

Name: \_\_\_\_\_

# Metamorphic Rocks



Metamorphic rock is the rock that takes place after igneous rocks and sedimentary rocks have formed. The igneous rocks are formed below the earth's crust by heat and pressure.

This is unlike the sedimentary rocks which are formed from weathering and other processes on earth. Metamorphic rocks are formed by transforming (changing) igneous and sedimentary rocks into metamorphic rocks. Metamorphic rocks form from the heat and or pressure from the weight of the sedimentary rocks and from heat from the earth's center. Metamorphic rocks are formed inside the earth's crust. Think of everything under your feet for layers and layers down. Pressure of those layers combined with heat help to change the sedimentary rock and igneous rock in to metamorphic rock. Metamorphic rock doesn't require as much heat as the igneous rocks which need temperatures hot enough to melt the rock which form closer to the center of the earth. Metamorphic rocks aren't formed from melted rock. The amount of heat and pressure will determine the properties of the metamorphic rocks. Some metamorphic rocks have '*bands*' and some do not. The bands look a bit like layers. Examples of metamorphic rock include slate and marble.

## Questions:

1. Using first, next then, explain how metamorphic rocks form.
2. Explain why there wouldn't be metamorphic rocks without igneous and sedimentary rocks.
3. Explain how igneous rocks and sedimentary rocks can become metamorphic rocks.
4. How does heat and pressure help to form metamorphic rocks?
5. Why do you think metamorphic rocks are formed lower in the earth's crust?
6. What might we use metamorphic rocks for?