• 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 veins. 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 often is 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. Some gold on Earth's surface is found in the slow-flowing parts of rivers. Uncovered by erosion, gold is washed downhill by rapidly moving water and runs into rivers. The gold drops out of the river water because of its heavy weight. This forms piles of gold 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 (melted and separated).

Gold is still used for jewelry and other art objects. Today, however, other metals, such as copper or silver, usually are 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 rocks ends up underground again—in bank vaults where it is stored by governments and investors!

1. How have the hardness and luster of gold made it an important metal? _____

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

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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 out how the presence of gold affected the lives of Native Americans in Mexico or Peru during the 16th and 17th centuries. _____

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