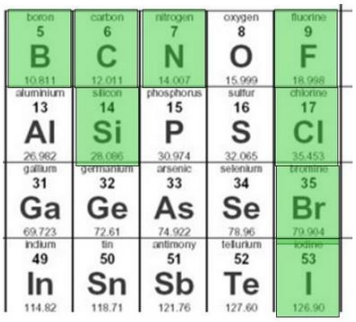
MEMORIZE THESE

Common Polyatomic Ions

+1 CHARGE		-1 CHARGE		-2 CHARGE		-3 CHARGE	
ion	**name**	**ion**	**name**	**ion**	**name**	**ion**	**name**
NH_4^+	ammonium	FO_3^-	fluorate	CO_3^{2-}	carbonate	BO_3^{3}	borate
H_3O^+	hydronium	ClO_3^-	chlorate	SiO_3^{2-}	silicate	PO_4^{3-}	phosphate
Hg_2^{2+}	mercury(I)	BrO_3^-	bromate	SO_4^{2-}	sulfate	AsO_4^{3-}	arsenate
		IO_3^-	iodate	CrO_4^{2-}	chromate		
		MnO_3^-	manganate	$Cr_2O_7^{2-}$	dichromate		
		NO_3^-	nitrate	$C_2O_4^{2-}$	oxalate		
		CH_3COO^-	acetate	S_2^{2-}	disulfide		
		$C_2H_3O_2^-$	acetate	C_2^{2-}	carbide		
		OH^-	hydroxide				
		CN^-	cyanide				
		N_3^-	azide				

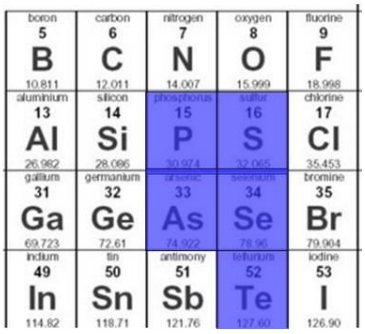
Oxyanions that ates = O_3

- Example
- CO_3



Oxyanions that ates = O_4

- Example
- SO_4



Oxyanion nomenclature*

Great +1	per - - ate	ClO_4^-	perchlorate	SO_5^{2-}	persulfate	PO_5^{3-}	perphosphate
Greater	**ate**	**ClO_3^-**	**chlorate**	**SO_4^{2-}**	**sulfate**	**PO_4^{3-}**	**phosphate**
Lesser	ite	ClO_2^-	chlorite	SO_3^{2-}	sulfite	PO_3^{3-}	phosphite
Lesser -1	hypo - -ite	ClO^-	hypochlorite	SO_2^{2-}	hyposulfite	PO_2^{3-}	hypophosphite

*3 examples ï but they all follow the same nomenclature (very few exceptions)

Common anions

-3 Charge		-2 Charge		-1 Charge	
N^{-3}	nitride	O^{2-}	Oxide	F^-	Fluoride
P^{-3}	phosphide	S^{2-}	Sulfide	Cl^-	Chloride
As^{-3}	arsenide	Se^{2-}	Selenide	Br^-	Bromide
		Te^{2-}	Telluride	I^-	Iodide
				At^-	Astatide

Acid nomenclature

Name	Ion	Acid Name	Formula
Per - - ate	ClO_4^-	Perchloric acid	$HClO_4$
ate	ClO_3^-	Chloric acid	$HClO_3$
Ite	ClO_2^-	Chlorous acid	$HClO_2$
Hypo - -ite	ClO^-	Hypochlorous acid	HClO
ide	Cl-	Hydrochloric acid*	HCl

*No oxygen then Hydro _____ic acid - HCN = Hydrocyanic, HCl = Hydrochloric

Oxygen Ions

O^{-2}	oxide
O_2^{2-}	peroxide
O_2^-	superoxide