

## METALLIC MINERALS CHART

Name	Formula	Luster/Color	Streak	Hard	Breakage	Mineral Group	Mineral Structure	Specific Gravity	Uses & Special properties
<b>Chalcopyrite</b>	CuFeS <sub>2</sub>	<i>Metallic:</i> Brassy to golden yellow	Greenish-black	3.5 4.0	Uneven fracture	Sulfide	Tetragonal	4.1 4.3	Main ore of copper: often confused with gold
<b>Copper</b>	Cu	<i>Metallic (non):</i> Copper red	Copper red	3.0 3.5	Hackly fracture	Native Element	Cubic (rare)	8.5 8.9	Used in coins, pipes, wire, cooking utensils, jewelry; Malleable & Ductile
<b>Galena</b>	PbS	<i>Metallic:</i> Lead gray	Gray to black	2.5	Perfect cube cleavage	Sulfide	Cubic	7.4 7.6	Source of lead used in pipes, & batteries. Shield for x-rays, fishing equipment, sports HIGH in HEFT (weight)
<b>Gold</b>	Au	<i>Metallic:</i> Pale to golden yellow	Yellow	2.5 3.0	Hackly fracture	Native Element	Cubic (rare)	15.0 19.3	Used in jewelry, coins, dental fillings, medicines, does not tarnish
<b>Graphite</b>	C	<i>Metallic:</i> silver to gray Greasy feel	Black to gray	1.0 2.0	Basal cleavage (scales) (pure form)	Native Element	Hexagonal	2.1-2.2	Used in dry lubricants & pencil "lead" rods to control some small nuclear reactions. Greasy, Oily, feeling
<b>Hematite</b>	Fe <sub>2</sub> O <sub>3</sub>	<i>Metallic:</i> rusted to sparkles Black to reddish brown	Red to reddish brown	5.0 6.0	Irregular fracture	Oxide	Hexagonal	5.26	Source of iron used in making steel "pig iron" (red ocher) RED STREAK  Can be Specularite (like gliter)
<b>Magnetite</b>	Fe <sub>3</sub> O <sub>4</sub>	<i>Metallic:</i> Black	Black	5.0 6.0	Conchoidal fracture	Oxide	Cubic (partly octahedral)	5.18	Source of iron magnetic called "lodestone" magnetic attraction
<b>Nickel</b>	Ni	<i>Metallic:</i> lustrous silvery-white	Black	5.0 6.0	Conchoidal fracture	Native Element	Cubic	5.18	An economically important source of nickel is the <a href="#">iron ore limonite</a>
<b>Pyrite</b>	FeS <sub>2</sub>	<i>Metallic:</i> Light brassy yellow	Greenish-black	6.0 6.5	Uneven fracture	Sulfide	Cubic	4.8-5.0	Known as "fool's gold" Source of Iron; & sulfur Alters to Limonite
<b>Silver</b>	Ag	<i>Metallic:</i> Silvery white tarnishes to black	Light gray to silver	2.5	Hackly fracture	Native Element	Cubic (rare)	10 12	Used in coins, dental fillings, silver plate, jewelry, usually found in wire like or branching forms malleable & ductile; Tarnishes to black
<b>Sphalerite</b>	ZnS	<i>Metallic:</i> yellow to yellow brown	White, yellow, or brown	3.5 4.0	Perfect dodecahedral cleavage	Sulfide	Dodecahedral	3.9 4.1	Important zinc ore; known as "ruby zinc"