

# Periodic table of elements

|   |                      |                       |                      |                            |                      |                         |                        |                       |                         |                           |                          |                          |                         |                        |                           |                          |                           |                          |
|---|----------------------|-----------------------|----------------------|----------------------------|----------------------|-------------------------|------------------------|-----------------------|-------------------------|---------------------------|--------------------------|--------------------------|-------------------------|------------------------|---------------------------|--------------------------|---------------------------|--------------------------|
| 1 | 1<br>H<br>Hydrogen   |                       |                      |                            |                      |                         |                        |                       |                         |                           |                          | 18<br>He<br>Helium       |                         |                        |                           |                          |                           |                          |
| 2 | 3<br>Li<br>Lithium   | 4<br>Be<br>Beryllium  |                      |                            |                      |                         |                        |                       |                         |                           |                          |                          | 5<br>B<br>Boron         | 6<br>C<br>Carbon       | 7<br>N<br>Nitrogen        | 8<br>O<br>Oxygen         | 9<br>F<br>Fluorine        | 10<br>Ne<br>Neon         |
| 3 | 11<br>Na<br>Sodium   | 12<br>Mg<br>Magnesium |                      |                            |                      |                         |                        |                       |                         |                           |                          |                          | 13<br>Al<br>Aluminum    | 14<br>Si<br>Silicon    | 15<br>P<br>Phosphorus     | 16<br>S<br>Sulfur        | 17<br>Cl<br>Chlorine      | 18<br>Ar<br>Argon        |
| 4 | 19<br>K<br>Potassium | 20<br>Ca<br>Calcium   | 21<br>Sc<br>Scandium | 22<br>Ti<br>Titanium       | 23<br>V<br>Vanadium  | 24<br>Cr<br>Chromium    | 25<br>Mn<br>Manganese  | 26<br>Fe<br>Iron      | 27<br>Co<br>Cobalt      | 28<br>Ni<br>Nickel        | 29<br>Cu<br>Copper       | 30<br>Zn<br>Zinc         | 31<br>Ga<br>Gallium     | 32<br>Ge<br>Germanium  | 33<br>As<br>Arsenic       | 34<br>Se<br>Selenium     | 35<br>Br<br>Bromine       | 36<br>Kr<br>Krypton      |
| 5 | 37<br>Rb<br>Rubidium | 38<br>Sr<br>Strontium | 39<br>Y<br>Yttrium   | 40<br>Zr<br>Zirconium      | 41<br>Nb<br>Niobium  | 42<br>Mo<br>Molybdenum  | 43<br>Tc<br>Technetium | 44<br>Ru<br>Ruthenium | 45<br>Rh<br>Rhodium     | 46<br>Pd<br>Palladium     | 47<br>Ag<br>Silver       | 48<br>Cd<br>Cadmium      | 49<br>In<br>Indium      | 50<br>Sn<br>Tin        | 51<br>Sb<br>Antimony      | 52<br>Te<br>Tellurium    | 53<br>I<br>Iodine         | 54<br>Xe<br>Xenon        |
| 6 | 55<br>Cs<br>Cesium   | 56<br>Ba<br>Barium    | Lanthanoid           | 72<br>Hf<br>Hafnium        | 73<br>Ta<br>Tantalum | 74<br>W<br>Tungsten     | 75<br>Re<br>Rhenium    | 76<br>Os<br>Osmium    | 77<br>Ir<br>Iridium     | 78<br>Pt<br>Platinum      | 79<br>Au<br>Gold         | 80<br>Hg<br>Mercury      | 81<br>Tl<br>Thallium    | 82<br>Pb<br>Lead       | 83<br>Bi<br>Bismuth       | 84<br>Po<br>Polonium     | 85<br>At<br>Astatine      | 86<br>Rn<br>Radon        |
| 7 | 87<br>Fr<br>Francium | 88<br>Ra<br>Radium    | Actinoid             | 104<br>Rf<br>Rutherfordium | 105<br>Db<br>Dubnium | 106<br>Sg<br>Seaborgium | 107<br>Bh<br>Bohrium   | 108<br>Hs<br>Hassium  | 109<br>Mt<br>Meitnerium | 110<br>Ds<br>Darmstadtium | 111<br>Rg<br>Roentgenium | 112<br>Cn<br>Copernicium | 113<br>Uut<br>Ununtrium | 114<br>Fl<br>Flerovium | 115<br>Uup<br>Ununpentium | 116<br>Lv<br>Livermorium | 117<br>Uus<br>Ununseptium | 118<br>Uuo<br>Ununoctium |

|         |               |   |                              |
|---------|---------------|---|------------------------------|
| 80      | Atomic number | □ | : Typical non-metal elements |
| Hg      | Atomic symbol | □ | : Typical metal elements     |
| Mercury | Denotation    | □ | : Transition metal elements  |

|            |                       |                     |                          |                       |                        |                       |                       |                        |                       |                         |                         |                      |                          |                       |                         |
|------------|-----------------------|---------------------|--------------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------------|-----------------------|-------------------------|-------------------------|----------------------|--------------------------|-----------------------|-------------------------|
| Lanthanoid | 57<br>La<br>Lanthanum | 58<br>Ce<br>Cerium  | 59<br>Pr<br>Praseodymium | 60<br>Nd<br>Neodymium | 61<br>Pm<br>Promethium | 62<br>Sm<br>Samarium  | 63<br>Eu<br>Europium  | 64<br>Gd<br>Gadolinium | 65<br>Tb<br>Terbium   | 66<br>Dy<br>Dysprosium  | 67<br>Ho<br>Holmium     | 68<br>Er<br>Erbium   | 69<br>Tm<br>Thulium      | 70<br>Yb<br>Ytterbium | 71<br>Lu<br>Lutetium    |
| Actinoid   | 89<br>Ac<br>Actinium  | 90<br>Th<br>Thorium | 91<br>Pa<br>Protactinium | 92<br>U<br>Uranium    | 93<br>Np<br>Neptunium  | 94<br>Pu<br>Plutonium | 95<br>Am<br>Americium | 96<br>Cm<br>Curium     | 97<br>Bk<br>Berkelium | 98<br>Cf<br>Californium | 99<br>Es<br>Einsteinium | 100<br>Fm<br>Fermium | 101<br>Md<br>Mendelevium | 102<br>No<br>Nobelium | 103<br>Lr<br>Lawrencium |