



# Half Term 5 Subject Overviews: What your child has been learning this half term

Head of year: Mr C Pattinson

# Y12

English Literature	Maths (Pure)	Maths (Applied)	Biology	Chemistry	Physics	Applied Science	Geography	History
<p><b>Paper 1 (Drama)</b> A Streetcar Named Desire</p> <ul style="list-style-type: none"> <li>Genre features and conventions</li> <li>Reading for detail</li> <li>Language, form and structure</li> <li>Critical evaluation</li> <li>Contexts</li> <li>Attitudes &amp; values</li> </ul> <p>NEA coursework unit</p>	<ul style="list-style-type: none"> <li>Indefinite integration</li> <li><math>F'(x)</math> to find <math>F(x)</math></li> <li>Definite integrals</li> <li>Areas under curves</li> <li>Areas under the x axis</li> <li>Areas between curves and lines</li> <li>Proof &amp; partial fractions</li> <li>Proof by contradiction</li> </ul>	<ul style="list-style-type: none"> <li>Variable acceleration</li> <li>Displacement, velocity, and acceleration</li> <li>Calculus in kinematics to model in a straight line for particle moving</li> <li>Gradients linked to rates of change</li> <li>Minimum &amp; maximum velocities</li> <li>Calculus in kinematics</li> <li>Area under a graph is the integral</li> <li>Constant acceleration formulae</li> </ul>	<ul style="list-style-type: none"> <li>Forming tissue fluid</li> <li>Structure of the heart</li> <li>Cardiac cycle</li> <li>ECG</li> <li>Haemoglobin</li> <li>Photosynthesis &amp; respiration</li> <li>Chloroplast</li> <li>Photosynthetic pigments</li> <li>Light dependent &amp; independent reaction</li> <li>Cell signalling</li> <li>Homeostasis</li> </ul>	<ul style="list-style-type: none"> <li>Determining enthalpy change</li> <li>Calculating reaction rate</li> <li>Boltzmann distribution</li> <li>Dynamic equilibrium</li> <li>Eliminating water from alcohols</li> <li>Mechanism of nucleophilic substitution in hydrolysis</li> <li>Halogen radicals</li> <li>Identification of functional groups</li> <li>Monitoring air pollution using IR radiation and covalent bonds</li> </ul>	<ul style="list-style-type: none"> <li>Photoelectric effect</li> <li>Electron diffraction</li> <li>Atomic energy levels</li> <li>Wave particle duality</li> <li>Collisions</li> <li>Circular motion</li> <li>Electric fields</li> <li>Radial/uniform fields</li> <li>Millikan's oil drop</li> <li>Coulomb's law</li> <li>Electric potential</li> <li>Capacitors</li> <li>Charging &amp; discharging capacitors</li> </ul>	<p>Unit 2 Biology:</p> <ul style="list-style-type: none"> <li>Polarity &amp; size in chromatographic separations</li> <li>Polar solvents to extract pigments</li> <li>TLC</li> </ul> <p>Unit 2 Chemistry:</p> <ul style="list-style-type: none"> <li>Titration</li> <li>Colorimetry</li> </ul> <p>Unit 2 Physics:</p> <ul style="list-style-type: none"> <li>Cooling curves</li> <li>Comparing thermometers</li> </ul>	<p><b>Water &amp; Carbon Cycle</b></p> <ul style="list-style-type: none"> <li>Systems approach</li> <li>Water cycle processes</li> <li>Drainage basins &amp; flood hydrographs</li> <li>Changes in water cycle</li> <li>Carbon cycle</li> </ul> <p>Fieldwork investigation</p> <ul style="list-style-type: none"> <li>Defining &amp; developing a question</li> <li>Collecting field data</li> <li>Analysing &amp; summarising findings</li> <li>Presenting data</li> <li>Drawing conclusions</li> </ul>	<ul style="list-style-type: none"> <li>The impact of war and defeat on Germany</li> <li>Divided Germany – the Federal Republic and the DDR</li> </ul>
Mr Barlow	Miss Wright		Mrs Poddington				Mrs Bradley	Mr Rainsley
Art	CAMB TECH PE	A LEVEL PE	ICT	RE	French	Personal Development	Music	Health & Social Care
<ul style="list-style-type: none"> <li>Personal portfolio: Component 1</li> <li>Subject specific skills are bespoke to the student but are built on skills learnt at GCSE and through the first two projects</li> <li>Photoshop is used throughout the projects</li> </ul>	<ul style="list-style-type: none"> <li>Structures of the lungs</li> <li>Respiratory muscles</li> <li>Inspiration</li> <li>Expiration</li> <li>Gaseous exchange</li> <li>Tidal volume</li> <li>Breathing volume</li> <li>Breathing frequency</li> <li>Minute ventilation</li> <li>Organisation of sports events</li> <li>Applying skills, technique &amp; tactics to individual &amp; team sport</li> </ul>	<ul style="list-style-type: none"> <li>NEA written analysis</li> <li>NEA evaluation corrective measure</li> <li>Injury</li> <li>Preparation and training methods</li> <li>Memory models</li> <li>Concepts of physical activity and sport</li> <li>Development of elite performers in sport</li> </ul>	<ul style="list-style-type: none"> <li>Virtual &amp; augmented reality</li> <li>Design virtual &amp; augmented reality resources</li> <li>Create virtual &amp; augmented reality resources</li> <li>Predict future applications for virtual &amp; augmented reality</li> </ul>	<ul style="list-style-type: none"> <li>The nature &amp; influence of religious experience</li> <li>Mystical experience</li> <li>Conversion experience</li> <li>Utilitarianism</li> <li>Teaching &amp; example of Dietrich Bonhoeffer</li> <li>Duty to God &amp; duty to the State</li> <li>Church as community &amp; source of spiritual discipline</li> <li>The cost of discipleship</li> </ul>	<ul style="list-style-type: none"> <li>Everyday customs &amp; traditions in France</li> <li>Customs in francophone countries</li> <li>Practice of translation to and from English</li> <li>Reading &amp; listening</li> <li>Essay writing skills</li> <li>Summarising skills</li> <li>Introduction of Individual Research Project</li> </ul>	<ul style="list-style-type: none"> <li>Careers in core subjects: English, maths, science</li> <li>Writing personal statements</li> <li>Plagiarism</li> </ul>	<ul style="list-style-type: none"> <li>Performance preparatory work</li> <li>Composition preparatory work</li> <li>AoS 1 – continuation of Beethoven</li> <li>AoS 2 – Introduction to A Level set works</li> <li>Recommended tasks &amp; activities</li> </ul>	<p><b>Unit 1: Building positive relationships in HSC</b></p> <ul style="list-style-type: none"> <li>Effectiveness of communication in 1-1 and group settings</li> <li>Review effectiveness</li> <li>Use of reflective practice to ensure interactions can build positive relationships in HSC environments</li> </ul>
Miss Norman	Miss Smith		Ms Cooper	Miss Holliday	Mr Machard	Miss Holliday	Mr Newton	Mrs Fisher