


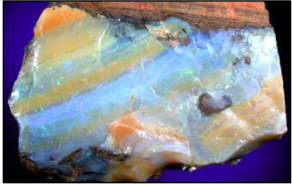
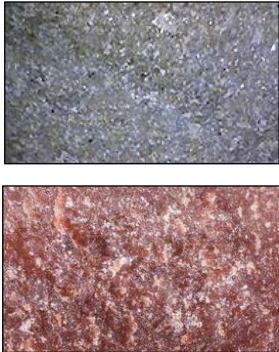





MATERIAL TYPES — Silica (four types)

Quartz Crystal	Chalcedony	Chert	Opal
<ul style="list-style-type: none"> transparent (clear). crystalline. hexagonal crystal system. 	<ul style="list-style-type: none"> translucent (semi-clear). cryptocrystalline. impurities cause staining, mostly iron oxides, as streaks and blebs. typically light gray, but can be any color with impurities. often fluoresces, typically green (uranium) or orange (calcium). 	<ul style="list-style-type: none"> opaque. cryptocrystalline. typically white, gray, beige, or brown, but can be any color with impurities. can fluoresce. 	<ul style="list-style-type: none"> translucent to opaque. amorphous hydrated silica (no crystal structure). rare in Colorado. glassy to pearly, like "stained glass." typically white in color. can fluoresce. 
<p>COMMON VARIETIES:</p> <p>Smoky Quartz - brown. Milky Quartz - white. Rose Quartz - pink. Amethyst - purple. Citrine - light yellow.</p>	<p>COMMON VARIETIES:</p> <p>Agate - concentric bands (Banded, Dendritic, Moss, Brecciated, etc.). Petrified Wood - is typically "agatized wood" or "jasperized wood." Onyx - horizontal bands. Carnelian - translucent orange to red.</p>	<p>COMMON VARIETIES:</p> <p>Flint - black in color (carbon). Jasper - the heavily iron oxide stained version, typically a mix of bright yellow, orange, and/or red. Oolitic - small spherical shapes. Fossiliferous - remnants of ancient sea life, such as shells or coral. Mottled - blotches, spots, blebs. Brecciated - mix of angular, broken fragments in a fine-grained matrix.</p>	<p>COMMON VARIETIES:</p> <p>Common Opal - white, pale. Precious Opal - rainbow color. Fire Opal - red, yellow colors. Moss Opal - with dendrites. Wood Opal - petrified wood.</p>

MATERIAL TYPES — Metamorphic, Sedimentary, and Volcanic

Quartzite	Silicified Sandstone	Rhyolite	Petrified Wood
<ul style="list-style-type: none"> opaque. metamorphic rock, often called "metaquartzite." tightly compacted mass of recrystallized interlocking quartz grains that is massive or can appear as granules or grainy/sugary. often gray, but can be any color with impurities. typically doesn't fluoresce. 	<ul style="list-style-type: none"> opaque. sedimentary rock, often called "orthoquartzite." tapioca appearance: visible clear quartz grains can be touching or scattered within the fine-grained matrix. tan, brown, or red, can be any color with impurities. typically doesn't fluoresce. <p>NAMED TYPE:</p> <p>Morrison Quartzite (<i>shown</i>)</p> 	<ul style="list-style-type: none"> opaque. no crystal structure. volcanic rock, fine-grained. often has small, visible clear sanidine crystals. biotite and hornblende (black) are also common accessory minerals. often light brown, but can be any light color. typically doesn't fluoresce. <p>NAMED TYPE:</p> <p>Wall Mountain Tuff (<i>shown</i>)</p> 	<ul style="list-style-type: none"> opaque. cryptocrystalline. wood structures often preserved, but not always. a single piece can grade from transparent/translucent (chalcedony) to an opaque shade of yellow-brown, brown, or red. can fluoresce; chalcedony areas will fluoresce green. <p>NAMED TYPES:</p> <p>Parker Petrified Wood (<i>shown</i>) Green Mountain Petrified Wood</p> 

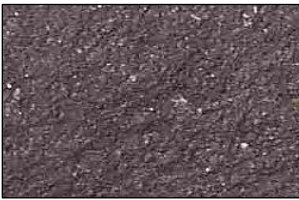
MATERIAL TYPES — Volcanic and Sedimentary

Basalt

- opaque.
- no crystal structure.
- volcanic rock, fine-grained.
- medium to very dark gray, or black in color.
- typically doesn't fluoresce.

Similar Looking Rock:

Hornfels - fine-grained, platy or prismatic non-aligned crystals, formed from contact metamorphism.



Obsidian

- opaque.
- cryptocrystalline.
- volcanic glass.
- black in color, can have "snowflakes" or "mahogany."
- typically doesn't fluoresce.



Alibates Flint

- opaque.
- cryptocrystalline.
- agatized dolomite, source is unique to Texas panhandle.
- distinctive coloring and banded patterns.
- typically maroon and white, but blue, brown, red, purple, and yellow occur.
- can fluoresce.



Flat Top Chalcedony

- translucent to opaque.
- cryptocrystalline.
- source is unique to Flat Top Butte near Sterling, CO.
- opaque white to translucent lavender in color.
- can fluoresce.

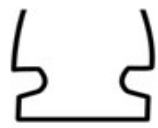


PROJECTILE POINT and STEM TYPES



Corner Notch

example of Convex base



Side Notch

example of Straight base



Lanceolate

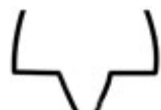
example of Concave base



Expanding Stem

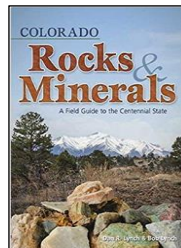


Stemmed



Contracting Stem

Excellent guide for Colorado:



Colorado Rocks & Minerals: A Field Guide to the Centennial State

2010
Dan R. Lynch and Bob Lynch

MATERIAL TYPE — Sedimentary

Mudstone

- opaque.
- no crystal structure.
- sedimentary, extremely fine-grained.
- medium to very dark gray, or black in color; can be other dark colors (green, brown, orange, or red).
- typically doesn't fluoresce.

Similar Looking Rocks:

Siltstone - very fine-grained sand in matrix of mudstone; feels gritty against teeth.

Shale - extremely fine-grained, harder than mudstone.

Argillite - extremely fine-grained, harder due to low-grade metamorphism.

