

Gold is a dense, soft, shiny, malleable and ductile metal. It is a chemical element with the symbol Au and atomic number 79.

Gold has a bright yellow color and luster traditionally considered attractive, which it maintains without oxidizing in air or water. Chemically, gold is a transition metal and a group 11 element. It is one of the least reactive chemical elements solid under standard conditions. The metal therefore occurs often in free elemental (native) form, as nuggets or grains in rocks, in veins and in alluvial deposits. Less commonly, it occurs in minerals as gold compounds, usually with tellurium.

Gold resists attacks by individual acids, but it can be dissolved by the aqua regia (nitro-hydrochloric acid), so named because it dissolves gold. Gold also dissolves in alkaline solutions of cyanide, which have been used in mining. Gold dissolves in mercury, forming amalgam alloys. Gold is insoluble in nitric acid, which dissolves silver and base metals, a property that has long been used to confirm the presence of gold in items, giving rise to the term *the acid test*.

Gold has been a valuable and highly sought-after precious metal for coinage, jewelry, and other arts since long before the beginning of recorded history. Gold standards have been the most common basis for monetary policies throughout human history^[citation needed], being widely supplanted by fiat currency starting in the 1930s. The last gold certificate and gold coin currencies were issued in the U.S. in 1932. In Europe, most countries left the gold standard with the start of World War I in 1914 and, with huge war debts, failed to return to gold as a medium of exchange.

A total of 165,000 tonnes of gold have been mined in human history, as of 2009.^[2] This is roughly equivalent to 5.3 billion troy ounces or, in terms of volume, about 8500 m³, or a cube 20.4 m on a side. The world consumption of new gold produced is about 50% in jewelry, 40% in investments, and 10% in industry.^[3]

Besides its widespread monetary and symbolic functions, gold has many practical uses in dentistry, electronics, and other fields. Its high malleability, ductility, resistance to corrosion and most other chemical reactions, and conductivity of electricity led to many uses of gold, including electric wiring, colored-glass production and even gold leaf eating.

It has been claimed that most of the Earth's gold lies at its core, the metal's high density having made it sink there in the planet's youth. Virtually all of the gold that mankind has discovered is considered to have been deposited later by meteorites which contained the element.[†]