


THE Elements

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| 1 H Hydrogen 1.008 | | | | | | | | | | | | | | | | | 2 He Helium 4.003 | | | | | | |
| 3 Li Lithium 6.941 | 4 Be Beryllium 9.012 | 5 B Boron 10.81 | 6 C Carbon 12.01 | 7 N Nitrogen 14.01 | 8 O Oxygen 16.00 | 9 F Fluorine 19.00 | 10 Ne Neon 20.18 | | | | | | | | | | | | | | | | |
| 11 Na Sodium 22.99 | 12 Mg Magnesium 24.31 | <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Atomic Number</p> <p>Chemical Symbol</p> <p>Chemical Name</p> </div> <div style="width: 70%; text-align: center;"> <div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;"> <p>1 1.008</p> <p>H</p> <p>Hydrogen</p> </div> </div> <div style="width: 15%;"> <p>Atomic Weight</p> </div> </div> | | | | | | | | | | | | | | | | 13 Al Aluminum 26.98 | 14 Si Silicon 28.09 | 15 P Phosphorus 30.97 | 16 S Sulfur 32.07 | 17 Cl Chlorine 35.45 | 18 Ar Argon 39.95 |
| 19 K Potassium 39.10 | 20 Ca Calcium 40.08 | 21 Sc Scandium 44.96 | 22 Ti Titanium 47.87 | 23 V Vanadium 50.94 | 24 Cr Chromium 52.00 | 25 Mn Manganese 54.94 | 26 Fe Iron 55.85 | 27 Co Cobalt 58.93 | 28 Ni Nickel 58.69 | 29 Cu Copper 63.55 | 30 Zn Zinc 65.38 | 31 Ga Gallium 69.72 | 32 Ge Germanium 72.64 | 33 As Arsenic 74.92 | 34 Se Selenium 78.96 | 35 Br Bromine 79.90 | 36 Kr Krypton 83.80 | | | | | | |
| 37 Rb Rubidium 85.47 | 38 Sr Strontium 87.62 | 39 Y Yttrium 88.91 | 40 Zr Zirconium 91.22 | 41 Nb Niobium 92.91 | 42 Mo Molybdenum 95.96 | 43 Tc Technetium (98) | 44 Ru Ruthenium 101.1 | 45 Rh Rhodium 102.9 | 46 Pd Palladium 106.4 | 47 Ag Silver 107.9 | 48 Cd Cadmium 112.4 | 49 In Indium 114.8 | 50 Sn Tin 118.7 | 51 Sb Antimony 121.8 | 52 Te Tellurium 127.6 | 53 I Iodine 126.9 | 54 Xe Xenon 131.3 | | | | | | |
| 55 Cs Cesium 132.9 | 56 Ba Barium 137.3 | 57-71 * | 72 Hf Hafnium 178.5 | 73 Ta Tantalum 180.9 | 74 W Tungsten 183.8 | 75 Re Rhenium 186.2 | 76 Os Osmium 190.2 | 77 Ir Iridium 192.2 | 78 Pt Platinum 195.1 | 79 Au Gold 197.0 | 80 Hg Mercury 200.6 | 81 Tl Thallium 204.4 | 82 Pb Lead 207.2 | 83 Bi Bismuth 209.0 | 84 Po Polonium (209) | 85 At Astatine (210) | 86 Rn Radon (222) | | | | | | |
| 87 Fr Francium (223) | 88 Ra Radium (226) | 89-103 ** | 104 Rf Rutherfordium (261) | 105 Db Dubnium (268) | 106 Sg Seaborgium (271) | 107 Bh Bohrium (272) | 108 Hs Hassium (277) | 109 Mt Meitnerium (276) | 110 Ds Darmstadtium (281) | 111 Rg Roentgenium (280) | 112 Cn Copernicium (285) | 113 Uut Ununtrium (284) | 114 Fl Flerovium (289) | 115 Uup Ununpentium (288) | 116 Lv Livermorium (293) | 117 Uus Ununseptium (294) | 118 Uuo Ununoctium (294) | | | | | | |
| | | 57-71 * | 57 La Lanthanum 138.9 | 58 Ce Cerium 140.1 | 59 Pr Praseodymium 140.9 | 60 Nd Neodymium 144.2 | 61 Pm Promethium (145) | 62 Sm Samarium 150.4 | 63 Eu Europium 152.0 | 64 Gd Gadolinium 157.3 | 65 Tb Terbium 158.9 | 66 Dy Dysprosium 162.5 | 67 Ho Holmium 164.9 | 68 Er Erbium 167.3 | 69 Tm Thulium 168.9 | 70 Yb Ytterbium 173.1 | 71 Lu Lutetium 175.0 | | | | | | |
| | | 89-103 ** | 89 Ac Actinium (227) | 90 Th Thorium 232.0 | 91 Pa Protactinium 231.0 | 92 U Uranium 238.0 | 93 Np Neptunium (237) | 94 Pu Plutonium (244) | 95 Am Americium (243) | 96 Cm Curium (247) | 97 Bk Berkelium (247) | 98 Cf Californium (251) | 99 Es Einsteinium (252) | 100 Fm Fermium (257) | 101 Md Mendelevium (258) | 102 No Nobelium (259) | 103 Lr Lawrencium (262) | | | | | | |

- Alkali Metals
- Other Metals
- Alkaline Earth Metals
- Metalloids
- Transition Metals
- Other Nonmetals
- Lanthanides
- Halogens
- Actinides
- Noble Gases



Copper 29
Copper is one of the most important metals on the periodic table. Because it is an excellent conductor of electricity, copper is used in wires and electric motors. It is also resistant to corrosion and is widely used as a roofing material.



Carbon 6
Carbon is the fourth most abundant element in the universe and arguably the most important element on the periodic table. It is the only element capable of forming the complex molecular structures on which all life forms are based.



Gold 79
Gold is an excellent conductor of electricity, rarely tarnishes, and is the most malleable element on the periodic table. Today, the U.S. government holds nearly 9,000 tons of gold in reserve depositories around the country.




Antimony 51
Antimony is a soft, toxic semi-metal with a rich history dating back to ancient Egypt. Today, chemical engineers incorporate nontoxic antimony compounds into a wide variety of products, including batteries, bullets, glass, and paints.



Manganese 25
Manganese is a biologically important metal for both plants and animals. The human body contains 10 to 20 milligrams of manganese, which is embedded in enzymes and used to catalyze a variety of biological processes.




Bismuth 83
Bismuth is the most stable radioactive element on the periodic table. For example, if you were to monitor a cluster of bismuth atoms for 1.9 billion-billion years, you would find that, on average, only 50% would have undergone radioactive decay.




Mercury 80
Pure mercury is highly toxic and almost always found as a metallic liquid. Today, mercury is used in thermometers, barometers, electric switches, and compact fluorescent light bulbs.



Sodium 11
A highly reactive metal, sodium exists in nature only in combination with other elements and not in its elemental form. Sodium compounds and ions are critical to many physiologic functions in all animals and some plants.



Iron 26
Iron bonds readily with oxygen and pure iron quickly forms iron oxides, or rust, in damp environments. Iron's affinity for oxygen also allows the iron-rich hemoglobin in our blood cells to bond to and transport oxygen throughout our bodies.



Sulfur 16
Sulfur is a naturally occurring element often found around volcanic vents and other fissures in Earth's surface. Known since ancient times, sulfur is a key component in many proteins, and largely responsible for their structural integrity.