

Key term	Definition
Group	Column going down the periodic table
Period	Row going across the periodic table
Atomic Number	The number of protons in an element
Atomic Mass	The number of protons + the number of neutrons in an element
Metals	Elements that form positive ions in chemical reactions
Non-Metal	Elements that form negative ions in chemical reactions
Alkali Metals	Elements in group 1
Halogens	Elements in group 7
Nobel gas	Elements in group 0
Transition Metals	an element in the central block of the periodic table, between Groups 2 and 3

		of electrons in the outer shell																Noble g							
		1		2		3										4	5	6	7	8					
		Alkali metals		Alkali earth metals												Halogens		Noble g							
		1	2																	4					
		Li	Be																	He					
		lithium	beryllium																	helium					
		3	4																	2					
		23	24																	11	12	14	16	19	20
		Na	Mg																	B	C	N	O	F	Ne
		sodium	magnesium																	boron	carbon	nitrogen	oxygen	fluorine	neon
		11	12																	5	6	7	8	9	10
		39	40	45	48	51	52	55	56	59	59	63.5	65	70	73	75	79	80	84						
		K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr						
		potassium	calcium	scandium	titanium	vanadium	chromium	manganese	iron	cobalt	nickel	copper	zinc	gallium	germanium	arsenic	selenium	bromine	krypton						
		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36						
		85	88	89	91	93	96	[98]	101	103	106	108	112	115	119	122	128	127	131						
		Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe						
		rubidium	strontium	yttrium	zirconium	niobium	molybdenum	technetium	ruthenium	rhodium	palladium	silver	cadmium	indium	tin	antimony	tellurium	iodine	xenon						
		37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
		133	137	139	178	181	184	186	190	192	195	197	201	204	207	209	[209]	[210]	[222]						
		Cs	Ba	La*	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn						
		caesium	barium	lanthanum	hafnium	tantalum	tungsten	rhenium	osmium	iridium	platinum	gold	mercury	thallium	lead	bismuth	polonium	astatine	radon						
		55	56	57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86						
		[223]	[226]	[227]	[261]	[262]	[266]	[264]	[277]	[268]	[271]	[272]	[285]	[286]	[289]	[289]	[293]	[294]	[294]						
		Fr	Ra	Ac*	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	Ts	Og						
		francium	radium	actinium	rutherfordium	dubnium	seaborgium	bohrium	hassium	meitnerium	darmstadtium	roentgenium	coppernium	nihonium	flerovium	moscovium	livermorium	tennessine	oganeson						
		87	88	89	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118						

ELEMENTS

	Hydrogen	1		Strontium	86
	Nitrogen	7		Barium	137
	Carbon	12		Iron	56
	Oxygen	8		Zinc	65
	Phosphorus	9		Copper	64
	Sulphur	16		Lead	207
	Magnesium	24		Silver	197
	Lime	28		Gold	197
	Soda	23		Platina	197
	Potash	39		Mercury	200

Group 1

Reactivity increases down the group

This is because... the outer electron is getting further away from the nucleus

This means the attraction is lower

The outer electron is easier to lose

H	F	Cl	Co/Ni	Br	Pd	I	Pt/Ir
Li	Na	K	Cu	Rb	Ag	Cs	Tl
G	Mg	Ca	Zn	Sr	Cd	Ba/V	Pb
Bo	Al	Cr	Y	Ce/La	U	Ta	Th
C	Si	Ti	In	Zn	Sn	W	Hg
N	P	Mn	As	Di/Mo	Sb	Nb	Bi
O	S	Fe	Se	Ro/Ru	Te	Au	Os

Group 7

F
Cl
Br
I
At
Ts

↑

Reactivity increases up the group

This is because... the outer electron is getting closer to the nucleus

This means the attraction is higher

It is easier to gain an electron

Mendeleev

I H 1.01																
II Li 6.94	III Be 9.01	IV B 10.8	V C 12.0	VI N 14.0	VII O 16.0											
Na 23.0	Mg 24.3	Al 27.0	Si 28.1	P 31.0	S 32.1	Cl 35.5										
K 39.1	Ca 40.1	Ti 47.9		V 50.9		Cr 52.0	Mn 54.9	Fe 55.9	Co 58.9	Ni 58.7						
Cu 63.5	Zn 65.4			As 74.9		Se 78.9	Br 79.9									
Rb 85.5	Sr 87.6	Y 88.9	Zr 91.2	Nb 92.9	Mo 95.9	I 127		Ru 101	Rh 103	Pd 106						
Ag 108	Cd 112	In 115	Sn 119	Sb 122	Te 128											
Ce 133	Ba 137	La 139	Ta 181		W 184											
Au 197	Hg 201	Tl 204	Pb 207	Bi 209												
			Th 232	U 238												



The Noble Gases