- Luster: non-metallic
- Hardness: 4.5–5.5
- Irregular fracture
- Color: Green
- Streak: Light Green
- Other: Some Botryodial, metallic smell, effervescent, green color from oxidation
Malachite Used as copper ore, and jewelry.
Luster: non-metallic earthy
Hardness: 4.5–5.5
Color: Blue, Black, copper, light blue
Streak: Green
Other: Effervescent
Azurite Used as Copper Ore
Luster: non-metallic waxy
Hardness: 3
Cleavage: 3 @ not 90
Color: White
Streak: White
Other: effervescent, translucent
Calcite
- Luster: non-metallic glassy
- Hardness: 2.5, <4.5
- 1 prismatic cleavage
- Color: Bladed Shape, translucent (depends on thickness)
Kyanite
uses: in production of high temp porcelain, electrical insulator.
- Luster: non-metallic
- Hardness: 5
- Hexagonal prismatic cleavage
- Color: Brown or Tan
- Streak: White
Apatite
Think “Hungry”, used in phosphate fertilizers.
- **Luster:** non-metallic glassy
- **Hardness:** 6
- **Cleavage:** 2 @ not 90, 1 irregular fracture
- **Color:** Rose
- **Streak:** White
- **Other:** exolution llamale
Pink Potassium Feldspar
orthoclase
- Luster: non-metallic wavy
- Hardness: 7
- Irregular Fracture
- Color: Rose Smoky
- Streak: None
- Other: White Streaks.
Rose Quartz and Smoky Quartz.
Luster: non-metallic glassy
Hardness: 7
Irregular Fracture
Color: Purple and amber
Streak: NONE
Other: no streak it scratches the plate, visible crystals, translucent
Citrine Quartz and Amethyst Quartz
Luster: non-metallic waxy
Hardness: 9 (hardest available in class)
Hexagonal crystal
Color: May be black or pink
Streak: none (scratches plate)
Corundum (if gem quality it is a ruby)

Uses: as an abrasive, sometimes manufactured for use in precision engineering.
- Luster: non-metallic dull
- Hardness: 2.5–2.9
- Irregular Fracture
- Color: Yellow
- Streak Yellow
- Other: Smells like rotten eggs
Sulfur

Used in matches, in natural gas for safety, chigger repellant.
- Luster: Metallic
- Hardness: 2.9
- Hackly Fracture
- Color: Copper
- Streak: Copper
- Other: Conducts electricity
Native Copper

Uses: Wires and pennies.
- Luster: non-metallic glassy
- Hardness: 2
- Cleavage: Tabular Crystals
- Color: Brown
- Streak: White
- Other: Translucent
Gypsum Rose

Uses: powdered and used in sheetrock.
- Luster: non-metallic glassy
- Hardness: 3.5–4
- Rhombohedron crystals
- Color: Rose
- Streak: White
- Other: effervescent if powdered or heated.
Dolemite Crystals

Uses: structural and ornamental stone, metallurgy, preparation of magnesium salts
- Luster: Metallic
- Hardness: 2.5–3.5
- Perfect Cube
- Color: Silver
- Streak: Grey
Galena (lead sulfite)

Uses: lead fishing weights
- Luster: non-metallic
- Hardness: 3
- Irregular fracture
- Color: Gold and silver
- Streak: Black
- Other: Slightly Magnetic
Chalcopyrite
Copper Ore
- Luster: non-metallic
- Hardness: 5
- Irregular Fracture
- Color: Burgandy Red
- Streak: Deep Reddish Brown
Massive Hematite
- Luster: non-metallic waxy
- Hardness: 7
- Crystal that grew that way
- Color: Dark Red
- Streak: none
Garnet

January Birthstone
- Luster: Metallic Greasy
- Hardness: 1
- Hexagonal
- Color: Dark Grey
- Streak: Dark Grey
Graphite

Uses: fishing rods, pencil lead, Dry lubricant
- Luster: non-metallic dull
- Hardness: less than 1
- Irregular Fracture
- Color: White
- Streak: White
Kaolinite

Uses: pottery, ceramics, and Hershey’s Kisses
- Luster: non-metalllic glassy
- Hardness: 5.5–6.5
- Clevage: 2 planes NOT @ 90
- Color: Grey and Blue; white and rose
- Other: irridescent (striations)
Plagioclase Feldspar

Light – Albite
Dark – Labradorite
- Luster: non-metallic
- Hardness: 5–6
- Cleavage: 2 @ NOT 90
- Color: Greenish
- Streak: white on grey plate
Pyroxene Augite
- Luster: Metallic
- Hardness: 3
- Irregular Fracture
- Color: Blue, gold, silver, purple
- Streak: Black
Bornite

"Peacock Rock" of the most important industrial copper ores
- Luster: non-metallic waxy
- Hardness: 2.5–3.5
- Perfect prismatic cleavage
- Color: White to Rose–white
- Steak: White
- Other: Heaviest WHITE mineral
Barite

Think “Heavy like a Bear”
Luster: non-metallic dull
Hardness: 3.5–4.5
Irregular Fracture
Color: Tan with dark circles
Streak: Yellow
Other: Earthy Smell
Bauxite

Uses: Aluminum ore (but very little gets extracted),
Think dark circles are like pepperoni in a pizza “box”