

Correlation for Chemistry for the Rhetoric Stage and the Home Scientist Lab Kit



CRS Unit and Week	Home Scientist Lab
Unit 1: Introduction to Chemistry	
Week 1 - Introduction to Chemistry	Setup Lab Notebook (See Section 2)
Week 2 - Matter and Change	Session II-1: Solubility as a Function of Temperature
Week 3 - Measurements	Session II-2: Conductance of Ionic and Molecular Solutes
Week 4 - Atomic Structure, part 1	Session II-3: Colligative Properties of Solutions: Boiling Point, Elevation, Freezing Point Depression
Week 5 - Atomic Structure, part 2	Session VI-1: Determining the Effect of Temperature, Concentration, and Surface Area on Reaction Rates
Week 6 - Electrons, part 1	Session 1-1: Recrystallization
Week 7 - Electrons, part 2	Session 1-2: Chromatography
Week 8 - The Periodic Table	Session 1-3: Solvent Extraction
Week 9 - Nomenclature	Session 1-4: Salting Out
Unit 2: Bonding and Reactions	
Week 1 - Ionic and Metallic Bonding	Session III-1 Observe a Composition Reaction
Week 2 - Covalent Bonding	Session III-1: Observe a Decomposition Reaction
Week 3 - The Mole	Session X-1: Observe Electrolysis
Week 4 - Chemical Reactions	Session X-2: Observe the Electrochemical Oxidation of Iron
Week 5 - Stoichiometry	Session III-2: Observe a Decomposition Reaction
Week 6 - States of Matter, Part 1	Session III-3: Observe a Single Replacement Reaction
Week 7 - States of Matter, part 2	Session III-4: Observe a Double Replacement Reaction
Week 8 - Behavior of Gases, part 1	Session VIII-1: Observe the Pressure-Volume Relationship of Gasses (Boyle's Law)
Week 9 - Behavior of Gases, part 2	Session VIII-2: Observe the Volume-Temperature Relationship of Gases (Charles' Law)
Unit 3: Water and Equilibrium	
Week 1 - Water	Session VII-3: Observe the Characteristics of a Buffer Solution
Week 2 - Solutions, part 1	Session VII-2: Determine a Solubility Product Constant
Week 3 - Solutions, part 2	Session IX-1: Determine Heat of Solution
Week 4 - Thermochemistry, part 1	Session X-3: Measure Electrode Potentials
Week 5 - Thermochemistry, part 2	Session X-4: Build a Voltaic Cell
Week 6 - Kinetics	Session IX-2: Determine Heat of Fusion of Ice

Week 7 - Equilibrium	Session IX-3: Determine the Specific Heat of a Metal
Week 8 - Entropy and Free Energy	Session IX-4: Determine the Enthalpy Change of a Reaction
Unit 4: Organic Chemistry and More	
Week 1 - Acids and Bases, Part 1	Session V-1 Determine the Effect of Concentration on pH and the pH Range of Indicators
Week 2 - Acids and Bases, Part 2	Session V-2: Determine the Molarity of Vinegar by Titration
Week 3 - Oxidation Reduction Reactions	Session IV-1: Observe Oxidation States of Manganese
Week 4 - Electrochemistry	Session XI-1: Photochemical Reaction of Iodine and Oxalate
Week 5 - Nuclear Chemistry	Session XIII-1: Determine Boron concentration with Curcumin
Week 6 - Organic Chemistry, part 1	Session XIII-2: Determine Salicylate Concentration in Urine
Week 7 - Organic Chemistry, part 2	Session XIII-3: Determine Vitamin C Concentration in Urine
Week 8 - Biochemistry, part 1	Session XIII-4: Detect Lead in Household Materials
Week 9 - Biochemistry, part 2	Session XIV-1: Synthesize Esters