

Landau Learner Curriculum Overview

Subject: Chemistry

Director of Learning: DDB

Year: 13

Curriculum organisation				
Students are taught based on 5 single session per week. Students follow the OCR Chemistry A AS/A level specification. Resulting in either an AS level in Chemistry after 1 year or an A level in Chemistry after 2 years.				
What topics will students be studying this year? Includes links to National Curriculum, Curriculum Intent and Prior Related Learning*				
Term 1:	Term 2:	Term 3:	Term 4:	Term 5:
<ul style="list-style-type: none"> Rings & carbonyls Acids & Amines Electrode potentials & fuel cells 	<ul style="list-style-type: none"> Polymers, Amino Acids & Chirality Synthesis Analysis Lattice Enthalpy & Entropy 	<ul style="list-style-type: none"> Rates Transition Elements 	<ul style="list-style-type: none"> Equilibrium pH and buffers Topic revision 	
<p>Links: Prior learning AS Level – Naming and drawing of organic compounds using learnt nomenclature. Common properties of organic compounds based on bonding and atoms present.</p> <p>Curriculum Intent: Students continue to expand their knowledge of organic compounds and the conversions between each series. Students develop their knowledge of electrode potentials and their use in predicting and complex charged based reactions.</p>	<p>Links: Prior learning AS Level – Properties of addition polymers. Application of analysis techniques to elucidate the structure of a compound.</p> <p>Curriculum Intent: Students continue to expand their knowledge of organic compounds and the conversions between each series. Students deepen their knowledge of enthalpy and its application to the feasibility of reactions and their level of disorder.</p>	<p>Links: Prior learning AS Level – Application of factors that affect the rate of reactions. Knowledge of the properties of the group 1 and group 2 metals. Electronic structure of the transition elements.</p> <p>Curriculum Intent: Students deepen their knowledge of reaction rates and learn to analysis both tabulated and graphical data. Students use previous learnt knowledge of the electronic structure of transition elements to explain transition element structures and reactions.</p>	<p>Links: Prior learning AS Level – Application of Le Chatelier's principle in explaining shifts in equilibrium. Writing and using the equation for K_c to predict the position of equilibrium.</p> <p>Curriculum Intent: Students deepen their knowledge of equilibrium reactions and the interpretation of complex equilibrium data. Students develop their application of mathematical chemistry to solve a range of quantitative pH based problems. Students consolidate their scientific knowledge in preparation for the end of year trial exams.</p>	

Equipment needed for sessions:	What can you do to support your child?
<ul style="list-style-type: none"> Chemistry worksheet and task folder. A level Chemistry textbook. A level Practical Chemistry student guide Their Science teacher will provide worksheets and information that are being used in session. 	<ul style="list-style-type: none"> Encourage your child to regularly read their A level Chemistry textbook. Encourage your child to complete the homework tasks they are set by their Chemistry teachers to a high standard, asking them to show you their finished work. Encourage your child to use the OCR website to access additional material, past papers and candidate exemplars.
How will learning be assessed and progress measured?	Extension and enrichment activities:
<ul style="list-style-type: none"> Trial examinations carried out at selected points during the year. End of topic summative assessments. Marking of homework/written assessments is carried out on a regular basis in line with the College marking policy. Regular peer and self-marking. 	<ul style="list-style-type: none"> A Level Chemistry Live event.