ALBANY CREEK STATE HIGH SCHOOL

Semester 1 Overview 2022

12 Chemistry

Term	Topic	Assessment
1	**Unit 3: Equilibrium, acids and redox reactions** Students will: Explore the reversibility of reactions in a variety of chemical systems at different scales; acid-base equilibrium systems and their applications; the principles of oxidation and reduction reactions; and the production of electricity from electrochemical cells. Processes that are reversible will respond to a range of factors and can achieve a state of dynamic equilibrium, while contemporary	**IA2 – Student Experimental Investigation** **Due – Week 11 (term 2 week 1)**
2		**IA3 – Student Research Report** **Due – Week 21 (term 3 week 1)**
2	**Unit 4: Structure, Synthesis and Design** Students will: Explore the ways in which models and theories relate to chemical synthesis, structure and design, and associated applications; and the ways in which chemistry contributes to contemporary debate regarding current and future uses of local, regional and international resources. Students focus on the principles and application of chemical synthesis, particularly in organic chemistry, and consider where and how functional groups can be incorporated into already existing carbon compounds in order to generate new substances with properties that enable them to be used in a range of contexts. Current and future applications of chemistry include the development of specialised techniques to create or synthesise new substances to meet the specific needs of society, such as pharmaceuticals, fuels, polymers and nanomaterials.	*IA4 will be assessed in term 4*