

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 to the book.
- Read from p. 1 to “Where Do We Start?” on p. 5, answering “Comprehension Check” questions 1-2.
- Read from “Where Do We Start?” on p. 5 to “Velocity is Relative” on page 9, answering “Comprehension Check” questions 3-4.
- Read from “Velocity is Relative” on p. 9 to p. 11, stopping after you complete Experiment 1.1.
- Read from the end of Experiment 1.1 on p. 11 to “Newton’s First Law of Motion” on p. 15, answering “Comprehension Check” questions 5-7.

Week 2:

- Read from “Newton’s First Law of Motion” on p. 15 to the end of p. 16, completing Experiment 1.2.
- Read from the top of p. 17 to p. 19, answering “Comprehension Check” questions 8-9. Stop once you have completed Experiment 1.3.
- Read from the end of Experiment 1.3 on p. 19 to p. 21, answering “Comprehension Check” question 10. Stop once you have completed Experiment 1.4.
- Read p. 22-26, answering “Comprehension Check” questions 11-13.
- Work on the chapter review.

Week 3:

- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 1.
- Read pp. 35-37, stopping after you complete Experiment 2.1.
- Read from the end of Experiment 2.1 on p. 37 to p. 41, answering “Comprehension Check” questions 1-3. Stop right before Experiment 2.2.

Week 4:

- Complete Experiment 2.2 on p. 41 and read to “Equations of Motion (Part 1)” on p. 43, answering “Comprehension Check” questions 4-5.
- Read from “Equations of Motion (Part 1)” on p. 43 to “Equations of Motion (Part 2)” on p. 46, answering “Comprehension Check” questions 6-7.
- Read from “Equations of Motion (Part 2)” on p. 46 to the end of p. 49, answering “Comprehension Check” question 8.
- Read from the top of p. 50 to “More Analysis of Free Fall” on p. 51, completing Experiment 2.3 and answering “Comprehension Check” question 9.
- Read from “More Analysis of Free Fall” on p. 51 to the end of p. 55, answering “Comprehension Check” questions 10-13.

Week 5:

- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 2.
- Read pp. 65-67, completing Experiment 3.1 and answering “Comprehension Check” question 1. Stop after answering the question.

Week 6:

- Read from “Be Careful How You Apply Newton’s Third Law” on p. 67 to p. 71, stopping right before Experiment 3.2. Answer “Comprehension Check” question 2.
- Perform Experiment 3.2 on p. 71. Stop when you finish the experiment.
- Read from the end of Experiment 3.2 on p. 72 to “Revisiting Some Old Friends” on p. 76. Answer “Comprehension Check” questions 3-4.
- Read from “Revisiting Some Old Friends” on p. 76 to the end of Experiment 3.3 on p. 78. Answer “Comprehension Check” questions 5-6 and complete the experiment.
- Read from the end of Experiment 3.3 on p. 78 to p. 81, stopping right before Experiment 3.4. Answer “Comprehension Check” questions 7-9.

Week 7:

- Perform Experiment 3.4 on p. 81. Stop when you have completed the experiment.
- Read pp. 82-84, answering “Comprehension Check” questions 10-11.
- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.

Week 8:

- Take the test for Chapter 3.
- Read pp. 91-93, stopping after you complete Experiment 4.1. Answer “Comprehension Check” question 1.
- Read from the end of Experiment 4.1 on p. 93 to the end of p. 97, answering “Comprehension Check” questions 2-3.
- Read from the top of p. 98 to the end of p. 100, answering “Comprehension Check” questions 4-5.
- Read from the top of p. 101 to p. 102, stopping right before Experiment 4.2. Answer “Comprehension Check” question 6.

Week 9:

- Perform Experiment 4.2 on pp. 102-104.
- Read from the end of Experiment 4.2 on p. 104 to the end of Example 4.5 on p. 107.
- Read from the end of Example 4.5 on p. 107 to the end of p. 110, answering “Comprehension Check” questions 7-9.
- Work on the chapter review.
- Finish the chapter review.

Week 10:

- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 4.
- Read pp. 119-122, answering “Comprehension Check” questions 1-2.
- Read from the top of p. 123 to right before Example 5.3 on p. 125, completing Experiment 5.1
- Read from Example 5.3 on p. 125 to Equation (5.10) on p. 129, answering “Comprehension Check” questions 3-4.

Week 11:

- Read from Equation (5.10) on p. 129 to “Thinking About the Dimensions Independently” on p. 132. Complete Experiment 5.2 and answer “Comprehension Check” question 5.
- Read from “Thinking About the Dimensions Independently” on p. 132 to right before Experiment 5.3 on p. 136. Answer “Comprehension Check” questions 6-7.
- Complete Experiment 5.3 on pp. 136-137.
- Read from the end of Experiment 5.3 on p. 137 to the end of p. 138, answering “Comprehension Check” questions 8-10.
- Work on the chapter review.

Week 12:

- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 5.
- Read pp. 149-150, completing Experiment 5.1 and stopping after the end of the experiment.
- Read from the end of Experiment 5.1 on p.150 to right before Example 6.2 on p. 154, answering “Comprehension Check” question 1.

Week 13:

- Read from Example 6.2 on p. 154 to right before Experiment 6.2 on p. 157, answering “Comprehension Check” questions 2-3.
- Complete Experiment 6.2 on p. 157 and read to the end of p. 158, answering “Comprehension Check” question 4.
- Read pp. 159-162, answering “Comprehension Check” questions 5-7.
- Read pp. 163-166, stopping right before Experiment 6.3.
- Perform Experiment 6.3 on pp. 166-167, stopping after you have finished the experiment.

Week 14:

- Read from the end of Experiment 6.3 on p. 167 to the end of p. 168, answering “Comprehension Check” questions 8-10. Start on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 6.
- Read pp. 177-179, stopping after you complete Experiment 7.1

Week 15:

- Read from the end of Experiment 7.1 on p. 179 to “Two Sources of Centripetal Force” on p. 182, answering “Comprehension Check” questions 1-4.
- Read from “Two Sources of Centripetal Force” on p. 182 to “Gravity: Another Source of Centripetal Force” on p. 185, answering “Comprehension Check” questions 5-6.
- Read from “Gravity: Another Source of Centripetal Force” on p. 185 to “But Isn’t Gravity Constant Near the Surface of the Earth?” on p. 188, answering “Comprehension Check” questions 7-8.
- Read from “But Isn’t Gravity Constant Near the Surface of the Earth?” on p. 188 to “Kepler’s Laws” on p. 192, answering “Comprehension Check” questions 9-10.
- Read from “Kepler’s Laws” on p. 192 to the end of p. 195, answering “Comprehension Check” questions 11-12.

Week 16:

- Read pp. 196 and 197, completing Experiment 7.2.
- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 7.

Week 17:

- Read pp. 203-205. Stop after you answer “Comprehension Check” questions 1-2.
- Perform Experiment 8.1 on p. 205 and read to “Different Forms of Energy” on p. 207
- Read from “Different Forms of Energy” on p. 207 to “The Interplay Between Kinetic and Potential Energy” on p. 210, answering “Comprehension Check” questions 3-4.
- Read from “The Interplay Between Kinetic and Potential Energy” on p. 210 to the end of p. 213, answering “Comprehension Check” questions 5-6.
- Perform Experiment 8.2 on p. 214 and read to the end of Example 8.4 on p. 216.

Week 18:

- Read from the end of Example 8.4 on p. 216 to the end of Experiment 8.3 on p. 218, completing the experiment and answering “Comprehension Check” questions 7-8.
- Read pp. 219-223, answering “Comprehension Check” questions 9-10.
- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.

Week 19:

- Take the test for Chapter 8.
- Read pp. 229-231, stopping at the end of Experiment 9.1. Answer “Comprehension Check” question 1 and complete the experiment.
- Read from the end of the experiment on p. 231 to right before Experiment 9.2 on p. 234, answering “Comprehension Check” questions 2-3.
- Complete Experiment 9.2 on p. 234 and read to “Using Momentum Conservation to Analyze Situations” on p. 237, answering “Comprehension Check” questions 4-5.
- Read from “Using Momentum Conservation to Analyze Situations” on p. 237 to “Energy Conservation in Collisions” on p. 240, answering “Comprehension Check” questions 6-7.

Week 20:

- Read from “Energy Conservation in Collisions” on p. 240 to the end of p. 244, answering “Comprehension Check” questions 8-9.
- Read from the top of p. 245 to the end of Experiment 9.3 on p. 246. Complete the experiment.
- Read from the end of Experiment 9.3 on p. 246 to the end of p. 249, answering “Comprehension Check” questions 10-11.
- Work on the chapter review.
- Finish the chapter review.

Week 21:

- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 9.
- Read pp. 257-259, stopping after step 11 in Experiment 10.1.
- Complete steps 12-19 in Experiment 10.1 and read to “Using Hooke’s Law” on p. 126, answering “Comprehension Check” questions 1-2.
- Read from “Using Hooke’s Law” on p. 261 to the beginning of Experiment 10.2 on p. 265, answering “Comprehension Check” questions 3-4.

Week 22:

- Complete Experiment 10.2 on p. 265 and read to “Terminology and the Use of Equation (10.5)” on p. 266, answering “Comprehension Check” questions 5-6.
- Read from “Terminology and the Use of Equation (10.5)” on p. 266 to the end of p. 271, answering “Comprehension Check” questions 7-10.
- Read p. 272, stopping after you complete Experiment 10.3.
- Read from the end of Experiment 10.3 on p. 272 to the end of p. 276, answering “Comprehension Check” question 11.
- Work on the chapter review.

Week 23:

- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 10.
- Read pp. 283-286, stopping at “Sound Waves” on p. 286. Answer “Comprehension Check” questions 1-2.
- Read from “Sound Waves” on p. 286 to the middle of p. 288, stopping at the phrase “You have just learned the basic...” Complete Experiment 11.1.

Week 24:

- Read from where you left off on p. 288 to the beginning of Example 11.3 on p. 293, answering “Comprehension Check” questions 3-5.
- Read from the beginning of Example 11.3 on p. 293 to “The Wave Nature of Light” on page 297, answering “Comprehension Check” questions 6-8.
- Read from “The Wave Nature of Light” on page 297 to “A Few Details about Light” on p. 300, answering “Comprehension Check” question 9.
- Read from “A Few Details about Light” on p. 300 to “Is Light a Particle or a Wave” on p. 304, answering “Comprehension Check” questions 10-12.
- Read from “Is Light a Particle or a Wave” on p. 304 to the end of p. 306.

Week 25:

- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 11.
- Read pp. 311-313, stopping at “Reflection in Flat Mirrors.” Complete Experiment 12.1.

Week 26:

- Read from “Reflection in Flat Mirrors” on p. 313 to the beginning of Example 12.1 on p. 317, answering “Comprehension Check” questions 1-2.
- Read from the beginning of Example 12.1 on p. 317 to “Ray Tracing With Convex Spherical Mirrors” on p. 322, answering “Comprehension Check” questions 3-4.
- Read from “Ray Tracing With Convex Mirrors” on p. 322 to the end of Experiment 12.2 on p. 325, completing the experiment.
- Read from the end of Experiment 12.2 on p. 325 to the end of Example 12.4 on p. 329, answering “Comprehension Check” question 5.
- Read from the end of Example 12.4 on p. 329 to the beginning of Example 12.5 on p. 333, answering “Comprehension Check” questions 6-8.

Week 27:

- Read from the beginning of Example 12.5 on p. 333 to the end of p. 337, answering “Comprehension Check” questions 9-10.
- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 12.

Week 28:

- Read from the top of p. 347 to the end of Experiment 13.1 on p. 349. Complete the experiment.
- Read from the end of Experiment 13.1 on p. 349 to the beginning of Example 13.1 on p. 353, answering “Comprehension Check” questions 1-2.
- Read from the beginning of Example 13.1 on p. 353 to “The Electrostatic Force with Multiple Charges” on p. 355, answering “Comprehension Check” questions 3-4.
- Read from “The Electrostatic Force With Multiple Charges” on p. 355 to “The Electric Field” on p. 358, answering “Comprehension Check” questions 5-6.
- Read from “The Electric Field” on p. 358 to “Conductors, Insulators, and the Reality of the Electric Field” on p. 362, answering “Comprehension Check” questions 7-11.

Week 29:

- Read from “Conductors, Insulators, and the Reality of the Electric Field” on p. 362 to “The Strength of the Electric Field” on p. 364, completing Experiment 13.2.
- Read from to “The Strength of the Electric Field” on p. 364, to the end of p. 336, answering “Comprehension Check” questions 12-13.
- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.

Week 30:

- Take the test for Chapter 13.
- Read from the top of p. 373 to “Potential Difference” on p. 375, answering “Comprehension Check” questions 1-2.
- Read from “Potential Difference” on p. 375 to right before Experiment 14.1 on p. 379, answering “Comprehension Check” question 3.
- Read from the beginning of Experiment 14.1 on p. 379 to the bottom of p. 380, completing the experiment and answering “Comprehension Check” question 4.
- Read from the top of p. 381 to right before Experiment 14.2 on p. 384, answering “Comprehension Check” questions 5-6.

Week 31:

- Read from the beginning of Experiment 14.2 on p. 384 to the end of p. 385, completing the experiment.
- Read from the top of p. 386 to the last two lines on p. 389, answering “Comprehension Check” question 7.
- Read from where you left off on p. 389 to the bottom of p. 392, answering “Comprehension Check” questions 8-10.
- Work on the chapter review.
- Finish the chapter review.
- Check your work on the chapter review, and study for the test.

Week 32:

- Take the test for Chapter 14.
- Read from the top of p. 397 to the beginning of Example 15.1 on p. 400, answering “Comprehension Check” question 1.
- Read from the beginning of Example 15.1 on p. 400 to right before Experiment 15.1 on p. 403, answering “Comprehension Check” questions 2-3.
- Perform Experiment 15.1 on pp. 403-405, stopping after you complete the experiment.
- Read from the end of Experiment 15.1 on p. 405 to “More on Series and Parallel Circuits” on p. 407, answering “Comprehension Check” questions 4-6.

Week 33:

- Read from “More on Series and Parallel Circuits” on p. 407 to “This Can Get a Little Complicated” on p. 410, answering “Comprehension Check” questions 7-8.
- Read from “This Can Get a Little Complicated” on p. 410 to the end of Example 15.4 on p. 415, answering “Comprehension Check” question 9.
- Read from the end of Example 15.4 on p. 415 to the end of p. 418, answering “Comprehension Check” questions 10-11.
- Work on the chapter review.
- Finish the chapter review.

Week 34:

- Check your work on the chapter review, and study for the test.
- Take the test for Chapter 15.
- Read from the top of p. 425 to “The Relationship Between Electricity and Magnetism” on p. 429, answering “Comprehension Check” questions 1-3.
- Read from “The Relationship Between Electricity and Magnetism” on p. 429 to the end of Experiment 16.1 on p. 430, stopping once you complete the experiment.
- Read from the end of Experiment 16.1 on p. 430 to right before Experiment 16.2 on p. 432, answering “Comprehension Check” questions 4-5.

Week 35:

- Read from the beginning of Experiment 16.2 on p. 432 to the end of p. 433, completing the experiment.
- Read from the top of p. 434 to “A Consequence of Faraday’s Law...” on p. 439, answering “Comprehension Check” questions 6-10.
- Read from “A Consequence of Faraday’s Law...” on p. 439 to the end of p. 441, completing Experiment 14.3 if you choose to do it and answering “Comprehension Check” question 11.
- Work on the chapter review.
- Finish the chapter review.

Week 36:

- Take the test for Chapter 16.