

Introduction to Minerals

Chapter 1

Down through history people have used minerals in a variety of ways. Flint, a type of quartz, was used to make arrowheads and spearheads. Gold makes beautiful rings, bracelets and necklaces. Crown jewels of kings and queens contain emeralds, diamonds and rubies because of their durability, beauty and rarity.



Chalcocopyrite



Hornblende



Gypsum

Past history named for metals

Historians even name periods in our history by the metals used. During the Copper Age people learned how to mine copper and use it to make utensils, weapons, and tools. The Bronze Age was the next great period named for a metal. People learned how to produce bronze by combining tin and copper. Bronze was much stronger and more versatile than pure copper.

Many people say we are living in the silicon age. The silicon chip invented in the early 1980's has revolutionized the way we communicate. Everyday new uses for the chip are being invented.

Pyrite Sun

The pyrite sun above was collected by coal miners in Randolph County, Illinois. The miners carry the pyrite suns out of the mines in their lunch pails. They formed in the seams between black shale and coal. They appear to be an

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aggregate of tiny pyrite crystals instead of fossilized plants or animals.



Pyrite sun



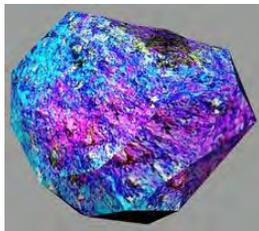
Garnet rocks and crystals

Garnets

The garnets were mined from ledges near the mouth of the Stikine River. Garnets from the ledges have been mined in the area since the 1860s. They are found in a metamorphic layer of rock in the Coast Mountains. Today the ledges are owned by the children of Wrangell, Alaska. The ledges were deeded to the children in 1962. They collect the garnets in the spring each year and sell them to visiting tourists arriving by ferry in the summer months.



Feldspar



Bornite



Malachite

Getting to Know Minerals

Activity 1

Introduction

In this activity, you are going to look at samples of minerals that are commonly found on our planet. You will be learning about the special properties that make each one of these minerals unique.



Chalcopyrite

Materials

- Twelve minerals in the kit or your own specimens
- Hand lens or small microscope
- Pencil or pen

Directions

1. First, read the information about the twelve minerals in your set on the next three pages.
2. After reading about the minerals hold each one in your hand and examine it carefully without a hand lens.
3. Then, carefully look at the rocks with a small hand lens or microscope.

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