Key to the Identification of Metamorphic Rocks

**Granular Metamorphic Identification Key**
- Black, shiny, elongate amphibole crystals; with white plagioclase
- Black, pyroxene rich, fine grained, usually granular
- Red-pink garnet; pale green pyroxene; many accessory minerals
- Many translucent pale colors
- Many dark, dull, opaque colors; massive
- Dense, compact conchoidal fracture
- Reacts without powdering
- Must be powdered
- Fused quartz grains
- Granit in equidimensional masses
- Maybe quartz, amphibole, kyanite, not plagioclase
- Limestone
- Dolomitic MARBLE
- May have dark garnet; ? epidote
- May have garnet, small red spots of garnet typical
- May have light garnet, small red spots of garnet typical
- May have light garnet, small red spots of garnet typical
- May have dark garnet, ? epidote
- May have dark garnet, ? epidote
- May be Foliated
- May be Foliated

**Non-Foliated (Granular)**
- Soapstone
- Serpentinite
- Greenstone

**Softer Than Glass**
1. May be easily foliated.
2. Greenstone is usually well foliated, but massive varieties exist.

**Foliated Metamorphic Identification Key**
- Blue-gray, black, dark green
- Gray, black, dark green
- Shiny luster; chlorite may be big enough to see basal cleavage
- Blue, black, gray, or blue-green
- Complete mixed mica + quartz & feldspar; accessory minerals: garnet, staurolite, kyanite, etc.
- Biotite + ? amphibole dominates; dark colored
- Muscovite dominates; light colored
- Bands of dark colored biotite and amphibole layered with light colored calcite and Na plagioclase
- Light colored, orthoclase Na plagioclase, quartz, mica; fine grained
- Scattered pink spots of garnet diagnostic
- Superficially granitic looking
- Black, shiny, elongate amphibole crystals; with white plagioclase
- Black, dark green or salt and pepper
- May have dark garnet; ? epidote
- May have dark garnet; ? epidote

**Fine Grained**
- Slaty cleavage
- Phyllite
- Blue schist
- Green schist
- Gneiss
- Ampfibolite

**Bluish hues**

**Dark Green**

**Marble**

**Slate**

**Muscovite schist**

**Granitic**

**Limestone**

**Dolomitic**

**Greenstone**

**Slate**

**Schistose**

**Gneiss**

**Granitic**

**AMPHIBOLITE**

**ECLOGITE**

**QUARTZITE**

**HORNFLIES**

**MARBLE**

**Soapstone**

**Serpentinite**

**Greenstone**

1. (G vít, div, and pyrope completely intergrade with each other. Distinctions may be difficult. Ask for help.
2. Under fluorescent light these may not be as easy to detect. The average person in full daylight will see a distinctly blue color.
3. Blue sapphire is also called sapphire sapphire.
4. Gneiss may superficially look like the above, but has well-developed schistosity.
5. Schistose = more or less parallel alignment of minerals together in a distinct layering.
6. Rocks may be modified as gneisses, or gneiss-like rocks, etc., depending on the accessory minerals present.
7. Amphibolite may be granitic in appearance.
8. The term granite is used to include rocks that are granitic in nature but that do not have the same mineral composition as granites.