Module 6: Rocks Topic 3 Content: Foliated vs. Non-Foliated Metamorphic Rocks Notes

Like igneous rocks, metamorphic rocks are further divided into two subgroups based on mineral textures visible on the surface. The metamorphic rock subgroups are foliated and non-foliated. Roll your cursor over the images below to learn more about foliated versus non-foliated metamorphic rocks.



The term foliated is derived from the term "foliage," which refers to leaves. It literally means 'decorated with leaves'. When applied to metamorphic rocks, the term identifies a mineral texture. Metamorphic rocks with a foliation appear to be layered or striped. You can see the foliated texture of the rock hornfels in the image. Foliation occurs when the parent rock is exposed to tremendous pressures within Earth's crust. As a result of the pressure, minerals within the rock recrystallize, flatten, and reorganize into parallel bands. While the chemical composition of the rock may have not changed, the physical structure of the rock will look completely different from the original parent rock.



The prefix *non*- negates the term that it precedes. Therefore, you can define non-foliated texture as not layered or striped. Quartzite, shown in the image, is a non-foliated metamorphic rock. Non-foliation texture usually occurs when rocks with homogeneous composition are exposed to tremendous heat and or pressure deep within the Earth's crust. There is still a recrystallization of minerals, only this time, the minerals do not rearrange into parallel bands or stripes.

