

PERIODIC TABLE (by Dmitri Mendeleev, 1869)

		group																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
period	↓																		
1		1 H																	2 He
2		3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
3		11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4		19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5		37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6		55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7		87 Fr	88 Ra	89 Ac	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og
		58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu				
		90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr				

Preview from Notesale.co.uk
page 1 of 11

- **Atomic number** on top – number of protons (& electrons)
- **Atomic mass** on bottom – relative atomic mass = protons + neutrons
- Symbols consist of 1-2 letters, first capital – e.g. Mg
- Vertical **groups** 1-18 (= number of **valence electrons**)
- Horizontal **periods** 1-9 (= number of **atomic orbitals**)
- **S block** – alkali metals & alkaline earth metals (soft, reactive) + hydrogen, helium
 - 1-2 valence electrons
 - 1 s orbital in all shells
- **P block** – varied elements (non-metals, metals, metalloids)
 - 1-6 valence electrons
 - 3 p orbitals in shells 2 and up
- **D block** – transition metals (hard, dense, good conductors, less reactive, coloured compounds)
 - 1-10 valence electrons
 - 5 d orbitals in shells 3 and up
- **F block** – bottom group. Lanthanides & actinides (soft metals, many are radioactive)
 - 7 f orbitals in shells 4 and up