

Learning Plan Document for Off-Site Course Description and WINGS

Grade Level	High School
Class Title	A Natural Approach to Chemistry
Subject	Chemistry
Class Description	<p>Chemistry is a lab intensive course that will provide students with fundamental knowledge of chemical principles and their applications to engineering and design.</p> <p>Topics covered include: Atomic Theory; Matter & Atoms; Temperature, Energy, and Heat; Physical & Chemical Change; The Structure of the Atom; Elements & the Periodic Table; Chemical Bonds; Compounds & Molecules; Water & Solutions; Chemical Reactions; Stoichiometry; Nanotechnology; Reaction Rates & Equilibrium; Acids & Bases; Gases; Electrochemistry; Solids & Liquids; Organic Chemistry; The Chemistry of Living Systems; The Chemistry of the Earth; Nuclear Chemistry & Radioactivity; and The Chemistry of the Solar System.</p> <p>This class meets the graduation requirement for the State of Washington and Kennewick School District and meets at least one Common Core Standard. This course is a [semester/year] long course. Students who successfully complete the course have the potential to earn [.5/1.0] credit.</p>
Learning Materials	<p>“A Natural Approach to Chemistry” Hsu, Chaniotakis, Carlisle, Damelin: ISBN 978-1-60301-313-0</p> <p>“A Natural Approach to Chemistry: Laboratory Investigations” Hsu, Chaniotakis, Carlisle, Damelin: ISBN 978-1-60301-314-7</p> <p>Off-site course may use the district adopted textbook or use on-line course work. All apex on line work is a complete course in of itself. A working computer and internet connection is used on a regular basis.</p>
Learning Goals/Performance Objectives	<p>The content of this course is based on the Washington state Science Learning Standards, also known as the “Next Generation Science Standards”.</p> <p>Upon completion of this course students will be knowledgeable and proficient in the following areas: Structure & Properties of Matter; Chemical Reactions; Forces & Interactions; Energy; Waves & Electromagnetic Radiation; and Engineering Design.</p> <p>A team of certificated teachers who are highly qualified in this subject matter has reviewed this WSLP.</p>
Learning Activities	Learning activities for this course include, but are not limited to: laboratory experiments & challenges as well as research
Progress Criteria/Methods of Evaluation	<p>{Student Name} will complete, offsite work, lab experiments, weekly to biweekly assessments, write research papers.</p> <p>Monthly assessments will be completed by the consultant/certified teacher. Monthly Progress will be marked satisfactory or unsatisfactory based on the professional judgment of the certified teacher using parent input, work samples, and monthly assessments with off-site courses on the dashboard on progress.</p> <p>Final Grading: Course grades are <u>weighted towards summative tests in the courses.</u> 90-100 A [93-100=4.0, 90-92=3.7]</p>

	<p>89-80 B [B+ 87-89=3.3, B 83-86 = 3.0, B- 80-82=2.7] 79-70 C [C+ 77-79=2.3, C 73-76=2.0 C-70-72=1.7] Online courses for a proficient passing grade may vary according to course completion. Your APEX/Aleks and off site HQ will work to establish norms per on line product.</p>
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