

Nomenclature and Chemical Reactions

Reading Assignments

Modern Chemistry (2006), Chpts. 6, 7(sect. 1), 8

Supplementary Reading

“Noble Gases and Uranium Get Cozy”, *Science News* v161 #14

Homework/Activities

- Chpt. 6, Sect. 1 (p.177) #1-5 Chpt. 6, Sect. 2 (p.189) #1, 3, 5 Due: _____
- Chpt. 6, Sect. 3 (p.194) #1-5 Chpt. 6, Sect. 5 (p.207) #5-6 Due: _____
- Chapter 6 Review #6-7, 15, 19-21, 45-47, 63-64, 68-69, 71 Due: _____
- Worksheets: Nomenclature - Ionic Compounds, Acids/Covalent Due: _____
- Chpt. 7, Sect. 1 (p.231) #1-4* Due: _____
- Chapter 7 Review #1, 3-11, 14-18 Due: _____
- Science Article: Noble Gases and Uranium Due: _____
- Chpt. 8, Sect. 1 (p.274) #1-5 Chpt. 8, Sect. 2 (p.284) #1-2 Due: _____
- Chpt. 8, Sect. 3 (p.287) #1-3 Due: _____
- Chapter 8 Review #1, 7-8, 10, 11-15, 22-27, 29, 34-35, 44 Due: _____
- Worksheet: Balancing Equations Due: _____
- TBA: _____ Due: _____

Concepts/Topics

- Types of bonds: ionic, covalent (polar/nonpolar), electronegativity [p.175-177]
- Covalent bonds, bond energy, bond length [p.178-182, 186-189]
- Ionic bonds, polyatomic ions [p.190-194]
- Molecular/chemical formulas, diatomic elements (H, O, N, halogens) [p.219-220]
- Nomenclature (ionic compounds) [p.220-227]
- Nomenclature (covalent compounds), number prefixes [p.227-229]
- Nomenclature (binary and oxy acids) [p.230-231]
- Chemical rxn notation: reactants, products, coefficients, subscripts [p.262-267]
- Unbalanced (skeleton) equations, balancing rxns, predicting products [p.270-274]
- 5 major types of reactions: synthesis, decomposition, combustion, etc. [p.276-284]
- Activity series [p.285-287]
- Energy (in the bonds!); endothermic, exothermic, activation energy [p.564]
- Catalysts (and four other ways to speed up reactions) [p.568-570]

Web Resources

Formulas to names	science.widener.edu/svb/tutorial/namingcsn7.html
Names to formulas	science.widener.edu/svb/tutorial/namestofomulascsn7.html
Formulas to names (metals)	science.widener.edu/svb/tutorial/stocknamingcsn7.html
Balancing Eqs., CSU Dom. Hills	proton.csudh.edu/lecture_help/startbalancerxns.html
Balancing Eqs., Widener Univ.	science.widener.edu/svb/tutorial/rxnbalancingcsn7.html
Balancing Eqs., Jefferson Lab	education.jlab.org/elementbalancing/index.html

*Chpt. 7, Sect. 1 #3 – Only worry about roman numerals for the transition metals