

Assignment Checklist Chemistry

Key

INTRO: Introduction, **WU:** Warm-Up, **CD:** Content, **PPT:** Presentation, **AC:** Application of Content, **S:** Summary, **GS:** Getting Started, **MS:** Module Survey, **MT:** Module Test, **MAA:** Module Authentic Assessment

Topic/Page in Course	Activity Title	Activity Type	Total Points	Date Completed	Points Earned
Introductory Module: Fundamentals of Science					
GS	The History of Chemistry	Video			
0.1 WU	The Scientific Method	Interactivity			
0.1 AC	Scientific Investigation Design	Scientific Investigation			
0.2 WU	Systems of Measurement	Think			
0.2 AC	Measurement Scenarios	Scenarios and Worksheet			
0.3 WU	What is Significant?	Brainstorm/List			
0.3 AC	Significant Figures and Calculations	Problem Set			
0.4 WU	A Graph is Worth a Thousand Words	Discussion			
0.4 AC	Make Your Own Graph	Graph			
0.5 WU	Previous Equipment	Think About			
0.5 AC	Lighting a Gas Burner	Check for Understanding			
0.6 WU	Safety Protection Find	Interactivity			
0.6 AC	Safety in the Lab	Public Service Announcement			
MAA	Fundamentals of Science App	App Design			
MT	Module Test	Test			
Module 1: What is Chemistry?					
GS	Day at the Beach	Interactivity			
1.1 WU	Matter Around You	Think			
1.1 AC	Nuts and Bolts Scientific Investigation	Virtual Scientific Investigation			
1.2 WU	Chemical and Physical Reactions: They Are Eggsellent!	Interactivity			
1.2 AC	Properties of Matter	Quiz			
1.3 WU	Is it Gold?	Interactivity			
1.3 AC	Calculating Density	Virtual Scientific Investigation			
1.4 WU	Trapped on a Desert Island	Think			
1.4 AC	Separation Techniques Procedure Design	Procedure Design			
	Separation in the Lab Scientific Investigation	Hands-On Scientific Investigation			
1.5 WU	Changing to the Metric System	Discussion			
1.5 AC	Explaining Dimensional Analysis	Email Composition			

MAA	Mystery Matter	Matter Identification and Analyzation			
MT	Module Test	Test			
Module 2: Atomic Structure and the History of Atomic Theory					
GS	Did You Know?	Interactivity			
2.1 WU	Division or Disappearance of Matter	Observation and Think About			
2.1 AC	Atomic Theory Debate Note Cards	Note Card Preparation			
2.2 WU	Do Electrons Exist?	Observation and Think About			
2.2 AC	Atomic Model Comparison Organizer	Graphic Organizer			
2.3 WU	What is in the Box?	Web-Sketch and Guessing			
2.3 AC	Reconstructing the Gold Foil Experiment	Drawing and Labeling			
2.4 WU	Reading the Periodic Table	Interactivity			
2.4 AC	Identifying and Determining Isotopes	Problem Set			
2.5 WU	Nuclear Chemistry: How Much Do You Know?	Interactivity			
2.5 AC	Nuclear Chemistry	Quiz			
2.6 WU	The Weight of Jellybeans	Think About			
2.6 AC	Average Atomic Mass	Problem Set			
2.7 WU	Can You Sort?	Interactivity			
2.7 AC	Pick an Element	Element Card Design			
MAA	Atomic Structure Timeline	Digital Timeline			
MT	Module Test	Test			
Module 3: Modern Atomic Theory, Electron Structure, and Periodicity					
GS	Electrons in Potassium	Think About			
3.1 WU	The Importance of Light	Think About			
3.1 AC	The Visible Spectrum	Problem Set			
3.2 WU	Opposites Attract	Think About			
3.2 AC	Analyzing Bohr Models	Problem Set			
3.3 WU	Is Seeing Believing?	Discussion			
3.3 AC	The Quantum Mechanical Model	Quiz			
3.4 WU	The One Rule and Two Principles of Electron Configuration	Interactivity			
3.4 AC	Electron Configurations and Orbital Diagrams	Problem Set			
3.5 WU	Did You Know? Periodic Table	Think About			
3.5 AC	Moseley and Periodic Law	Check for Understanding			
3.6 WU	Guessing Periodic Trends	Interactivity			
3.6 AC	Graphs of Periodic Trends	Graphing			
MAA	Models of the Hydrogen Atom Scientific Investigation	Virtual Scientific Investigation			

MT	Module Test	Test			
MS	Course Survey	Survey			
Module 4: Bonding, Formula Writing, and Nomenclature					
GS	Name That Substance	Interactivity			
4.1 WU	Jokes About Bonds	Jokes and Puns			
4.1 AC	Types of Chemical Bonds	Quiz			
4.2 WU	Electron Configuration	Interactivity			
4.2 AC	Lewis Dot Diagrams	Diagram Drawing			
4.3 WU	Metal, Nonmetal, or Semi-Metal	Think About			
4.3 AC	Ionic Formula Writing and Naming: Binary	Ionic Formula Writing and Naming			
4.4 WU	Writing Ionic Formulas	Interactivity			
4.4 AC	Writing Ternary Ionic Formulas	Graphic Organizer			
4.5 WU	Sharing Electrons and Bonding	Review and Video			
4.5 AC	Naming Molecular Compounds	Problem Set			
4.6 WU	Lewis Dot Diagrams Review	Sketch			
4.6 AC	VSEPR Theory Using Balloons Scientific Investigation	Hands-On Scientific Investigation			
4.7 WU	What If...?	Discussion			
4.7 AC	Molecular Polarity Scientific Investigation	Virtual Scientific Investigation			
4.8 WU	Words Using Inter- and Intra-	List			
4.8 AC	Molecular Polarity and Intermolecular Forces	Check for Understanding			
MAA	Compound Labels	Label Design			
MT	Module Test	Test			
Module 5: Chemical Quantities and Composition					
GS	Estimating Quantities	Think About			
5.1 WU	Quantities of Multiples	Think About			
5.1 AC	Mole Conversions	Problem Set			
5.2 WU	Nutrition Facts Label	URL			
5.2 AC	Percent Composition is SWEET! Scientific Investigation	Hands-On Scientific Investigation			
5.3 WU	Calculating Molar Mass	Interactivity and Think About			
5.3 AC	Empirical Formulas are SWEETER!	Problem Set			
MAA	A Mouthful of Moles: Part A	Scientific Investigation Design			
	A Mouthful of Moles: Part B	Scientific Investigation Implementation			
MT	Module Test	Test			
Module 6: Chemical Reactions					
GS	Fire in a Jar	Think About			
6.1 WU	Balancing Act	Online Game			
6.1 AC	Writing and Balancing Chemical Equations	Problem Set			

6.2 WU	Cleaning Tarnished Silver	Everyday Connection			
6.2 AC	Types of Chemical Reactions	Problem Set			
6.3 WU	Chemical Reactions	Interactivity			
6.3 AC	Predicting Products	Quiz			
6.4 WU	Items Including Water	List			
6.4 AC	Predicting Products of Precipitate Reactions	Problem Set			
6.5 WU	The Chemistry of Pet Food	Everyday Connection			
6.5 AC	Net Ionic Equations and Spectator Ions	Check for Understanding			
MAA	Chemical Reactions Museum Exhibit	Podcast and Transcript			
MT	Module Test	Test			
MS	Course Survey	Survey			
Module 7: Stoichiometry					
GS	Stoichiometry and Apollo 13	Historical Connection			
7.1 WU	Hamburger Ratios	Think About			
7.1 AC	Calculating and Using Mole Ratios	Problem Set			
7.2 WU	Cookie Stoichiometry	Interactivity			
7.2 AC	Gram to Gram Conversions	Problem Set			
7.3 WU	Different Volumes and Densities	Think About			
7.3 AC	Stoichiometric Variations with Dimensional Analysis	Problem Set			
7.4 WU	Limiting Reactants	Discussion			
7.4 AC	Dimensional Analysis for Limiting and Excess Reactants	Problem Set			
7.5 WU	Theoretical vs. Actual Yield	Think About			
7.5 AC	Calculating Percent Yield	Problem Set			
	Synthesis of Aspirin Scientific Investigation	Hands-On Scientific Investigation			
MAA	Stoichiometry Movie Trailer	Movie Trailer			
MT	Module Test	Test			
Module 8: Thermochemistry					
GS	Candle in a Dark Room	Scenario			
8.1 WU	Meal, Ready to Eat	Everyday Connection			
8.1 AC	Hess's Law and Enthalpy Changes	Problem Set			
8.2 WU	Catalysts and New Chemicals	Video			
8.2 AC	Elephant's Toothpaste Scientific Investigation	Hands-On Scientific Investigation			
8.3 WU	Absorbing and Radiating Energy	List			
8.3 AC	Thermstoichiometry	Problem Set			
8.4 WU	Falling Candy	Think About			
8.4 AC	Entropy	Quiz			
8.5 WU	What is Spontaneity?	Discussion			
8.5 AC	Gibbs Free Energy Equation	Problem Set			
8.6 WU	Phase Changes	Interactivity			
8.6 AC	The Heating Curve of Water	Graph and			

		Graph Analysis			
8.7 WU	Melting an Iceberg vs. Melting an Ice Cube	Think About			
8.7 AC	Phase Change Calculations	Problem Set			
8.8 WU	Popping a Balloon	Think About			
8.8 AC	Specific Heat Capacity	Quiz			
8.9 WU	Calorimetry	Video			
8.9 AC	Calorimetry	Check for Understanding			
MAA	Calorimetry Scientific Investigation	Hands-On Scientific Investigation			
MT	Module Test	Test			
Module 9: States of Matter and Gas Laws					
GS	The Gas Laws	Interactivity			
9.1 WU	Scuba Diving Tanks	Think About			
9.1 AC	KMT Scientific Investigation	Hands-On Scientific Investigation			
9.2 WU	Cooking at High Elevations	Think About			
9.2 AC	Phase Diagrams and Vapor Pressure Diagrams	Quiz			
9.3 WU	Gas Laws	List			
9.3 AC	Gas Properties Scientific Investigation	Virtual Scientific Investigation			
9.4 WU	Gas Laws – Saving Your Life	Think About			
9.4 AC	Ideal Gas Law	Problem Set			
9.5 WU	Diffusion of Gases	Discussion			
9.5 AC	Gas Velocity Scientific Investigation	Virtual Scientific Investigation			
9.6 WU	Dalton’s Law KWL	Graphic Organizer			
9.6 AC	Dalton’s Law of Partial Pressure	Problem Set			
9.7 WU	Stoichiometry Review	Interactivity			
9.7 AC	Gas Stoichiometry	Quiz			
MAA	States of Matter and Gas Laws	Collaborative Presentation			
MT	Module Test	Test			
MS	Course Survey	Survey			
Module 10: Solutions					
GS	Solutions in Caverns	Think About			
10.1 WU	Mixture or Pure Substance?	Interactivity			
10.1 AC	Observing Mixtures Scientific Investigation	Hands-On Scientific Investigation			
10.2 WU	Electrolytes in Sports Drinks	Think About			
10.2 AC	Build a Conductivity Meter	Device Design			
10.3 WU	Calculations Review	Interactivity			
10.3 AC	Drink Mix Scientific Investigation	Hands-On Scientific Investigation			
10.4 WU	Diluting Chemicals	List			
10.4 AC	Dilution	Quiz			
10.5 WU	Cooking Pasta	Think About			

10.5 AC	Ice Cream Scientific Investigation	Hands-On Scientific Investigation			
MAA	Chemistry Magazine Cover	Magazine Cover			
MT	Module Test	Test			
Module 11: Acid/Bases, Neutralization, and Redox Reactions					
GS	Acids and Bases	Think About			
11.1 WU	The pH Scale	Interactivity			
11.1 AC	pH Scale Scientific Investigation	Virtual Scientific Investigation			
11.2 WU	Polyatomic Ion Review	Interactivity			
11.2 AC	Naming Acids	Graphic Organizer			
11.3 WU	Tropical Fish Tank	Think About			
11.3 AC	Neutralization Reactions Crossword Puzzle	Crossword Puzzle Design			
11.4 WU	Indicator Colors	Think About			
11.4 AC	Acid-Base Titration Scientific Investigation	Hands-On Scientific Investigation			
11.5 WU	Oxidation Numbers Review	Interactivity			
11.5 AC	Oxidation Numbers	Problem Set			
11.6 WU	Why Do Apples Turn Brown?	Think About			
11.6 AC	Redox Reactions	Problem Set			
MAA	Acids and Bases Project Design	Project Design			
MT	Module Test	Test			
Module 12: Kinetics and Equilibrium					
GS	Sunglasses and Reversible Reactions	Think About			
12.1 WU	Equilibrium and Glasses	Observation			
12.1 AC	Equilibrium Expressions and Constants	Problem Set			
12.2 WU	Le Chatelier's Principal and Glasses	Observation			
12.2 AC	Le Chatelier's Principal Scientific Investigation	Virtual Scientific Investigation			
MAA	Candy Equilibrium Scientific Investigation	Hands-On Scientific Investigation			
MT	Module Test	Test			
MS	Course Survey	Survey			