

Lab Correlation Chart for Chemistry for the Rhetoric Stage

Unit 1: Introduction to Chemistry		
CRS Unit and Week	Home Scientist CK01A Chemistry Lab Kit	Beyond Labz (Chemistry Online Labs)
Week 1 - Introduction to Chemistry	Setup Lab Notebook (See Section 2)	
Week 2 - Matter and Change	B1: Solubility as a Function of Temperature	Lab 3: Counting by Measuring Mass
Week 3 - Measurements	B2: Conductance of Ionic and Molecular Solutes	Lab 2: Names and Formulas of Ionic Compounds
Week 4 - Atomic Structure, part 1	B3: Colligative Properties of Solutions: Boiling Point, Elevation...	Lab 4: Thompson Cathode Ray Tube Experiment
Week 5 - Atomic Structure, part 2	F1: Determining the Effect of Temperature, Concentration...	Lab 5: Millikan Oil Drop Experiment
Week 6 - Electrons, part 1	A1: Recrystallization	Lab 6: Atomic Structure and Rutherford's Experiment
Week 7 - Electrons, part 2	A2: Chromatography	Lab 10: Electronic State Energy Levels
Week 8 - The Periodic Table	Full Lab Report	Lab 9: Diffraction Experiments
Week 9 - Nomenclature	Full Lab Report	Full Lab Report

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Unit 2: Bonding and Reactions		
CRS Unit and Week	Home Scientist CK01A Chemistry Lab Kit	Beyond Labz (Chemistry Online Labs)
Week 1 - Ionic and Metallic Bonding	C1 Observe a Composition Reaction	Lab 1: Flame Test for Metals
Week 2 - Covalent Bonding	C2: Observe a Decomposition Reaction	Lab 7: Atomic Emission Spectra
Week 3 - The Mole	J1: Observe Electrolysis	Lab 11: Pressure-Volume Relationship for Gases
Week 4 - Chemical Reactions	J2: Observe the Electrochemical Oxidation of Iron	Lab 12: Temperature-Volume Relationship for Gases
Week 5 - Stoichiometry	C3: Observe a Single Replacement Reaction	Lab 13: Derivation of the Ideal Gas Law
Week 6 - States of Matter, Part 1	C4: Observe a Double Replacement Reaction	Lab 14: Ideal vs Real Gases
Week 7 - States of Matter, part 2	C5: Stoichiometry of a Double Replacement Reaction	Lab 15: Investigation of Gas Pressure and Mass
Week 8 - Behavior of Gases, part 1	H1: Observe the Pressure-Volume Relationship of Gasses (Boyle's Law)	Lab 8: Photoelectric Effect
Week 9 - Behavior of Gases, part 2	H2: Observe the Volume-Temperature Relationship of Gases (Charles' Law)	No Lab

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Unit 3: Water and Equilibrium		
CRS Unit and Week	Home Scientist CK01A Chemistry Lab Kit	Beyond Labz (Chemistry Online Labs)
Week 1 - Water	G3: Observe the Characteristics of a Buffer Solution	Lab 22: Precipitation Reactions: Formation of Solids
Week 2 - Solutions, part 1	G2: Determine a Solubility Product Constant	Lab 23: Identification of Cations in Solution
Week 3 - Solutions, part 2	I1: Determine Heat of Solution	Lab 17: Heat of Fusion of Water
Week 4 - Thermochemistry, part 1	J3: Measure Electrode Potentials	Lab 19: Heat of Combustion
Week 5 - Thermochemistry, part 2	I2: Determine Heat of Fusion of Ice	Lab 18: Heats of Reaction
Week 6 - Kinetics	I3: Determine the Specific Heat of a Metal	Lab 16: The Specific Heat of a Metal
Week 7 - Equilibrium	I4: Determine the Enthalpy Change of a Reaction	Lab 20: Enthalpy and Entropy
Week 8 - Entropy and Free Energy	No Lab	No Lab

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Unit 4: Organic Chemistry and More		
CRS Unit and Week	Home Scientist CK01A Chemistry Lab Kit	Beyond Labz (Chemistry Online Labs)
Week 1 - Acids and Bases, Part 1	E1 Determine the Effect of Concentration on pH...	Lab 25: Study of Acid-Base Titrations
Week 2 - Acids and Bases, Part 2	E2: Determine the Molarity of Vinegar by Titration	Lab 26: Acid Base Titrations
Week 3 - Oxidation Reduction Reactions	D1: Observe Oxidation States of Manganese	Lab 27: Ionization Constants of Weak Acids
Week 4 - Electrochemistry	K1: Photochemical Reaction of Iodine and Oxalate	Lab 28: Analysis of Baking Soda
Week 5 - Nuclear Chemistry	L1: Observe Some Properties of Colloids and Suspensions	Lab 29: Molecular Weight Determination by Acid-Base Titration
Week 6 - Organic Chemistry, part 1	F2: Determine a Reaction Order	Lab 30: Redox Titrations: Determination of Iron
Week 7 - Organic Chemistry, part 2	M-1: Determine Vitamin C Concentration in Urine	Lab 24: Qualitative Analysis
Week 8 - Biochemistry, part 1	M2: Detect Lead in Household Materials	Lab 21: Electrolytes
Week 9 - Biochemistry, part 2	No Lab	No Lab