

Honour Chemistry

Unit 7 Outline: Chemical Kinetics and Equilibrium

Chapters 19: Reaction Rates and Equilibrium

Classes	Topics	Suggested Reading	✓	Assignments	✓
1	Collision Theory, Reaction Rates, Activation Energy, Factors Affecting Reaction Rates (Temperature, Concentration, Particle Size, Catalysts, Inhibitors), Reversible Reactions, Chemical Equilibrium, Dynamic Equilibrium, Le Châtelier's Principle (Concentrations, Temperature, Pressure Changes)	19.1: Rates of Reaction (pg. 533 to 538) 19.2A: Reversible Reactions (pg. 539 to 544)		pg. 538 #1 to 5; pg. 572 #39 to 43; pg. 573 #74 pg. 544 #6 and 7; pg. 548 #14 and 16; pg. 572 #44 to 47; pg. 573 #67, 70 and 76; pg. 575 #3	
2 and 3	Equilibrium Constants (K_{eq} and K_p), Equilibrium Expression, Equilibrium Concentrations and Pressures, Equilibrium Position, Homogeneous and Heterogeneous Equilibrium, Calculating Equilibrium Constants from Equilibrium Concentrations or Pressures, ICE Box, Calculating Other Equilibrium Concentrations from Equilibrium Constants, an Equilibrium Concentration or Pressure, and Other Initial Concentrations or Pressures	19.2B: Equilibrium Constants, Concentrations and Pressures (pg. 545 to 548)		pg. 545 #8; pg. 546 #9 and 10; pg. 547 #11 and 12; pg. 548 #13, 15, 17 to 19; pg. 572 #48 to 50; pg. 573 #71 and 72; pg. 575 #1	
4	Calculating Equilibrium Concentrations from Equilibrium Constants and Initial Concentrations or Pressures	19.2C: Equilibrium Calculations with Initial Concentrations and Pressures (Extra Notes)		Equilibrium Calculations Worksheet	
5	Chapter 19 Quiz (on 19.1 to 19.2B) (April 3, Thursday)				
6	Lab #8: Chemical Equilibrium April 15, Tuesday			Lab #8 Report Due: April 21, Monday	
7	Review all Concepts Learned in Unit 7	Chapter 19 Review: Equilibrium and Rates of Reaction		Unit 7 Review: pg. 575 #1 and 3 Unit 7 Practice Test	
8	Unit 7 Test (April 18, Friday)				