



# Gold – The most precious metal?

## General Information

Gold (Au) comes from the Latin *aurum* or 'shining dawn', is found globally and has been a highly sought-after precious metal for currency, jewellery, icons and religious artefacts, etc. It has many modern industrial uses including dentistry (crowns) & electronics (conductors).

## How is it formed?

Gold usually forms when hot water gets forced through rocks at high pressures. The gold deposits can either be mined directly, or are eroded over time and dense gold-rich particles sink to the bottom of sediments.

## How rare is it?

Not that rare (or indeed precious), compared to rare earth elements such as platinum for example, but it has always been sought after.

## What is its uses?

As well as currency and jewellery, in Medieval times it was added to food for its supposed medicinal properties; nowadays it is injected to reduce effects of arthritis and tuberculosis. Dentistry use it for crowns and bridges as it is more easily shaped than metal or porcelain. It is also used to coat specimens for a scanning electron microscope. Gold is even used in paint, de-icing, photography and thread!

## How is it manufactured?

In Medieval times large amounts of water were released from tanks to wash away soil to reveal rocks with gold-bearing veins, known as 'hushing'. This is still used today and called 'hydraulic mining'. Another method is 'placer mining', where river/coastal sediments are filtered and the dense gold particles sink to the bottom and are captured.

## How would the Anglo-Saxons have manufactured jewellery?

After the discovered gold was found, it would be heated, refined and the resulting pure gold would be poured into ready-made moulds and cooled. Goldsmiths would then painstakingly add the intricate detail seen on Staffordshire Hoard artefacts.

## Interesting Facts

Nitric acid has long been used to confirm the presence of gold – the origin of the term 'acid test', referring to a *gold standard* test for genuine value. Gold is very dense, almost twice as dense as lead!

## Earth Metals



Gold in rock



Gold bars



Gold mine



Gold 'panning'

## Staffordshire Hoard Gold Jewellery



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## Modern Jewellery

