

Senior Chemistry (General)  
Learning & Assessment Overview 2021

Year 11				Year 12			
<b>CHM Unit 1 Chemical Fundamentals</b>		<b>CHM Unit 2 Molecular interactions and reactions</b>		<b>CHM Unit 3 Equilibrium, acids and redox reactions</b>		<b>CHM Unit 4 Structure, synthesis and design</b>	
By the end of this unit, students will study and demonstrate the following in terms of reactants, products and energy change: 1. describe and explain the properties and structure of atoms and materials, and chemical reactions 2. apply understanding of the properties and structure of atoms and materials, and chemical reactions 3. analyse evidence about the properties and structure of atoms and materials, and chemical reactions 4. interpret evidence about the properties and structure of atoms and materials, and chemical reactions 5. investigate phenomena associated with properties and structure of atoms and materials, and chemical reactions 6. evaluate processes, claims and conclusions about the properties and structure of atoms and materials, and chemical reactions 7. communicate understandings, findings, arguments and conclusions about the properties and structure of atoms and materials, and chemical reactions.		By the end of this unit, students will: 1. describe and explain intermolecular forces and gases, aqueous solutions and acidity, and rates of chemical reactions 2. apply understanding of intermolecular forces and gases, aqueous solutions and acidity, and rates of chemical reactions 3. analyse evidence about intermolecular forces and gases, aqueous solutions and acidity, and rates of chemical reactions 4. interpret evidence about intermolecular forces and gases, aqueous solutions and acidity, and rates of chemical reactions 5. investigate phenomena associated with intermolecular forces and gases, aqueous solutions and acidity, and rates of chemical reactions 6. evaluate processes, claims and conclusions about intermolecular forces and gases, aqueous solutions and acidity, and rates of chemical reactions 7. communicate understandings, findings, arguments and conclusions about the above.		Students will: • Describe and explain chemical equilibrium systems and oxidation and reduction • Apply understanding of chemical equilibrium systems and oxidation and reduction • Analyse evidence about chemical equilibrium systems and oxidation and reduction • Interpret evidence about chemical equilibrium systems and oxidation and reduction • Investigate phenomena associated with chemical equilibrium systems and oxidation and reduction • Evaluate processes, claims and conclusions about chemical equilibrium systems and oxidation and reduction • Communicate understandings, findings, arguments and conclusions about chemical equilibrium systems and oxidation and reduction		Students will: • Describe and explain the properties and structure of organic materials and chemical synthesis and design • Apply understanding of the properties and structure of organic materials and chemical synthesis and design • Analyse evidence about the properties and structure of organic materials and chemical synthesis and design • Interpret evidence about the properties and structure of organic materials and chemical synthesis and design • Investigate phenomena associated with the properties and structure of organic materials and chemical synthesis and design • Evaluate processes, claims and conclusions about the properties and structure of organic materials and chemical synthesis and design • Communicate understandings, findings arguments and conclusions about the properties and structure of organic materials and chemical synthesis and design	
<b>Topics</b> 1. Properties and structure of atoms 2. Properties and structure of materials 3. Chemical reactions - reactants, products and energy change		<b>Topics</b> 1. Intermolecular forces and gases 2. Aqueous solutions and acidity 3. Rates of chemical reactions		<b>Topics</b> 1. Chemical equilibrium systems 2. Oxidation and radiation		<b>Topics</b> 1. Properties and structure of organic materials 2. Chemical synthesis and design	
<b>Unit Duration</b> Yr 11 Weeks 1 - 19 (19 weeks)		<b>Unit Duration</b> Yr 11 Weeks 20 - 32 (12 weeks)		<b>Unit Duration</b> Yr 11 Weeks 33-38, Year 12 Weeks 1 - 13 (19 weeks)		<b>Unit Duration</b> Yr 12 Weeks 13 - 33, External Exam Weeks 34 - 37 (20 weeks)	
<b>Assessment Task/s</b>		<b>Assessment Task/s</b>		<b>Assessment Task/s</b>		<b>Assessment Task/s</b>	
<b>FIA1 Data Test</b> <i>Weighting: 10%</i>  <i>Conditions: 60 mins + 10 mins perusal, short responses, paragraphs, up to 500 words in total</i>  <i>Issued: n/a Due: Week 7</i>	<b>FIA2 Experimental Investigation</b> <i>Weighting: 20%</i>  <i>Conditions: 10 hours class time, 1500-2000 words short response items</i>  <i>Issued: Week 14 Due: Week 19</i>	<b>FIA3 Research Report</b> <i>Weighting: 20%</i>  <i>Conditions: 10 hours class time, 1500-2000 words</i>  <i>Issued: Week 19 Due: Week 29</i>	<b>FIA4 Examination</b> <i>Weighting: 50%</i>  <i>Conditions: 2 papers, each 90 mins + 10 mins perusal short response items</i>  <i>Issued: n/a Due: Week 32</i>	<b>IA1 Data Test</b> <i>Weighting: 10%</i>  <i>Conditions: 60 mins + 10 mins perusal, short responses, paragraphs, up to 500 words in total</i>  <i>Issued: n/a Due: Week 4</i>	<b>IA2 Experimental Investigation</b> <i>Weighting: 20%</i>  <i>Conditions: 10 hours class time, 1500-2000 words short response items</i>  <i>Issued: Week 8 Due: Week 13</i>	<b>IA3 Research Report</b> <i>Weighting: 20%</i>  <i>Conditions: 10 hours class time, 1500-2000 words</i>  <i>Issued: Week 12 Due: Week 24</i>	<b>EA4 Examination</b> <i>Weighting: 50%</i>  <i>Conditions: 2 papers, each 90 mins + 10 mins perusal short response items</i>  <i>Issued: n/a Due: Week 33-37</i>