

Now It's Your Turn!

1. a. Place 1 drop of each solution in the indicated spaces below. Stir by blowing air from a dry pipet.
- b. Combine the ions to write the formulas of the chemical compounds that are produced by the mixings. Name each compound.
- c. What happened with each mixing? Make a table describing your results. Write the formula and name of each compound produced by the mixings.

	AgNO_3 Ag^+	$\text{Pb}(\text{NO}_3)_2$ Pb^{2+}			
$\text{FeCl}_3(\text{Cl}^-)$	*given* AgCl silver chloride	PbCl_2 lead II chloride			
$\text{KI}(\text{I}^-)$	AgI silver iodide	PbI_2 lead II iodide	CuSO_4 Cu^{2+}	MgSO_4 Mg^{2+}	FeCl_3 Fe^{3+}
$\text{NaOH}(\text{OH}^-)$	AgOH silver hydroxide	$\text{Pb}(\text{OH})_2$ lead II hydroxide	$\text{Cu}(\text{OH})_2$ copper II hydroxide	$\text{Mg}(\text{OH})_2$ magnesium hydroxide	$\text{Fe}(\text{OH})_3$ iron III hydroxide
$\text{Na}_2\text{CO}_3(\text{CO}_3^{2-})$	Ag_2CO_3 silver carbonate	PbCO_3 lead II carbonate	CuCO_3 copper II carbonate	MgCO_3 magnesium carbonate	$\text{Fe}_2(\text{CO}_3)_3$ iron III carbonate
$\text{Na}_3\text{PO}_4(\text{PO}_4^{3-})$	Ag_3PO_4 silver phosphate	$\text{Pb}_3(\text{PO}_4)_2$ lead II phosphate	$\text{Cu}_3(\text{PO}_4)_2$ copper II phosphate	$\text{Mg}_3(\text{PO}_4)_2$ magnesium phosphate	FePO_4 iron III phosphate

* This brown precipitate is really silver oxide. $\text{Ag}_2\text{O}: 2\text{Ag}^+ + 2\text{OH}^- \rightarrow \text{Ag}_2\text{O} + \text{H}_2\text{O}$.

** Because of the acidity of Fe^{3+} , iron(III) carbonate does not exist. This is probably an amorphous iron(III) hydroxy carbonate.

* I filled out 2 here as well!

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Experimental Page

1. Observe the solid compounds below. If the name is given, write the formula. If the formula is given, write the name. Record your results in Table 6-1.

sodium iodide	sodium chloride	magnesium sulfate	copper (II) sulfate	
• tarnish peach-colored • fine grained				color
<u>NaI</u>	<u>NaCl</u>	<u>MgSO₄</u>	<u>CuSO₄</u>	formula
NaHCO ₃	AgNO ₃	NaNO ₂	KF	
• white • powdery				color
<u>sodium bicarbonate</u>	<u>silver nitrate</u>	<u>sodium nitrite</u>	<u>potassium fluoride</u>	
sodium carbonate	lead (II) nitrate	sodium acetate	ammonium chloride	
				color
<u>Na₂CO₃</u>	<u>Pb(NO₃)₂</u>	<u>NaC₂H₃O₂</u>	<u>NH₄Cl</u>	formula
sodium phosphate	calcium hydroxide	tin (IV) chloride	potassium bromide	
				color
<u>Na₃PO₄</u>	<u>Ca(OH)₂</u>	<u>SnCl₄</u>	<u>KBr</u>	formula
CaCl ₂	FeCl ₃	Na ₂ HPO ₄	NaH ₂ PO ₄	
				color
<u>calcium chloride</u>	<u>iron(III) chloride</u>	<u>sodium hydrogen phosphate</u>	<u>sodium dihydrogen phosphate</u>	name