

Chemistry Unit 5 Outline: Chemical Equations and Reactions and Stoichiometry

Chapter 8: Chemical Equations and Reactions

Classes	Topics	Suggested Reading	✓	Assignments	✓
1	Physical Properties and Physical Change, Chemical Properties and Chemical Change, Chemical Reactions, Evidence of Chemical Reactions, Reactants and Products, Energy of Chemical Reactions, Chemical Equations (Words and Formulas)	8.1 Describing Chemical Reactions (pg. 260 – 266)		pg. 266 #1 to 17	
2 to 4	Balancing Chemical Equations, Types of Chemical Reactions (Synthesis, Decomposition, Hydrocarbon Combustion, Single and Double Replacements), Activity Series, Solubility Table, Predicting Products	8.2 Balancing Chemical Equations (pg. 267 – 274) 8.3 Classifying Chemical Equations (pg. 275 – 285)		pg. 269 #1 to 4 (Practice); pg. 271 #1 to 3 (Practice) pg. 273 #1 to 3 (Practice); pg. 274 #1 to 10 pg. 279 #1 to 3 (Practice); pg. 282 #1 to 3 (Practice) pg. 285 #3 to 14	
5	Molecular and Ionic Equation, Complete Ionic Equation, Net-Ionic Equation, Spectator Ions	8.4 Writing Net-Ionic Equations (pg. 286 – 289)		pg. 289 #1 to 12 and 15	
6	Activity #4: Chemical Reactions (A & G Blocks: February 17, Thursday) (F Block: February 16, Wednesday)			Activity #4 Due (March 4, Friday)	
7	Chapter 8 Quiz (A & G Blocks: March 3, Thursday) (F Block: March 2 Wednesday)	Chapter 8 Review		pg. 293–295 #26 to 44 (omit 33d, 35c and 38d) Chapter 8 Sample Questions	

Chapter 9: Stoichiometry

Classes	Topics	Suggested Reading	✓	Assignments	✓
1	Stoichiometry, Mole Ratio, Gravimetric (Mass) Stoichiometry, Volume and Density Stoichiometry, Particle Stoichiometry	9.1 Calculating Quantities in Reactions (pg. 302 – 311)		pg. 304 #1 and 2 (Practice); pg. 307 #1 to 4 (Practice) pg. 309 #1 to 4 (Practice); pg. 311 #1 and 2 (Practice) pg. 311 #1 to 7	
2 to 4	Limiting Reactants, Excess Reactant, Theoretical Yield, Determine Limiting Theoretical Yield from Limiting Reactant, Actual Yield, Percentage Yield, Determining Actual Yield, Airbag, Stalling and Flooding Engines, Catalytic Converters	9.2 Limiting Reactants and Percentage Yield (pg. 312 – 318) 9.3 Stoichiometry and Cars (pg. 320 – 327)		pg. 314 #1 to 3 (Practice); pg. 317 #1 to 3 (Practice) pg. 318 #1 to 3 (Practice); pg. 319 #1 to 14 pg. 322 #1 to 4 (Practice); pg. 327 #1 (Practice); pg. 327 #1 to 4, 7, 9	
	<i>Applications of Stoichiometry</i> <i>(Optional – Engine Cycles)</i>	9.3 <i>Stoichiometry and Cars</i> (pg. 320-7)		pg. 324 #1 to 3 (Practice)	
5	Lab #5: Precipitation Reaction (A & G Block: March 15, Thursday) (F Block: March 14, Monday)			Lab #5 Report Due (A Block: March 24, Thursday) (F & G Block: March 25, Friday)	
6	Unit 5 Test (A Block: March 21, Monday) (F & G Block: March 22, Tuesday)	Chapter 9 Review		pg. 329–332 #21 to 50 (odd); (even-optional) Chapter 9 Sample Questions	