

Name: _____ Date: _____

Notes: Water and Aqueous Solutions

Define **solution**: _____

Define **aqueous solution**: _____

Define **solute**: _____

Define **solvent**: _____

What do H and O create by *sharing electrons*? _____

Why do hydrogen and oxygen not share their electrons equally? _____

Which element pulls harder on electrons in water? _____

If an element *pulls electrons towards itself*, will it become more positive or negative?

Explain your answer. _____

If an element *has electrons pulled away from it*, will it become more positive or negative?

Explain your answer. _____

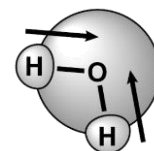
What is a compound called when electrons are not shared equally? _____



Which element in water will be more negative? _____

Which element in water will be more positive? _____

What does the δ mean? _____



What about water never changes? _____

What types of compounds can water dissolve well? _____

What happens to compounds when they dissolve? _____

What do ionic compounds specifically break apart into? _____

Is solubility a physical or chemical property? _____

Define **solubility**: _____

How do you determine if a substance will or will not be soluble in water?

What should you pay special attention to with the solubility rules? _____

Determine if the following compounds are soluble (S) or insoluble (I) in water using the solubility rules on your STAAR reference sheet:

Mg(NO₃)₂ _____ Ba(OH)₂ _____ Fe₂S₃ _____ Sr(OH)₂ _____
AlPO₄ _____ SrCl₂ _____ AgCl _____ Sr(NO₃)₂ _____
Na₂SO₄ _____ Pb(NO₃)₂ _____ Hg₂Cl₂ _____ CaCl₂ _____

Describe a **precipitation reaction**: _____

What is a **precipitate**? _____

What is true of the *reactants* in a precipitation reaction? _____

What happens to the ions of the reactants in solution? _____

What happens when the solutions mix? _____

Where is the second product at the end of the reaction?

For each chemical equation on your notes, determine which product is the precipitate using your solubility rules.

