

The slide features a solid blue background. On the left and right edges, there are decorative geometric patterns composed of overlapping chevron and arrow shapes in yellow, magenta, and light blue. The main text is centered in the upper half of the slide.

Planet Earth

Topic 1 - Minerals

Minerals

- Rocks are made up of different pure materials, called minerals
- Minerals can be elements or compounds



Moh's Hardness Scale

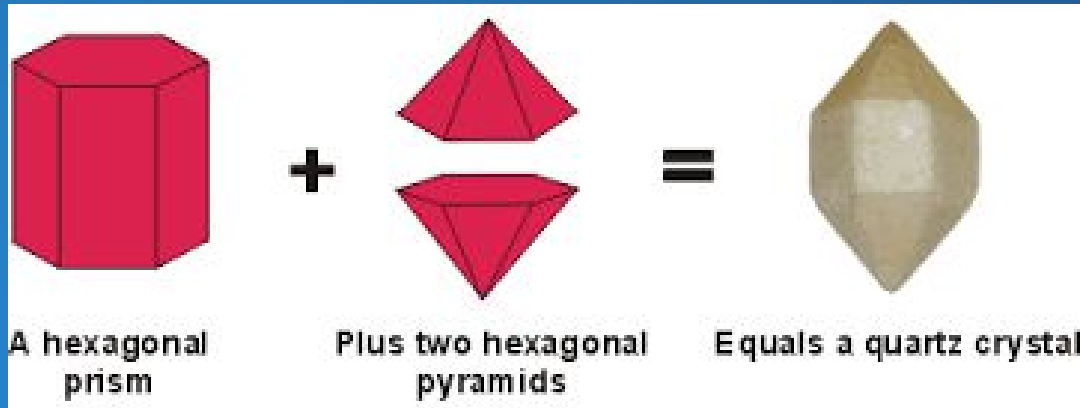
Mineral	Mohs relative Hardness	Scratch Test	Roswal absolute Hardness	Vickers kp/mm^2
Talc	1	scrapeable with fingernail	0.03	2.4
Gypsum	2	scratcheable with fingern.	1.25	36
Calcite	3	scr. with copper coin	4.5	109
Fluorite	4	easily scr. with knife	5	189
Apatite	5	still scr. with knife	6.5	536
Orthoclase	6	scr. with steel file	37	795
Quartz	7	scratches window glass	120	1,120
Topaz	8	scratches quartz	175	1,427
Corundum	9	scratches topaz	1,000	2,060
Diamond	10	scratches corundum	140,000	10,060

Identifying Minerals

- We have to use all the info we can gather to identify minerals
- To identify minerals we use: Crystal structure, lustre, hardness, colour, streak, cleavage and fracture

Crystal

- The shape of the mineral
- 6 major systems of crystal structure - pg 355



Lustre

- How shiny a mineral is
- Judged as dull, metallic or non metallic



Colour

- Often the least important in identifying minerals

Streak

- When rubbing a mineral against a porcelain tile it leaves a coloured streak
- Only works on minerals with a hardness of less than 7



Cleavage and Fracture

- If a mineral breaks into smooth, flat pieces it has cleavage
- If it breaks into rough jagged pieces, it has fracture



Questions

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