Name _____ Period _____
Partner _____ Date _____

Discovering Precipitates Lab

Prelab Questions

1) Which ions, and how many of each, are present in the following compounds:

a) $Pb(NO_3)_2$

b) $CoSO_4$

c) NH_4I

Procedure

1. Wear safety goggles and follow all lab safety rules.

2. In a 96 well reaction plate, or on a sheet of plastic wrap, place approximately 2 drops each of the chemicals shown in the table below in each of the wells that are shown. Follow the pattern on the data table.

3. Observe the plate for at least five minutes. Record in the data table any observations you may see. List color changes, formation of precipitate, and any smell that you notice.

4. Clean the plate by slapping it smartly on a paper towel and then running large amounts of water over it. Clean any residues by scraping with a toothpick.

5. Clean up.

Data Table

		1	2	3	4	5	6	7	8
		$MnCl_2$	NH_4I	$BaCl_2$	$CoSO_4$	K_2CO_3	NaOH	HCl	$Pb(NO_3)_2$
A	$MnCl_2$	X							
B	NH_4I		X						
C	$BaCl_2$			X					
D	$CoSO_4$				X				
E	K_2CO_3					X			
F	NaOH						X		
G	HCl							X	
H	$CuSO_4$								

Post Lab Questions

1) If a combination of ions is soluble does it form a precipitate?

2) Are all precipitates white? Explain.

3) Name one ion that seems to always be soluble?

4) Name one ion that seems to always be insoluble

5) Are sulfides soluble?

6) Write a general statement about the solubility of the hydroxide ion.

7) Write a general statement about the solubility of the group one ions.

8) Write a general statement about the solubility of the halide ions.

9) Write a general statement about the solubility of the carbonate ion.

10) Make a table of solubility rules based on your observations