

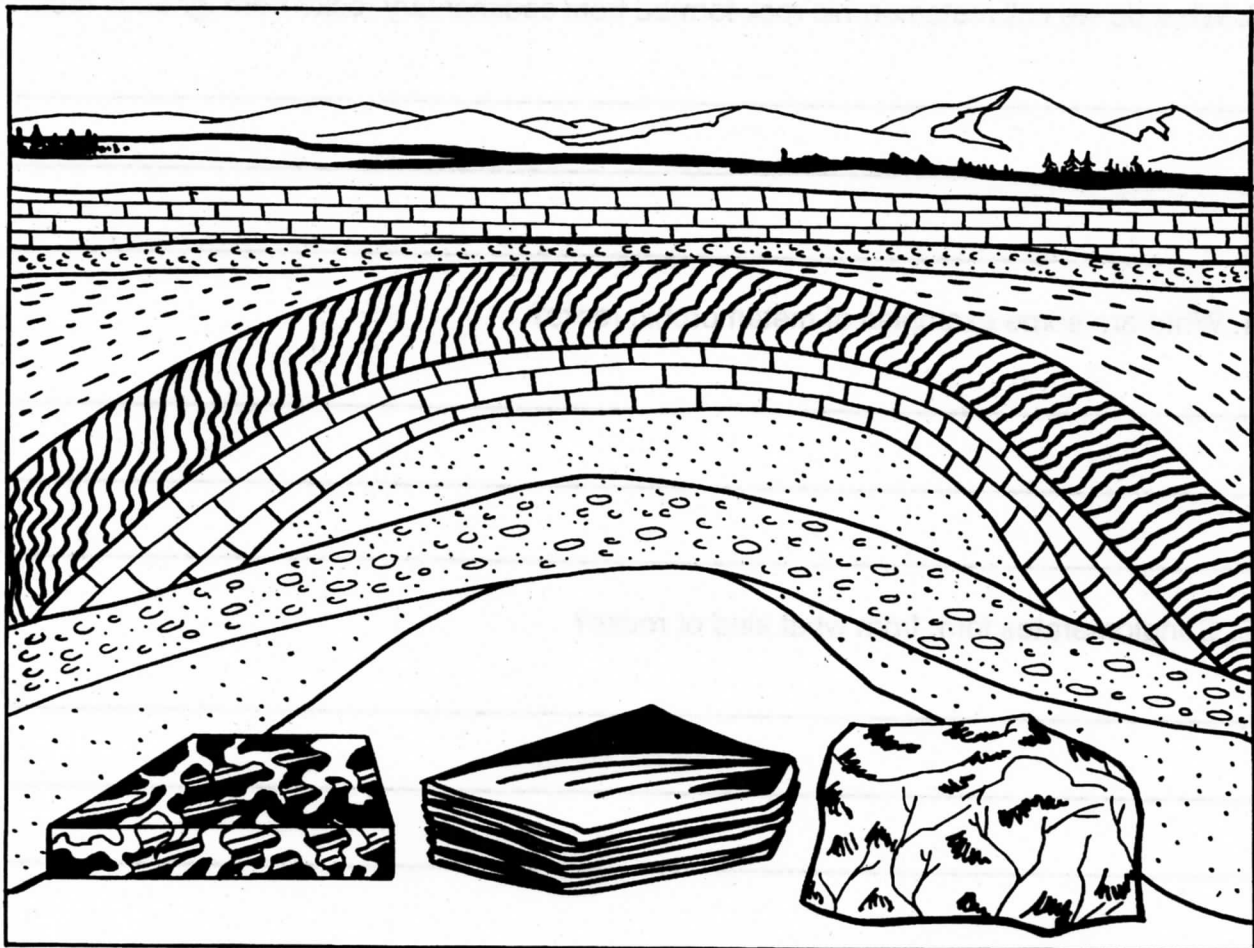
Types of Rock: Metamorphic

Metamorphic rocks were originally either sedimentary or igneous rocks. Later, they were changed. Metamorphosis means a noticeable or complete change of character, appearance, or condition. With a combination of heat, pressure, and chemical action, some sedimentary and igneous rocks become metamorphic rocks. These forces and actions cause a recrystallization of the original rock, resulting in a different mineral composition.

Meta-sedimentary rocks are metamorphic rocks formed from sedimentary rocks, and meta-igneous rocks are those changed from igneous rocks. Sometimes the transformation is so radical and complete that the parent rock cannot be determined.

Sedimentary rocks that have been metamorphosed (changed) form conglomerates or cemented-together masses. Sandstone often forms quartzite, and shale becomes slate. Limestone can become marble. Igneous rocks become gneiss, schist, phyllite, or serpentine.

Rocks can be subjected to additional forces and be metamorphosed more than once. Many metamorphic rocks contain flat minerals, such as mica, and some have needle-like crystals, such as hornblende.



Metamorphic rocks such as marble, slate, and quartzite are formed when heat, pressure, and chemical action change igneous and sedimentary rocks.

Name _____ Date _____

For the student:

1. What does *metamorphosis* mean?

2. What Earth forces cause metamorphic rocks to form?

3. What do we call metamorphic rock formed from sedimentary rock? from igneous rock?

4. What are some examples of metamorphic rocks?

5. Conglomerates form from what kind of rocks?
