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| **Chemistry 11**  **Lab: Solution Chemistry Precipitate Formation** | **Name: Date:**  **Block:** |

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| Objectives |

* To mix several pairs of solutions together and then note whether any precipitates form
* To deduce, from experimental results, which combinations of ions form precipitates
* To write a balanced formula equation, complete ionic equation and net ionic equation for each precipitation reaction

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| Safety |

* Wash any spills and splashes immediately with plenty of water and notify your instructor.

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| Procedure |

1. Fill in the table below with observations about the solutions we will be using in this lab. You were assigned solution group \_\_\_\_\_\_\_\_\_\_.

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| *Solutions:* |  |  |  |  |  |  |  |  |
| *Ions:* |  |  |  |  |  |  |  |  |
| *Colour Observations:* |  |  |  |  |  |  |  |  |

1. Complete the table below and **predict** which combinations of solutions will form precipitates. Use your solubility table.

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| **Solutions Used** |  |  |  |  |  |  |
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1. **STOP!** Show your teacher your completed predictions.

Teacher Initials:

1. Place a drop of one solution on the spot plate and add a drop of a second solution to it. Your observation will be enhanced if you place the spot plate over a dark surface.
2. If a precipitate forms (a solid), record this result in the table below by writing “**ppt**” in the appropriate square, along with the **colour** of the precipitate. If no precipitate forms, simply mark a dash (–) in the square.

**Observations**

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| **Solutions Used** |  |  |  |  |  |  |
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1. Repeat the above steps until all possible combinations of solutions have been tested.
2. Rinse our all equipment and dry the spot plate with a paper towel.
3. Wash your hands thoroughly with soap and water.

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| Follow-up Questions |

1. Did your predictions match your observations? Why or why not?
2. **On a separate sheet of paper**, complete the following for THREE precipitates that you observed:
3. Balanced formula equation
4. Complete net ionic equation
5. Net ionic equation