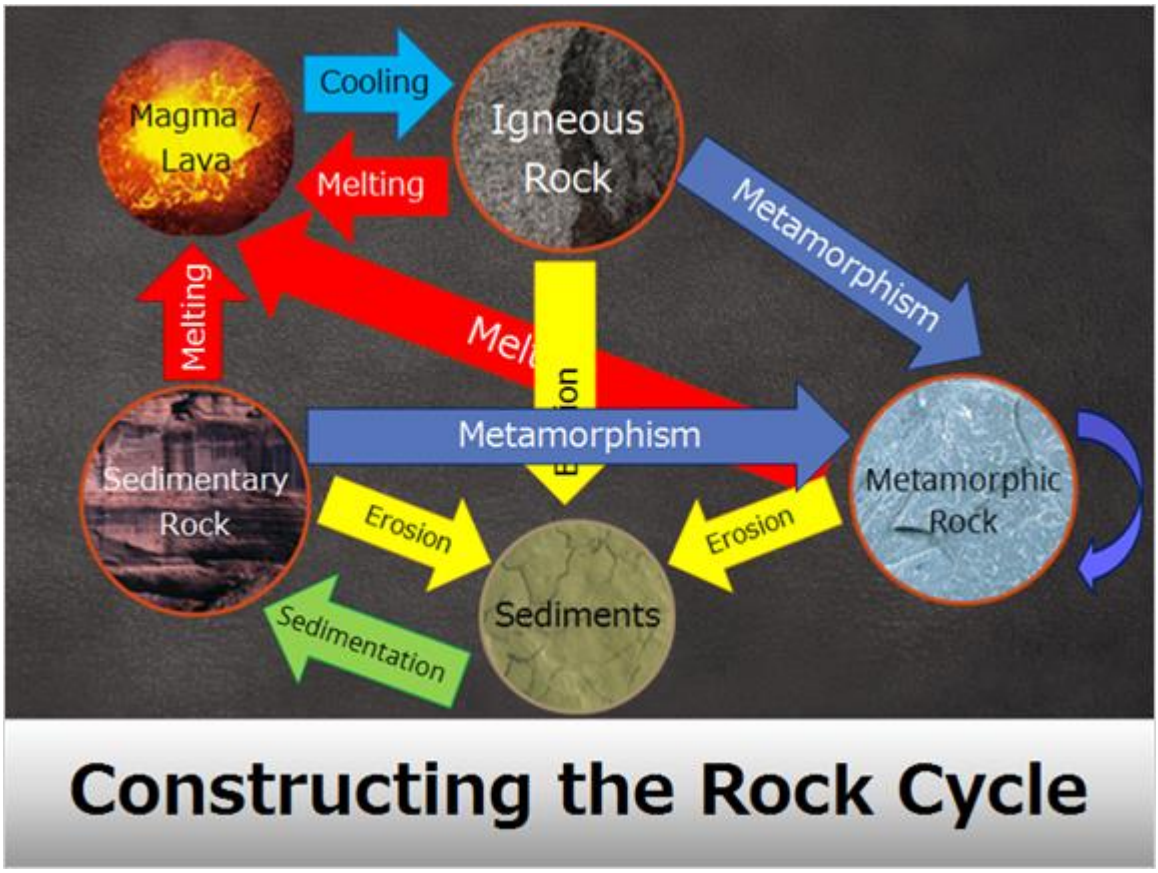
Module 6: Rocks
Topic 4 Content: Constructing the Rock Cycle Notes



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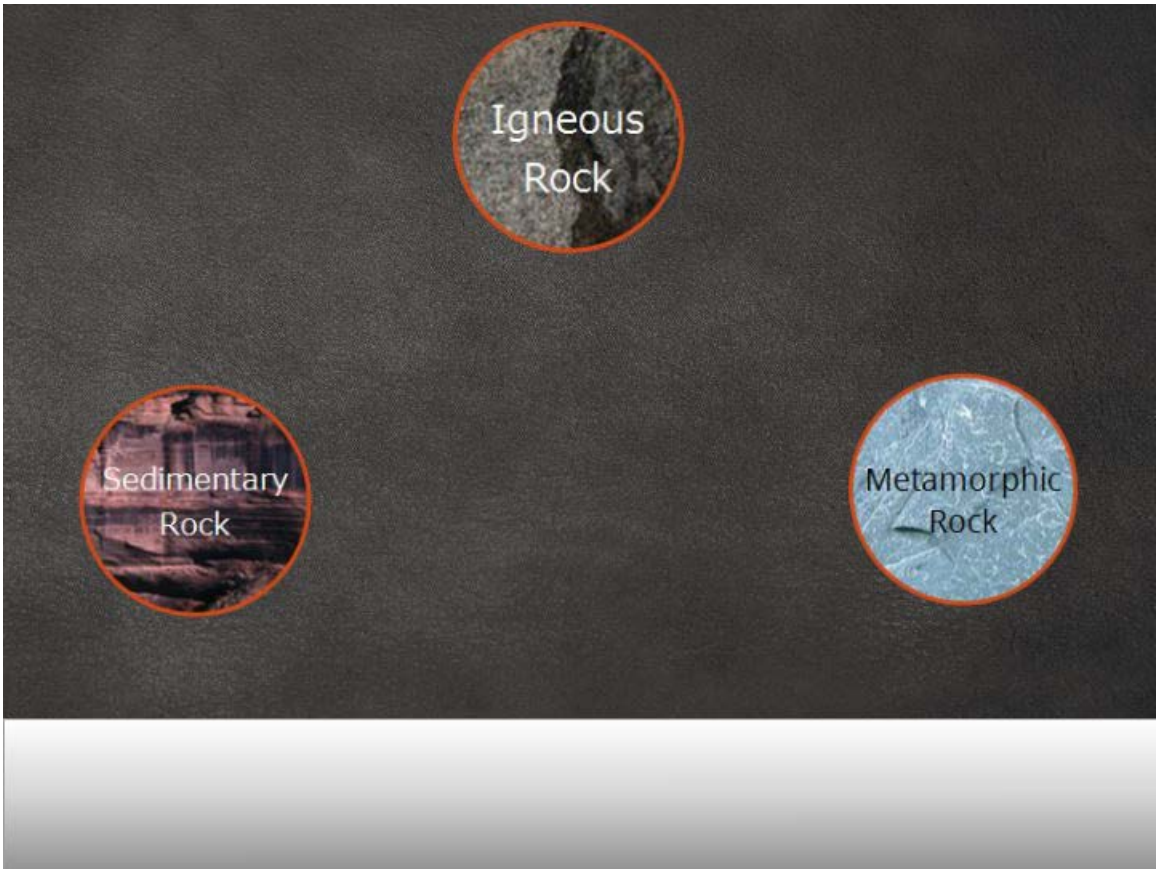

In order to better understand the rock cycle, it is helpful to construct one from scratch. To learn how to create your own rock cycle, begin with three images to represent the three rock types: igneous, sedimentary, and metamorphic. Drag and drop the labeled images into the appropriate blanks.

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Now, add images to represent the two rock-forming materials. The two rock-forming materials are magma, or lava, and sediments. Magma or lava forms igneous rocks and sediments form sedimentary rocks. Drag and drop these images into the appropriate locations.

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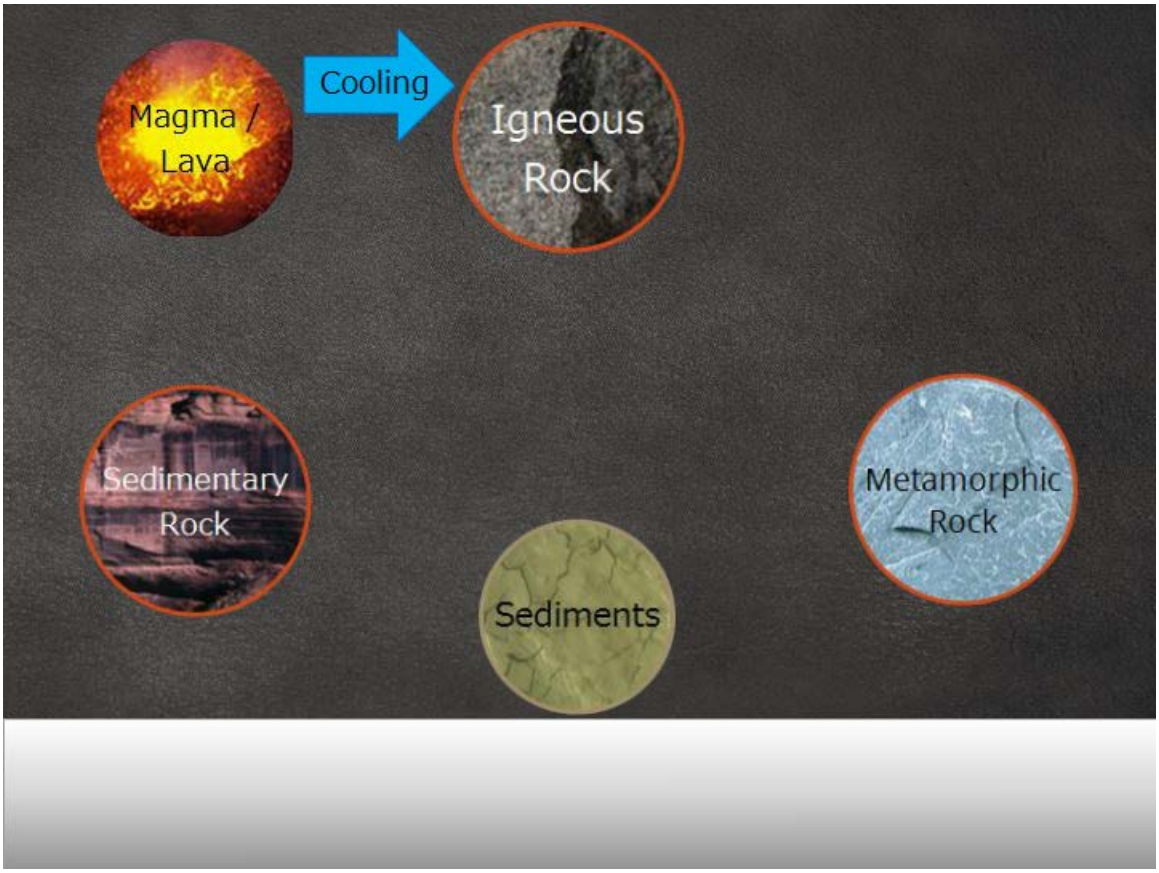

Next, add arrows to represent the processes that can form and reform rocks. Focus on igneous rocks first. Remember, igneous rocks form when lava or magma cools and crystallizes, forming solid rock. To represent the process of cooling, connect the image labeled magma or lava to the image labeled igneous rock by dragging and dropping the blue arrow to the correct location. The orientation of the arrow is important because the process of cooling must begin with the hot magma or lava and end as solid igneous rock.

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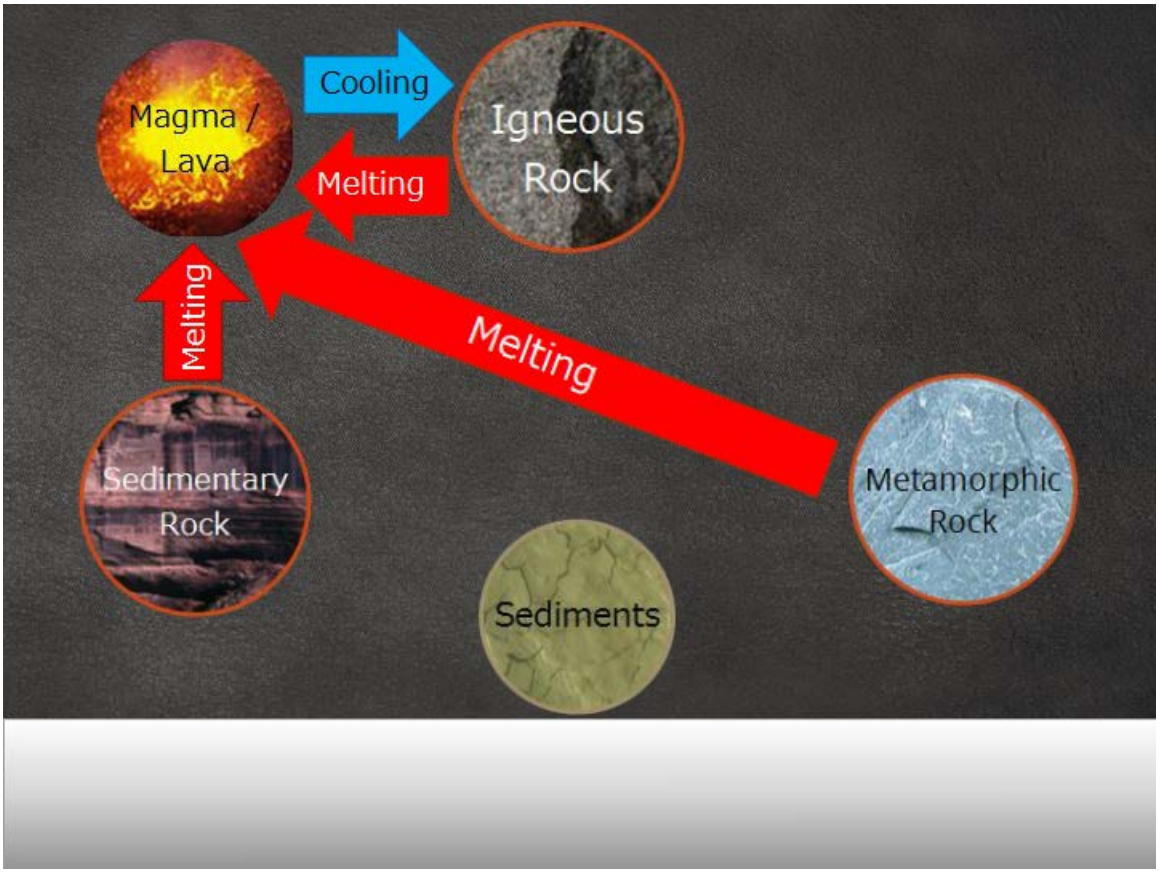

Since magma or lava is liquid, hot rock, then any of the three rock types can turn into magma or lava through the process of melting. Drag and drop the three red arrows to represent the process of melting rock. All three arrows will point to magma or lava, but will start at each of the three rock types.

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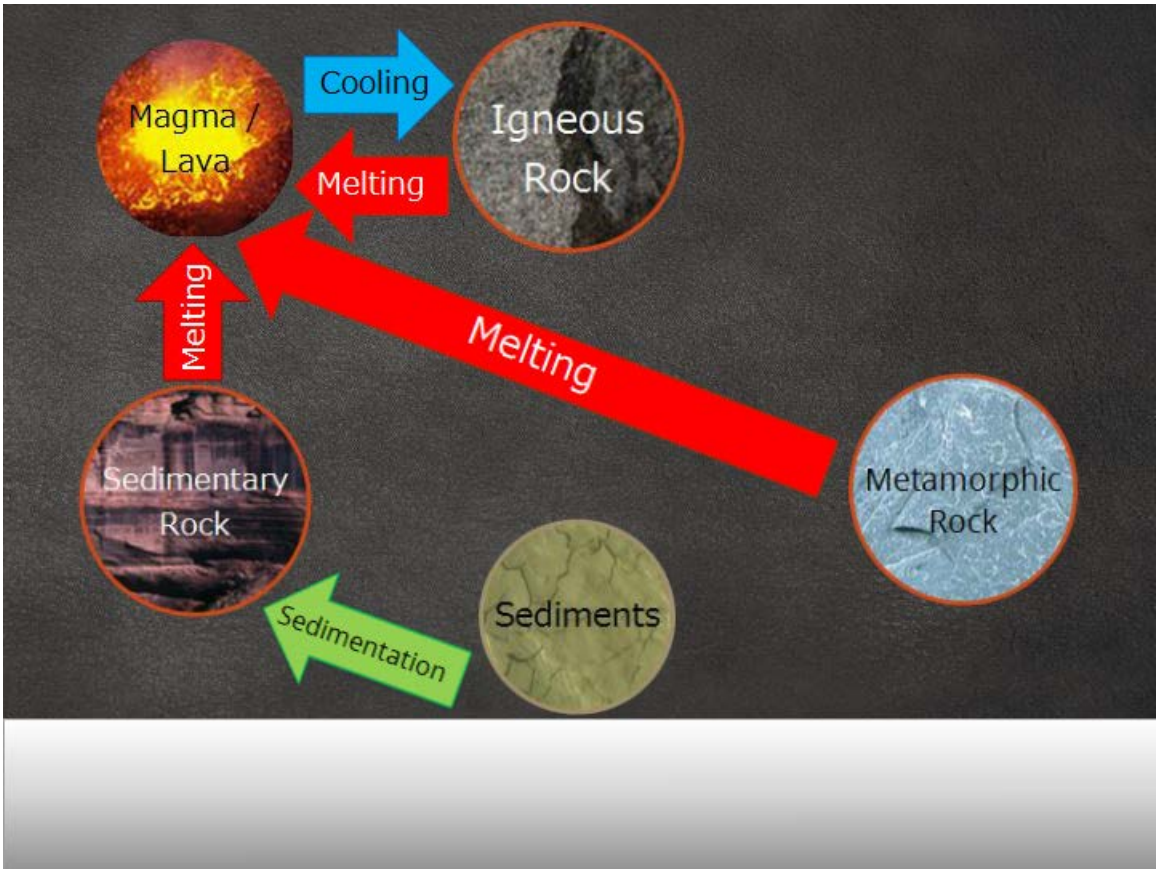

Sedimentary rocks form when sediments are compacted and cemented into one solid mass through a process called sedimentation. To represent this process, connect the image labeled sediments to the image labeled sedimentary rock. Drag and drop the green arrow to represent the processes of compaction and cementation.

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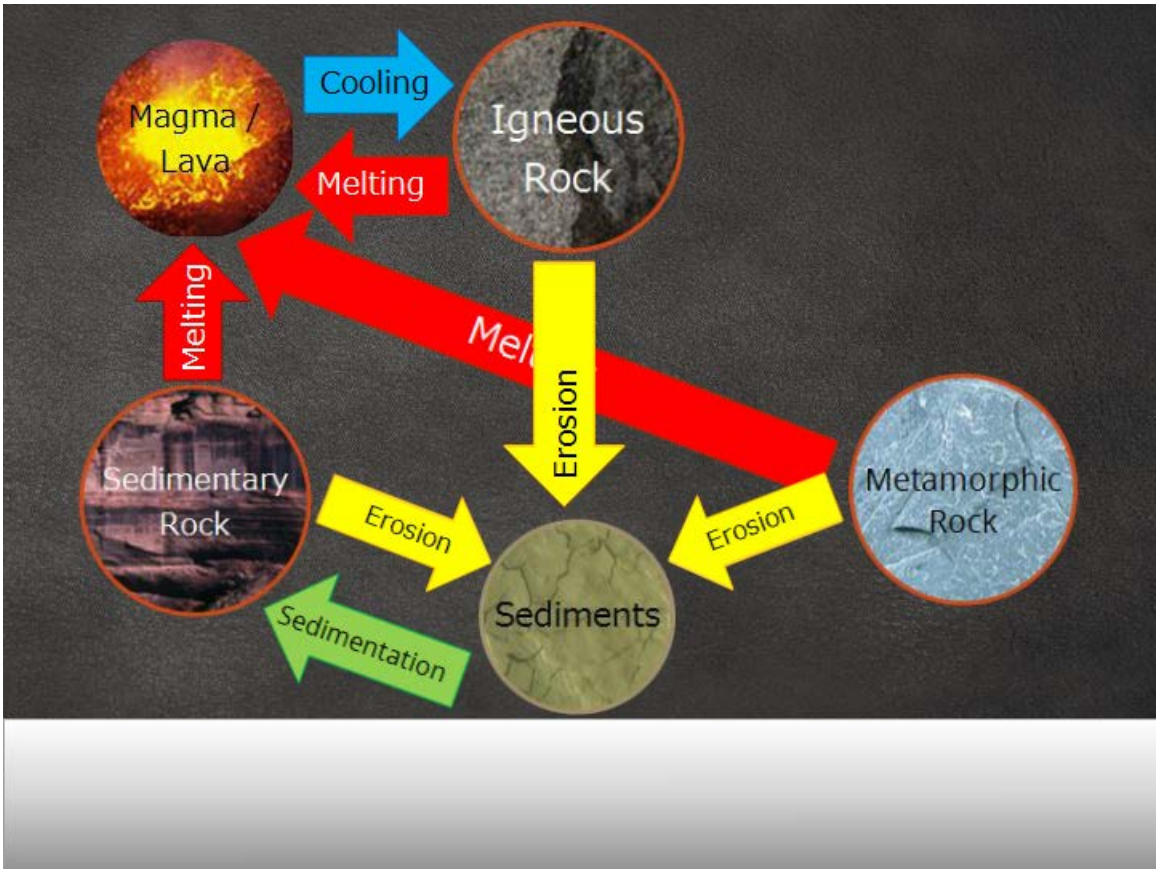

Sediments can be igneous, sedimentary, or metamorphic rock fragments. While weathering is the process that is responsible for creating the pieces of rock called sediment, the processes of erosion and deposition are also important processes that lead to the formation and accumulation of sediment. Drag and drop three yellow arrows on the diagram to represent the processes of weathering, erosion, and deposition.

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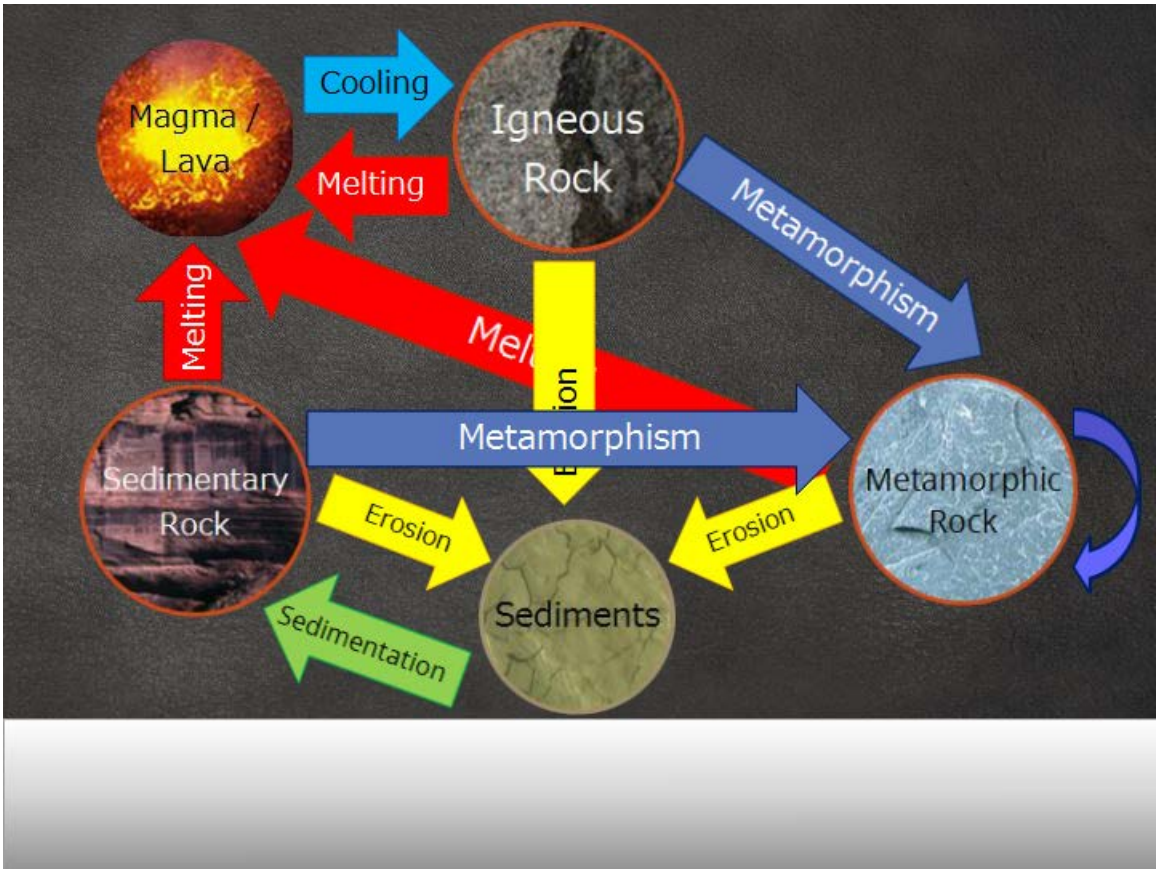

Metamorphic rock is the last of the three rock types. Metamorphic rock forms when a rock changes or recrystallizes in response to heat and or pressure. The original rock, called the parent rock, can be igneous, sedimentary, or metamorphic rock. To complete the rock cycle diagram, drag and drop the three purple arrows to represent the processes of heat and pressure.

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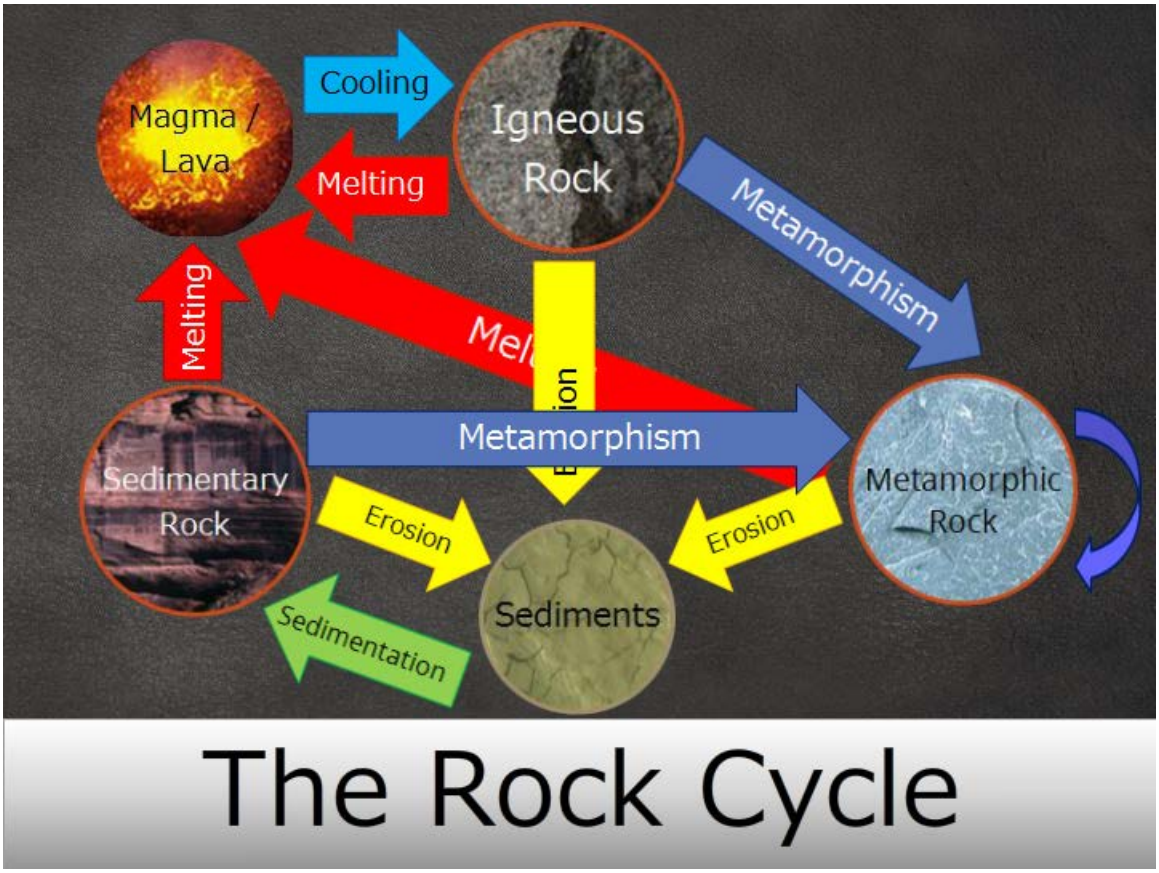

It is important to note that not all rock cycle diagrams look the same. While the diagrams may look very different, they are all essentially the same and communicate the same information. The rock cycle you created uses color coded arrows to represent the rock forming processes. Other rock cycle diagrams may use labeled lines or simple symbols to show the different processes.