

Mineral Identification Key

Metallic Luster							
Hardness	Luster	Color	Streak	Type of Cleavage or Fracture	Heft	Misc. Properties	Name
1-2	Metallic	Dark gray or black	Dark gray or black	One plane, perfect	L	Hexagonal crystal form; slippery feeling; writes on paper	GRAPHITE
2.5-3	Metallic	Golden yellow	Golden yellow		VH	Octahedral crystal form; malleable	GOLD
2.5 - 3	Metallic	Silver-gray or dark gray	Dark gray or black	Three planes at 90°, perfect	VH	Cubic crystal form; Looks like lead; heavy silver-colored cubes	GALENA
5.5-6.5	Metallic	Black	Reddish-brown		H	Streak is distinctive	HEMATITE
5.5-6.5	Metallic	Gray-black	Gray-black or brownish-red	Poor cleavage; conchoidal fracture	H	Crystal form— octahedral, sometimes dodecahedral; magnetic mineral	MAGNETITE
6-6.5	Metallic	Pale brass	Greenish-black	Conchoidal fracture	H	Cubic and pyritohedral crystal forms; crystals may be striated	PYRITE (fool's gold)

Nonmetallic Lusters

Hardness	Luster	Color	Streak	Cleavage or Fracture	Heft	Misc. Properties	Name
1-2.5	Earthy	White; slightly colored by impurities	White		L	Slippery feeling; clay odor	KAOLINITE
2	Pearly; vitreous	White; Colorless; Colored by impurities	White	One good plane and two poor planes, the latter not at 90° angles	L		GYPSUM
2	Vitreous to pearly	Gray-white or green	Light gray	One plane; good	M-	Flexible but not elastic; may resemble mica	CHLORITE
2-2.5	Pearly	Black or dark brown	Light gray or brown	One plane; perfect	M	Elastic; cleaves into thin sheets; mica group	BIOTITE
2-2.5	Pearly	Silver, white or pale green	White	One plane; perfect	M	Transparent; elastic; cleaves into thin sheets; mica group	MUSCOVITE
2.5	Vitreous	White; colorless; colored by impurities	White	Three planes at 90° angles	L	Cubic crystal form; salty taste; dissolves in water	HALITE
3	Vitreous	White; colorless; colored by impurities	White	Three planes not at 90°	L	Effervesces during acid test	CALCITE
3.5-4	Vitreous or earthy	Bright green	Green		M+	Often found with azurite	MALACHITE
4	Vitreous	Colorless, green, purple	White	4 planes none at 90° angles	M	Crystal form—cubic, sometimes octahedral	FLUORITE
4	Greasy	Dark green or yellow-green	Greenish-gray or white		M-	Slippery feeling	SERPENTINE
5	Vitreous	Yellow green, brown	White	One plane; poor	M	Hexagonal crystal form	APATITE

Nonmetallic Lusters

Hardness	Luster	Color	Streak	Cleavage or Fracture	Heft	Misc. Properties	Name
5.5	Vitreous to dull	Black or dark green	Grayish-green to white	2 planes at 90° angles	M	Pyroxene group	AUGITE
5.5	Vitreous	Black or dark green	Grayish-green to white	2 planes not at 90° angles	M	Amphibole group	HORNBLENDE
6	Pearly	Colorless white, pink, gray	White	2 planes at 90° angles	M	Feldspar group	ORTHOCLASE FELDSPAR
6	Pearly	Colorless, white, gray, purplish	White	2 planes at 90° angles	M	Feldspar group; striations on one cleavage parallel to 2 nd cleavage	PLAGIOCLASE FELDSPAR
6.5-7	Vitreous	Grass-green	White	Conchoidal fracture	M	Olivine group	OLIVINE
7	Vitreous	Colorless, white, gray, milky, purple, rose, smoky	White	Conchoidal fracture	M	Hexagonal crystal form; various colors	QUARTZ
7.5	Resinous	Wine-red, brown, green	White	Conchoidal fracture	M	Dodecahedral crystal form; many colors and varieties	GARNET