

Introduction to Natural Science, Fall 2006
Chemistry Workshop – Week 7

1. Determine if the following compounds are water-soluble. If water soluble, determine the ions present in solution.
 - MgCO_3
 - NH_4NO_3
 - KBr
 - $\text{Fe}(\text{OH})_3$
 - CaSO_4

2. When the following solutions are mixed together, what precipitate (if any) will form. Write the complete and net ionic equations.
 - $\text{FeSO}_4 (\text{aq}) + \text{KCl} (\text{aq})$
 - $\text{Al}(\text{NO}_3)_3 (\text{aq}) + \text{Ba}(\text{OH})_2 (\text{aq})$
 - $\text{CaCl}_2 (\text{aq}) + \text{Na}_2\text{SO}_4 (\text{aq})$
 - $\text{K}_2\text{S} (\text{aq}) + \text{Ni}(\text{NO}_3)_2 (\text{aq})$

3. Write the complete ionic and net ionic reactions for the following acid-base reactions.
 - $\text{HClO}_4 (\text{aq}) + \text{Mg}(\text{OH})_2 (\text{s})$
 - $\text{HCN} (\text{aq}) + \text{NaOH} (\text{aq})$
 - $\text{CH}_3\text{COOH} (\text{aq}) + \text{KOH} (\text{aq})$