

Mineral Review

Use the word box below to fill in the blanks correctly. You will NOT use all of these words!

Silicon	Fracture	Penny	Hardness	Silicates	Color
Luster	Nail	Minerals	Luster	Fingernail	Rocks
Crystal	Hardness	Metallic	Diamond	Streak	Mohs Scale
10	Non-Metallic	Cleavage	Oxygen	Cleavage	Streak

- 1) A _____ is formed when the atoms of a material form an orderly, repeating pattern.
- 2) Crystals combine to make _____, which is a naturally-occurring, inorganic solid with a definite chemical makeup.
- 3) The most common group of minerals are the _____, which have both the elements _____ and _____ (and one other mineral) in them.
- 4) Minerals can be identified through these 4 main physical properties:

- 5) The way that a mineral reflects light (or shines) is called _____. There are 2 types: if the mineral looks like metal, it is called _____ and if it looks like glass it is called _____.
- 6) _____ is how easily a mineral can be scratched. We measure it using _____.
We assign it a number based on what scratches it:
If a _____ scratches it, it has a hardness of 2.
If a _____ scratches it, it has a hardness of 3.
If a _____ scratches it, it has a hardness of 4.

The highest hardness has a number of _____ and belongs to the mineral _____.
- 7) _____ is the color of the mineral in powdered form – check it by writing with the mineral.
- 8) If a mineral breaks along nice, straight, parallel lines, it is said to have _____. If it breaks along rough, uneven lines, it has _____.

Mineral	Color	Luster	Streak	Hardness	Other Properties
calcite	colorless	glassy	colorless	3	Crystals often present Smooth surface Double image may appear when looked through May fizz with vinegar
feldspar	usually pink or white	pearly or white	colorless white	6	One side is smooth and glossy Translucent on edges Small lines on surface
galena	gray	metallic	silver-gray to black	2 -1/2	Breaks into cube-shaped pieces Heavy for its size
graphite	black	dull or metallic	black	1-2	Easily leaves a mark on paper Used inside pencils
hematite	red, brown or black	dull or metallic	light to dark red	5 - 6	Contains approximately 70% iron
magnetite	black	dull or metallic	black	6	Contains iron Attracted by a magnet
muscovite mica	pale to almost colorless	pearly or glassy	colorless	2-1/2 - 3	Splits easily into thin, flat sheets Has a smooth texture Translucent to opaque
pyrite	brassy yellow	metallic	greenish black	6 - 6-1/2	Usually forms cube-shaped crystals Brittle, popularly called "fools gold"
quartz	colorless	glassy	colorless	7	Transparent to translucent Often occurs as six-sided (hexagonal) crystals
talc	white	greasy to pearly	gray	1	Feels greasy Ground up to make baby powder

ID the mineral using the table above and your observations below.

- a) Your mineral is yellow, has a shiny, metallic luster and can be scratched by a steel file. It has fracture and a black streak.

- b) Your mineral is black, looks like a shiny piece of metal, is scratched by a steel file, and is attracted by a magnet.

- c) Your mineral is colorless, has a non-metallic luster, can be scratched by a penny, and reacts with acid during the acid test.

- d) Your mineral is white, leaves a gray mark when crushed into powder, can be scratched with your fingernail, and feels greasy. _____
- e) Your mineral cannot be scratched by a steel file, leaves no streak, and is colorless. _____