

Hematite	
Form	Tabular, botrydal
Colour	Red, brown
Luster	Metallic
Steak	Reddish brown
Hardness	5.5-6.5
Cleavage	None
Fracture	Uneven to subconchoidal
Sp. Gravity	5.2
Chemical composition	Fe ₂ O ₃

Limonite	
Form	Amorphous
Colour	Yellow brown
Luster	Dull, vitreous
Streak	Yellow to brown
Hardness	4-5.5
Cleavage	None
Fracture	Uneven
Sp. Gravity	2.7-4.5
Chemical composition	FeO(OH).n H ₂ O

Sphalerite	
Form	Tetrahedral, dodecahedral
Colour	White, yellow, brown
Luster	Resinous
Streak	Pale brown to yellow
Hardness	3.5-4.0
Cleavage	Perfect
Fracture	Conchoidal

Sphalerite (cont)	
Sp. Gravity	3.9-4.1
Chemical composition	(Zn,fe)s

Hornblende	
Form	Prismatic, Tabular
Colour	Black, Dark green
Lustre	Vitreous
Streak	Colourless
Hardness	5-6
Cleavage	Imperfect
Fracture	Uneven
Sp. Gravity	2.9-3.4

Microcline	
Form	Prismatic, granular
Colour	White, gray
Luster	Vitreous
Streak	White
Hardness	6-6.5
Cleavage	Perfect
Fracture	Uneven
Sp. Gravity	2.5-2.6
Chemical composition	K(AlSi ₃ O ₈)

Quartz	
Form	Prismatic, Crystalline
Colour	Colourless, white, Purple, Pink
Luster	Vitreous, Adamantine
Steak	Colourless
Hardness	7
Cleavage	Indistinct

Quartz (cont)	
Fracture	Conchoidal
Sp. Gravity	2.6-2.7
Chemical Company	SiO ₂

Muscovite	
Form	Foliated, Massive
Colour	Colourless, White
Streak	White
Hardness	2.5
Cleavage	Perfect
Fracture	Uneven
Sp. Gravity	2.7-3

Plagioclase	
Form	Prismatic, massive
Colour	White, colourless, yellow
Luster	Vitreous, pearly
Streak	White
Hardness	6-6.5
Cleavage	Good to perfect
Fracture	Conchoidal
Sp. Gravity	2.6-2.8

Biotite	
Form	Micaceous, Lamellar
Colour	Black, Dark brown, Black
Luster	Vitreous to pearly
Steak	White to gray
Hardness	2.5-3
Cleavage	Perfect
Fracture	Uneven

Biotite (cont)	
Sp. Gravity	2.8-3.4

Bauxite	
Form	Tabular
Colour	White, Gray
Luster	Dull, Earthy
Streak	Usually white but iron stain can discolour
Hardness	1-3
Cleavage	None
Fracture	Irregular
Sp. Gravity	2-2.5
Chemical composition	Al(OH) ₃

Chalcopyrite	
Form	Euhedral
Colour	Brass yellow
Luster	Metallic
Steak	Greenish black
Hardness	3.5-4
Cleavage	Poor/indistinct
Fracture	Uneven
Sp. Gravity	4.1-4.3
Chemical composition	CuFeS ₂

Pyrolusite	
Form	Dendritic
Colour	Iron black
Luster	Metallic, dull



Pyrolusite (cont)	
Steak	Bluish black
Hardness	6-6.5
Cleavage	Perfect
Fracture	Uneven/Brittle
Sp. Gravity	4.4-5.1
Chemical composition	MnO ₂

Corundum	
Form	Euhedral, Prismatic
Colour	Blue, Red, yellow
Luster	Vitreous/Adamantine
Streak	Colourless
Hardness	9
Cleavage	None
Fracture	Conchoidal/uneven
Sp. Gravity	3.9-4.1
Chemical composition	Al ₂ O ₃

Agate	
Form	Microcrystalline aggregate
Colour	Green, yellow, red
Luster	Waxy, dull
Streak	White
Hardness	6.5-7
Cleavage	None
Fracture	Conchoidal
Sp. Gravity	2.6
Chemical composition	SiO ₂

Garnet	
Form	Dodecahedral
Colour	Red, Yellow
Luster	Vitreous
Steak	Colourless
Hardness	6.5-7.5
Cleavage	None
Fracture	Conchoidal
Sp. Gravity	3.5-4.3

Talc	
Form	Foliated
Colour	Pale green, white, gray
Luster	Vitreous/pearly
Steak	White to pale green
Hardness	1
Cleavage	Perfect
Fracture	Uneven
Sp. Gravity	2.7-2.8
Chemical composition	Mg ₃ Si ₄ O ₁₀ (OH) ₂

Olivine	
Form	Massive, Granular
Colour	Olive green
Luster	Vitreous
Steak	Colourless
Hardness	6.5-7
Cleavage	Poor
Fracture	Conchoidal
Sp. Gravity	3.2-3.4
Chemical composition	(Mg,Fe) ₂ SiO ₄

Fluorite	
Form	Massive, Granular
Colour	White, Purple, Green
Luster	Vitreous
Streak	White
Hardness	4
Cleavage	Perfect
Fracture	Sub-conchoidal
Sp. Gravity	3.2
Chemical composition	CaF ₂

Gypsum	
Form	Tabular, Massive
Colour	White, Colourless, Gray
Luster	Vitreous to Pearly
Streak	White
Hardness	2
Cleavage	Perfect
Fracture	Uneven
Sp. Gravity	2.3
Chemical Composition	CaSO ₄ .2H ₂ O

Orthoclase	
Form	Prismatic,Blocky
Colour	Colourless, Green, White
Luster	Vitreous to pearly
Streak	White
Hardness	6
Cleavage	Perfect
Fracture	Conchoidal

Orthoclase (cont)	
Sp. Gravity	2.6
Chemical composition	KAISi ₃ O ₈

Tourmaline	
Form	Prismatic
Colour	Various, balck, brown, green
Luster	Vitreous
Steak	White
Hardness	7-7.5
Cleavage	Poor/indistinct
Fracture	Conchoidal
Sp. Gravity	2.9-3.3

Calcite	
Form	Massive, Rhombohedron
Colour	White, Colourless, Gray
Luster	Vitreous
Streak	White
Hardness	3
Cleavage	Perfect
Fracture	Conchoidal
Sp. Gravity	2.7
Chemical composition	CaCO ₃