

Element	Key Oxidation Numbers	
oxygen	-2 (oxide)	-1 (peroxide)
	1.) Variable subscript for oxygen 2.) Any metal and some nonmetals with oxygen: M_xO_y	1.) A subscript of 2 for oxygen 2.) Mostly Group IA and IIA metals with oxygen: M_xO_2
	Examples: Fe_2O_3 ; $2(Fe) + 3(O)=0$, $2(Fe) + 3(-2)=0$, $Fe=+3$ CO_2 ; $(C) + 2(O)=0$, $(C) + 2(-2)=0$, $C=+4$ Na_2O ; $2(Na) + (O)=0$, $2(Na) + (-2)=0$, $Na=+1$	Examples: Na_2O_2 ; $2(Na) + 2(O)=0$, $2(+1) + 2(O)=0$, $O= -1$ BaO_2 ; $(Ba) + 2(O)=0$, $(+2) + 2(O)=0$, $O= -1$
hydrogen	+1(hydrogen with a nonmetal)	-1(hydride = hydrogen and a metal)
	Examples: H_2S ; $2(H) + (S)=0$, $2(+1) + (S)=0$, $S=-2$	Examples: BaH_2 ; $(Ba) + 2(H)=0$, $(+2) + 2(H)=0$, $H=-1$
Group IA	+1 (Li, Na, K, Rb, Cs, Fr)	
	Examples: Fr_2S ; $2(Fr) + (S)=0$, $2(+1) + (S)=0$, $S=-2$	Rb_3N ; $3(Rb) + (N)=0$, $3(+1) + (N)=0$, $N=-3$
Group IIA	+2 (Be, Mg, Ca, Ba, Sr, Ra)	
	Examples: BaS ; $(Ba) + (S)=0$, $(+2) + (S)=0$, $S=-2$	Sr_3N_2 ; $3(Sr) + 2(N)=0$, $3(+2) + 2(N)=0$, $N=-3$
Aluminum	+3	
	Examples: Al_2S_3 ; $2(Al) + 3(S)=0$, $2(+3) + 3(S)=0$, $S= -2$	$2AlN$; $(Al) + (N)=0$, $(+3) + (N)=0$, $N=-3$
Halogens	-1 (a halogen with only a metal), F, Cl, Br, I	
	Examples: SbI_3 ; $(Sb)+3(I)=0$, $(Sb)+3(-1)=0$, $Sb=+3$	$PbCl_4$; $Pb+4(Cl)=0$, $Pb+4(Cl)=0$, $Pb=+4$
Things to Remember		
Nitrogen in a nitrate, (NO_3^{-1}) ion is always +5. Examples: $Ca(NO_3)_2$; $(Ca)+2(N)+6(O)=0$, $(+2)+2(N)+6(-2)=0$, $N=+5$ $Al(NO_3)_3$; $(Al)+3(N)+9(O)=0$, $(+3)+3(N)+9(-2)=0$, $N=+5$		When a metal is combined with a nonmetal, the metal is the positive element.
Sulfur in a sulfate, (SO_4^{-2}) ion is always +6. Examples: $CaSO_4$; $(Ca)+(S)+4(O)=0$, $(+2)+(S)+4(-2)=0$, $S=+6$ $Al_2(SO_4)_3$; $(Al)+3(S)+12(O)=0$, $(+3)+3(S)+12(-2)=0$, $S=+6$		An uncombined element has the oxidation number of zero (0).