

Chapter 2 Sec 5

Metamorphic Rock- any rock that forms from another rock because of changes in heat and pressure

Metamorphic rock can form from igneous, sedimentary or metamorphic rock

Heat

- from pockets of magma or rock pushed down toward the mantle
- the high temp can cause the rock around it to change

Pressure

- from the collision of tectonic plates
- change or deform the physical shape of rock
- the deeper the rock is buried the greater the pressure

Heat and Pressure changes the minerals of a rock into other minerals- change in texture/crystal structure also occurs

Geologists classify metamorphic rocks by the arrangement of the grains

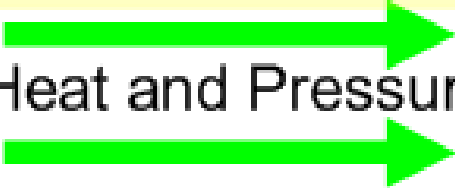
Foliated - grains arranged in parallel layers or bands

granite's grains can be foliated and turned into gneiss

Shale (sedimentary) can be changed into Slate (metamorphic)

Nonfoliated - grains are arranged randomly

Quartz (in Sandstone) Quartzite (metamorphic)


Heat and Pressure

Limestone

Marble (metamorphic)

Uses of Metamorphic Rock

Marble has even grain can be cut into thin slabs or shapes - used for statues and buildings

Slate splits easily into flat pieces - can be used for roofing, walkways, trim