

Chemistry Common Final Exam Benchmark Review Menu 2018-19

The Common Final Exam for Chemistry will be given during final exams. This is a yearlong exam that all students take unless exempting. Please contact your school to see if you qualify for exam exemptions. All questions on this paper-based assessment are multiple choice. The table below contains the benchmarks with a description that are to be assessed, the number of questions, and review activities. Review activities for each benchmark are provided in the menu below to help you prepare for the final exam.

*Textbook (hard copy or online version in Clever) *Florida Chemistry: Matter & Change* by McGraw Hill Education.

Benchmark	Topic and Description	Number of Questions	Textbook Review*
SC.912.P.8.2	Matter & Change: Differentiate between physical and chemical properties and physical and chemical changes of matter.	3	Read pages 49-63. Answer questions: 1-3 on page 58 10-12 on page 63 33, 38, 41, 42-46, 49 on page 78
SC.912.P.8.4	Atomic Theory: Explore the scientific theory of atoms (also known as atomic theory) by describing the structure of atoms in terms of protons, neutrons and electrons, and differentiate among these particles in terms of their mass, electrical charges and locations within the atom.	3	Read pages 87-106. Answer questions: 6, 9 on page 99 38, 41-45 on page 111
SC.912.P.8.5	Periodic Table: Relate properties of atoms and their position in the periodic table to the arrangement of their electrons.	3	Read pages 157-179. Answer questions: 2, 3, 5, on page 164 14, 15 on page 170 20, 21 on page 179
SC.912.P.8.7	Formulas: Interpret formula representations of molecules and compounds in terms of composition and structure.	3	Read pages 202-208, 223-246. Answer questions: 34, 36-38 on page 208 93-96 on page 260
SC.912.P.8.9	Mole Concept & Stoichiometry: Apply the mole concept and the law of conservation of mass to calculate quantities of chemicals participating in reactions.	3	Read pages 308-330, 358-379. Answer questions: 90-94 on page 347 108-114 on page 348 131-138 on page 349 5-10 on page 363 17-22 on page 369 25-27 on page 375 54, 55, 57, 58, 60-66 on page 382

SC.912.P.8.8	Chemical Equations: Characterize types of chemical reactions, for example: redox, acid-base, synthesis, and single and double replacement reactions.	3	Read pages 269-297. Answer questions: 29, 31, 32 on page 286 59, 60, 64, 66, 71-74 on page 299
SC.912.P.12.10	Behavior of Gases: Interpret the behavior of ideal gases in terms of kinetic molecular theory.	3	Read pages 436-458. Answer questions: 14, 15, 18 on page 445 32-34, 36 on page 453 50-54, 61-65 on page 460
SC.912.P.12.11	Phase Transitions: Describe phase transitions in terms of kinetic molecular theory.	3	Read pages 419-425. Answer questions: 27-33 on page 425 83-86 on page 429
SC.912.P.8.11	Acid Base Theory: Relate acidity and basicity to hydronium and hydroxyl ion concentration and pH.	3	Read pages 637-661. Answer questions: 33, 34, 38-40 on page 661 72-74, 77-80 on page 674
SC.912.P.10.7	Exothermic & Endothermic Reactions: Distinguish between endothermic and exothermic chemical processes.	3	Read pages 527-549. Answer questions: 27, 31 on page 531 69-73 on page 551
SC.912.P.12.12	Factors that Affect Rates: Explain how various factors, such as concentration, temperature, and presence of a catalyst affect the rate of a chemical reaction.	3	Read pages 561-575. Answer questions: 5-8 on page 568 13-17 on page 575 40-42, 50-56 on page 587
SC.912.P.10.12	Chemical vs Nuclear Reactions: Differentiate between chemical and nuclear reactions.	3	Read pages 269-286 (chemical), 886-902 (nuclear). Answer questions: 57 on page 299 22-24 on page 896
SC.912.P.10.9	Quantum Theory: Describe the quantization of energy at the atomic level.	3	Read pages 130-146. Answer questions 14-16 on page 139 27, 28 on page 146 59, 61, 71 on page 149

SC.912.P.8.1	States of Matter: Differentiate among the four states of matter.	3	Read pages 52-58. Answer questions: 1, 2 on page 58 36, 37 on page 78
SC.912.P.8.3	Atomic Theory: Explore the scientific theory of atoms (also known as atomic theory) by describing changes in the atomic model over time and why those changes were necessitated by experimental evidence.	3	Read pages 87-99. Answer questions: 1-4 on page 90 7, 8 on page 99 31-36, 39, 47, 50 on page 111
SC.912.P.8.6	Bonding Forces: Distinguish between bonding forces holding compounds together and other attractive forces, including hydrogen bonding and van der Waals forces.	3	Read pages 403-407. Answer questions: 15-17 on page 407 52-54, 57, 58 on page 427 59 on page 428
SC.912.P.12.13	Concepts of Equilibrium: Explain the concept of dynamic equilibrium in terms of reversible processes occurring at the same rates.	3	Read pages 596-614. Answer questions: 10 on page 608 13 on page 614 33-35, 43, 52, 53, 55, 56 on page 628
SC.912.P.10.18	Theory Electromagnetism: Explore the theory of electromagnetism by comparing and contrasting the different parts of the electromagnetic spectrum in terms of wavelength, frequency, and energy, and relate them to phenomena and applications.	3	Read pages 120-129. Answer questions: 8, 9, 12 on page 129 32, 33, 35, 36, 39 on page 148
Total Points		54	