A Sub-Shell Periodic Table of Elements (2021)

		1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
		s^1	s^2		d^1	d^2	d^3	d^4	d^5	d^6	d^7	d^8	d^9	d^{10}	p^1	p^2	p^3	p^4	p^5	p^6	
																				"Noble" Gases	
1	*1s*	1 **H** Hydrogen 1.008	2 **[min. ø]** **He** Helium 4.003																		
2	*2s*	3 **Li** Lithium 6.94	4 **Be** Beryllium 9.012												5 **B** Boron 10.81	6 **C** Carbon 12.011	7 **N** Nitrogen 14.007	8 **O** Oxygen 15.999	9 **F** Fluorine 18.998	10 *[min. ø]* **Ne** Neon 20.18	*2p*
3	*3s*	11 **Na** Sodium *(Natrium)* 22.99	12 **Mg** Magnesium 24.305												13 **Al** Aluminium 26.982	14 **Si** Silicon 28.085	15 **P** Phosphorus 30.974	16 **S** Sulfur 32.06	17 **Cl** Chlorine 35.45	18 **Ar** Argon 39.948	*3p*
4	*4s*	19 **K** Potassium *(Kalium)* 39.098	20 **Ca** Calcium 40.078	*3d*	21 **Sc** Scandium 44.956	22 **Ti** Titanium 47.867	23 **V** Vanadium 50.942	24 **Cr** Chromium 51.996	25 **Mn** Manganese 54.938	26 **Fe** Iron *(Ferrum)* 55.845	27 **Co** Cobalt 58.933	28 **Ni** Nickel 58.693	29 **Cu** Copper *(Cuprum)* 63.546	30 **Zn** Zinc 65.38	31 **Ga** Gallium 69.723	32 **Ge** Germanium 72.63	33 **As** Arsenic 74.922	34 **Se** Selenium 78.971	35 **Br** Bromine 79.904	36 **Kr** Krypton 83.798	*4p*
5	*5s*	37 **Rb** Rubidium 85.468	38 **Sr** Strontium 87.62	*4d*	39 **Y** Yttrium 88.906	40 **Zr** Zirconium 91.224	41 **Nb** Niobium 92.906	42 **Mo** Molybdenum 95.95	43 **Tc** Technetium *98**	44 **Ru** Ruthenium 101.07	45 **Rh** Rhodium 102.91	46 **Pd** Palladium 106.43	47 **Ag** Silver *(Argentum)* 107.87	48 **Cd** Cadmium 112.41	49 **In** Indium 114.82	50 **Sn** Tin *(Stannum)* 188.71	51 **Sb** Anitmony *(Stibium)* 121.76	52 **Te** Tellurium 127.60	53 **I** Iodine 126.9	54 **Xe** Xenon 131.29	*5p*
6	*6s*	55 **Cs** Caesium 132.91	56 **Ba** Barium 137.33	*57 to 70*	*5d*	71 **Lu** Lutetium 174.97	72 **Hf** Hafnium 178.49	73 **Ta** Tantalum 180.95	74 **W** Tungsten (Wolfram) 183.84	75 **Re** Rhenium 186.21	76 **Os** Osmium 190.23	77 **Ir** Iridium 192.22	78 **Pt** Platinum 195.08	79 **Au** Gold *(Aurum)* 196.97	80 **Hg** Mercury *(Hydrargyrum)* 200.59	81 **Tl** Thallium 204.38	82 **Pb** Lead *(Plumbum)* 207.2	83 **Bi** Bismuth 208.98	84 **Po** Polonium *209**	85 **At** Astatine *210**	86 **Rn** Radon *222**	*6p*
7	*7s*	87 **[max. ø]** **Fr** Francium *223**	88 **Ra** Radium *226**	*89 to 102*	*6d*	103 **Lr** Lawrencium *266**	104 **Rf** Rutherfordium *267**	105 **Db** Dubnium *268**	106 **Sg** Seaborgium *269**	107 **Bh** Bohrium *270**	108 **Hs** Hassium *277**	109 **Mt** Meitnerium *278**	110 **Ds** Darmstadtium *281**	111 **Rg** Roentgenium *282**	112 **Cn** Copernicium *285**	113 **Nh** Nihonium *286**	114 **Fl** Flerovium *289**	115 **Mc** Moscovium *290**	116 **Lv** Livermorium *293**	117 **Ts** Tennessine *294**	118 **Og** Oganesson *294**	*7p*

		f^1	f^2	f^3	f^4	f^5	f^6	f^7	f^8	f^9	f^{10}	f^{11}	f^{12}	f^{13}	f^{14}	
6	*4f*	57 **La** Lanthanum 131.91	58 **Ce** Cerium 140.12	59 **Pr** Praseodymium 140.91	60 **Nd** Neodymium 144.24	61 **Pm** Promethium *145**	62 **Sm** Samarium 150.36	63 **Eu** Europium 151.96	64 **Gd** Gadolinium 157.25	65 **Tb** Terbium 158.93	66 **Dy** Dysprosium 162.5	67 **Ho** Holmium 164.93	68 **Er** Erbium 167.26	69 **Tm** Thulium 168.93	70 **Yb** Ytterbium 173.05	**Lanthanide series**
7	*5f*	89 **Ac** Actinium *227**	90 **Th** Thorium 232.04	91 **Pa** Proactinium 231.04	92 **U** Uranium 238.03	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** Mendeledvium *258**	102 **No** Nobelium *259**	**Actinide series**

Atomic radius trend

The smallest radius is in the completed shell ending a Period

The largest radius is in the singly occupied *s sub-shell* of a Period

Atoms are larger with each Period.

Helium is the absolute smallest atom, in Period 2 onwards the smallest atom in the Period is in Column 18

How to read the entry for an element	
26	26 = Atomic Number = number of protons
Fe	**Fe** = Symbol
Iron	Iron = English name
(Ferrum)	*(Ferrum) = Latin name if different from English*
55.845	*55.845 = atomic weight (isotopes); 56* = longest lived isotope*

Additional Information
Rows are numbered by Period (completed valence shells corresponding to *s and p sub-shells*)
[*s sub-shells* have up 2 electrons(e-); *p* up to 6e-; d up to 10e-; *f* up to 14e-]
F = highest electronegativity and the small diameter due to the incomplete valence octet (*s2p5*) and small nucleus
Fr = lowest electronegativity and largest diameter due to the incomplete valence octet (*7s1*) and large nucleus