Periodic Table with names, atomic mass and electron configuration

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 **H** Hydrogen 1.008 $1s^1$																	2 **He** Helium 4.0026 $1s^2$
2	3 **Li** Lithium 6.94 $[He]\ 2s^1$	4 **Be** Beryllium 9.0122 $[He]\ 2s^2$											5 **B** Boron 10.81 $[He]\ 2s^2\ 2p^1$	6 **C** Carbon 12.011 $[He]\ 2s^2\ 2p^2$	7 **N** Nitrogen 14.007 $[He]\ 2s^2\ 2p^3$	8 **O** Oxygen 15.999 $[He]\ 2s^2\ 2p^4$	9 **F** Fluorine 18.9984 $[He]\ 2s^2\ 2p^5$	10 **Ne** Neon 20.1798 $[He]\ 2s^2\ 2p^6$
3	11 **Na** Sodium 22.9898 $[Ne]\ 3s^1$	12 **Mg** Magnesium 24.305 $[Ne]\ 3s^2$											13 **Al** Aluminium 26.9815 $[Ne]\ 3s^2\ 3p^1$	14 **Si** Silicon 28.085 $[Ne]\ 3s^2\ 3p^2$	15 **P** Phosphorus 30.9738 $[Ne]\ 3s^2\ 3p^3$	16 **S** Sulfur 32.06 $[Ne]\ 3s^2\ 3p^4$	17 **Cl** Chlorine 35.45 $[Ne]\ 3s^2\ 3p^5$	18 **Ar** Argon 39.9481 $[Ne]\ 3s^2\ 3p^6$
4	19 **K** Potassium 39.0983 $[Ar]\ 4s^1$	20 **Ca** Calcium 40.0784 $[Ar]\ 4s^2$	21 **Sc** Scandium 44.9559 $[Ar]\ 3d^1\ 4s^2$	22 **Ti** Titanium 47.8671 $[Ar]\ 3d^2\ 4s^2$	23 **V** Vanadium 50.9415 $[Ar]\ 3d^3\ 4s^2$	24 **Cr** Chromium 51.9962 $[Ar]\ 3d^5\ 4s^1$	25 **Mn** Manganese 54.938 $[Ar]\ 3d^5\ 4s^2$	26 **Fe** Iron 55.8452 $[Ar]\ 3d^6\ 4s^2$	27 **Co** Cobalt 58.9332 $[Ar]\ 3d^7\ 4s^2$	28 **Ni** Nickel 58.6934 $[Ar]\ 3d^8\ 4s^2$	29 **Cu** Copper 63.5463 $[Ar]\ 3d^{10}\ 4s^1$	30 **Zn** Zinc 65.382 $[Ar]\ 3d^{10}\ 4s^2$	31 **Ga** Gallium 69.7231 $[Ar]\ 3d^{10}\ 4s^2\ 4p^1$	32 **Ge** Germanium 72.6308 $[Ar]\ 3d^{10}\ 4s^2\ 4p^2$	33 **As** Arsenic 74.9216 $[Ar]\ 3d^{10}\ 4s^2\ 4p^3$	34 **Se** Selenium 78.9718 $[Ar]\ 3d^{10}\ 4s^2\ 4p^4$	35 **Br** Bromine 79.904 $[Ar]\ 3d^{10}\ 4s^2\ 4p^5$	36 **Kr** Krypton 83.7982 $[Ar]\ 3d^{10}\ 4s^2\ 4p^6$
5	37 **Rb** Rubidium 85.4678 $[Kr]\ 5s^1$	38 **Sr** Strontium 87.621 $[Kr]\ 5s^2$	39 **Y** Yttrium 88.9058 $[Kr]\ 4d^1\ 5s^2$	40 **Zr** Zirconium 91.2242 $[Kr]\ 4d^2\ 5s^2$	41 **Nb** Niobium 92.9064 $[Kr]\ 4d^4\ 5s^1$	42 **Mo** Molybdenum 95.951 $[Kr]\ 4d^5\ 5s^1$	43 **Tc** Technetium [98] $[Kr]\ 4d^5\ 5s^2$	44 **Ru** Ruthenium 101.072 $[Kr]\ 4d^7\ 5s^1$	45 **Rh** Rhodium 102.9055 $[Kr]\ 4d^8\ 5s^1$	46 **Pd** Palladium 106.421 $[Kr]\ 4d^{10}$	47 **Ag** Silver 107.8682 $[Kr]\ 4d^{10}\ 5s^1$	48 **Cd** Cadmium 112.4144 $[Kr]\ 4d^{10}\ 5s^2$	49 **In** Indium 114.8181 $[Kr]\ 4d^{10}\ 5s^2\ 5p^1$	50 **Sn** Tin 118.7107 $[Kr]\ 4d^{10}\ 5s^2\ 5p^2$	51 **Sb** Antimony 121.7601 $[Kr]\ 4d^{10}\ 5s^2\ 5p^3$	52 **Te** Tellurium 127.603 $[Kr]\ 4d^{10}\ 5s^2\ 5p^4$	53 **I** Iodine 126.9045 $[Kr]\ 4d^{10}\ 5s^2\ 5p^5$	54 **Xe** Xenon 131.2936 $[Kr]\ 4d^{10}\ 5s^2\ 5p^6$
6	55 **Cs** Cesium 132.9055 $[Xe]\ 6s^1$	56 **Ba** Barium 137.3277 $[Xe]\ 6s^2$		72 **Hf** Hafnium 178.492 $[Xe]\ 4f^{14}\ 5d^2\ 6s^2$	73 **Ta** Tantalum 180.9479 $[Xe]\ 4f^{14}\ 5d^3\ 6s^2$	74 **W** Tungsten 183.841 $[Xe]\ 4f^{14}\ 5d^4\ 6s^2$	75 **Re** Rhenium 186.2071 $[Xe]\ 4f^{14}\ 5d^5\ 6s^2$	76 **Os** Osmium 190.233 $[Xe]\ 4f^{14}\ 5d^6\ 6s^2$	77 **Ir** Iridium 192.2173 $[Xe]\ 4f^{14}\ 5d^7\ 6s^2$	78 **Pt** Platinum 195.0849 $[Xe]\ 4f^{14}\ 5d^9\ 6s^1$	79 **Au** Gold 196.9666 $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^1$	80 **Hg** Mercury 200.5923 $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2$	81 **Tl** Thallium 204.38 $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2\ 6p^1$	82 **Pb** Lead 207.21 $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2\ 6p^2$	83 **Bi** Bismuth 208.9804 $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2\ 6p^3$	84 **Po** Polonium [209] $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2\ 6p^4$	85 **At** Astatine [210] $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2\ 6p^5$	86 **Rn** Radon [222] $[Xe]\ 4f^{14}\ 5d^{10}\ 6s^2\ 6p^6$
7	87 **Fr** Francium [223] $[Rn]\ 7s^1$	88 **Ra** Radium [226] $[Rn]\ 7s^2$		104 **Rf** Rutherfordium [267] $[Rn]\ 5f^{14}\ 6d^2\ 7s^2$	105 **Db** Dubnium [268] $*[Rn]\ 5f^{14}\ 6d^3\ 7s^2$	106 **Sg** Seaborgium [269] $*[Rn]\ 5f^{14}\ 6d^4\ 7s^2$	107 **Bh** Bohrium [270] $*[Rn]\ 5f^{14}\ 6d^5\ 7s^2$	108 **Hs** Hassium [269] $*[Rn]\ 5f^{14}\ 6d^6\ 7s^2$	109 **Mt** Meitnerium [278] $*[Rn]\ 5f^{14}\ 6d^7\ 7s^2$	110 **Ds** Darmstadtium [281] $*[Rn]\ 5f^{14}\ 6d^9\ 7s^1$	111 **Rg** Roentgenium [282] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^1$	112 **Cn** Copernicium [285] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2$	113 **Nh** Nihonium [286] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2\ 7p^1$	114 **Fl** Flerovium [289] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2\ 7p^2$	115 **Mc** Moscovium [289] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2\ 7p^3$	116 **Lv** Livermorium [293] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2\ 7p^4$	117 **Ts** Tennessine [294] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2\ 7p^5$	118 **Og** Oganesson [294] $*[Rn]\ 5f^{14}\ 6d^{10}\ 7s^2\ 7p^6$

				57 **La** Lanthanum 138.9055 $[Xe]\ 5d^{1[6s2]}$	58 **Ce** Cerium 140.1161 $[Xe]\ 4f^1\ 5d^1\ 6s^2$	59 **Pr** Praseodymium 140.9077 $[Xe]\ 4f^3\ 6s^2$	60 **Nd** Neodymium 144.2423 $[Xe]\ 4f^4\ 6s^2$	61 **Pm** Promethium [145] $[Xe]\ 4f^5\ 6s^2$	62 **Sm** Samarium 150.362 $[Xe]\ 4f^6\ 6s^2$	63 **Eu** Europium 151.9641 $[Xe]\ 4f^7\ 6s^2$	64 **Gd** Gadolinium 157.253 $[Xe]\ 4f^7\ 5d^1\ 6s^2$	65 **Tb** Terbium 158.9254 $[Xe]\ 4f^9\ 6s^2$	66 **Dy** Dysprosium 162.5001 $[Xe]\ 4f^{10}\ 6s^2$	67 **Ho** Holmium 164.9303 $[Xe]\ 4f^{11}\ 6s^2$	68 **Er** Erbium 167.2593 $[Xe]\ 4f^{12}\ 6s^2$	69 **Tm** Thulium 168.9342 $[Xe]\ 4f^{13}\ 6s^2$	70 **Yb** Ytterbium 173.0451 $[Xe]\ 4f^{14}\ 6s^2$	71 **Lu** Lutetium 174.9668 $[Xe]\ 4f^{14}\ 5d^1\ 6s^2$
				89 **Ac** Actinium [227] $[Rn]\ 6d^1\ 7s^2$	90 **Th** Thorium 232.0377 $[Rn]\ 6d^2\ 7s^2$	91 **Pa** Protactinium 231.0359 $[Rn]\ 5f^2\ 6d^1\ 7s^2$	92 **U** Uranium 238.0289 $[Rn]\ 5f^4\ 6d^1\ 7s^2$	93 **Np** Neptunium [237] $[Rn]\ 5f^4\ 6d^1\ 7s^2$	94 **Pu** Plutonium [244] $[Rn]\ 5f^6\ 7s^2$	95 **Am** Americium [243] $[Rn]\ 5f^7\ 7s^2$	96 **Cm** Curium [247] $[Rn]\ 5f^7\ 6d^1\ 7s^2$	97 **Bk** Berkelium [247] $[Rn]\ 5f^9\ 7s^2$	98 **Cf** Californium [251] $[Rn]\ 5f^{10}\ 7s^2$	99 **Es** Einsteinium [252] $[Rn]\ 5f^{11}\ 7s^2$	100 **Fm** Fermium [257] $[Rn]\ 5f^{12}\ 7s^2$	101 **Md** Mendelevium [258] $[Rn]\ 5f^{13}\ 7s^2$	102 **No** Nobelium [259] $[Rn]\ 5f^{14}\ 7s^2$	103 **Lr** Lawrencium [266] $[Rn]\ 5f^{14}\ 7s^2\ 7p^1$

Periodic Table PDF with names, atomic mass and electron configuration (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 packs in the atomic number, symbol, name, atomic mass and electron configuration, so most of the reference data sits on one page.

Best for

A single revision sheet when you want most of the data in one place. The text is small, so print it at A4 or larger.

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

Every tile combines five facts, atomic number, symbol, name, atomic mass and electron configuration, so the sheet carries 590 values for the 118 elements.

The element families on this sheet hold 38 transition metals, 15 lanthanides, 15 actinides, 12 post-transition metals, 7 reactive nonmetals, 7 noble gases, 6 alkali metals, 6 alkaline earth metals, 6 metalloids and 6 halogens.

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/.