

\*\*\*\*FILL IN THE NAMES\*\*\*\*

**Table 2. Common Polyatomic Ions**

Name	Formula	Name	Formula
-1 ions		-2 ions	
	$\text{CH}_3\text{COO}^-$		$\text{CO}_3^{2-}$
	$\text{OCN}^-$		$\text{CrO}_4^{2-}$
	$\text{CN}^-$		$\text{Cr}_2\text{O}_7^{2-}$
	$\text{HCO}_3^-$		$\text{C}_2\text{O}_4^{2-}$
	$\text{HSO}_4^-$		$\text{C}_8\text{H}_4\text{O}_4^{2-}$
	$\text{OH}^-$		$\text{SO}_4^{2-}$
	$\text{NO}_3^-$		$\text{SO}_3^{2-}$
	$\text{NO}_2^-$	-3 ions	
	$\text{SCN}^-$		$\text{AsO}_4^{3-}$
	$\text{ClO}_4^-$		$\text{PO}_4^{3-}$
	$\text{ClO}_3^-$		$\text{PO}_3^{3-}$
	$\text{ClO}_2^-$	+1 ions	
	$\text{ClO}^-$		$\text{NH}_4^+$
	$\text{MnO}_4^-$		$\text{H}_3\text{O}^+$

\*NOTE: The old names of these ions—*bicarbonate* and *bisulfate*—are no longer recommended by the IUPAC.

\*\*The bromine and iodine oxyanions follow the same name and formula patterns as the chlorine oxyanions shown here.

\*\*\*\*FILL IN THE FORMULAS AND CHARGES\*\*\*\*

**Table 2. Common Polyatomic Ions**

Name	Formula	Name	Formula
-1 ions		-2 ions	
acetate		carbonate	
cyanate		chromate	
cyanide		dichromate	
hydrogen carbonate*		oxalate	
hydrogen sulfate*		phthalate	
hydroxide		sulfate	
nitrate		sulfite	
nitrite		-3 ions	
thiocyanate		arsenate	
perchlorate**		phosphate	
chlorate**		phosphite	
chlorite**		+1 ions	
hypochlorite**		ammonium	
permanganate		hydronium	

\*NOTE: The old names of these ions—*bicarbonate* and *bisulfate*—are no longer recommended by the IUPAC.

\*\*The bromine and iodine oxyanions follow the same name and formula patterns as the chlorine oxyanions shown here.

1. The “oxy-anions” for the elements bromine and iodine are named in a manner analogous to the oxy-anions of chlorine. Use the examples on the left side of the table to complete the rest of this table. The last set is not an “oxy-anions”.

<b>Formula</b>	<b>Name</b>	<b>Formula</b>	<b>Name</b>	<b>Formula</b>	<b>Name</b>
<b>Cl</b>	<b>Cl</b>	<b>Br</b>	<b>Br</b>	<b>I</b>	<b>I</b>
$\text{ClO}_4^-$	perchlorate				
$\text{ClO}_3^-$	chlorate				
$\text{ClO}_2^-$	chlorite				
$\text{ClO}^-$	hypochlorite				
$\text{Cl}^-$ (not an oxy-anion)	chloride				