



Year 11 Curriculum Grid

Separate Chemistry

Year/Term	Unit	Intent
Curriculum purpose		<ul style="list-style-type: none"> • Ensure students have a secure understanding of the key concepts of Chemistry, building on knowledge from KS3. • Encourage students to carry out practical work safely with increasing independent skills. • Enthuse students with a love of Chemistry by incorporating a holistic approach and relating concepts to actions and behaviours.
Autumn	SC19 - Heat changes in chemical reactions SC20 - Fuels SC21 - Earth and atmospheric science SC22 - Hydrocarbons	<ul style="list-style-type: none"> • Show knowledge and understanding of the energy transfers during exothermic and endothermic reactions • Draw and use reaction profile diagrams to explain reaction progress • Recall that hydrocarbons are compounds that contain carbon and hydrogen only • Describe processes using hydrocarbons to extract useful products • Describe the problems caused by incomplete combustion and acid rain • Explain how the Earth's atmosphere and oceans were formed • Evaluate the evidence for human activity causing climate change
Spring	SC23 - Alcohols and Carboxylic Acids SC24 - Polymers SC25 - Qualitative analysis SC26 - Bulk and surface properties of matter including nanoparticles	<p><i>Students will sit their PPEs at the start of this term</i></p> <ul style="list-style-type: none"> • Recall the formulae of molecules of the alkanes, and draw the structures of these molecules, showing all covalent bonds • Explain how the uses of polymers are related to their properties • Evaluate the advantages and disadvantages of recycling polymers • Compare, using data, the physical properties of glass and clay ceramics, polymers, composites and metals • Describe how the properties of nanoparticulate materials are related to their uses including surface area to volume ratio of the particles they contain, including sunscreens • Explain the possible risks associated with some nanoparticulate materials
Summer	SC1-SC26 Revision	<ul style="list-style-type: none"> • Practise examination technique and time management • Revisit core practicals and assess understanding • Prepare for the public examinations • Students are encouraged to become more reflective of their learning through self-assessment of their examination answers • Students will have frequent exposure to exam style questioning and practice papers • Intervention sessions will allow students to revisit topics from Years 9 and 10 up until the summer examinations