



# You Precious Things

**Gold. Diamonds.** Glittering, gleaming, highly prized, highly priced. Two of the most precious substances on Earth. And here's something else the two have in common: they're both elements.

You're probably not surprised that gold is an element—after all, it is a metal—but diamonds? You won't find them on the periodic table. But a diamond is an element all the same. It's what happens when you take a lump of the element carbon and bury it for millions of years under tons of pressure.



## Dazzling—but Dangerous?

Carbon exists in more than one form. Graphite is a soft, black form. A diamond is a hard, colorless form. In fact, a diamond is the hardest substance found in nature, taking its strength from the very tight arrangement between carbon atoms. Diamonds can cut glass, which is why the lowest quality stones are used as cutting tools. Gem diamonds, the kind in beautiful jewelry, were first found in streambeds in India and Borneo. Many now come from South Africa and can also be found in Australia, Russia, and Angola.

Two of the most famous diamonds are the Koh-I-Noor, now among the English crown jewels, and the Cullinan, from which 105 individual stones were cut. But the most famous is the Hope Diamond. Or, some might say, infamous. Read on and decide for yourself.

### Paris, France, 1668



French merchant named Jean Baptiste Tavernier brings a 112-carat (22,400 mg) blue diamond from India to France. Legend has it that the gem is cursed because a thief stole it long ago from the eye of a statue of the Hindu goddess Sita. Tavernier sells the diamond to King Louis XIV, who has it cut into a 67-carat heart-shaped stone and names it the Blue Diamond of the Crown. On his next trip to India, the story goes, Tavernier is killed by wild dogs.

King Louis XVI and Queen Marie Antoinette inherit the “French Blue.” In 1792, at the height of the French Revolution, it is stolen along with all the other French crown jewels. The king and queen lose their heads at the guillotine, and the diamond supposedly makes its way to Wilhelm Fals, a Dutch diamond cutter. Fals recuts it—and his son steals it from him. The father dies of grief over the theft. The son commits suicide.

In 1830, Henry Hope buys a 44.5-carat deep blue oval-cut diamond gem experts agree is the French Blue. It becomes known as the Hope Diamond; over the next 80 years, at least three owners meet with tragedy. In 1911, a wealthy and eccentric American socialite named Evalyn Walsh McLean purchases it. Later her son is killed in a car crash; her husband dies in a mental hospital; and her daughter dies of an overdose of sleeping pills.

Mrs. McLean dies (of natural causes), and New York jeweler Harry Winston purchases all her jewels in 1947. Eleven years later, he gives the stone to the Smithsonian Institute in Washington, D.C., where it is on permanent display. He may have been glad to get rid of it.

# ALL THAT GLITTERS



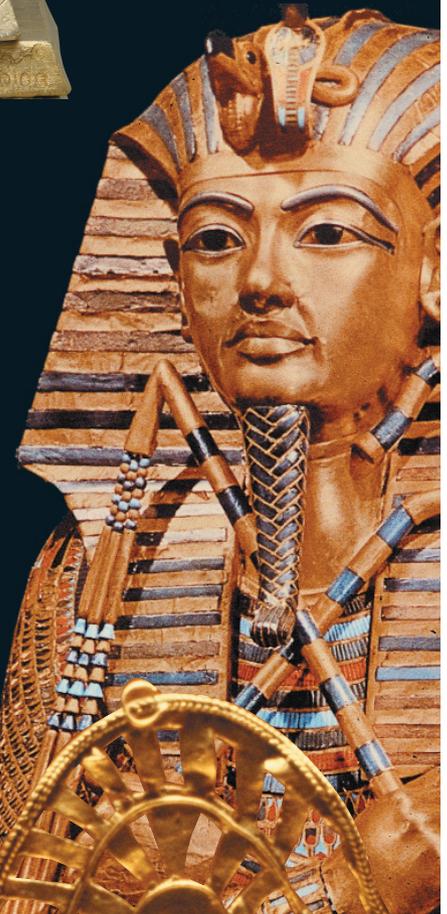
Gold has been prized and used by humans since prehistoric times. It may be the very first metal people ever used. Gold is a soft metal; in fact, it's typically hardened by other metals to make it useable. It also often occurs in nature as an alloy—a mixture of metals.

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.