

## Discovery of gold in South Africa

Gold was discovered on a Transvaal farm, Langlaagte, on the Witwatersrand in 1886 by two prospectors. This discovery caused a turning point in South African history. Far more than diamonds, it changed South Africa from an agricultural society to become the largest gold producer in the world. The gold discovered ran for miles and miles underground, 'an endless treasure of gold'.

As news of the gold find spread throughout Southern Africa, various mining towns developed along the curve of the underground gold reef. This curve got named the Witwatersrand, attracting hundreds and hundreds of people seeking their fortune.

More and more factory-made goods were being shipped from England to meet the demands of the mines and the communities that were developing around them. Goods had to be transported and railways had to be built, resulting in new towns being built around the stations, starting from the East Rand in Heidelberg, extending westwards across to Krugersdorp and Randfontein areas. Later more gold mines were discovered further south and east of the Witwatersrand.

Before long it became necessary to dig a lot deeper to reach the gold, even as much as a kilometre beneath the ground. This became known as deep-level mining.

The amount of money needed to develop a mine was very expensive. Most mines were initially owned by investors who invested money from other countries, hoping to profit from the new South African gold mining industry.

As a result of this 'endless treasure of gold', gold mining quickly became the biggest and most significant part of the economy and it continues to be a major contributor to the South African economy.

## Physical attributes

There are many physical aspects of the yellow metal which are truly amazing.

Gold is a chemical element in the periodic table that has the symbol Au and atomic number 79. Gold is a soft, shiny, yellow, dense, malleable, ductile (trivalent and univalent) transition metal, gold does not react with most chemicals but is attacked by chlorine, fluorine and aqua regia. The metal occurs as nuggets of gold, or grains of gold in rocks and in alluvial deposits and is one of the coinage metals.

Gold is the most malleable (able to be hammered into very thin sheets) and ductile (able to be drawn into a fine wire) of all metals.

It is so malleable that a goldsmith can hammer one ounce of gold into a thin translucent wafer covering more than 100 square feet only five millionths of an inch thick. It would be so thin that 1,000 sheets would be needed to make up the thickness of one newspaper page. Its ductility is equally amazing. One ounce of gold can be drawn into a wire 50 miles long! Furthermore, ONLY one ounce of this marvelous metal is required to plate a thread of copper 1,000 miles long.

Gold is also one of the heaviest metals known. It has a specific gravity of 19.3, which means it weighs 19.3 times as much as an equal volume of water.

Gold is a good conductor of heat and electricity, and is not affected by air and most reagents. Heat, moisture, oxygen, and most corrosive agents have very little chemical effect on gold, making it well-suited for use in coins and jewellery; conversely, halogens will chemically alter gold, and aqua regia dissolves gold.



## The story of gold

The story of gold is as rich and complex as the metal itself. Wars have been fought for it; love has been declared with it. Ancient Egyptian hieroglyphs portray gold as the brilliance of the sun; modern astronomers use mirrors coated with gold to capture images of the heavens.

### *And so the story begins...*

- **c. 3600 BC** First smelting of gold
- **2600 BC** Early gold jewellery
- **1223 BC** Creation of Tutankhamun's mask
- **600 BC** First gold dentistry practiced
- **564 BC** First international gold currency created
- **1370** The Great Bullion Famine begins
- **1717** UK gold standard commences
- **1803** First gold electroplating practiced
- **1849** California Gold Rush begins
- **1885** South African Gold Rush begins
- **1870-1900** Adoption of gold standard
- **1933** President Roosevelt suspends gold
- **1939** World War II closes gold market
- **1961** First gold in space
- **1967** First South African Krugerrand
- **1985** First gold-based arthritis treatment
- **1999** First Central Bank Gold Agreement
- **2001** First gold used in heart surgery
- **2003** K-gold launched in China
- **2009** Central banks return to buying
- **2010** Gold price sustains record highs
- **2011** Gold in catalytic converters

and continues...

**Liquid gold -  
there's nothing quite like  
the magnificent glow  
that emanates from the  
molten liquid. This is an  
experience that combines  
the heart, soul and  
mind and becomes an  
experience for many that  
they will never forget.**

Gold is the oldest precious metal known to man. "Gold is where you find it," so the saying goes, and was first discovered in its natural state, in streams all over the world as shining, yellow nuggets.

Gold became a part of every human culture. Its brilliance, natural beauty, and luster, and its great malleability and resistance to tarnish made it enjoyable to work and play with. The 'value' of gold was accepted all over the world. Today, as in ancient times, the intrinsic appeal of gold itself has an universal appeal to humans. But how did gold come to be a commodity, a measurable unit of value?

Gold, measured out, became money. Gold's beauty, scarcity, unique density (no other metal outside the platinum group is as heavy), and the ease at which it could be melted, formed, and measured made it a natural trading medium.

Gold gave rise to the concept of money itself: portable, private, and permanent. Gold and silver in standardised coins came to replace barter arrangements and made trade much easier. Gold increased trade between South Africa and the rest of the world. For the main trading nations, i.e. Europe and the United States, gold was of value because their currencies were backed by gold. This was known as the gold standard. Under the gold standard, these countries had to keep gold in a bank vault to the value of the currency they issued. For example, if the government of a country wanted to print more money, it had to buy gold to back that money. If that country did not produce gold itself, it had to import gold from another country.

The symbolic value of gold varies wildly around the world, even within geographic regions and cultures. It will however remain one of the most soughtafter metals in the world ...precious, pure and priceless.