Periodic Table with oxidation states and charges

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

				57 **La** Lanthanum +3	58 **Ce** Cerium +3, +4	59 **Pr** Praseodymium +3	60 **Nd** Neodymium +3	61 **Pm** Promethium +3	62 **Sm** Samarium +3	63 **Eu** Europium +2, +3	64 **Gd** Gadolinium +3	65 **Tb** Terbium +3	66 **Dy** Dysprosium +3	67 **Ho** Holmium +3	68 **Er** Erbium +3	69 **Tm** Thulium +3	70 **Yb** Ytterbium +3	71 **Lu** Lutetium +3
				89 **Ac** Actinium +3	90 **Th** Thorium +4	91 **Pa** Protactinium +5	92 **U** Uranium +6	93 **Np** Neptunium +5	94 **Pu** Plutonium +4	95 **Am** Americium +3	96 **Cm** Curium +3	97 **Bk** Berkelium +3	98 **Cf** Californium +3	99 **Es** Einsteinium +3	100 **Fm** Fermium +3	101 **Md** Mendelevium +3	102 **No** Nobelium +3	103 **Lr** Lawrencium +3

Periodic Table PDF with oxidation states and charges (black and white): notes

About this sheet

The standard 18-column layout, with periods 1 to 7 down the side, groups 1 to 18 across the top, and the lanthanides and actinides in two rows below. Each tile shows the atomic number, the symbol, the name and the common oxidation states, such as +1 for sodium, which also point to the charges of the ions the element forms.

Best for

Writing ionic formulas, balancing redox equations and predicting the charge of a common ion.

Printing

Plain white tiles with black outlines use very little ink and photocopy cleanly, so it suits class sets and sheets students will write on. Sized for A4 landscape: print at 100% (actual size) so the margins stay correct.

What the data shows

66 elements show only one common oxidation state, such as sodium (+1) and aluminium (+3), and 18 have none listed. Chlorine has the most, with 5.

Group 1 elements form +1 ions, group 2 elements +2 ions, and the halogens in group 17 usually −1.

How the table is organised

Atomic number counts the protons in an atom's nucleus and fixes each element's place in the table. Moving down a group adds a new electron shell, so atomic radius grows and metallic character increases.

More periodic table PDFs are free to download at **https://periodictable.page/periodic-table-pdf/**.