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Shell level electronic configuration of elements from atomic number 1 to 18

Atomic number	Atomic symbol	Element	Electronic configuration			Character	Period	Group
			K	L	M			
1	H	Hydrogen	1			Non metal	1	1
2	He	Helium	2			Noble gas	1	18
3	Li	Lithium	2	1		Metal	2	1
4	Be	Beryllium	2	2		Metal	2	2
5	B	Boron	2	3		Metalloid	2	13
6	C	Carbon	2	4		Non metal	2	14
7	N	Nitrogen	2	5		Non metal	2	15
8	O	Oxygen	2	6		Non metal	2	16
9	F	Flourine	2	7		Non metal	2	17
10	Ne	Neon	2	8		Nobel gas	2	18
11	Na	Sodium	2	8	1	Metal	3	1
12	Mg	Magnesium	2	8	2	Metal	3	2
13	Al	Aluminium	2	8	3	Metal	3	13
14	Si	Silicon	2	8	4	Metalloid	3	14
15	P	Phosphorus	2	8	5	Non metal	3	15
16	S	Sulphur	2	8	6	Non metal	3	16
17	Cl	Chlorine	2	8	7	Non metal	3	17
18	Ar	Argon	2	8	8	Nobel gas	3	18

Points to be considered while determining the place of elements upto atomic number 18 in modern periodic table.

***Only valence shell is considered**

***If valence shell is K, then the element belongs to period-1(H,He)**

***If valence shell is L, then the element belongs to period-2(Li,Be,B,C,N,O,F,Ne)**

***If valence shell is M, then the element belongs to period-3(Na,Mg,Al,Si,P,S,Cl,Ag)**

***If there is 1 electron in the valence shell, then the element belongs to group-1(H,Li,Na)**

***If there is 2 electron in the valence shell, then the element belongs to group-2(Be,Mg)-He is exempted**

***If there is 3 electron in the valence shell, then the element belongs to group-13(B,Al)**

***If there is 4 electron in the valence shell, then the element belongs to group-14(C,Si)**

***If there is 5 electron in the valence shell, then the element belongs to group-15 (N,P)**

***If there is 6 electron in the valence shell, then the element belongs to group-16(O,S)**

***If there is 7 electron in the valence shell, then the element belongs to group-17 (F,Cl)**

***If there is 8 electron in the valence shell, then the element belongs to group-18(He,Ne,Ar)-He is placed here due to its stability.**

Shell level common electronic configuration of groups in modern periodic table(limited to elements upto atomic number 18)

Group	Common electronic configuration	Elements in the group
1	n1	Hydrogen,Lithium,Sodium
2	n2	Beryllium,Magnesium(Helium excluded)
13	n3	Boron,Aluminium
14	n4	Carbon,Silicon
15	n5	Nitrogen,Phosphorous
16	n6	Oxygen,Sulphur
17	n7	Flourine,Chlorine
18	n8	Helium(exception due to its stability),Neon,Argon

***n is valence shell(K in Period-1,L in Period-2,M in Period-3)**

