

CHEMISTRY SYLLABUS

FOLLOWS Apologia *Exploring Creation With Chemistry*, 2nd ed., and *Advanced Chemistry in Creation*, 2nd ed.

Week #	DIVE Assignment	Apologia Module (page # in parentheses) AC=Advanced Chemistry Text
1	1-Science, God, and You	http://www.answersingenesis.org/articles/ee/what-is-science
2	2-The Scientific Method	http://www.icr.org/article/3749/
3	3-Types of Matter 4-Energy and Phase Changes in Matter	4(99-114)
4	5-Units and Unit Analysis 6-Making and Reporting Measurements 7-Mass, Weight, Volume, and Density	1(1-31)
5	8-Development of the Atomic Model 9-Electron Configuration	7(201-238) AC 2 (all)
6	10-Counting Atomic Particles	Review 7(201-238)
7	11-The Periodic Table 12-Periodic Trends 13-Family and Series Relationships	3(69-83) 8(258-276)
8	Review for EXAM 1 (Lessons 1-13)	Quarterly Exam 1
9	14-Atomic Bonding 15-Molecular Shapes 16-Polar Bonds and Polar Molecules	Review 8(258-276) 9(285-308) AC 3(all)
10	17-Oxidation Numbers and Predicting Formulas 18-Naming Compounds	16(525-534) 3(85-90)
11	19-Working with Moles 20-Empirical Formulas and % Composition	5(145-156) 6(185-190)
12	21-Writing Chemical Equations 22-Balancing Chemical Equations 23-Identifying Types of Reactions	4(115-125) 5(133-144)
13	24-Stoichiometry I 25-Stoichiometry II 26-Stoichiometry III	6(163-184) AC 1(all)
14	27-Characteristics of Gases 28-The Combined Gas Law 29-Dalton's Law of Partial Pressures	12(383-408)
15	30-Molar Volume of a Gas 31-Ideal Gas Law	12(394-408)
16	Review for EXAM 2 (Lessons 14-31)	Quarterly Exam 2

Week #	Assignment	Apologia Module (page # in parentheses) AC=Advanced Chemistry Text
17	32-Intermolecular Forces 33-Properties of Solids 34-Properties of Liquids	Review 2 (37-61) AC 4 (all)
18	35-Water 36-How Solutes Dissolve	11 (353-366) AC 5 (129-150)
19	37-Measuring Concentrations 38-Colligative Properties, Colloids	10 (334-345) 11 (367-375) AC 5 (151-152)
20	39-1 st Law of Thermodynamics 40-2 nd Law of Thermodynamics	13 (417-445)
21	41-Gibbs Free Energy 42-Factors That Affect Reaction Rates	13 (446-449) 14 (459-465)
22	43-Chemical Equilibrium 44-Le Chatelier's Principle 45-Equilibria and Solubility	15 (491-512) AC 6 (all)
23	46-Acid/Base Theory	10 (319-332)
24	Review For EXAM 3 (Lessons 32-45, not 46)	Quarterly Exam 3
25	47-Acid/Base Equilibria 48-Titrations, Buffers	15 (513-518) AC 7 (all) AC 8 (227-245)
26	49-Identifying Redox Reactions 50-Balancing Redox Reactions	16 (525-534) AC 10 (all)
27	51-Electrochemistry	16 (536-545) AC 9 (all)
28	52-Organic Chemistry, Hydrocarbons 53-Functional Groups	AC 12 (all) AC 13 (all)
29	54-Organic Reactions	Review AC 13
30	55-Biochemical Compounds 56-Cell Biochemistry	Review AC 13
31	57-Radioactivity 58-Nuclear Fusion and Fission	AC 14 (all)
32	QUARTERLY EXAM 4 (Lessons 1-58)	Final Exam

*DIVE Science Lessons do not correlate completely with the Apologia text. Occasionally, they contain more or less information than is in the Apologia chapter they correlate with. Please use the DIVE Chemistry Course as the main course, and supplement it with Apologia's texts, or the Internet for Lessons 1 and 2. Remember that the DIVE CD is designed to prepare you for college classes, where you will have to know the textbook information plus the lecture information that may or may not be in the textbook. YOU DO NOT HAVE TO USE BOTH APOLOGIA TEXTBOOKS TO COMPLETE THIS COURSE. If you are planning to take the CLEP or AP Chemistry exam, then purchase both texts. Otherwise, just purchase *Exploring Creation With Chemistry*, and when a DIVE Lesson does not have a corresponding Apologia module, just use the DIVE Lecture and Internet to find any definitions you need.

How to use the syllabus: At the start of a new school week, the first thing you should do is check your syllabus to see what to read and what DIVE Lessons to complete. Do your reading, complete your definitions, watch the lecture(s) and take notes. When you are finished with the lecture, complete the DIVE review questions, and check your answers. Finally, complete your weekly lab activity. Check the syllabus included in the DIVE Chemistry Workbook to determine which lab activity to complete.

If you are having trouble understanding a concept, use an encyclopedia or conduct an Internet search for the topic. If you still don't understand a concept, please email me at diveintomath@sbcglobal.net, and I will help you. God bless, and have a great year!

Dr. Shormann
Proverbs 4:13