

Metals are oxidized (lose e^-)

Nonmetals are reduced (gain e^-)

Families and Oxidation Numbers

Not a metal
↘

+1																	+2																	+3					-3	-2	-1	0
H																	Li	Be																	B	C	N	O	F	He		
Na	Mg																	Al	Si	P	S	Cl	Ar																			
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	+2									Br	Kr																					
Rb	Sr																	+1	+2					+2	+4					I	Xe											
Cs	Ba																					+2	+4	Bi					Rn													
Fr	Ra																																									

ale.co.uk

Elements in the same family have similar physical and chemical properties.

O.I.L.
oxidation
non

R.I.G.
reduction
non

Alkali Metals:

- ~ most reactive metals
- ~ soft, silvery metals
- ~ catch fire if they come into contact with H_2O

Halogens:

- ~ most reactive nonmetals
- ~ combine with metals to form salts

Alkaline Earth Metals:

- ~ also reactive
- ~ found in compounds in earth's crust

Transition Metals:

- ~ typical metals
- ~ good conductors
- ~ ductile & malleable

Noble Gases:

- ~ all gases at room temp.
- ~ inert (unreactive)

Lanthanides:

- ~ rare earth metals

Actinides:

- ~ all are radioactive