Dr. Ludy Avila (STC) and Team

Description of Workshop Activities

Saturday, February 8, 2014

**Lab: Copper Reactions**

This laboratory experiment focuses on the chemical transformations of copper metal through different types of chemical reactions. In this series of reactions, copper metal will be dissolved in nitric acid; reaction with sodium hydroxide will produce copper (II) hydroxide; heating will produce copper (II) oxide; and copper (II) ions will then be reduced with magnesium metal to produce copper metal again. Modifications to ensure a safe experience in the high school chemistry setting will be discussed.

**Lab & Demonstrations: Gas Laws**

A laboratory and several demonstrations related to the gas laws (Boyle’s Law, Charles’ Law, Gay-Lussac’s Law, and the ideal gas law) will be performed. We will explore the conceptual and mathematical relations between volume, pressure, temperature, and number of moles for an ideal gas.