

POLYATOMIC IONS

MEMORIZE

CATIONS

NH_4^+ ammonium

ANIONS

<u>-1</u>		<u>-2</u>		<u>-3</u>	
HSO_3^-	bisulfite	SO_3^{2-}	sulfite		
HSO_4^-	bisulfate	SO_4^{2-}	sulfate		
		$\text{S}_2\text{O}_3^{2-}$	thiosulfate		
HCO_3^-	bicarbonate	CO_3^{2-}	carbonate		
				PO_3^{3-}	phosphite
H_2PO_4^-	dihydrogen phosphate	HPO_4^{2-}	monohydrogen phosphate	PO_4^{3-}	phosphate
CN^-	cyanide	CrO_4^{2-}	chromate		
SCN^-	thiocyanate	$\text{Cr}_2\text{O}_7^{2-}$	dichromate		
NO_2^-	nitrite	$\text{C}_2\text{O}_4^{2-}$	oxalate		
NO_3^-	nitrate	O_2^{2-}	peroxide		
ClO^-	hypochlorite				
ClO_2^-	chlorite				
ClO_3^-	chlorate				
ClO_4^-	perchlorate				
MnO_4^-	permanganate				
OH^-	hydroxide				
$\text{C}_2\text{H}_3\text{O}_2^-$	acetate				

POLYATOMIC IONS “you may see these but don’t need to memorize”

HS^-	bisulfide	AsO_4^{3-}	arsenate
OCN^-	cyanate	BO_3^{3-}	borate
BrO^-	hypobromite		
BrO_2^-	bromite		
BrO_3^-	bromate		
BrO_4^-	perbromate		
IO^-	hypoiodite		
IO_2^-	iodite		
IO_3^-	iodate		
IO_4^-	periodate		

PREFIXES AND SUFFIXES (What they mean)

-ate	“most common variety”	-ide	only one kind of atom in the anion
-ite	one less oxygen atom than “ate” variety (same charge)	thio-	one oxygen atom replaced by S
Per-	one more oxygen atom than in “ate” variety (same charge)	bi-	one H^+ added to divalent anion
Hypo-	one less oxygen atom than in “ite” variety (same charge)	di-	two