

What is a Mineral?

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Properties of Minerals:

- **Solid**
 - Cannot be a liquid or a gas
- **Naturally Occurring**
 - Found in nature, not man-made
- **Inorganic**
 - Is not alive and never was, non-living
- **Formula**
 - Has a chemical formula, most are formed from compounds of two or more elements, some minerals consist of one element ex. Au
- **Crystal Structure**
 - A definite structure in which atoms are arranged

Definition:

A mineral is a naturally formed, inorganic solid that has a definite crystalline structure.

Questions to ask yourself when determining if an item is a mineral or not:

- Is it non-living material?
- Is it a solid?
- Is it formed in nature?
- Does it have a crystalline structure?

The next few slides show an assortment of items.

With your partner, categorize the items as either:

Minerals
or
Non-Minerals



Wood



Gold



Fossil



Topaz



Bones



Granite



Quartz



Pearls



Talc



Icebergs



Diamond



Coal

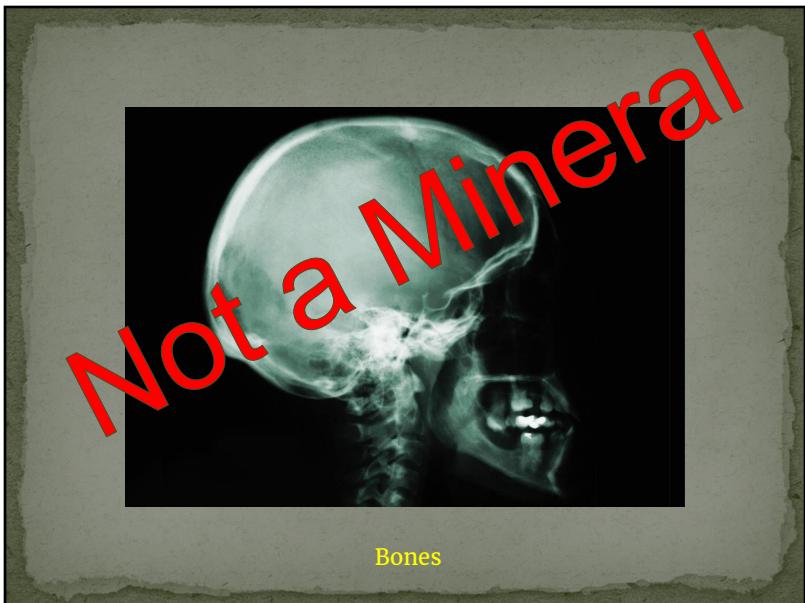


Rock Salt

And the answers are...



Wood





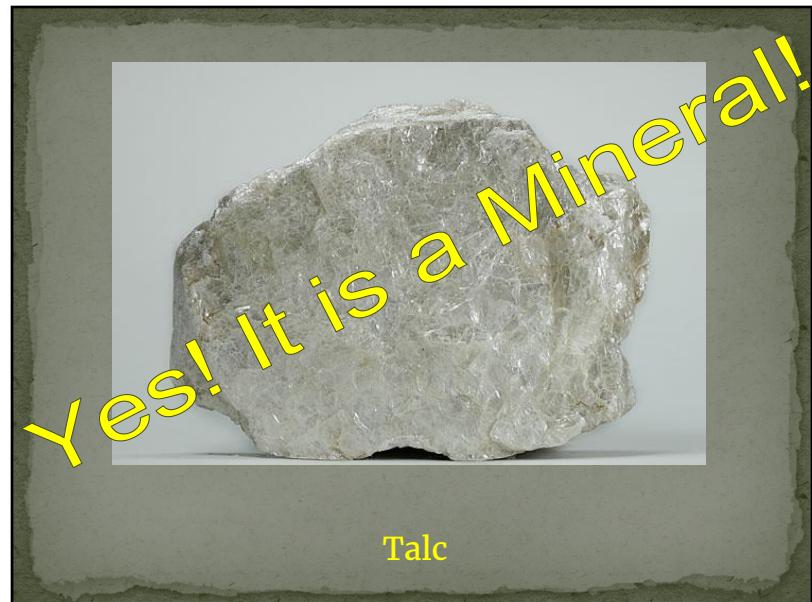
Granite



Quartz



Pearls



Talc



Yes! It is a Mineral!

Icebergs



Yes! It is a Mineral!

Diamond



Not a Mineral

Coal



Not a Mineral

Rock Salt

And the answers are...

- Minerals
- Non-Minerals

| | |
|-------------|---------------------------------|
| a) Gold | a) Wood – once living |
| b) Topaz | b) Fossils – once living |
| c) Quartz | c) Bone – living material |
| d) Talc | d) Granite – intrusive igneous |
| e) Iceberg* | rock |
| f) Diamonds | e) Pearls – made by oysters |
| | f) Coal – Sedimentary rock |
| | g) Rock Salt – Sedimentary rock |

According to [IMA](#) – ice is listed as a mineral