

# EPSC 221: GENERAL GEOLOGY

*Lab 1:  
Minerals*

# Minerals—What are they?



# Minerals—Identification

## Diagnostic properties

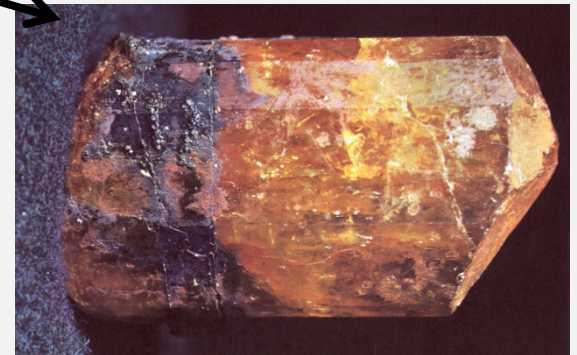
- Lustre
- Colour
- Hardness
- Streak
- Fracture
- Cleavage
- Habit



# LUSTRE

How a mineral reflects light

- Metallic
- Adamantine
- Vitreous
- Resinous
- Pearly
- Earthy

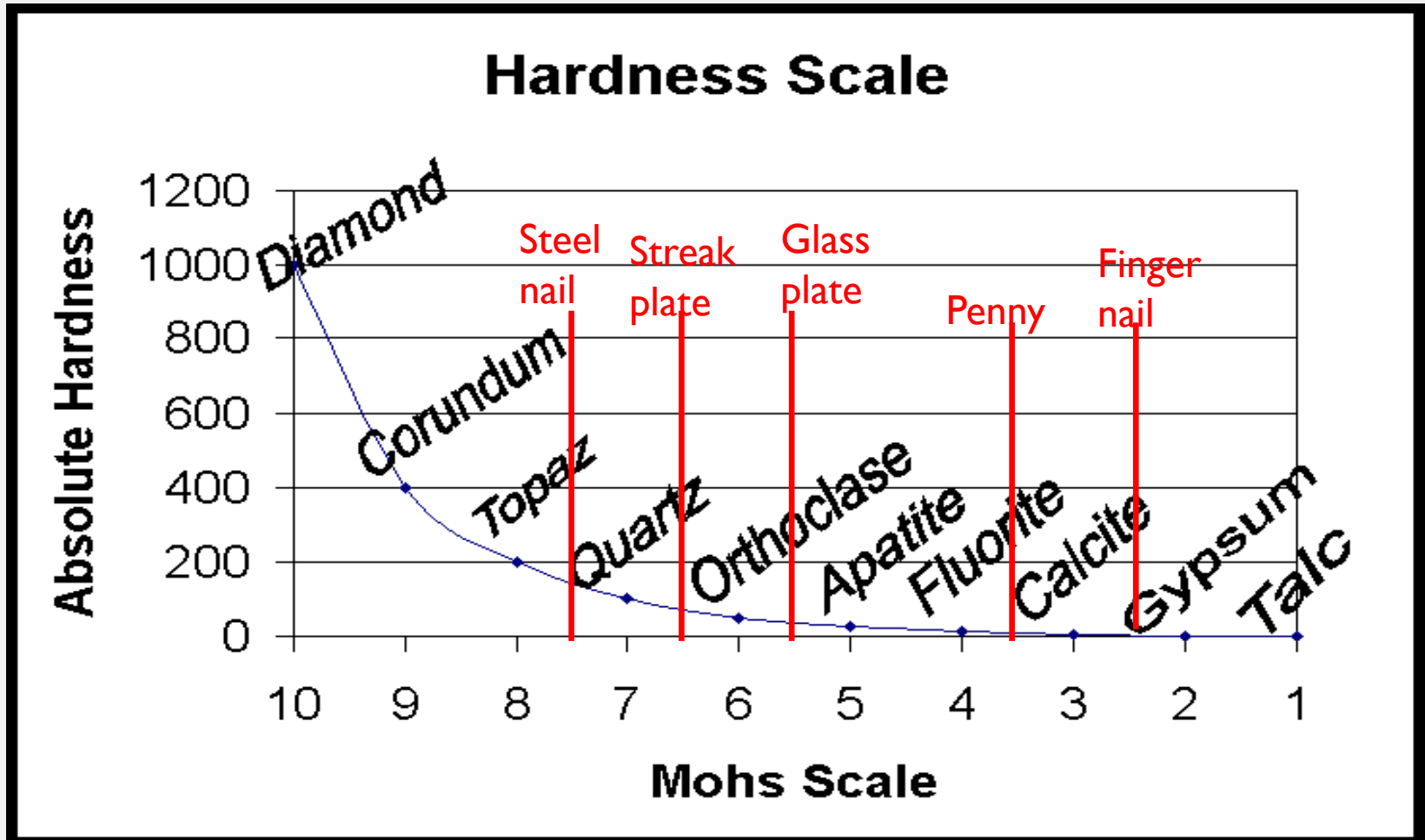


# COLOR



Not always diagnostic!

# HARDNESS



# STREAK

The colour of the mineral powder

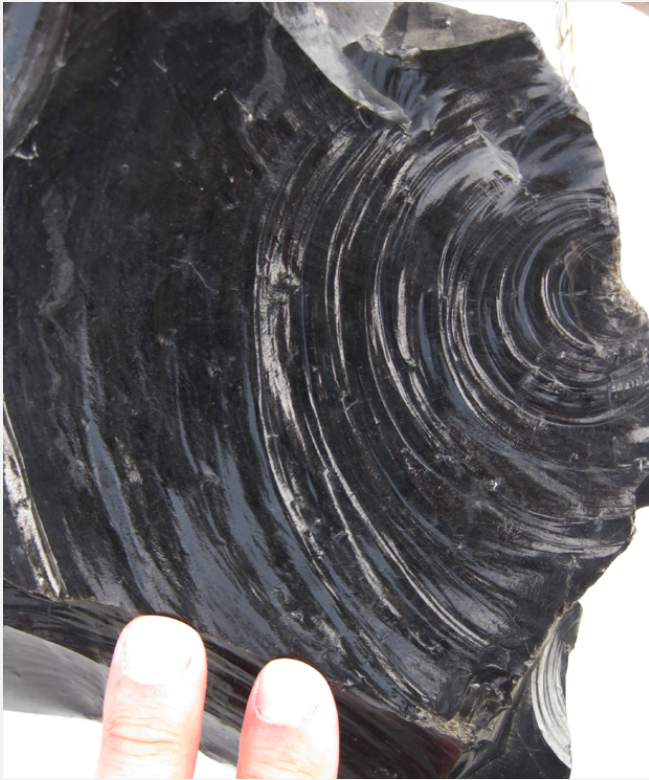
Only works when

- a) streak is not white
- b) mineral is not harder than porcelain

Most useful for metallic minerals



# FRACTURE



Breaks randomly  
(e.g. conchoidal)



Breaks along a certain  
plane(s)



# FRACTURE



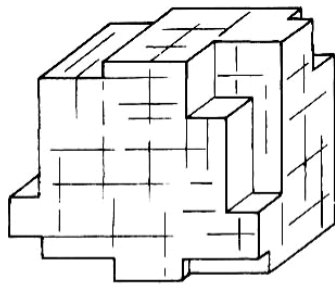
Fibrous



Hackly or Jagged

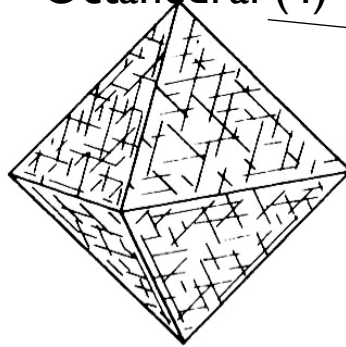
# CLEAVAGE

Cubic (3)



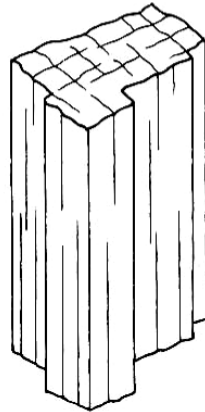
(a)

Octahedral (4)

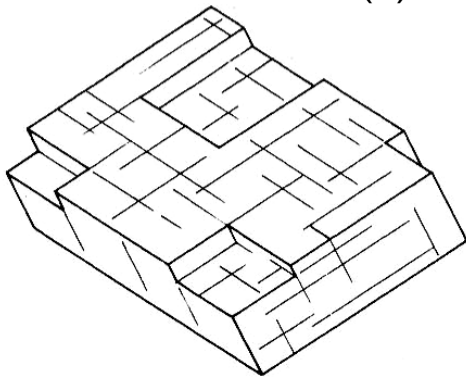


(b)

Prismatic (2)



Rhombohedral (3)



(c)

Basal/perfect (1)



Cleavage in a certain number of “good” directions

# HABIT

How a mineral is shaped

- Columnar
- Tabular
- Bladed
- Acicular
- Granular
- Massive

