

# Minerals Harder Than Glass

Good Streak

Red to red-brown streak	Hardness	5.5	Red to purple to black. Dull earthy appearance.	<b>HEMATITE</b>	<i>does form crystals, but we mostly see the finely disseminated</i>
		5.5-6.5	Shiny silver; may be weakly magnetic; massive or crumbly	<b>SPECULAR HEMATITE</b>	<i>metallic luster may be very shiny like polished metal, or dull, like tarnished metal, or even powdery like rust</i>
		6.0	Dark gray to black; strongly magnetic	<b>MAGNETITE</b>	
Black streak		6.0-6.5	Pale brass yellow, sometimes finely disseminated, or cubic	<b>PYRITE</b>	<i>fools gold; crystals often seen, but massive or finely disseminated.</i>

Metallic Luster

*look for flat shiny faces that reflect light*

**Good Prismatic Cleavage**

*two directions of cleavage; third direction fractures*

90°		Pink frequently, may be whitish; block; opaque	<b>ORTHOCLASE</b>
		White or blue or green	<b>MICROCLINE</b>
90°		Dark gray, blueish; striations common; translucent	<b>CALCIC PLAGIOCLASE</b>
		White; striations common; translucent	<b>SODIC PLAGIOCLASE</b>
60°/120°		Black, shiny, long crystals; faces broken up by many cleavages	<b>AMPHIBOLE</b>
87°/93°		Dark green to black; often dull; blocky; cleavage hard to find	<b>PYROXENE</b>

Non-Metallic Luster

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**Cleavage Not Obvious**

*Do not confuse crystal growth shape with cleavage! Many crystals with good shapes do not cleave*

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		Dark green to black; often dull; blocky; cleavage hard to see	<b>PYROXENE</b>
		Blood red to green; cleavage-like fracture; 12 or 24 sided crystals	<b>GARNET</b>
		Pistachio green; crystalline, but may be massive or finely	<b>EPIDOTE</b>
	Hardness	7.5-8	Bluish-green; weak basal cleavage but very flat and shiny
		8	Colorless, white, transparent; perfect basal cleavage
		9	Brown, pink, blue; 6 sided tapered crystals common, weak basal parting

**No Cleavage**

*6 sided pointed crystals common growth habit, but irregular specimens with conchoidal fracture, or weathered and rounded most common*

		Clear and glassy, to translucent, to frosted, opaque and dull (weathered and rounded). Many pale colors (gray, white, pink common); 6-sided crystals but most massive w/ conchoidal fracture.	<b>QUARTZ</b>
		Green, glassy, usually granular like sand, or massive	<b>OLIVINE</b>

*quartz is one of the most common minerals, found in all rock types; has many colors/varieties/appearances*  
 > Amethyst - violet  
 > Rose > Smoky  
 > Milky > etc.