# Table of Contents: Lab Work

SCH3UE 07-08

| Lab # | Syllabus Section | Title of Investigation | Course Unit & Section Tested |
|---|---|---|---|
| 1 | | Thickness of Aluminum Foil | Measurement + Data |
| 2 | | Number of molecules in $H_2O$, Chalk, and Candy | Moles |
| 3 | | Percent Composition of MgO | Moles |
| 4 | | Formula of a hydrate, Epsom salt | Moles - Planning |
| 5 | | Empirical Formula of $MgCl_2$ | Moles |
| 6 | | Simulation of an Air Bag Gases | Planning |
| 7 | | Volume vs. Temperature Graph: Computer Analysis | Gases: DP: ITC |
| 8 | | % Sodium hydrogen carbonate in an Alka-Seltzer Tablet | |
| 9 | | Pressure required to pop Popcorn | Gases - Planning |
| 10 | | Mass Relationship in an equation: Aluminum and Copper (II) chloride dihydrate | MS, DC, DP&C |
| 11 | | Determination of Solubility of a Salt | MS |
| 12 | | Making a solution | MS |
| 13 | | Dilution of a solution | MS |
| 14 | | Determination of Volume of gas at SATP: Mg + HCl | MS, PS |
| 15 | | Determination of Molar Volume from experimental Data | Gases: DP |
| 16 | | Estimation of concentration of a Solution using a spectroscope | Solutions: DC, DP |
| 17 | | Double Displacement Reactions: Using Solubility Rules | |
| 18 | | Using Solubility Graphs: Computer Analysis | ITC |
| 19 | | Gravimetric Analysis: $Pb(NO_3)_{2(aq)} + KI_{(aq)}$ | DC, DE &C |
| 20 | | Planning Lab: Stoichiometry of a Reaction: $Na_2CO_3 + CaCl_2$ | Planning Lab, Lab Quiz |
| 21 | | Titration: Standardization of NaOH using HCl | |
| 22 | | Observing the Hydrogen Spectrum | Atomic Theory |
| 23, 24, 25 | | Qualitative Analysis: 3 hours | |
| 26 | | Electrolytes: Strong and Weak Acid –Base | ITC |

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| 27 | | Titration Curve for a strong acid-strong Base | |
| 28 | | Lab: Testing for Polarity of Compounds | |
| 29 | | Lab activity: Polarity of Molecules and IMFA's | |
| 30 | | Planning Lab: testing the structure of Ionic, molecular covalent, Network and metallic substances | |
| 31 | | Enthalpy of Ionic substances: Lattice Energy vs. Hydration Energy | |
| 32 | | Enthalpy of a reaction: Zn + $CuSO_4$ | |
| 33 | | Hess's Law: NaOH + HCl | |
| 34 | | Assignment: Molecules and Networks | |