

# PERIODIC TABLE OF THE ELEMENTS

|  |                                |                               |                                |                               |                                 |                                |                                |                              |                                |                              |                              |                                |                                |                                |                                |                               |                              |
|--|--------------------------------|-------------------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|--------------------------------|------------------------------|--------------------------------|------------------------------|------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|------------------------------|
| 1<br>H<br>1.008<br>Hydrogen  |                                |                               |                                |                               |                                 |                                |                                |                              |                                |                              |                              |                                |                                |                                |                                | 2<br>He<br>4.003<br>Helium    |                              |
| <b>KEY</b><br>Atomic Number      79<br>Symbol                Au<br>Standard Atomic Weight      197.0<br>Name                        Gold |                                |                               |                                |                               |                                 |                                |                                |                              |                                |                              |                              |                                |                                |                                |                                |                               |                              |
| 3<br>Li<br>6.941<br>Lithium  | 4<br>Be<br>9.012<br>Beryllium  |                               |                                |                               |                                 |                                |                                |                              |                                |                              |                              | 5<br>B<br>10.81<br>Boron       | 6<br>C<br>12.01<br>Carbon      | 7<br>N<br>14.01<br>Nitrogen    | 8<br>O<br>16.00<br>Oxygen      | 9<br>F<br>19.00<br>Fluorine   | 10<br>Ne<br>20.18<br>Neon    |
| 11<br>Na<br>22.99<br>Sodium  | 12<br>Mg<br>24.31<br>Magnesium |                               |                                |                               |                                 |                                |                                |                              |                                |                              |                              | 13<br>Al<br>26.98<br>Aluminium | 14<br>Si<br>28.09<br>Silicon   | 15<br>P<br>30.97<br>Phosphorus | 16<br>S<br>32.07<br>Sulfur     | 17<br>Cl<br>35.45<br>Chlorine | 18<br>Ar<br>39.95<br>Argon   |
| 19<br>K<br>39.10<br>Potassium  | 20<br>Ca<br>40.08<br>Calcium   | 21<br>Sc<br>44.96<br>Scandium | 22<br>Ti<br>47.87<br>Titanium  | 23<br>V<br>50.94<br>Vanadium  | 24<br>Cr<br>52.00<br>Chromium   | 25<br>Mn<br>54.94<br>Manganese | 26<br>Fe<br>55.85<br>Iron      | 27<br>Co<br>58.93<br>Cobalt  | 28<br>Ni<br>58.69<br>Nickel    | 29<br>Cu<br>63.55<br>Copper  | 30<br>Zn<br>65.38<br>Zinc    | 31<br>Ga<br>69.72<br>Gallium   | 32<br>Ge<br>72.64<br>Germanium | 33<br>As<br>74.92<br>Arsenic   | 34<br>Se<br>78.96<br>Selenium  | 35<br>Br<br>79.90<br>Bromine  | 36<br>Kr<br>83.80<br>Krypton |
| 37<br>Rb<br>85.47<br>Rubidium  | 38<br>Sr<br>87.61<br>Strontium | 39<br>Y<br>88.91<br>Yttrium   | 40<br>Zr<br>91.22<br>Zirconium | 41<br>Nb<br>92.91<br>Niobium  | 42<br>Mo<br>95.96<br>Molybdenum | 43<br>Tc<br><br>Technetium     | 44<br>Ru<br>101.1<br>Ruthenium | 45<br>Rh<br>102.9<br>Rhodium | 46<br>Pd<br>106.4<br>Palladium | 47<br>Ag<br>107.9<br>Silver  | 48<br>Cd<br>112.4<br>Cadmium | 49<br>In<br>114.8<br>Indium    | 50<br>Sn<br>118.7<br>Tin       | 51<br>Sb<br>121.8<br>Antimony  | 52<br>Te<br>127.6<br>Tellurium | 53<br>I<br>126.9<br>Iodine    | 54<br>Xe<br>131.3<br>Xenon   |
| 55<br>Cs<br>132.9<br>Caesium   | 56<br>Ba<br>137.3<br>Barium    | 57–71<br>Lanthanoids          | 72<br>Hf<br>178.5<br>Hafnium   | 73<br>Ta<br>180.9<br>Tantalum | 74<br>W<br>183.9<br>Tungsten    | 75<br>Re<br>186.2<br>Rhenium   | 76<br>Os<br>190.2<br>Osmium    | 77<br>Ir<br>192.2<br>Iridium | 78<br>Pt<br>195.1<br>Platinum  | 79<br>Au<br>197.0<br>Gold    | 80<br>Hg<br>200.6<br>Mercury | 81<br>Tl<br>204.4<br>Thallium  | 82<br>Pb<br>207.2<br>Lead      | 83<br>Bi<br>209.0<br>Bismuth   | 84<br>Po<br><br>Polonium       | 85<br>At<br><br>Astatine      | 86<br>Rn<br><br>Radon        |
| 87<br>Fr<br><br>Francium   | 88<br>Ra<br><br>Radium         | 89–103<br>Actinoids           | 104<br>Rf<br><br>Rutherfordium | 105<br>Db<br><br>Dubnium      | 106<br>Sg<br><br>Seaborgium     | 107<br>Bh<br><br>Bohrium       | 108<br>Hs<br><br>Hassium       | 109<br>Mt<br><br>Meitnerium  | 110<br>Ds<br><br>Darmstadtium  | 111<br>Rg<br><br>Roentgenium | 112<br>Cn<br><br>Copernicium |                                |                                |                                |                                |                               |                              |

## Lanthanoids

|                                |                             |                                   |                                |                            |                               |                               |                                 |                              |                                 |                              |                             |                              |                                |                               |
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| 57<br>La<br>138.9<br>Lanthanum | 58<br>Ce<br>140.1<br>Cerium | 59<br>Pr<br>140.9<br>Praseodymium | 60<br>Nd<br>144.2<br>Neodymium | 61<br>Pm<br><br>Promethium | 62<br>Sm<br>150.4<br>Samarium | 63<br>Eu<br>152.0<br>Europium | 64<br>Gd<br>157.3<br>Gadolinium | 65<br>Tb<br>158.9<br>Terbium | 66<br>Dy<br>162.5<br>Dysprosium | 67<br>Ho<br>164.9<br>Holmium | 68<br>Er<br>167.3<br>Erbium | 69<br>Tm<br>168.9<br>Thulium | 70<br>Yb<br>173.1<br>Ytterbium | 71<br>Lu<br>175.0<br>Lutetium |
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## Actinoids

|                          |                              |                                   |                             |                           |                           |                           |                        |                           |                             |                             |                          |                              |                           |                             |
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| 89<br>Ac<br><br>Actinium | 90<br>Th<br>232.0<br>Thorium | 91<br>Pa<br>231.0<br>Protactinium | 92<br>U<br>238.0<br>Uranium | 93<br>Np<br><br>Neptunium | 94<br>Pu<br><br>Plutonium | 95<br>Am<br><br>Americium | 96<br>Cm<br><br>Curium | 97<br>Bk<br><br>Berkelium | 98<br>Cf<br><br>Californium | 99<br>Es<br><br>Einsteinium | 100<br>Fm<br><br>Fermium | 101<br>Md<br><br>Mendelevium | 102<br>No<br><br>Nobelium | 103<br>Lr<br><br>Lawrencium |
|--------------------------|------------------------------|-----------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|------------------------|---------------------------|-----------------------------|-----------------------------|--------------------------|------------------------------|---------------------------|-----------------------------|