

Name \_\_\_\_\_

## Ionic Compounds

Write the charge of the common ion as a superscript	Write the charge of the common ion as a superscript	Formula of ionic compound (always write the cation + before anion-)	Name of ionic compound (Write the name of the cation + before the anion -)
$\text{Na}^+$	$\text{Cl}^-$	$\text{NaCl}$	sodium chloride
$\text{Ca}^{2+}$	$\text{F}^-$	$\text{CaF}_2$	calcium fluoride
$\text{S}^{-2}$	$\text{K}^+$	$\text{K}_2\text{S}$	potassium sulfide
$\text{O}^{-2}$	$\text{Ba}^{+2}$	$\text{BaO}$	barium oxide
$\text{Mg}^{2+}$	$\text{O}^{2-}$	$\text{MgO}$	magnesium oxide
$\text{I}^-$	$\text{Na}^+$	$\text{NaI}$	sodium iodide
$\text{Li}^+$	$\text{F}^-$	$\text{LiF}$	lithium fluoride
$\text{O}^{-2}$	$\text{Al}^{3+}$	$\text{Al}_2\text{O}_3$	aluminum oxide
$\text{Ca}^{2+}$	$\text{N}^{-3}$	$\text{Ca}_3\text{N}_2$	calcium nitride
$\text{K}^+$	$\text{P}^{-3}$	$\text{K}_3\text{P}$	potassium phosphide
$\text{Zn}^{2+}$	$\text{Cl}^-$	$\text{ZnCl}_2$	zinc chloride
$\text{N}^{-3}$	$\text{Rb}^+$	$\text{Rb}_3\text{N}$	rubidium nitride
$\text{S}^{-2}$	$\text{Na}^+$	$\text{Na}_2\text{S}$	sodium sulfide

Name \_\_\_\_\_

Write the formulas for the ionic compounds in the boxes.

	$CO_3^{2-}$	$Cl^-$	$SO_4^{2-}$	$S^{2-}$	$NO_3^-$	$OH^-$	$O^{2-}$	$PO_4^{3-}$
zinc $Zn^{2+}$	$ZnCO_3$	$ZnCl_2$	$ZnSO_4$	$ZnS$	$Zn(NO_3)_2$	$Zn(OH)_2$	$ZnO$	$Zn_3(PO_4)_2$
sodium $Na^+$	$Na_2CO_3$	$NaCl$	$Na_2SO_4$	$Na_2S$	$NaNO_3$	$NaOH$	$Na_2O$	$Na_3PO_4$
calcium $Ca^{2+}$	$CaCO_3$	$CaCl_2$	$CaSO_4$	$CaS$	$Ca(NO_3)_2$	$Ca(OH)_2$	$CaO$	$Ca_3(PO_4)_2$
ammonium $NH_4^+$	$(NH_4)_2CO_3$	$NH_4Cl$	$(NH_4)_2SO_4$	$(NH_4)_2S$	$NH_4NO_3$	$NH_4OH$	$(NH_4)_2O$	$(NH_4)_3PO_4$
strontium $Sr^{2+}$	$SrCO_3$	$SrCl_2$	$SrSO_4$	$SrS$	$Sr(NO_3)_2$	$Sr(OH)_2$	$SrO$	$Sr_3(PO_4)_2$
silver $Ag^+$	$Ag_2CO_3$	$AgCl$	$Ag_2SO_4$	$Ag_2S$	$AgNO_3$	$AgOH$	$Ag_2O$	$Ag_3PO_4$
aluminum $Al^{3+}$	$Al_2(CO_3)_3$	$AlCl_3$	$Al_2(SO_4)_3$	$Al_2S_3$	$Al(NO_3)_3$	$Al(OH)_3$	$Al_2O_3$	$AlPO_4$
Iron (III) $Fe^{3+}$	$Fe_2(CO_3)_3$	$FeCl_3$	$Fe_2(SO_4)_3$	$Fe_2S_3$	$Fe(NO_3)_3$	$Fe(OH)_3$	$Fe_2O_3$	$FePO_4$
Copper (II) $Cu^{2+}$	$CuCO_3$	$CuCl_2$	$CuSO_4$	$CuS$	$Cu(NO_3)_2$	$Cu(OH)_2$	$CuO$	$Cu_3(PO_4)_2$

Write the names of the ionic compounds in the boxes.

	$OH^-$	$SO_3^{2-}$	$PO_4^{3-}$
$K^+$	Potassium hydroxide	Potassium sulfite	Potassium phosphate
$Fe^{2+}$	Iron(II) hydroxide	Iron(II) sulfite	Iron(II) phosphate
$Cu^+$	Copper(I) hydroxide	Copper(I) sulfite	Copper(I) phosphate

Name \_\_\_\_\_

## Naming Ionic Compounds

(You will need a list of polyatomic ions.)

Fill in the table

Name of Positive Ion	Ion symbol	Name of Negative Ion	Ion Symbol	Chemical Formula
Aluminum	$\text{Al}^{3+}$	Acetate	$\text{C}_2\text{H}_3\text{O}_2^-$	$\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$
Iron(III)	$\text{Fe}^{3+}$	chloride	$\text{Cl}^-$	$\text{FeCl}_3$
Copper(II)	$\text{Cu}^{2+}$	chloride	$\text{Cl}^-$	$\text{CuCl}_2$
Copper(I)	$\text{Cu}^+$	Carbonate	$\text{CO}_3^{-2}$	$\text{Cu}_2\text{CO}_3$
Iron (II)	$\text{Fe}^{2+}$	Chloride	$\text{Cl}^-$	$\text{FeCl}_2$
Ammonium	$\text{NH}_4^+$	Chloride	$\text{Cl}^-$	$\text{NH}_4\text{Cl}$
Ammonium	$\text{NH}_4^+$	Sulfate	$\text{SO}_4^{-2}$	$(\text{NH}_4)_2\text{SO}_4$
Potassium	$\text{K}^+$	Sulfate	$\text{SO}_4^{-2}$	$\text{K}_2\text{SO}_4$
Calcium	$\text{Ca}^{2+}$	Cyanide	$\text{CN}^-$	$\text{Ca}(\text{CN})_2$
Aluminum	$\text{Al}^{3+}$	Nitrate	$\text{NO}_3^-$	$\text{Al}(\text{NO}_3)_3$
Ammonium	$\text{NH}_4^+$	Phosphate	$\text{PO}_4^{-3}$	$(\text{NH}_4)_3\text{PO}_4$
Strontium	$\text{Sr}^{2+}$	Chloride	$\text{Cl}^-$	$\text{SrCl}_2$
Barium	$\text{Ba}^{2+}$	Phosphate	$\text{PO}_4^{-3}$	$\text{Ba}_3(\text{PO}_4)_2$
Nickel(II)	$\text{Ni}^{2+}$	Chromate	$\text{CrO}_4^{-2}$	$\text{NiCrO}_4$
Rubidium	$\text{Rb}^+$	Oxide	$\text{O}^{-2}$	$\text{Rb}_2\text{O}$
Magnesium	$\text{Mg}^{2+}$	chloride	$\text{Cl}^-$	$\text{MgCl}_2$
Sodium	$\text{Na}^+$	Phosphate	$\text{PO}_4^{-3}$	$\text{Na}_3\text{PO}_4$
Iron(III)	$\text{Fe}^{3+}$	Nitrate	$\text{NO}_3^-$	$\text{Fe}(\text{NO}_3)_3$