

<p>Curriculum Aims</p> <ul style="list-style-type: none"> To encourage independent learners, listeners and thinkers To provide enjoyable courses, that will stimulate interest and enthusiasm in the subjects To develop scientific knowledge and understanding To use models and theories to make sense of observed natural phenomena To understand that science progresses through a cycle of hypothesis, observation, analysis and evaluation To understand how physical and chemical properties of substances can be explained by their structure at the level of atoms, ions or molecules 	<p>What will you see in chemistry lessons?</p> <ul style="list-style-type: none"> Students will build on skills that they have learnt at Key Stage 3 Students will be encouraged to be inspired, motivated and challenged by the key ideas in chemistry such as the concept of atomic structure, the arrangement of the periodic table, and how structures of substances determine physical and chemical properties Students and teachers will use models to develop understanding of the key ideas Students will perform regular practical activities to develop their experimental skills to include assessing risk, forming hypotheses, planning, manipulating apparatus, taking accurate observations, presenting data appropriately and evaluating methods to suggest possible improvements. Students will develop their mathematical skills by balancing chemical equations, and calculating amount of substance, in terms of moles and concentration 	<p>What will you see in students' chemistry books?</p> <ul style="list-style-type: none"> Notes on key concepts Practise chemical equations Experiment write ups to include some of the following; risk assessment, hypothesis, methods and diagrams, results tables, presentation of data, conclusions and evaluations Worksheets Practise past paper questions Revision notes, mind maps or worksheets. End of unit tests and self-evaluation forms.
<p>Curriculum Content and sequencing</p> <p>Year 10</p> <p>Acids and alkalis Calculations involving masses Electrolytic processes Obtaining and using metals Reversible reactions and equilibria Transition metals, alloys and corrosion Quantitative analysis Dynamic equilibria, calculations involving volumes of gases Chemical cells and fuel cells Groups in the periodic table Rates of reaction Heat energy changes in chemical reactions</p> <p>Year 11</p> <p>Fuels Earth and atmosphere science Hydrocarbons Alcohols and carboxylic acids Polymers Qualitative analysis: tests for ions Bulk and surface properties of matter including nanoparticles</p>	<p>What formative assessment will you see in chemistry?</p> <ul style="list-style-type: none"> At the end of each unit the students will sit an end of unit test worth 25 marks which contains exam style questions which are marked by the teacher. Students then complete a self-evaluation and set themselves targets for the next unit. For each of the core practicals that will appear in their GCSEs, the students are set homework with exam style questions. Students have a mock exam at the end of Y10 and in January of Y11. 	<p>What is the faculty currently reading and discussing and why?</p> <p>We are currently reading:</p> <p>Education in Chemistry- bimonthly publication (and website) by the Royal Society of Chemistry, which communicates a mixture of recent developments in chemical research and ideas for the classroom.</p> <p>Catalyst- termly publication by STEM Learning. Articles written by researchers, with direct links to the curriculum, and guidance on how to incorporate the science into lessons.</p>

