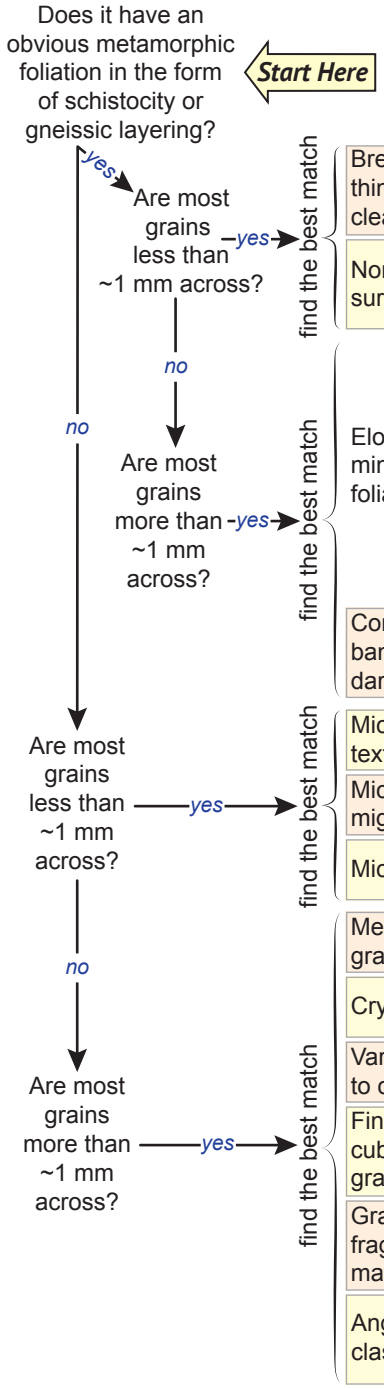
CLASSIFICATION OF SELECTED METAMORPHIC ROCKS



	Texture	Description	Name	Inferred Parent
find the best match	Breaks into hard, flat, thin slabs due to slaty cleavage	Dull luster; microscopic mineral grains; colors are black, gray, green, or red	slate	mudstone or shale
find the best match	Non-planar foliation surfaces	Lustrous sheen caused by tiny graphite, chlorite, or mica grains along foliation	phyllite	mudstone, shale, or slate
find the best match	Elongated or flat minerals along foliation surfaces → Has muscovite grains oriented parallel to foliation		muscovite schist*	mudstone, shale, slate, phyllite
find the best match	Elongated or flat minerals along foliation surfaces → Has biotite grains oriented parallel to foliation		biotite schist*	mudstone, shale, slate, phyllite
find the best match	Elongated or flat minerals along foliation surfaces → Has blue lawsonite or blue amphibole (glaucophane)		blueschist*	mafic volcanics
find the best match	Elongated or flat minerals along foliation surfaces → Has green minerals chlorite, actinolite, or epidote		greenschist*	mafic volcanics
find the best match	Compositional banding of light and dark minerals	Typically has quartz, feldspar, and mica minerals in widely spaced discontinuous layers	gneiss	many possible protoliths
find the best match	Microcrystalline texture	Usually a dull dark color; very hard	hornfels	many possible protoliths
find the best match	Microcrystalline texture; might have asbestos	Typically dull or glossy; green; commonly sheared	serpentinite	basalt, gabbro, or ultramafics
find the best match	Microcrystalline	Soft talc-rich rock; green, brown, gray, white	soapstone	basalt, gabbro, or ultramafics
find the best match	Medium- to coarse-grained texture	Mostly shiny black amphibole (hornblende) crystals	amphibolite	basalt, gabbro, or ultramafics
find the best match	Crystalline texture	Green pyroxene and red garnet	eclogite	basalt, gabbro
find the best match	Varies from granular to crystalline	Quartz sand grains pressed together; very hard	quartzite	sandstone
find the best match	Fine (resembles a sugar cube) to coarse; often granofelsic	Recrystallized equal-sized grains of calcite or dolomite; fizzes in dilute HCl	marble	limestone
find the best match	Gravel sized rock fragments in finer matrix	Gravel-sized clasts might be distorted, and matrix might be foliated	metaconglomerate	conglomerate
find the best match	Angular gravel-sized clasts in matrix	A fault metabreccia cuts relict bedding in meta-sedimentary rock	metabreccia	sedimentary or fault breccia

*The name of a metamorphic rock can be modified by listing its most important minerals before the basic rock name, in order of increasing abundance. For example, if a schist has a few garnets but muscovite is more abundant, it would be a garnet muscovite schist.