

Chapter 4

ENRICHMENT

● Uses of Minerals

Gold!

Use information from the paragraphs below and from library references to answer Questions 1–4.

Gold was among the earliest metals discovered. It occurs in octahedral crystals, but is also found as flakes, thin wires, and plates. From the beginning, it was prized for its beauty and its rarity and came to be a sign of wealth. It was used to make coins and bars which, like money today, could be used to buy things.

The ancient Egyptians were among the earliest peoples to develop goldsmithing as an art, making jewelry and other beautiful objects from the metal. They used solid gold, beating and pounding it to the shape they wanted. Gold is easily worked, since it has a hardness of only 2.5.

Early in America, gold was mined for decorative uses. The Inca writer Garcilaso de la Vega, writing in the early 17th century, described the Temple of the Sun at Cusco: "The four walls were hung with plaques of gold, from top to bottom, and a likeness of the Sun topped the high altar. This likeness was made of a gold plaque twice as thick as those that paneled the walls . . . the whole thing was so immense that it occupied the entire back of the temple. . . ."

Gold can be found in most parts of the world, but it is often difficult to separate it from the

other minerals, usually quartz, where it is found. Frequently a ton or more of rock will yield only a few dollars' worth of pure gold. When gold is found on the surface of the ground, it is usually in slow-flowing parts of rivers, dropped because of its weight after being uncovered by erosion and washed downhill by rapidly moving water. These are called placer deposits. It was this visible gold that began the famous gold rushes in the western United States and in Australia. When gold is found in quartz veins, it is separated by crushing ore and obtaining a concentrate to be smelted (heated and melted).

Gold is still used for jewelry and other art objects. Today, however, other metals, such as copper or silver, are usually added to gold to make it harder and more durable. More recent markets for gold include dentistry and electronics. Strangely, most of the gold that is dug out of the rocks with such hard work ends up underground again—in bank vaults where it is stored by governments and investors!

1. How have its hardness and luster made gold an important metal? _____

2. Explain how the weight of gold affected the history of some western states. _____

3. Why is gold expensive? _____
4. The Spanish came to America from Europe in the 16th century. Use a history of Mexico or Peru to find how the presence of gold affected the lives of the Native Americans who lived in those places during the 16th and 17th centuries. _____

