

Rocks may consist of a single mineral or a combination of minerals, so the process of identifying rock types means that we need to identify the minerals within the rock and how much of each mineral makes up the rock (percentage). Another important key to identifying rocks is determining the environment in which it was formed.

ROCK SPECIMEN	MINERAL COMPOSITION	GEOLOGIC ENVIRONMENT AND FORMATION
Igneous		
1. Obsidian	quartz, alkali feldspar	natural glass formed when lava is very quickly cooled (volcanic rock)
2. Granite	feldspar, quartz, mica	forms from slow cooling of magma deep in the earth's crust (plutonic rock)
3. Basalt	calcic plagioclase, clinopyroxene	cooled lava from volcanic eruptions (volcanic rock)
4. Scoria	feldspar, augite, hornblende	forms as a crust on lava or is ejected from volcanoes (volcanic rock)
5. Rhyolite	feldspar, quartz, mica	same composition as granite, formed from rapid cooling (volcanic rock)
Sedimentary		
6. Shale	various	compacted clay, silt, or mud particles, commonly contains fossils
7. Calcareous Tufa	calcium carbonate or silica	formed in or near springs or from percolating ground water
8. Sandstone	quartz, calcite, hematite	forms from compaction of sand from prehistoric beach or dune environments
9. Conglomerate	quartz, feldspar & other rocks	forms from the compaction of gravel from river or beach environments
10. Limestone	calcite, sometimes dolomite	forms in marine deposits by the accumulation of plant and animal remains
Metamorphic		
11. Slate	mica + original rock	forms from the changing of shale by heat and pressure
12. Marble	calcite, dolomite	forms from the changing of limestone by heat and pressure
13. Quartzite	quartz	forms from the changing of sandstone by heat and pressure
14. Gneiss	quartz + feldspar / mica	forms from the metamorphism of sandstone, igneous rocks or gneiss
15. Schist	mica, amphiboles, pyroxene	forms from the changing of shale or sandstone by heat and pressure