

Rock Identification Guide

All three major rock types can be made into the other type. Rocks are eroded by wind, water, ice and human intervention to build and form sediments. Buried sediments are hardened into sedimentary rocks. If rocks are deeply buried they can reach a level where they can be heated and pressurized into metamorphic rocks. If rocks get hot enough to melt, they then become magma. When this magma cools, it forms igneous rocks.

Sedimentary

←intrusive→

Igneous

←extrusive→

Metamorphic



Limestone

Made from shells, coral and calcite.

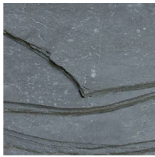
Most minerals scratched with nail.



Sandstone

Made from sand - sand grains visible.

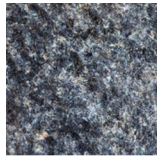
Can be picked apart. Not scratched.



Shale

Made from mud - may contain fossils.

Easily split, scratched with nail.



Gabbro

Dark color, interlocking crystals

Hard to break - most minerals NOT scratched.



Granite

Light color, interlocking crystals

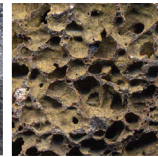
Very hard to break. Most minerals NOT scratched.



Basalt

Dark color, small crystals

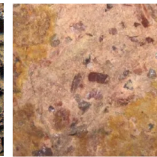
Very hard to break. NOT scratched with nail.



Scoria

Pits from fast cooling lava gas

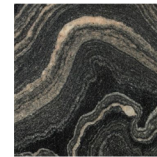
Easy to break. NOT scratched with nail.



Tuff

Hot volcanic ash deposits.

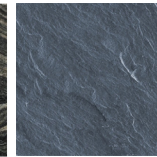
Hard to break. NOT scratched with nail.



Gneiss

Layered various rock types.

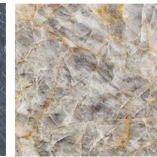
Very hard to break. NOT scratched with nail.



Slate

Layered Shale (transformed)

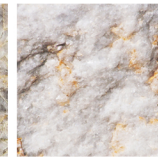
Easily split. Most minerals scratched with nail.



Quartzite

Transformed Sandstone

Very hard to break. NOT scratched with nail.



Marble

Transformed Limestone

Visible crystals of veins. Can be scratched with nail.

Sedimentary Rocks | Made when pieces of rock settle in water or when minerals are deposited by plants, animals and other chemical processes

Igneous Intrusive Rocks | Made from cooled molten rock while still underground.

Igneous Extrusive Rocks | Made from molten rock that flows on the surface or is thrown into the air by pressure and is then cooled into rock.

Metamorphic Rocks | old rocks that have been heated and pressurized, but not melted. The new rock that comes from this process, depends on what the original rock was and the amount of heat and pressure applied to it during this transformation