

Semester 1 Overview 2022

11 Chemistry

Term	Topic	Assessment
1	<p>Unit 1: Chemical fundamentals — structure, properties and reactions</p> <p>Students will:</p> <p>Relate matter and energy in chemical reactions as they consider the breaking and reforming of bonds as new substances are produced. The properties of a material depend on, and can be explained by, the material's structure. A range of models at the atomic and molecular scale enable explanation and prediction of the structure of materials, and how this structure influences properties and reactions.</p>	<p>FIA 1 – Data Test</p> <p>Due – Week 8</p>
		<p>FIA 2 – Student Experimental Investigation</p> <p>Due – Week 14 (term 2 week 4)</p>
2	<p>Unit 2: Molecular interactions and reactions</p> <p>Students will:</p> <p>Develop their understanding of the physical and chemical properties of materials including gases, water, aqueous solutions, acids and bases. Students explore the characteristic properties of water that make it essential for physical, chemical and biological processes on Earth, including the properties of aqueous solutions. They investigate and explain the solubility of substances in water, and compare and analyse a range of solutions. They learn how rates of reaction can be measured and altered to meet particular needs, and use models of energy transfer and the structure of matter to explain and predict changes to rates of reaction. Students gain an understanding of how to control the rates of chemical reactions, including through the use of a range of catalysts.</p>	<p>FIA 3 – Student Research Report</p> <p>Due – Week 24 (term 3 week 4)</p>