

EXP: TEST FOR ANIONS

NAME _____ PERIOD _____

PROCEDURE: For each anion test, use a squirt of each chemical in a test tube. Record your observations after each addition of a chemical.

To TEST FOR	ADD	OBSERVATIONS
GROUP 1 Precipitate with BaCl₂		
1. Sulfate, SO ₄ ⁻²	BaCl ₂ and HCl	1.
2. Carbonate, CO ₃ ⁻²	BaCl ₂ and HCl	2.
3. Phosphate, PO ₄ ⁻³	BaCl ₂ and HCl	3.
(If no reaction, go back to the original solution and do step 4.)		
GROUP 2 Precipitate with AgNO₃		
4. Phosphate, PO ₄ ⁻³	AgNO ₃	4.
4a. PO ₄ ⁻³ , confirming test,	Use original solution, add Ammonium molybdate. Heat in double boiler.	4a.
5. Chloride, Cl ⁻¹	AgNO ₃ , NH ₄ OH, HNO ₃	5.
6. Bromide, Br ⁻¹	AgNO ₃ , NH ₄ OH, HNO ₃	6.
6a. Br ⁻¹ , confirming test,	Add an equal amount of 3% starch solution, add 1 or 2 drops of NaOCl (Bleach).	6a.
7. Iodide, I ⁻¹	AgNO ₃ , NH ₄ OH, HNO ₃	7.
7a. I ⁻¹ , confirming test,	Add an equal amount of 3% starch solution, add 1 or 2 drops of NaOCl (Bleach).	7a.
GROUP 3 Soluble group, will not precipitate		
8. Nitrate, NO ₃ ⁻¹	FeSO ₄ and conc. H ₂ SO ₄	8.
Use equal amounts of NaNO ₃ and FeSO ₄ , then add a small amount of conc. H ₂ SO ₄ to the tilted test tube, allowing it to run down the side. Look for the brown ring.		

