

Classification of Matter Activity

Name: _____

Class Period: _____

GUIDELINES:

Use the assigned weighing boats

Return weighing boats, vials, and bottles to their original locations

Assume tap water is pure, even though it contains minerals and is therefore a solution

All liquid waste can go down the drain. Solids in the trash, including used centrifuge tubes

This lab will be done in “super groups”

If a step calls for using the centrifuge, make your observations after spinning the tube

Procedure	Qualitative observations	Classification <i>element, compound, solution, or heterogeneous mixture</i>	Change type <i>chemical or physical</i>
Part 1			
1. Get a piece of Zn			XXXXXXXXXXXXX
2. Obtain 0.75g of CuSO ₄			XXXXXXXXXXXXX
3. Obtain 5 mL water in a centrifuge tube			XXXXXXXXXXXXX
4. Dissolve CuSO ₄ in water			
5. Place Zn in test tube (wait 3 minutes). Empty and rinse tube			
Part 2			
1. Obtain 1.0g CuSO ₄			XXXXXXXXXXXXX
2. Obtain 5 mL water in a centrifuge tube			XXXXXXXXXXXXX
3. Dissolve CuSO ₄ in water			
4. Add 5 mL Ca(NO ₃) ₂ to centrifuge tube. Shake to mix and wait 2 minutes.			
5. Spin the centrifuge test tube in a balanced centrifuge. Empty and rinse.			

Procedure	Qualitative observations	Classification <i>element, compound, solution, or heterogeneous mixture</i>	Change type <i>chemical or physical</i>
Part 3			
1. Obtain 1.0g NaCl			XXXXXXXXXXXX
2. Obtain 5 mL water in centrifuge tube			XXXXXXXXXXXX
3. Dissolve NaCl in water			
4. Add 5 mL AgNO ₃ solution			
5. Spin the centrifuge tube in a balanced centrifuge			
6. Carefully pour off the liquid, retain the solid			
7. Add 5 mL ammonium hydroxide solution to centrifuge tube and shake			

Conclusions:

1. What patterns did you see in your observations relating to matter classification? Discuss 3.
2. What patterns did you see in your observations relating to physical and chemical changes? Discuss 3.
3. In the Salt & Sand Lab, you dissolved salt into water and then boiled it dry. Was boiling a chemical or a physical change? How can you tell?