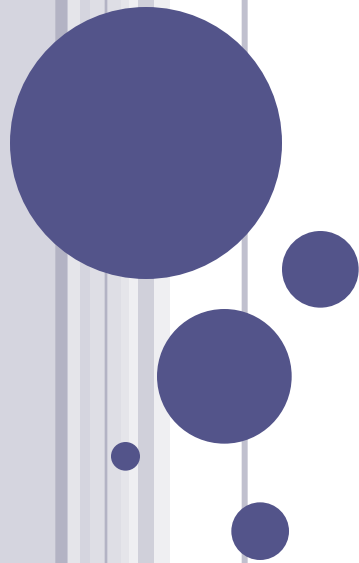


GRADE 7 SCIENCE

UNIT 4: THE EARTH'S CRUST

Rocks and Minerals



MINERAL

- A pure, naturally occurring inorganic solid.
- There are hundreds of different minerals on our planet – many look alike.



PROPERTIES OF MINERALS

○ Color

“ What color is the mineral?

* Alone, color is **NOT** a reliable way to identify a mineral.



Gold has a golden color.
Which mineral is gold?



Gold



Pyrite



○ Lustre

“How shiny is the mineral?”

OR How is the light reflected from the mineral’s surface?”



TERMS DESCRIBING LUSTRE...

Dull: does not reflect light



Chalk



Glassy: Has a surface reflection like a piece of glass



Calcite



Metallic: looks like metal



Silver



- Streak

The powdered form of the mineral.

“What color is left behind when you scratch a porcelain tile?”





Hematite:
comes in
many
colors but
has a
reddish
streak
always



○ Hardness

“How difficult is it to scratch a mineral?”

The harder mineral will scratch the softer one.

***Use Mohs Hardness Scale**



Mohs Scale of Hardness

| Mineral | Scale Number | Common Objects |
|------------|--------------|----------------------------|
| Talc | 1 | |
| Gypsum | 2 | |
| Calcite | 3 | Fingernail Copper Penny |
| Fluorite | 4 | |
| Apatite | 5 | Steel Nail Glass Plate |
| Orthoclase | 6 | |
| Quartz | 7 | Streak Plate |
| Topaz | 8 | |
| Corundum | 9 | |
| Diamond | 10 | |

Refer to page 319 in text.



- Cleavage

The tendency to split along smooth, flat surfaces called **planes**.



○ Fracture

Breaking with rough or jagged edges.



Core Lab
Activity 10-1C
Pages 322(3)

“A Mineralogist’s Mystery”

