

Periodic Table

IA																		IIA																		III A										IV A										V A										VI A										VII A										VIII A									
hydrogen																		beryllium																		boron										carbon										nitrogen										oxygen										fluorine										neon									
1 H 1.008																		3 Li 6.941																		5 B 10.81										6 C 12.01										7 N 14.01										8 O 16.00										9 F 19.00										10 Ne 20.18									
2 He 4.003																		4 Be 9.012																		10.81										12.01										14.01										16.00										19.00										20.18									
1s ¹																		[He]2s ²																		[He]2s ² 2p ¹										[He]2s ² 2p ²										[He]2s ² 2p ³										[He]2s ² 2p ⁴										[He]2s ² 2p ⁵										[He]2s ² 2p ⁶									
period 1																		period 2																		period 3										period 4										period 5										period 6										period 7										period 8									

electrons per shell	1	2	3	4	5	6	7	8	9	10	11	12
atomic number (Z)	1	11	111	1111	11111	111111	1111111	11111111	111111111	1111111111	11111111111	111111111111
symbol	X	X	X	X	X	X	X	X	X	X	X	X
standard atomic weight (A)	1.008	7.00	72.04	726.4	7264	72640	726400	7264000	72640000	726400000	7264000000	72640000000
Goldschmidt classification	1s ¹	1s ²	1s ² 2s ¹	1s ² 2s ²	1s ² 2s ² 2p ¹	1s ² 2s ² 2p ²	1s ² 2s ² 2p ³	1s ² 2s ² 2p ⁴	1s ² 2s ² 2p ⁵	1s ² 2s ² 2p ⁶	1s ² 2s ² 2p ⁶ 3s ¹	1s ² 2s ² 2p ⁶ 3s ²
name	hydrogen	helium	lithium	beryllium	boron	carbon	nitrogen	oxygen	fluorine	neon	sodium	magnesium
melting point (K)	13.99K	0.95K	453.65K	2773K	3273K	3273K	3273K	3273K	3273K	3273K	370.94K	923K
first ionization energy (kJ/mol)	1312	2372	520	900	1012	1086	1402	1314	1681	2081	496	737.7
density (g/cm ³)	0.07	0.145	0.534	1.85	2.34	2.27	0.808	1.141	1.505	1.207	0.968	1.738
electronegativity	2.2	0.4	0.98	1.57	2.04	2.55	3.04	3.44	3.98	4.16	0.93	1.31
oxide properties	strongly acidic	neutral	amphoteric	amphoteric	acidic	acidic	acidic	acidic	acidic	acidic	basic	basic
oxidation states	+1	0	+1	+2	+3	+4	+3, +5	+2, +4	+3, +5	+2, +4	+1, +2	+2, +3
electron configuration	1s ¹	1s ²	[He]2s ¹	[He]2s ²	[He]2s ² 2p ¹	[He]2s ² 2p ²	[He]2s ² 2p ³	[He]2s ² 2p ⁴	[He]2s ² 2p ⁵	[He]2s ² 2p ⁶	[Ne]3s ¹	[Ne]3s ²

group 1	group 2	group 3	group 4	group 5	group 6	group 7	group 8	group 9	group 10	group 11	group 12	group 13	group 14	group 15	group 16	group 17	group 18
IA	IIA	IIIB	IVB	VB	VIB	VII B	VIII B	VIII B	VIII B	IB	IIB	IIIA	IVA	VA	VIA	VIIA	VIIIA

Lanthanides																		Actinides																	
lanthanum																		actinium																	
57 La 138.9																		89 Ac 227																	
[Xe]5d ¹ 6s ²																		[Rn]5f ⁷ 7s ²																	
period 6																		period 7																	

s-block (with Helium)		f-block		d-block		p-block (without Helium)			
Alkali metals		Actinides		Transition metals		Metalloids		Nonmetals	
Alkaline earth metals		REE (Lanthanides)		Post-transition metals		probable		Polyatomic	
probable		REE = Rare Earth Elements		probable		probable		Diatomic	
								Noble gas	