

# Chemistry 1A Suggested Readings & Problem Sets

Chemistry, by Wilbraham, Staley, Matta, and Waterman, Prentice Hall, © 2005

**1. Nomenclature (Chapter 9, Chemical Names and Formulas; Chapter 22, Hydrocarbon Compounds)**

*Readings: Sections 9.1-9.5, 22.1*

*Problems: Ch. 9: 42-70, 76-84; Ch. 22: 37-41*

**2. Percent Composition and Molecular Formulas (Chapter 10, Chemical Quantities)**

*Readings: Sections 10.1-10.3*

*Problems: 70-87*

**3. Chemical Reactions (Chapter 11, Chemical Reactions)**

*Readings: Section 11.1-11.3*

*Problems: 36-69; supplemental exercises provided by instructor*

**4. Stoichiometry (Chapter 12, Stoichiometry)**

*Readings: Sections 12.1-12.3*

*Problems: 36-61, 65-66*

**5. States of Matter (Chapter 13, States of Matter)**

*Readings: Sections 13.1-13.3*

*Problems: 26-71, 75-76*

**6. Thermochemistry (Chapter 17, Thermochemistry)**

*Readings: Sections 17.1-17.4*

*Problems: 36-83, 86*

**7. Gas Laws (Chapter 14, The Behavior of Gases)**

*Readings: Sections 14.1-14.4*

*Problems: 39-82, 84; supplemental stoichiometry exercises provided by instructor*

**8. Electron Configuration (Chapter 5, Electrons in Atoms)**

*Readings: Sections 5.1-5.2*

*Problems: 22-62, 64-74*

**9. Periodic Law (Chapter 6, The Periodic Table)**

*Readings: Sections 6.1-6.3*

*Problems: 24-65, 67-69*

**10. Bonding (Chapter 7, Ionic and Metallic Bonding; Chapter 8, Covalent Bonding)**

*Readings: Sections 7.1-7.3, 8.1-8.4*

*Problems: 30-67, 72-76, 78*

**11. Water and Solutions (Chapter 15, Water and Aqueous Systems; Chapter 16, Solutions)**

*Readings: Sections 15.1-15.3, 16.1-16.4*

*Problems: 22-75*

**12. Reaction Rates and Equilibrium (Chapter 18, Reaction Rates and Equilibrium)**

*Readings: Sections 18.1-18.5*

*Problems: 43-87*

**13. Acids, Bases and Salts (Chapter 19, Acids, Bases, and Salts)**

*Readings: Sections 19.1-19.5*

*Problems: 44-92*

