Appendix B: Daily Assignments

If your school year consists of 180 days, you can use this list of daily assignments to complete the course in one school year.

Week 1:

- Read the introduction and check out the course website
- Read pages 1-5, solving “Comprehension Check” problems 1&2.
- Read from page 6 to “Converting Between Units” on page 9, completing “Comprehension Check” problems 3&4 and completing Experiment 1.1.
- Read from “Converting Between Units” on page 9 to “Scientific Notation” on page 13, completing “Comprehension Check” problems 5&6.
- Read from “Scientific Notation” on page 13 to Experiment 1.2 on page 17, completing “Comprehension Check” problems 7&8.

Week 2:

- Complete Experiment 1.2 and read to “Measuring Mass” on page 19, completing “Comprehension Check” problems 9&10.
- Read from “Measuring Mass” on page 19 to “More on Density” on page 25, completing “Comprehension Check” problems 11-14.
- Read from “More on Density” on page 25 to the end of page 26, completing Experiment 1.3 and “Comprehension Check” problem 15
- Do problems 1-13 in the review.
- Do problems 14-22 in the review.

Week 3:

- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 1.
- Read from page 37 to the end of Experiment 2.1 on page 39, completing Experiment 2.1.
- Read from the end of Experiment 2.1 on page 39 to “Mass Conservation: It’s Not Just a Good Idea, It’s the Law!” on page 42, completing “Comprehension Check” problems 1&2.
- Read from “Mass Conservation: It’s Not Just a Good Idea, It’s the Law!” on page 42 to “Elements and Compounds” on page 44, completing Experiment 2.2 and “Comprehension Check” problem 3.

Week 4:

- Read from “Elements and Compounds” on page 44 to the end of Experiment 2.3 on page 47, completing Experiment 2.3 and “Comprehension Check” problems 4&5.
- Read from the top of page 48 to the end of page 50, completing “Comprehension Check” problems 6&7.
- Read from the beginning of page 51 to “What’s Wrong with Dalton’s Theory: Part One” on page 54, completing “Comprehension Check” problems 8&9.
- Read from “What’s Wrong with Dalton’s Theory: Part One” on page 54 to the end of page 60, completing “Comprehension Check” problems 10&11.
- Do all problems in the review.
Week 5:

- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 2.
- Read from the top of page 67 to “Defining the Atoms that Make Up an Element” on page 70, completing “Comprehension Check” problems 1&2.
- Read from “Defining the Atoms that Make Up an Element” on page 70 to the end of page 74, completing “Comprehension Check” problems 3&4.
- Read from the top of page 75 to the “The Electromagnetic Spectrum” on page 78, completing “Comprehension Check” problems 5&6.

Week 6:

- Read from the “The Electromagnetic Spectrum” on page 78 to the end of page 80, completing Experiment 3.1 and “Comprehension Check” problem 7.
- Read from the top of page 81 to the end of Experiment 3.2 on page 84, completing Experiment 3.2 and “Comprehension Check” problem 8.
- Read from the end of Experiment 3.2 on page 84 to “More on The Bohr Model” on page 87, completing “Comprehension Check” problems 9&10.
- Read from “More on The Bohr Model” on page 87 to the end of page 90, completing “Comprehension Check” problem 11.
- Do problems 1-12 in the review.

Week 7:

- Do problems 13-23 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 3.
- Read from the top of page 97 to “Out with Orbits, In with Orbitals” on page 100, completing Experiment 4.1 and “Comprehension Check” problem 1.
- Read from “Out with Orbits, In with Orbitals” on page 100 to the end of page 104, completing “Comprehension Check” problems 2&3.

Week 8:

- Read from the beginning of page 105 to the end of page 109, completing “Comprehension Check” problems 4-6.
- Read from the beginning of page 110 to “Metals, Nonmetals, and the In-Betweens” on page 112, completing “Comprehension Check” problems 7&8.
- Read from “Metals, Nonmetals, and the In-Betweens” on page 112 to “Ionic Compounds” on page 114, completing Experiment 4.2 and “Comprehension Check” problem 9.
- Read from “An Important Characteristic of Ionic Compounds” on page 118 to the end of page 120, completing Experiment 4.3.

Week 9:

- Do all problems in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 4.
Appendix B: Daily Assignments

- Read from the top of page 127 to “More Complicated Lewis Structures” on page 131, completing “Comprehension Check” problems 1&2.
- Read from “More Complicated Lewis Structures” on page 131 to “Naming Covalent Compounds” on page 134, completing “Comprehension Check” problem 3.

**Week 10:**

- Read from “Naming Covalent Compounds” on page 134 to “A Consequence of Polar Covalent Bonds” on page 139, completing “Comprehension Check” problems 4-7.
- Read from “A Consequence of Polar Covalent Bonds” on page 139 to the definition of a polar covalent molecule on page 141, completing Experiment 5.1.
- Read from the definition of a polar covalent molecule on page 141 to Example 5.4 on page 146, completing “Comprehension Check” problems 8&9.
- Read from Example 5.4 on page 146 to the end of page 147, completing “Comprehension Check” problems 10-12.
- Read from the beginning of page 148 to “Why is Polarity Important?” on page 151, completing “Comprehension Check” problems 13-14.

**Week 11:**

- Read from “Why is Polarity Important?” on page 151 to the end of page 153, completing Experiment 5.2 and “Comprehension Check” problem 15.
- Do problems 1-6 in the review.
- Do all problems 7-14 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 5.

**Week 12:**

- Read from page 161 to Experiment 6.1 on page 165, completing “Comprehension Check” problems 1&2.
- Read from Experiment 6.1 on page 165 to “The Kinetic Theory of Matter” on page 167, completing Experiment 6.1 and “Comprehension Check” problem 3.
- Read from “The Kinetic Theory of Matter” on page 167 to the definition of the Kinetic Theory of Matter on page 169, completing Experiment 6.2.
- Read from the definition of the Kinetic Theory of Matter on page 169 to “Chemical Reactions” on page 172, completing “Comprehension Check” problems 4&5.
- Read from “Chemical Reactions” on page 172 to “Balancing Chemical Equations” on page 176, completing “Comprehension Check” problem 6.

**Week 13:**

- Read from “Balancing Chemical Equations” on page 176 to “The Mathematical Nature of Chemical Equations” on page 180, completing “Comprehension Check” problems 7-9.
- Read from “The Mathematical Nature of Chemical Equations” on page 180 to “Single and Double Displacement Reactions” on page 183, completing “Comprehension Check” problems 10-12.
- Read from “Single and Double Displacement Reactions” on page 183 to “Combustion Reactions” on page 185, completing Experiment 6.3 and “Comprehension Check” problem 13.
- Read from “Combustion Reactions” on page 185 to the end of page 188, completing Experiment 6.4 and “Comprehension Check” problem 14.
- Do problems 1-13 in the review.

The owner of this book is free to copy this page.
Week 14:

- Do problems 14-16 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 6.
- Read from page 197 to the end of Example 7.1 on page 200, completing “Comprehension Check” problems 1&2.
- Read from the end of Example 7.1 on page 200 to Experiment 7.1 on page 202, completing “Comprehension Check” problems 3&4.

Week 15:

- Read from Experiment 7.1 on page 202 to the end of Experiment 7.1 on page 203, completing Experiment 7.1.
- Read from the end of Experiment 7.1 on page 203 to “There is a Limit!” on page 206, completing “Comprehension Check” problems 5&6.
- Read from “There is a Limit!” on page 206 to the definition of limiting reactant on page 208, completing Experiment 7.2.
- Read from the definition of limiting reactant on page 208 to “Stoichiometry Gets Massive” on page 212, completing “Comprehension Check” problems 7-9.
- Read from “Stoichiometry Gets Massive” on page 212 to “A Practical Application of Stoichiometry” on page 216, completing “Comprehension Check” problems 10-12.

Week 16:

- Read from “A Practical Application of Stoichiometry” on page 216 to the end of page 217, completing Experiment 7.3.
- Do problems 1-13 in the review.
- Do problems 14-20 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 7.

Week 17:

- Read from page 227 to the end of Experiment 8.1 on page 228, completing Experiment 8.1.
- Read from the top of page 229 to “Empirical and Molecular Formulas” on page 232, completing “Comprehension Check” problems 1-3.
- Read from “More complicated Combustion Analysis” on page 239 to “Polyatomic Ions” on page 243, completing “Comprehension Check” problems 9-11.

Week 18:

- Read from “Polyatomic Ions” on page 243 to the end of page 247, completing “Comprehension Check” problems 12-14.
- Do problems 1-12 in the review.
- Do problems 13-20 in the review.

*The owner of this book is free to copy this page.*
Appendix B: Daily Assignments

☐ Correct any of your errors in the review and study for the test.
☐ Take the test for Chapter 8.

**Week 19:**

☐ Read from page 257 to Experiment 9.1 on page 260, completing “Comprehension Check” problem 1.
☐ Read from Experiment 9.1 on page 260 to the paragraph that starts “As a side note” on page 262, completing Experiment 9.1.
☐ Read from the paragraph that starts “As a side note” on page 262 to the end of page 264, completing “Comprehension Check” problems 2&3 and Experiment 9.2.
☐ Read from page 265 to the end of Experiment 9.3 on page 267, completing “Comprehension Check” problem 4 and Experiment 9.3.
☐ Read from the end of Experiment 9.3 on page 267 to “Using Molarity in Stoichiometry” on page 270, completing “Comprehension Check” problems 5&6.

**Week 20:**

☐ Read from “Using Molarity in Stoichiometry” on page 270 to “This is Depressing!” on page 274, completing “Comprehension Check” problems 7-10.
☐ Read from “This is Depressing!” on page 274 to Example 9.7 on page 276, completing Experiment 9.4.
☐ Read from Example 9.7 on page 276 to the end of page 279, completing “Comprehension Check” problems 11-13.
☐ Do problems 1-13 in the review.
☐ Do problems 14-23 in the review.

**Week 21:**

☐ Correct any of your errors in the review and study for the test.
☐ Take the test for Chapter 9.
☐ Read from page 289 to the end of page 291, completing “Comprehension Check” problem 1.
☐ Read from page 292 to “Charles’s Law” on page 294, completing Experiment 10.1.
☐ Read from “Charles’s Law” on page 294 to Experiment 10.3 on page 312, completing “Comprehension Check” problem 10.
☐ Read from Experiment 10.3 on page 312 to Experiment 10.4 on page 314, completing “Comprehension Check” problem 11 and Experiment 10.3.
☐ Read from Experiment 10.4 on page 314 to the end of page 316, completing Experiment 10.4. Also, do problems 1-9 in the review.

**Week 22:**

☐ Read from Example 10.1 on page 296 to “This Law is Ideal!” on page 301, completing “Comprehension Check” problems 2-5.
☐ Read from “This Law is Ideal!” on page 301 to “Dalton’s Law of Partial Pressures” on page 306, completing “Comprehension Check” problems 6-9.
☐ Read from “Dalton’s Law of Partial Pressures” on page 306 to Experiment 10.3 on page 312, completing “Comprehension Check” problem 10.
☐ Read from Experiment 10.3 on page 312 to Experiment 10.4 on page 314, completing “Comprehension Check” problem 11 and Experiment 10.3.
☐ Read from Experiment 10.4 on page 314 to the end of page 316, completing Experiment 10.4. Also, do problems 1-9 in the review.

**Week 23:**

☐ Do problems 10-23 in the review.
☐ Correct any of your errors in the review and study for the test.

*The owner of this book is free to copy this page.*
Take the test for Chapter 10.
Read from page 325 to Experiment 11.1 on page 327.
Read from Experiment 11.1 on page 327 to “The Chemical Definition of Acids and Bases” on page 329, completing Experiment 11.1 and “Comprehension Check” problems 1&2.

Week 24:
Read from “The Chemical Definition of Acids and Bases” on page 329 to the end of page 334, completing “Comprehension Check” problems 3-5.
Read from page 335 to Experiment 11.2 on page 339, completing “Comprehension Check” problems 6&7.
Read from Experiment 11.2 on page 339 to “Acid/Base Neutralization” on page 341, completing Experiment 11.2 and “Comprehension Check” problem 8.
Read from “Acid/Base Neutralization” on page 341 to Experiment 11.3 on page 345, completing “Comprehension Check” problems 9&10.
Read from Experiment 11.3 on page 345 to “Diluting Acid and Bases” on page 347, completing Experiment 11.3.

Week 25:
Read from “Diluting Acid and Bases” on page 347 to the end of page 348, completing “Comprehension Check” problem 11. Also, do problems 1-10 in the review.
Do problems 11-21 in the review.
Correct any of your errors in the review and study for the test.
Take the test for Chapter 11.
Read from page 357 to Example 12.2 on page 361, completing “Comprehension Check” problem 1.

Week 26:
Read from Example 12.2 on page 361 to Experiment 12.1 on page 366, completing “Comprehension Check” problems 2&3.
Read from Experiment 12.1 on page 366 to the end of page 367, completing Experiment 12.1.
Read from page 368 to the end of Experiment 12.2 on page 369, completing Experiment 12.2.
Read from the end of Experiment 12.2 on page 369 to “Counting Electrons and Balancing Simple Redox Equations” on page 374, completing “Comprehension Check” problems 4-6.
Read from “Counting Electrons and Balancing Simple Redox Equations” on page 374 to “Electroplating” on page 378, completing “Comprehension Check” problems 7-9.

Week 27:
Read from “Electroplating” on page 378 to the end of page 380, completing Experiment 12.3 and “Comprehension Check” problem 10.
Do all problems in the review.
Correct any of your errors in the review and study for the test.
Take the test for Chapter 12.
Read from page 387 to “Specific Heat Capacity” on page 391, completing “Comprehension Check” problems 1-3.
Appendix B: Daily Assignments

Week 28:
- Read from “Specific Heat Capacity” on page 391 to “Measuring Heat” on page 393, completing Experiment 13.1 and “Comprehension Check” problem 4.
- Read from “Measuring Heat” on page 393 to Experiment 13.2 on page 397, completing “Comprehension Check” problems 5&6.
- Read from Experiment 13.2 on page 397 to the end of the experiment on page 399, completing Experiment 13.2.
- Read from the end of Experiment 13.2 on page 399 to Experiment 13.3 on page 403, completing “Comprehension Check” problems 7-9.
- Read from Experiment 13.3 on page 403 to “The Heat Associated with Chemical Reactions” on page 406, completing Experiment 13.3 and “Comprehension Check” problem 10.

Week 29:
- Read from “The Heat Associated with Chemical Reactions” on page 406 to the end of page 408, completing Experiment 13.4 and “Comprehension Check” problem 11.
- Do problems 1-13 in the review.
- Do problems 14-23 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 13.

Week 30:
- Read from page 417 to the end of Experiment 14.1 on page 419, completing Experiment 14.1.
- Read from the end of Experiment 14.1 on page 419 to “Enthalpy Change and Hess’s Law” on page 422, completing “Comprehension Check” problems 1&2.
- Read from “Enthalpy Change and Hess’s Law” on page 422 to “Activation Energy” on page 427, completing “Comprehension Check” problems 3-5.
- Read from “Thermodynamics” on page 430 to “Changes in Entropy” on page 434, completing “Comprehension Check” problems 7&8.

Week 31:
- Read from the end of “Comprehension Check” problem 12 in page 442 to the end of page 445, completing Experiment 14.2 and “Comprehension Check” problem 13.
- Do problems 1-10 in the review.
- Do problems 11-20 in the review.

Week 32:
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 14.
- Read from page 453 to “What Things Affect the Rate of a Chemical Reaction?” on page 455, completing “Comprehension Check” problem 1.

The owner of this book is free to copy this page.
Read from “What Things Affect the Rate of a Chemical Reaction?” on page 455 to “Collision Theory” on page 457, completing Experiment 15.1 and “Comprehension Check” problem 2.

Read from “Collision Theory” on page 457 to “Determining Reaction Orders” on page 462, completing “Comprehension Check” problem 3.

**Week 33:**

- Read from “Determining Reaction Orders” on page 462 to “Activation Energy, Temperature, and the Rate Constant” on page 467, completing “Comprehension Check” problems 4&5.
- Read from “Activation Energy, Temperature, and the Rate Constant” on page 467 to step 12 of Experiment 15.2 on page 470, completing “Comprehension Check” problems 6&7.
- Read from step 12 of Experiment 15.2 on page 470 to “How Catalysts Work” on page 471, completing “Comprehension Check” problem 8.
- Read “How Catalysts Work” on page 471 to the end of page 475, completing “Comprehension Check” problems 9-11.
- Do problems 1-13 in the review.

**Week 34:**

- Do problems 14-22 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 15.
- Read from page 483 to “The Equilibrium Constant” on page 486, completing Experiment 16.1 and “Comprehension Check” problem 1.
- Read from “The Equilibrium Constant” on page 486 to “Ignoring Things” on page 490, completing “Comprehension Check” problems 2&3.

**Week 35:**

- Read from “Ignoring Things” on page 490 to “Why Salt Melts Ice” on page 494, completing “Comprehension Check” problems 4-6.
- Read from “Why Salt Melts Ice” on page 494 to “More on Le Chatelier’s Principle” in page 497, completing “Comprehension Check” problem 7.
- Read from “More on Le Chatelier’s Principle” in page 497 to “Le Chatelier’s Principle and Temperature” on page 500, completing Experiment 16.2 and “Comprehension Check” problem 8.
- Read from “Le Chatelier’s Principle and Temperature” on page 500 to “Le Chatelier’s Principle and Pressure” on page 503, completing Experiment 16.3 and “Comprehension Check” problem 9.
- Read from “Le Chatelier’s Principle and Pressure” on page 503 to the end of page 507, completing “Comprehension Check” problems 10&11.

**Week 36:**

- Do problems 1-8 in the review.
- Do problems 9-18 in the review.
- Correct any of your errors in the review and study for the test.
- Take the test for Chapter 16.
- Celebrate the fact that you are done with chemistry!

*The owner of this book is free to copy this page.*