

<b>TITLE</b>	<b>CHEMISTRY (A LEVEL)</b>
<b>BOARD</b>	AQA
<b>INTRODUCTION</b>	<p>A-level Chemistry attempts to answer the big question ‘what is the world made of’ and it’s the search for this answer that makes this subject so fascinating. From investigating how one substance can be changed drastically into another, to researching a new wonder drug to save millions of lives, the opportunities that chemistry provides are endless.</p> <p>Students will do at least 12 practical activities across the two-year A level.</p> <ul style="list-style-type: none"> <li>• Students will have many opportunities to learn and use practical skills to link theory with practice, deepening their knowledge and understanding.</li> <li>• A wide variety of practical activities will be integrated into routine teaching.</li> </ul> <p>Students will be expected to apply the knowledge and understanding they learn from practicals in their written exams. Practical-based questions will form about 20% of the total assessment.</p> <p>The course has been rearranged into the traditional three branches of physical, inorganic and organic chemistry.</p>
<b>COURSE STRUCTURE</b>	<p>A-level Chemistry lasts two years, with exams at the end of the second year.</p> <p>Year 1:</p> <p><b>Physical chemistry</b> Including atomic structure, amount of substance, bonding, energetics, kinetics, chemical equilibria and Le Chatelier’s principle.</p> <p><b>Inorganic chemistry</b> Including periodicity, Group 2 the alkaline earth metals, Group 7(17) the halogens.</p> <p><b>Organic chemistry</b> Including introduction to organic chemistry, alkanes, halogenoalkanes, alkenes, alcohols, organic analysis.</p> <p>Year 2:</p> <p><b>Physical chemistry</b> Including thermodynamics, rate equations, the equilibrium constant <math>K_p</math>, electrode potentials and electrochemical cells.</p> <p><b>Inorganic chemistry</b> Including properties of Period 3 elements and their oxides, transition metals, reactions of ions in aqueous solution.</p> <p><b>Organic chemistry</b> Including optical isomerism, aldehydes and ketones, carboxylic acids and derivatives, aromatic chemistry, amines, polymers, amino acids, proteins and DNA, organic synthesis, NMR spectroscopy, chromatography.</p>

ASSESSMENT	<p>There is no coursework on this course. However, your performance during practicals will be assessed. There are three exams at the end of the two years for A-level, all of which are two hours long. At least 15% of the marks for A-level Chemistry are based on what you learned in your practicals.</p> <p>A practical endorsement in Chemistry is awarded, as a pass or fail, separately from the written result.</p>
GENERAL COMMENTS	<p>Subjects that would go well with Chemistry are Biology, Geography, Geology, Mathematics or Physics. You may be concentrating on arts, humanities or modern language courses and wish to take Chemistry to broaden your studies. <b>Grade 6 in Mathematics is desirable as there is an emphasis on use and application of quantitative concepts throughout the course and will account for about 20% of the final marks.</b></p>
PROGRESSION	<p>Possible career options Studying an A-level Chemistry related degree at university gives you all sorts of exciting career options, including:</p> <ul style="list-style-type: none"><li>• Analytical chemist</li><li>• Chemical engineer</li><li>• Clinical biochemist</li><li>• Pharmacologist</li><li>• Doctor</li><li>• Research scientist (physical sciences)</li><li>• Toxicologist</li><li>• Chartered certified accountant</li><li>• Environmental consultant</li><li>• Higher education lecturer</li><li>• Patent attorney</li><li>• Science writer</li><li>• Secondary school teacher.</li></ul>
ENTRY REQUIREMENTS	<p><b>In order to study A level Chemistry you will need to have at least grade 6 in GCSE Chemistry or 6-6 in GCSE Trilogy Science</b></p> <p><b>It is recommended that you have at least a grade 6 in GCSE Maths.</b></p> <p>If you have any questions regarding the A level Chemistry Course please see Mrs Driver, Mr Lammiman or Mr Cook.</p>