Solutions and Solubility Unit Review

describe the properties of water (e.g., polarity, hydrogen bonding), and explain why these properties make water such a good solvent

explain the process of formation of solutions that are produced by dissolving ionic and molecular compounds in water

use appropriate terminology related to aqueous solutions and solubility such as concentration, solubility, precipitate, ionization, dissociation, pH, dilute, solute, and solvent

solve problems related to the concentration of solutions by performing calculations involving moles, and express the results in various concentration units (e.g., moles per litre, grams per 100 mL, parts per million or parts per billion, mass, volume per cent)

identify, using a solubility table, the formation of precipitates in aqueous solutions

write balanced net ionic equations to represent precipitation and neutralization reactions

use stoichiometry to solve problems involving solutions and solubility

explain the Arrhenius theory of acids and bases

determine the concentration of an acid or a base in a solution using the acid-base titration technique

Suggested review problems:

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