

Navigating the Periodic Table

Chapter 3

Families and Periods

- Columns aka **Groups** aka **Families**
- Why is it called the “Periodic” Chart?

1A	2A																	8A	
1 H																			2 He
3 Li	4 Be											3A	4A	5A	6A	7A			10 Ne
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl			18 Ar
19 K	20 Ca	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B	31 Ga	32 Ge	33 As	34 Se	35 Br			36 Kr
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
55 Cs	56 Ba	71 Lu	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
87 Fr	88 Ra	103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Uuu	112 Uub	113 Uut	114 Uuq		116 Uuh				118 Uuo

1C	2C	3C	4C	5C	6C	7C	8C	9C	10C	11C	12C	13C	14C
57 La	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
89 Ac	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

Families and Periods

- Rows aka **Periods**

1A	2A											3A	4A	5A	6A	7A	8A	
1 H																		2 He
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne	
11 Na	12 Mg	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	
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	
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	
55 Cs	56 Ba	71 Lu	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	
87 Fr	88 Ra	103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Uuu	112 Uub	113 Uut	114 Uuq		116 Uuh		118 Uuo	
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		57 La	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			
		89 Ac	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			

Metals vs Nonmetals

- Nonmetals - As you read chapter 3, look for the properties of nonmetals compared to
- Metals - the properties of metals

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Families

- Alkali Metals (very, very reactive)
- Alkaline Earth Metals (quite reactive)
- Transition Metals

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Mixed Groups

- Families containing both metals and nonmetals
- The aluminum family
- The six metals under the staircase

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That's all for now.....