

# APRIL CHEMISTRY EVENT – “SOLUTIONS”

## **PART I:** # 's 1 - 20

Students will be asked to use their knowledge of solubility rules to determine compounds that are “soluble” or “insoluble” in water. Directions for recording their answers to “Part I” are as follows:

If the compound is **Soluble** in water, write “S” on the line provided in the answer sheet.

If the compound is **Insoluble** in water, write “I” on the line provided in the answer sheet

**Example:**                      NaCl                                      AgCl

**Answer:**                      S    I

**Solubility Charts must be studied prior to completing the event. Solubility Charts will NOT be allowed in the room. You can find “rules for solubility” in any chemistry textbook.**

## **PART II:** #'s 21 - 30

Students will be asked to use their knowledge of solubility rules to determine which compound would be the precipitate formed upon mixing two aqueous solutions. This section also requires students to have knowledge of double displacement reactions and correctly writing chemical formulas. Directions for recording their answers to “Part II” are as follows:

Identify the precipitate formed when aqueous solutions of these ionic compounds are mixed. **Write the correct chemical formula of the precipitate in your answer sheet.**

**Example:**                                       $\text{H}_2\text{SO}_4 (\text{aq}) + \text{BaCl}_2 (\text{aq}) \rightarrow$

**Answer:**                                       $\text{BaSO}_4$

**A periodic chart and a list of polyatomic ion names and charges will be provided for you. Students will NOT be allowed to bring their own.**

## **PART III:** #'s 31 - 40

Students will be asked to use their knowledge of solubility rules to determine which compound would be the precipitate formed upon mixing two aqueous solutions. **THEN...**they must write a **balanced net ionic equation for the reaction**, and must include appropriate symbols in their answer.

**Example:**                                       $\text{H}_2\text{SO}_4 (\text{aq}) + \text{BaCl}_2 (\text{aq}) \rightarrow$

**Answer:**                                       $\text{SO}_4^{2-} (\text{aq}) + \text{Ba}^{2+} (\text{aq}) \rightarrow \text{BaSO}_4 (\text{s})$

## **Part IV:** #'s 41 - 50

After groups have COMPLETED questions 1 – 40 described above, they will be directed to ten different stations. Each station has a solution to identify by color. They will be given three choices as to the possibilities, and with their knowledge of colors of solutions, they will be able to identify the correct solution composition. **THEY WILL HAVE NO MORE THAN 30 SECONDS AT A STATION AND WILL BE ASKED TO RECORD THE ANSWERS TO #'s 41 – 50 ON THEIR ANSWER SHEET.**