

ALL THAT GLITTERS



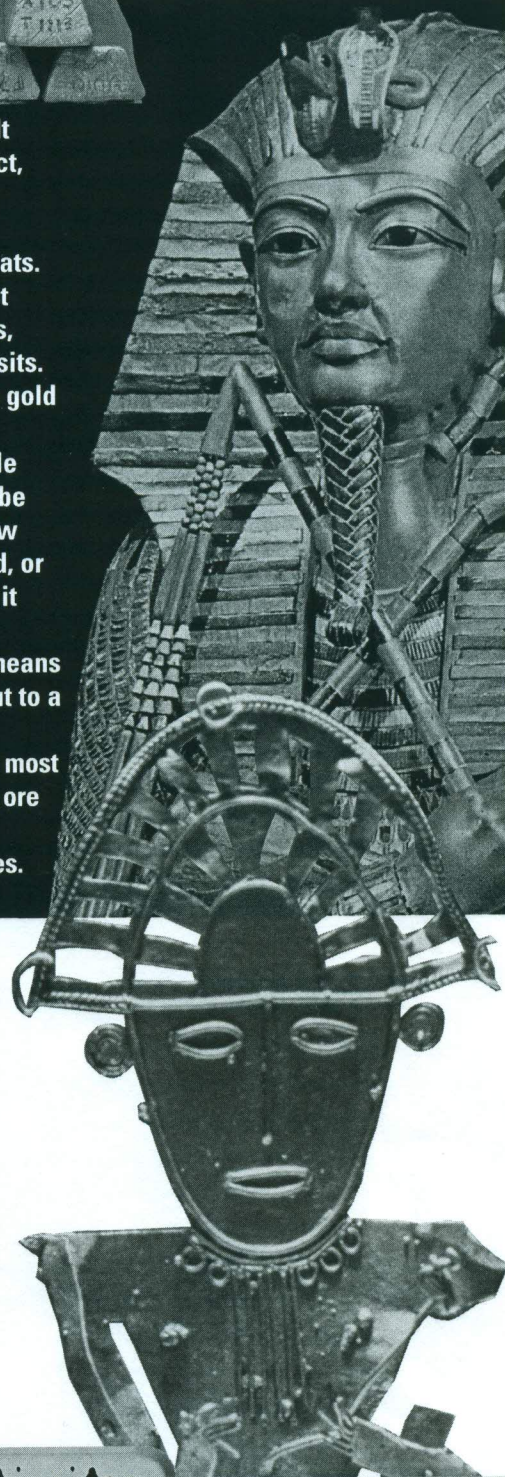
Gold has been prized and used by humans since prehistoric times. It may be the very first metal people ever used. Gold is a soft metal; in fact, it's typically hardened by other metals to make it useable. It also often occurs in nature as an alloy—a mixture of metals.

The gold content of an alloy is stated in carats. Solid gold is 24 carats. Eighteen-carat "gold" is actually only three-quarters gold, with the rest made of some other metal. Gold can be found in the form of dust, grains, flakes, or nuggets, and occurs in quartz veins or lodes, usually in deposits. The majority of the world's supply comes from South Africa; but there's gold in the U.S., too, in South Dakota and Nevada.

How much gold is there in the world? Not a lot. In fact, some people say that all the gold refined since we started keeping track of it could be placed in a single cube 60 feet (18 m) on a side. Picture a blocky, yellow six-story apartment building. Or picture smaller structures of black, red, or purple, because as a mass, gold is yellow; divided into smaller pieces it can be any of those colors.

One of gold's most fascinating properties is its malleability. That means it can be beaten thin—so thin that a single ounce could be pounded out to a sheet big enough to carpet a room or two of your house.

At one time gold could be extracted by panning it from a stream, but most of these sources are practically used up. Today we get gold by crushing ore to a powder to expose the small gold particles, then using a chemical process. But gold still has the same powerful appeal it's had for centuries.



Northern South America, Around 1530

A fabulous country full of gold is rumored to exist somewhere in South America. The country is called El Dorado, which means "gilded one," after its king. This ruler is supposedly so rich that he powders his body with gold dust each day and washes it off in a lake at night, while his subjects throw offerings of jewels and more gold into the water. Today we think the legend probably started with the Chibcha Indians, who lived around present-day Bogota, Colombia, and were said to practice a similar ritual.

Eager to find this treasure trove, Spanish conquistadores and European explorers launch expeditions through much of northern South America. Native peoples are enslaved or killed in the process. The last exploration, led by Sir Walter Raleigh, takes place in 1617. When he fails to bring back gold, Raleigh is executed. El Dorado is never found, but the search results in the exploration of Venezuela, Colombia, Chile, and Ecuador—as well as the loss of many lives through starvation, disease, and other hardships.

Activity

OF CURSE NOT Stories and legends are one thing; facts and proof are another. How would you go about proving or disproving that there is a curse on the Hope Diamond? Design an investigation into the matter, raising questions and gathering as many facts as you can.

DISCOVERY EDUCATION SCIENCE CONNECTION