

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.



Chalcopyrite



Black hornblende crystals



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



Garnet rocks and crystals

Looking for Luster

Activity 4

Introduction

Vitreous luster is the most common luster you will find. It looks similar to light reflecting off a piece of broken glass. The minerals in your kit have both metallic and nonmetallic lusters. Vitreous, greasy, pearly, adamantine, dull and resinous are the lusters you need to look for as you study your rocks.

Materials

- ◆ Minerals in your kit
- ◆ Hand lens or small microscope



Apatite

Directions

1. Take out your mineral samples and study each one separately.
2. Look at them with your hand lens or small microscope.
3. Separate your minerals into two groups.
 - a. Place your minerals with a metallic luster in one group.
 - b. Place your minerals with a nonmetallic luster in a second group.
4. List all the minerals that have a metallic luster in one column and the nonmetallic luster minerals in a second column on the Notes on the Chapter page.
5. Next take your minerals with a nonmetallic luster out and separate them into groups.
 - a. Place minerals with a vitreous (glassy) luster in one group.
 - b. Place minerals that have a greasy luster in another.
 - c. Continue sorting the minerals with nonmetallic lusters until you have them all placed in a group.
6. Create a chart Looking for Luster or use the one in your book. Fill out the information as you check each mineral.

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