **mantle**, **inner core**, **outer core**).

All three types of rock form in which earth layer?



Matter is anything that has mass (similar to weight) and takes up space (has volume).

What are the three states of matter? _____

Matter can change **physically** and **chemically**. Label the two definitions below as **physical** or **chemical** change.

A reversible change, where appearance is altered, but the composition stays the same is _____.

An irreversible change that alters the chemical makeup of a substance is _____.

Is the melting of ice into liquid water a physical or chemical change? _____

What is involved in any change in matter? _____

solid	physical	chemical	Outer core
Inner core	crust	gas	physical
The crust	liquid	energy	mantle

Listening and drag the information to the line

Sedimentary	Igneous	Liquid	Break	Type	Rock	Of
Away	Rock	Rock	Magma	Happens	First	Erosion

Woman: Tom do you remember the stages of the rock cycle?

Man: well rock starts out as _____ it rises to the earth's surface and hardens when it cools

Woman: correct and what do we call that _____?

Man: That's _____ like granite

Woman: great and what happens to surface rock over time.

Man: You can turn into _____ right?

Woman: yes, but that rock has to _____

Man: of course _____

Woman: right so little particles where away from the rock where did they go?

Man: they usually collect in lowland areas sometimes in bodies of water that's where their own weight forces them into sedimentary rock

Woman: what's the example of that type of rock

Man: sandstone as an example it's formed from various rock minerals like quartz.

