

Date	Topics	Corresponding Textbook Chapters (Zumdahl)	Assignments
UNIT 1: CHEMISTRY 1 REVIEW AND CHEMISTRY FUNDAMENTALS			
Aug. 21	Lab Safety	See safety contract	Safety contract and quiz
Aug. 21	Math, measurement, and moles <ul style="list-style-type: none"> • Metric units, prefixes and conversions • Precision and accuracy • Significant digits in calculations and measurements. • Density problems • Mole problems <ul style="list-style-type: none"> ○ Molar mass ○ One-step conversions 	1	Summer assignment study guide Practice problems Labs – Determining moles - Thickness of Zinc Quick Quizzes
	Classification and properties of matter <ul style="list-style-type: none"> • States of matter and particulate diagrams • Classification of matter • Methods of separating mixtures • Changes in matter 	1	Summer assignment study guide Lab - Separating a mixture using column chromatography Quick Quizzes
	Nomenclature <ul style="list-style-type: none"> • Inorganic and acids • Organic 	2+, 22	Summer assignment study guide Practice Quick Quizzes Naming Quiz Lab – Acid Base Properties - Formula of a Hydrate
	Unit 1 Test		
UNIT 2: ATOMS, ELEMENTS, AND PERIODICITY			
Sept.	Atomic Structure <ul style="list-style-type: none"> • Development of models and evidence. • Electron arrangements • Spectroscopy, mass spectrometry, and PES • Periodic table and periodicity 	2 (part), 7	Summer assignment study guide Practice problems Quick Quizzes Atomic Structure Quiz Lab – Flame tests and spectroscopy - Periodic Trends
	Unit 2 Test		
UNIT 3: BONDING			
	Chemical Bonding	8, 9	Practice problems

	<ul style="list-style-type: none"> Types of bonding Drawing Lewis structures Percentage composition, empirical formula, and molecular formula 		Quick Quizzes Labs- Bonding in solids <ul style="list-style-type: none"> Percentage composition Empirical formula Hydrate Lab P2
Oct.	Molecular structure and shape	8, 9	Practice problems Model building/ software
	Intermolecular forces/ states of matter <ul style="list-style-type: none"> Kinetic molecular theory reviewed Determining FP and BP Bonding in solids 	10	Practice problems Quick Quizzes Labs- Enthalpy of vaporization <ul style="list-style-type: none"> Determining the identity of an unknown white substance
Nov.	Gas properties and gas laws <ul style="list-style-type: none"> Gas properties Relationships between P, V, T and moles 	5	Practice problems Quick Quizzes Labs- Molar volume of a gas <ul style="list-style-type: none"> Density of a gas
	Solutions <ul style="list-style-type: none"> Solution properties Solution concentration problems Solution preparation 	11	Practice problems Quick Quizzes Lab- Preparation of a solution Lab – Beer’s Law
	Unit 3 Test		
UNIT 4: CHEMICAL REACTIONS			
Dec.	Equation writing and balancing - review	4	Practice problems Quick Quizzes
	Reaction stoichiometry <ul style="list-style-type: none"> Mole and mass relationships Limiting reactants and percent yield. 	3	Practice problems Quick Quizzes Labs- Gravimetric Analysis <ul style="list-style-type: none"> Limiting Reactant/Percent Yield
	Reaction Types	4	Practice Quick Quizzes Labs – Single replacement <ul style="list-style-type: none"> Developing an activity series Reactions Quiz
Dec.	Redox Reactions and Electrochemistry	18	Practice Problems Quick Quizzes Labs – Galvanic cells <ul style="list-style-type: none"> Electrolysis
	Unit 4 Test		

UNIT 5: CHEMICAL EQUILIBRIA			
Jan.	Equilibrium <ul style="list-style-type: none"> • General concepts • LeChatelier's Principle • Gaseous equilibrium 	13	Practice problems Quick Quizzes
	Acids, bases, and buffers <ul style="list-style-type: none"> • Acid and base definitions and properties • pH calculations • A-B equilibrium problems <ul style="list-style-type: none"> ○ Common ions ○ Buffers ○ Titrations ○ Indicators 	14, 15	Practice problems Graphing Quick Quizzes Labs- Properties of Salts <ul style="list-style-type: none"> - Standardization of NaOH - Percentage CH₃COOH in Vinegar - Ka of Weak Acids - Buffering Activity
	Solubility Equilibrium	16	Practice problems Quick Quizzes
	Complex Ions	16	
	Unit 5 Test		
UNIT 6: THERMOCHEMISTRY			
Feb.	Thermochemistry (I) <ul style="list-style-type: none"> • Basic concepts • Calorimetry 	6	Practice problems Quick Quizzes Labs – Hess' Law <ul style="list-style-type: none"> - Design a handwarmer
	Thermochemistry (II) <ul style="list-style-type: none"> • Enthalpy, entropy and free energy 	16	Practice problems Quick Quizzes
	Unit 6 Test		
UNIT 7: KINETICS			
Mar.	Kinetics	12	Practice problems Graphing Quick Quizzes Lab- Rate Law for Crystal Violet.
	Unit 7 Test		
EXAM REVIEW			
Apr-May	Review		
Apr	Practice Exam		
May 7	AP Exam		