Minerals are:

- What rocks are made of
- Naturally occurring, inorganic substances
- Have a definite composition that is often written as a chemical formula

Characteristics of Minerals:

a. Inorganic: does not contain both carbon and hydrogen

b. Crystal structure: atoms have a specific arrangement that is used to identify the mineral

c. Solid with a specific composition.

Seven Things Used in the Identification of Minerals:

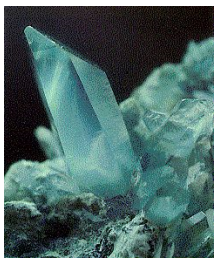
a. Color: what does it look like?

LOTS of minerals have similar colors.

b. Streak: like chalk on a chalkboard.
Use streak plates.
Even when color of the mineral changes,
STREAK COLOR STAYS THE SAME

c. Luster: the shine from a mineral's surface.
Two options:
Metallic: looks like a metal

Non-metallic: not like metal



Seven Things Used in the Identification of Minerals (Continued):

d. Hardness: can it be scratched?
Measured on the Mohs Hardness Scale
Tested against window glass

e. Density: D=M/V
Each mineral has a specific density and a range of densities
"Panning for Gold"



f. Cleavage: breaking along weak spots.
Forming smooth or semi-smooth PARALLEL SIDES



Fracture: breaking unevenly.



Minerals can have both cleavage AND fracture

g. Crystal shape & structure:
Outward shape shows the arrangement of atoms in the mineral

Mohs Hardness Scale: Measured on a scale of 1-10

Softest:
Talc = 1

Hardest:
Diamond = 10

Will not scratch
a plate of glass

Hardness of Glass
=
5.5

Will scratch
a plate of glass