

ROCK DESCRIPTION CHART A — IGNEOUS ROCKS

Rock Name	Minerals Present	Color	Particle Size	Layers-Foliation	Other Features
Granite	Quartz, and Pink or white feldspar Mica (sometimes)	White, Light gray, Pink, or Yellow	Fine- to medium-crystals	No layers	Sometimes has large feldspar crystals
Diabase	Dark-colored minerals and Feldspar	Dark gray to black, Sometimes with dark green tint	Fine crystals, (small crystals are visible)	No layers	Somewhat dense

ROCK DESCRIPTION CHART B — SEDIMENTARY ROCKS

Rock Name	Composition	Color	Particle Size	Layers-Foliation	Other Features
Conglomerate	Rounded pebbles cemented together	Generally light, Sometimes with rusty colors	Pebbles the size of peas -with sand filling in between	No layers easily seen	Pebbles may be of all colors and rock types.
Breccia	Angular pebbles cemented together	Colors vary considerably	Rock fragments, angular, not rounded - with finer material between	No layers easily seen	Breccias formed by collapsed caves may have white calcite crystals cementing the rock together.
Sandstone	Quartz sand	White, Tan, Red, or Brown	Fine to medium grains	Found in layers, but not visible in many samples	Feels like sandpaper, Grains may rub off, Sometimes has fossils, Red sandstones are cemented with rust
Limestone	Calcite (calcium carbonate – lime)	White to light gray to black	Very fine grained, Grains not visible	Found in layers, but not visible in many samples	Soft fizzes in acid, Sometimes has fossils
Shale	Clays, mud, and fine silt	Red, Gray, Brown, or Black,	Very fine grained, some fragments may be visible	Thin layers visible from the side	Flat, Breaks into layers Soft, Sometimes contains fossils
Coal	Mostly carbon – from squeezed and heated ancient plant material.	Black to shiny black	Grains not usually visible	Layering not always visible in samples	A little bit “light for its size” (lower density than many common rocks) Brittle, easily broken

ROCK DESCRIPTION CHART C — METAMORPHIC ROCKS

Rock Name	Composition	Color	Particle Size	Layers-Foliation	Other Features
Quartzite	Mostly quartz, May have pyrite (“Fools gold”) mica, and other minerals	White, Tan, or Pink	Fine Grained, Shiny	Layers not seen in samples	Very hard generally. (Weathered samples may have particles break off easily)
Marble	Mostly calcite	White with streaks of pink (and gray)	Fine-to-medium crystals	Sometimes has bands of color	Mineral calcite is soft Marble will fizz in acid.
Greenstone	Green overall, Sometimes with quartz veins	Medium green, (dull-colored)	Very fine crystals — too small to see	Layers not seen in samples	Not in flat sheets, Irregularly-shaped pieces,
Slate	Mica, Quartz and other minerals	Bluish-gray, Gray-green, or Reddish brown	Very fine crystals Crystals difficult to see	Shows foliation in side view	Breaks In flat sheets, harder than shale, Has a luster/sheen
Soapstone	Talc, a very soft mineral	Medium-dark gray to gray-green, often dull	Very fine crystals	Samples rarely show layering	Feels soft, Greasy-soapy to the touch
Schist	Black or silvery mica, White feldspar, and Quartz	Alternating bands of colored minerals	Fine-to-medium crystals	Well foliated, wavy layers	Has a sheen. Shiny Wavy pieces with bands of mica minerals
Gneiss	White feldspar, Black mica, or Silvery mica	Light-to-medium gray	Medium-to-large crystals	Well foliated	Parallel bands of white and dark minerals, Very hard