Ion Puzzles

- 1. Cut out the ion pieces provided. Do not lose them.
- 2. Use your periodic table to determine the charge of the following ions.

Ion Name	Charge	Ion Name	Charge	Ion Name	Charge	Ion Name	Charge
chloride		iron(II)		oxide		nitride	
bromide		potassium		selenide		nitrate	
sulfide		vanadium(V)		calcium		nitrite	
copper(I)		vanadium(IV)		sodium		phosphide	
copper(II)		gold(III)		strontium		phosphate	
iron(III)		gold(I)		barium		phosphite	
lithium		silver		fluoride		carbonate	
iodide		permanganate		zinc		cyanide	

3. Use your ion pieces to make the following compounds. Glue the pieces onto the sheet provided. Each ionic compound must form a rectangle to be correct. You must write the ion name on each ion piece and name and the formula next to your compounds.

Name	Formula	Name	Formula
sodium sulfide		zinc fluoride	
iron(III) nitrate		barium phosphite	
vanadium(IV) oxide		gold(III) permanganate	
vanadium(V) oxide		potassium phosphate	
silver phosphide		lithium carbonate	
	CuO		V(NO ₃) ₅
	Cu ₂ O		V(NO ₃) ₄
calcium phosphate		zinc oxide	

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copper(II)		gold(III)		strontium		phosphate	
iron(III)		gold(I)		barium		phosphite	
lithium		silver		fluoride		carbonate	
iodide		permanganate		zinc		cyanide	

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1+	1+	1+	
1+	1+	1+	
1+	1+	1+	
1+	1+	1+	
1+	1+	1+	
1+	1+	1+	
1-	1-	1-	
1-	1-	1-	
1-	1-	1-	
1-	1-	1-	
1-	1-	1-	
1-	1-	1-	

2+	2+	2+	
2+	2+	2+	
2.	2.	2	
2+	2+	2-	
2-	2-	2-	
2-	2-	2-	
2-	2-	2-	
2-	Σ-	2-	

3+	3+	3+	
3+	3+	3+	
3-	3-	3-	
3-	3-	3-	

	4+	4+	4+	
-	5+	5+	5+	
-				
	1+	1+	1+	
-	1+	1+	1+	
-				
	1+	1+	1+	
		!		

2+	2+	2+	
2+	2+	2+	
2.	2.	2	
2+	2+	2-	
2-	2-	2-	
2-	2-	2-	
2-	2-	2-	
2-	Σ-	2-	

	4+	4+	4+	
-	5+	5+	5+	
-				
	1+	1+	1+	
-	1+	1+	1+	
-				
	1+	1+	1+	
		!		