

Mineral Uses and Formation

Mineral Formation

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SUMMARY

Minerals are found throughout earth's crust. They must be mined before they can be refined and used in our everyday materials.

- Minerals can be found near Earth's surface while others are deep underground.
- Most minerals are combined with other minerals in rocks. These are called ores.
- There are two types of mines built to remove minerals and ores from earth: surface mining and deep mining. The name clearly implies the location of the mine.

Surface Mining

- Used for minerals at or near earth's surface.
- Some dense minerals, such as gold, build up in riverbeds. One mining method, panning, is used to find the gold. Because gold is dense, it sinks to the bottom of the pan allowing the less dense materials to be washed away.
- A second method of surface mining is called strip mining. Miners strip away plants, soil, and unwanted rocks from earth's surface.
- A third method of surface mining is called open-pit. It is like strip mining because the surface of soil is removed. However, explosives are then used to break up the underlying rock. These mines look like large spirals in the ground.

Deep Mining

- Deep mining is used for minerals and ores found far below earth's surface.
- A method of deep mining is called a shaft mine. A long shaft extends deep into the earth's crust. From there, a network of tunnels can be made to find the ores and minerals.
- A second form of deep mining is horizontal mining. This is done near mountains. Miners will dig into a hill or mountain from its side to access the minerals and ores.