

# CURRICULUM OVERVIEW

## YEAR 12 & 13



**KING EDWARD VI  
ASTON SCHOOL**

*Educational excellence for our City*

At King Edward VI Aston School we believe that the curriculum is the key driver of progress for all students. On leaving the school we expect Aston students to be articulate, well-rounded and well-educated young men who understand the importance of our core values. The curriculum will enable all learners to become independent thinkers with the confidence and resilience to thrive in the 21<sup>st</sup> century.

Success at Aston rests on three core pillars:

| Achievement<br>through the taught curriculum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Enjoyment<br>through the enriched curriculum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Personal development<br>through our shared values                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <ul style="list-style-type: none"><li>The curriculum will have a general ethos of embracing challenge, high expectations and deeper learning.</li><li>Learning will often go beyond the specification and challenge students to think tangentially.</li><li>Departments will provide a broad and creative curriculum which regularly interleaves prior learning into current learning.</li><li>• Students will regularly contribute excellent ideas and questions in class, where there is an overwhelming culture of academic achievement; aspiration is seen as the norm.</li></ul> | <ul style="list-style-type: none"><li>Students will have access to a varied range of extra-curricular clubs, groups and teams, both within and beyond the core day.</li><li>Through student leadership and council, students will offer reasoned views about moral and ethical issues.</li><li>Students will take pride in representing their school at all levels.</li><li>Students will choose to participate in curriculum enhancement opportunities on alternate Thursday afternoons.</li><li>There will be a rich and varied programme of educational visits for all.</li></ul> | <ul style="list-style-type: none"><li>Honesty will drive students' sense of a moral purpose and encourage clarity of thought and deed.</li><li>Diligence will drive students' collective understanding of the benefits to be derived from hard work and collaboration.</li><li>Kindness will improve students' understanding of different faiths, cultures and orientations.</li><li>Integrity will help students understand the importance of values-based decision making.</li></ul> |

| Year 12 Autumn Term Curriculum Overview |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject                                 | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Autumn 2                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Art                                     | <b>Food - Recording</b><br>Develop observational drawing skills from primary and secondary resources<br>Develop a range of mixed media skills<br>To understand how to carry out practical experimentation across disciplines                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Biology                                 | <b>Biological Molecules</b><br>To understand that at a cellular level all living things contain only a few groups of compounds that interact in similar ways. To understand that this biochemistry is evidence for evolution.                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Cells</b><br>To understand that cell theory is a unifying concept in biology.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Chemistry                               | <b>Amount of substance</b><br>Be able to apply equations to calculate moles, masses, volumes and concentrations in relation to chemical reactions                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Introduction to organic chemistry</b><br>Able to understand the key concepts of naming, isomerism and formula with respect to organic molecules.<br><b>Alkanes</b><br>Understand the reactions and uses of alkanes.                                                                                                                                                                                                                         |
|                                         | <b>Atomic Structure</b><br>Structure of the atom, protons, neutrons and electrons<br>Electronic structure<br>Use of a mass spectrometer                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Bonding</b><br>Understand and be able to explain the bonding in metals, covalent and ionic substance and use the forces at work to predict the properties of these compounds<br><b>Periodicity</b><br>Be able to periodic trends and patterns in the periodic table using understanding of the forces acting on and in atoms and molecules                                                                                                  |
| Computing                               | <b>Components of a computer and their use</b><br>Programming basics<br>Understand the characteristics of processors.<br>Be able to write simple programs in C# in Visual Studio.                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Components of a computer and their use</b><br>Programming techniques<br>Understand the characteristics of input, output, memory and storage devices.<br>Write programs using suitable constructs and arrays                                                                                                                                                                                                                                 |
| DT                                      | <b>Health and Safety</b><br><b>Materials and their applications [Timbers, Polymers]</b><br>Understand the HSE1974 impact on design<br>Understand the working properties of different materials<br>Gain experience of using different materials practically<br>Be able to determine material suitability for specific applications<br>Recognise and utilise traditional workshop equipment when making products                                                                                                                                                                            | <b>Materials and their applications [Papers and boards, Composites]</b><br><b>Modern industrial and commercial practice [Scales of production]</b><br>Understand the working properties of different materials<br>Gain experience of using different materials practically<br>Be able to determine material suitability for specific applications<br>Understand the different processes associated with one-off, batch, mass and CF production |
| Economics                               | <b>Nature of economics/how markets work.</b><br>To develop an understanding of the core concepts of the basic economic problem and how markets work.                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>How markets work/market failure/government intervention.</b><br>To develop an understanding of how markets work and market failure/government intervention.                                                                                                                                                                                                                                                                                 |
| English                                 | <b>Othello (to include prose study)</b><br>Students will become adept analysing extracts by discussing significance of the chosen scene within the play as a whole and be able to construct considered and evaluative responses to thematic questions / statements by maintaining focus on the task and exploring significant methods and aspects of tragedy relevant to task                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Aspects of Tragedy: Richard II and The Great Gatsby (to include poetry)</b><br>Students will know the texts well, understand how to analyse texts through the literary framework of tragedy and be able to construct clear arguments which carefully consider the authors' use of methods in response to questions.                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| French                                  | <b>The changing nature of family:</b><br>Describe and discuss trends in marriage and other forms of partnership.<br>Consider and discuss the merits and problems of different family structures.<br>Consider relationships between the generations and discuss problems that can arise.<br><b>Heritage:</b><br>Understand the notion of heritage and heritage preservation on a regional and national scale.<br>Consider the ways in which some of the country's most famous heritage sites market themselves<br>Comprehend how heritage impacts upon and is guided by culture in society |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Further Mathematics                     | <b>Decision (AS)</b><br>To introduce and develop understanding of different algorithms, linear programming and graphs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Decision (A2)</b><br>To extend understanding of more complex algorithms and secure knowledge of diagrams to represent algorithms.                                                                                                                                                                                                                                                                                                           |
| Geography                               | <b>Water and Carbon Cycles</b><br>To understand the stores of water and carbon at or near the Earth's surface and the dynamic cyclical relationships associated with them.<br>To understand the significance of the cycles at various scales and their importance for human populations.                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Contemporary Urban Environments</b><br>To explore the growth of cities, considering why they have grown and the consequences this can have<br>To consider the responses to the issues faced by cities at a variety of levels of development.                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| German                                  | <b>Die digitale Welt</b><br>Das Internet<br><b>Familie im Wandel</b><br>Beziehungen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Jugendkultur</b><br>Mode<br><b>Familie im Wandel</b><br>Partnerschaft / Ehe                                                                                                                                                                                                                                                                                                                                                                 |
| History                                 | <b>The British Empire, 1957-1967</b><br>Why did the British Empire grow and contract?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>The Birth of the USA, 1760-1801</b><br>What was the relationship between Britain and her American Colonies, 1760–1763?                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>The Establishment of Civil Rights in America – Historical Investigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mathematics                             | <b>Algebra, Straight lines and Kinematics</b><br>To develop their core understanding of algebraic equations and expressions, coordinate geometry and time graphs                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Graphs, Vectors, Data analysis and Calculus</b><br>To develop statistical analysis techniques, geometric representations of vectors, sketching functions and to understand gradient functions more proficiently                                                                                                                                                                                                                             |
| Philosophy                              | <b>Epistemology</b><br>The underlying basis of Philosophy and all its questions come down to the question of what we can know, if anything. This section of the course explores epistemic issues ranging from how we might define knowledge, to how we can gain knowledge from perception, where ideas come from (experience or innate within us), and scepticism and the limits of knowledge.                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Moral Philosophy</b><br>This part of the course aims to give an understanding and critique of ethical theory, how it is applied and how the language used in morality may be understood. It covers the ethical theories of Utilitarianism, Kant's Categorical Imperative and Aristotle's Virtue Ethics. We apply four practical issues using each theory and then engage with the meaning or lack thereof, of philosophical language used in morality.                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PE                                      | <b>Skill acquisition, Classification Learning and Information processing</b><br>Develop key understanding of the skill acquisition unit of work<br>Recognise and support the jump from GCSE to A-level                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Applied anatomy and physiology CV and Respiratory systems</b><br>Develop key understanding of the CV and respiratory system<br>Recognise and support the jump from GCSE to A-level                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Physics                                 | <b>Mechanics</b><br><b>How to represent Scalars and vectors</b><br><b>Resolving Vectors</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Electricity</b><br>Explain how energy transfer takes place in a electrical devices<br>What is electromotive force and internal resistance                                                                                                                                                                                                                                                                                                   |

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|            | Explain why centre of mass is an important idea<br>Explain what is a couple and what is meant by moment of couple<br>Describe motion along a straight line at constant acceleration<br>Describe what effect a resultant force produces                                                                                                                                                                                                                                                                           | Explain what a semiconductor and superconductor is?<br>What are the key Principles behind circuit rules<br>What I a function of a diode in a cell                                                                                                                                                                                                                                                                                 |
| Politics   | What is democracy/is the UK a well-functioning democracy?<br>What patterns in voting can we observe over recent elections in the UK/do long term primacy or short-term recency factors have greater influence?<br>What is the role and function of pressure groups in UK politics/why are they growing more influential and what factors dictate their effectiveness?                                                                                                                                            | <ul style="list-style-type: none"><li>• What is the role and function of political parties in the UK/what factors determine their democratic appeal and success, are parties in decline and how far do they remain loyal to their ideological traditions?</li><li>• What are the features of the various electoral systems which now operate in the UK/ Is there such a thing as a perfect or fair electoral system?</li></ul>    |
| Psychology | <b>Approaches in psychology</b> gives the students a thorough understanding of different branches of the subject.<br><b>Research methods</b> skills that enable students to understand how experiments are conducted.<br>Begin to develop an ability to conduct research and assess strengths and limitations of different methods.<br>Begin to be able to articulate the features of science and how these apply to psychology.<br>Start to apply different fields of psychology to explaining human behaviour. | <b>Memory</b> – to understand the basics of the memory system in humans and the problems associated when memories are inaccurate.<br>Models of memory<br>Explanations for forgetting.<br>Factors affecting the accuracy of eyewitness testimony.<br>Students develop their ability to evaluate research---Students improve their ability to apply their knowledge of psychology to novel situations within the context of memory. |

| Year 12 Spring Term Curriculum Overview |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| Subject                                 | Spring 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Spring 2                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Art                                     | <b>Food - Developing</b><br>To propose different combinations of relevant media, techniques and processes for own work<br>Exploring and developing ideas within a set theme<br>To gain knowledge of a range of artists; looking at historical and contemporary practice                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Biology                                 | <b>Genetic information</b><br>To understand the role of DNA as a genetic code. To understand the role of DNA in genetic diversity. To understand intraspecific and interspecific variation.                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                         | <b>Organisms Exchange substances with their environment</b><br>To understand that as the internal environment of a cell or organism is different from its external environment, substances must be exchanged at exchange surfaces such as cell plasma membranes                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Chemistry                               | <b>Energetics</b><br>Be able to apply understanding to predict change of rate when changing conditions<br><b>Kinetics</b><br>Be able to calculate energy change                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Equilibrium</b><br>Be able to apply theory to predict position of equilibrium                                                                                                                                                                                                                                                                                                                                                    |
|                                         | <b>Haloalkanes</b><br>Structure and properties of haloalkanes<br>Productions of haloalkanes<br>Reactions of haloalkanes<br>Effects of haloalkanes on the environment                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Alkenes</b><br>Structure and properties of alkenes<br>Production of alkenes<br>Reactions of alkenes<br>EZ isomerism<br><b>Alcohols</b><br>Structure and properties of alcohols<br>Production of alcohols<br>Reactions of alcohols                                                                                                                                                                                                |
| Computing                               | <b>Datatypes</b><br><b>Use function and subroutines, string manipulation</b><br>Be able to represent data in a suitable form<br>Be able to use string handling, functions and subroutines in programming.                                                                                                                                                                                                                                                                                                                                                             | <b>Algorithms</b><br><b>Structure, classes pointers.</b><br>Able to use custom made and standard algorithms to describe and solve problems<br>Write programs using classes, structures and pointers                                                                                                                                                                                                                                 |
| DT                                      | <b>Materials and their applications [Metals, Modern materials]</b><br><b>The use of adhesives</b><br><b>Efficient use of material</b><br><b>Computer systems in industry</b><br>Understand the working properties of different materials<br>Gain experience of using different materials practically<br>Be able to determine material suitability for specific applications<br>Recognise how designers can use material sustainably<br>Understand how CAD/CAM can minimise waste                                                                                      | <b>Materials and their applications [Smart materials]</b><br><b>Iterative design</b><br><b>CAD/CAM</b><br>Understand the working properties of different materials<br>Gain experience of using different materials practically<br>Be able to determine material suitability for specific applications<br>Understand and apply the principle of iterative design<br>Recognise the value CAD/CAM systems have in modern manufacturing |
| Economics                               | <b>Aggregate demand/measures of economic performance</b><br>To be able to explain the role of the core macroeconomic concepts of AD/AS and measures such as GDP, inflation etc                                                                                                                                                                                                                                                                                                                                                                                        | <b>Aggregate supply/national income</b><br>To understand short and long run AS and equilibrium levels of real national output and impacts of shifts in AD/SRAS/LRAS                                                                                                                                                                                                                                                                 |
| English                                 | <b>Othello (to include prose study)</b><br>Students will become adept analysing extracts by discussing significance of the chosen scene within the play as a whole and be able to construct considered and evaluative responses to thematic questions / statements by maintaining focus on the task and exploring significant methods and aspects of tragedy relevant to task                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                         | <b>Aspects of Tragedy: Richard II and The Great Gatsby (to include poetry)</b><br>Students will know the texts well, understand how to analyse texts through the literary framework of tragedy and be able to construct clear arguments which carefully consider the authors' use of methods in response to questions.                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| French                                  | <b>Technology:</b><br>Describe and discuss how technology has transformed everyday life.<br>Consider and discuss the dangers of digital technology.<br>Consider the different users of digital technology and discuss possible future developments.<br><b>Music:</b><br>Consider the popularity of contemporary francophone music and its diversity of genre and style.<br>Consider who listens to contemporary francophone music, how often and by what means.<br>Consider and discuss the threats to contemporary francophone music and how it might be safeguarded |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Further Mathematics                     | <b>Chi-squared and Complex Numbers</b><br>To develop understanding of statistical distributions in order to test a hypothesis and understand imaginary numbers.                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Statistical distributions and Matrices</b><br>To extend understanding of statistical distributions and relate to the binomial and develop understanding of matrices.                                                                                                                                                                                                                                                             |
| Geography                               | <b>Water and Carbon Cycles</b><br>To understand the stores of water and carbon at or near the Earth's surface and the dynamic cyclical relationships associated with them.<br>To understand the significance of the cycles at various scales and their importance for human populations                                                                                                                                                                                                                                                                               | <b>Hazards</b><br>The concept of a hazard in a geographical context<br>To understand hazards, impacts, responses and ways to manage volcanoes, earthquakes, storms and wildfires.                                                                                                                                                                                                                                                   |
|                                         | <b>Global Governance</b><br>To gain a thorough understanding of the concept of globalisation – the economic, political and social changes associated with technological and other driving forces which have been a key feature of global economy and society in recent decades.<br>To analyse the increase interdependence and transformed relationships between peoples, states and environments have prompted more or less successful attempts at a global level to manage and govern some aspects of human affairs.                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| German                                  | <b>Jugendkultur</b><br>Musik<br><b>Familie im Wandel</b><br>Verschiedene Familienformen                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Kunst und Architektur</b><br>Künstler<br><b>Berlin</b><br>Damals und heute Geschichte                                                                                                                                                                                                                                                                                                                                            |
| History                                 | <b>The British Empire, 1957-1967</b><br>What influenced imperial policy?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                         | <b>The Birth of the USA, 1760-1801</b><br>How did Britain enforce this Colonial Relationship, 1763–1774?                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                         | <b>The Establishment of Civil Rights in America – Historical Investigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mathematics                             | <b>Coordinate geometry, Statistical distributions and Newton's Laws</b><br>To introduce and develop coordinate geometry understanding, the use of Hypothesis testing to analyse data/events and to understand Newton's laws to solve kinematic problems.                                                                                                                                                                                                                                                                                                              | <b>Probability, Friction and Moments</b><br>To develop understanding of dependent and independent events, how friction affects a particles motion and introduce moments as the forces' turning effect.                                                                                                                                                                                                                              |
| Philosophy                              | <b>Epistemology</b><br>The underlying basis of Philosophy and all its questions come down to the question of what we can know, if anything. This section of the course explores epistemic issues ranging from how we might define knowledge, to how we can gain knowledge from perception, where ideas come from (experience or innate within us), and scepticism and the limits of knowledge.                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                         | <b>Moral Philosophy</b><br>This part of the course aims to give an understanding and critique of ethical theory, how it is applied and how the language used in morality may be understood. It covers the ethical theories of Utilitarianism, Kant's Categorical Imperative and Aristotle's Virtue Ethics. We apply four practical issues using each theory and then engage with the meaning or lack thereof, of philosophical language used in morality.                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| PE         | <b>Sports and Society – Globalisation of sport in the 21st century &amp; Sociology Theory</b><br>Develop Understanding of sport and society looking at the historical background of sport.<br>Develop the short answer style questions                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|            | <b>Applied anatomy physiology – Energy systems&amp; Muscular skeletal system</b><br>Develop understanding of Energy systems and the musculoskeletal system.<br>Develop short mark exam answers                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Physics    | <b>Mechanics and Materials</b><br>State the unit of density and describe an investigation to measure the density of different materials.<br>Discuss limit to the force extension graph for a spring and calculate the spring constant<br>What is strain energy and limit of proportionality                                                                                                                                                       | <b>Waves</b><br>Define a plane polarised wave. Explain the difference between transverse wave and longitudinal wave<br>Explain what we mean by diffraction<br>To understand what causes wave to refract when they pass across a boundary.<br>Explain how waves combine to produce reinforcement<br>Describe Youngs double slit experiment                                                                                                                                                                                               |
| Politics   | What are the core elements and what is the structure of UK government/ Why has the UK long had a problematic relationship with the EU and how strong is the case for further devolution?<br>What are the origins and main features of the UK Constitution/ have recent innovations succeeded and how strong is the case for further reform?<br>What are the role and powers of the UK judiciary/do judges now have too much power, or too little? | What are the key roles of UK 's Parliament/ is Parliament still effective?<br>What is the structure of the core executive and the role and powers of the PM and cabinet/ Do we now have PM government, cabinet government or neither?                                                                                                                                                                                                                                                                                                   |
| Psychology | <b>Social Influence-</b> to understand how and why people are influenced by others and the application of this to society.<br>Explanations for conformity<br>Explanations for obedience.<br>Resistance to social influence.<br>Social change<br>Students should consider the behaviour of others and apply research to examples.<br>Ethical Issues of social influence experiments.                                                               | <b>Attachment</b> – to understand how and why babies become attached to their caregivers and the outcome for children if this does not happen.<br>Multiple attachments and the role of the father.<br>Animal studies<br>Explanations of attachment<br>Ainsworth's 'Strange Situation'.<br>Bowlby's theory of maternal deprivation.<br>Romanian orphans<br>the influence of early attachment.<br>Students to learn about attachment which might have benefit in their future lives e.g. skin to skin contact and the role of the father. |

| Year 12 Summer Term Curriculum Overview |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                              |
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| Subject                                 | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Summer 2                                                                                                                                                                                                                                                                                                                     |
| Art                                     | <b>Food</b><br>Realising<br>To present a coherent body of work that is reflective of the personal project so far<br>Gain knowledge of a design idea process and realise intentions                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                              |
| Biology                                 | <b>Genetic information... and Statistics</b><br>To understand the role of DNA as a genetic code. To understand the role of DNA in genetic diversity. To understand intraspecific and interspecific variation.<br>To understand the key mathematical aspects of handling data, in biological contexts                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>Organisms Exchange substances with their environment</b><br>To understand that as the internal environment of a cell or organism is different from its external environment, substances must be exchanged at exchange surfaces such as cell plasma membranes.                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                              |
| Chemistry                               | <b>Oxidation and reduction</b><br>Be able to apply definitions of oxidation and reduction to form equations                                                                                                                                                                                                                                                                                                                                                                                                                | <b>History of chemistry</b><br>Gain an insight into the life and works of key historical figures in chemistry.                                                                                                                                                                                                               |
|                                         | <b>Organic analysis</b><br><b>Gp 2 and Gp7</b><br>Intra red spectroscopy, how it works and interpreting the spectra<br>Mass spectrometry, how it works and interpreting the spectra<br>Chemical methods for determining functional groups<br>Properties of group2 and group 7 elements<br>Reactions of these elements<br>How these are used in chemical analysis                                                                                                                                                           | <b>Gain an insight into the life and works of key historical figures in chemistry.</b><br>Research an historical significant figure in chemistry to gain an understanding of their life and work and how it relates to chemistry today                                                                                       |
| Computing                               | <b>Software and its development</b><br><b>Programming project introduction</b><br><b>Windows programming</b><br>Understand the types and purpose of system software in detail<br>Describe application generation process<br>Explain and compare various software development methodologies<br>Windows app and project analysis                                                                                                                                                                                             | <b>Software and its development</b><br><b>Legal, moral, cultural and ethical issues.</b><br><b>Project analysis</b><br>Know the characteristics and purpose of programming paradigms<br>The moral, social, ethical, cultural opportunities and risks.<br>Legislation<br>Identify, research and specify the proposed solution |
| DT                                      | <b>Designers and Design movements</b><br><b>Social, moral and ethical issues in design</b><br>Be able to explain the notable movements within design<br>Understand the defining features of each movement, including recognised designers who helped shape it<br>Explain how socio-economic factors influence design<br>Understand the impact, positive and negative, design can have on our society                                                                                                                       | <b>Identifying and investigating design opportunities</b><br><b>Environmental issues in design</b><br>Using primary and secondary data to identify opportunities for design<br>Recognising the impact that design can have on the environment<br>Looking for design solutions to existing environmental issues               |
| Economics                               | <b>Economic growth / macroeconomic objectives, policies and conflicts.</b><br>To understand the causes of growth and role of output gaps. To discuss the benefits and costs of economic growth.                                                                                                                                                                                                                                                                                                                            | <b>Macroeconomic objectives, policies and conflicts. Bridging and revision work</b><br>To understand why there are potential conflicts between macroeconomic objectives in SR/LR                                                                                                                                             |
| English                                 | <b>Othello (to include prose study)</b><br>Students will become adept analysing extracts by discussing significance of the chosen scene within the play as a whole and be able to construct considered and evaluative responses to thematic questions / statements by maintaining focus on the task and exploring significant methods and aspects of tragedy relevant to task                                                                                                                                              |                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>Aspects of Tragedy: Richard II and The Great Gatsby (to include poetry)</b><br>Students will know the texts well, understand how to analyse texts through the literary framework of tragedy and be able to construct clear arguments which carefully consider the authors' use of methods in response to questions.                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                              |
| French                                  | <b>Charity work:</b><br>Examine the voluntary sector in France<br>Discuss the benefits of voluntary work for those that are helped and how beneficiaries request help<br>Look for the benefits of voluntary work for those that do it and for society as a whole<br><b>Cinema:</b><br>Consider a variety of aspects of French cinema<br>Consider the major developments in the evolution of French cinema from its beginnings to the present day<br>Consider the continuing popularity of French cinema and film festivals |                                                                                                                                                                                                                                                                                                                              |
| Further Mathematics                     | Core Pure<br>To understand the use of vectors in 3D and develop mathematical knowledge fo solving polynomials.                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Core Pure</b><br><b>To understand the uses of volumes of revolution, secure understanding of series and develop knowledge of mathematical proof.</b>                                                                                                                                                                      |
| Geography                               | <b>Hazards</b><br>The concept of a hazard in a geographical context<br>To understand hazards, impacts, responses and ways to manage volcanoes, earthquakes, storms and wildfires.                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>Global Governance</b><br>To gain a thorough understanding of the concept of globalisation – the economic, political and social changes associated with technological and other driving forces which have been a key feature of global economy and society in recent decades.<br>To analyse the increase interdependence and transformed relationships between peoples, states and environments have prompted more or less successful attempts at a global level to manage and govern some aspects of human affairs.     | <b>Non examined assessment</b><br>To complete an independent investigation                                                                                                                                                                                                                                                   |
| German                                  | <b>Berlin – damals und heute</b><br>Theater, Musik und Museen<br><b>Kunst und Architektur</b><br>Vergangenheit, Gegenwart , Zukunft                                                                                                                                                                                                                                                                                                                                                                                        | <b>Stimulus cards and translation</b><br><b>Berlin – damals und heute</b><br>Vielfalt                                                                                                                                                                                                                                        |
| History                                 | <b>The British Empire, 1957-1967</b><br>What part did economic factors play in the development of the British Empire?                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>The Birth of the USA, 1760-1801</b><br>How did the Colonial Relationship come to an end, 1774–1776?                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>The Establishment of Civil Rights in America – Historical Investigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                              |
| Mathematics                             | <b>Trigonometry, Calculus and Logarithms</b><br>To develop understanding of their knowledge of Trigonometry as well as introducing Trigonometric identities, vectors in 3D and their understanding of exponents and their inverse; Logarithms.                                                                                                                                                                                                                                                                             | <b>Data interpretation, Functions of time and Sequences</b><br>To develop their knowledge of linear and quadratic sequences, using calculus with kinematics and statistical methods to find and analyse data.                                                                                                                |
| Philosophy                              | <b>Epistemology</b><br>The underlying basis of Philosophy and all its questions come down to the question of what we can know, if anything. This section of the course explores epistemic issues ranging from how we might define knowledge, to how we can gain knowledge from perception, where ideas come from (experience or innate within us), and scepticism and the limits of knowledge.                                                                                                                             |                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>Moral Philosophy</b><br>This part of the course aims to give an understanding and critique of ethical theory, how it is applied and how the language used in morality may be understood. It covers the ethical theories of Utilitarianism, Kant's Categorical Imperative and Aristotle's Virtue Ethics. We apply four practical issues using each theory and then engage with the meaning or lack thereof, of philosophical language used in morality.                                                                  |                                                                                                                                                                                                                                                                                                                              |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                              |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PE         | <b>Sports and Society – Globalisation of sport in the 21st century &amp; Sociology Theory</b><br>Develop understanding of sociology in sport<br>Develop the idea of sports development in the modern era                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                              |
|            | <b>Exercise Physiology</b><br>Apply the anatomy and physiology through the exercise physiology develop a real understanding of how the body develops through sport                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                              |
| Physics    | <b>Particles</b><br>Describe what is inside an atom and identify different classification of particles<br>To be able to calculate the energy of Photon<br>To understand the concept of matter and antimatter and name the different type of interaction and understand the conservation rules of particle interaction                                                                                                                                                                                                                               | <b>Quantum Physics</b><br>Define a quantum<br>Define a photon and explain the photoelectric effect<br>To understand the concept of Ionisation and excitation.<br>Explain energy levels of atom and how fluorescent tube works<br>Define line spectrum                                                                                        |
| Politics   | <b>Revision and Exam Skills Focus</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | What are the core ideas and principles of liberalism, conservatism and socialism/what level of variation is there between different specified thinkers within these ideological traditions and to what extent do they agree or disagree about key questions such as individual rights and liberties, the role of the state and human nature? |
| Psychology | <b>Psychopathology-</b> to understand how psychologist diagnose mental health conditions and how they explain and treat them.<br>Definitions of abnormality.<br>The characteristics of phobias and behavioural approach to explaining and treating phobias.<br>The characteristics of Depression and the cognitive approach to explaining and treating depression.<br>The characteristics of OCD and the biological approach to explaining and treating OCD.<br>Understanding of the diversity of psychological functioning to encourage tolerance. | <b>Biopsychology-</b> to look at the biology of the human body that directly affects thought and behaviour.<br>The divisions of the nervous system<br>The process of synaptic transmission. -The function of the endocrine system<br>The fight or flight response including the role of adrenaline.                                          |

| Year 13 Autumn Term Curriculum Overview |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject                                 | Autumn 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Autumn 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Art                                     | <b>Personal Investigation - Recording</b><br>Develop observational drawing skills from primary and secondary resources<br>Develop a range of mixed media skills<br>To understand how to carry out practical experimentation across disciplines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Biology                                 | <b>Energy Transfer in and between organisms AND ecosystems</b><br>To understand the key reaction of photosynthesis and its role in energy transfer inside organisms. To understand that biomass is produced in photosynthesis and transferred to other organisms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                         | <b>Respiration and Genetics, populations, populations</b><br>To understand the key reaction of respiration and its role in energy transfer inside organisms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Chemistry                               | <b>Thermodynamics</b><br>Use of Born Haber cycles to calculate lattice enthalpy<br>Use of the Gibbs Equation to calculate feasibility of a reaction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Kinetics</b><br>Kp<br>Gaining an understanding of how factors such as temperature and concentration effect rate of reaction in a quantitative way<br>Be able to calculate equilibrium constants for gas phase reactions                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                         | <b>Carbonyls</b><br>Structure and properties of carbonyl compounds<br>Production of carbonyl compounds<br>Reactions of carbonyls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Aromatic</b><br>Amines<br>Structure and bonding in benzene<br>Reactions of benzene<br>Reactions of substituted aromatics<br>Structure and properties of amines<br>Production of amines<br>Reactions of amines                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Computing                               | <b>Data structure and algorithms</b><br><b>Analysis and design</b><br>How data is stored in various structures and how algorithms can be applied<br>Review project analysis<br>Designing the solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Data structure and algorithms</b><br><b>Analysis and design</b><br><b>Boolean Algebra</b><br><b>Programming techniques</b><br><b>Design and development</b><br>How data is stored in various structures and how algorithms can be applied<br>Review project analysis<br>Designing the solution<br>Define and solve problems using Boolean circuits, logic and K-Maps<br>Logic related to FF and adders<br>Able to use programming techniques<br>Designing and developing the solution                                                                                                                                                |
| DT                                      | <b>Developing design proposals</b><br><b>Design for manufacture, maintenance, repair and disposal</b><br><b>Feasibility studies</b><br><b>Design communication</b><br>Recognising different methods creating developing design concepts<br>Understanding how products can be designed specifically with manufacture, maintenance and disposal in mind<br>Recognising the value of feasibility studies and client input<br>Understanding different methods of communicating design ideas                                                                                                                                                                                                                                                                            | <b>Developing design prototypes</b><br><b>Major developments in technology</b><br><b>Product life cycles</b><br><b>Quality assurance and quality control</b><br><b>National and International standards</b><br>Understanding different methods that are used to create design prototypes<br>Identifying the key technological developments in technology that have influenced design<br>Understanding and using product life cycles (sustainability and economic)<br>Understanding the different methods of QC and QA that are used in design<br>Understanding how national, and international, standards affect the design of products |
| Economics                               | <b>Business growth / business objectives/market structures</b><br>To understand reasons for business growth, understand various costs, revenues and profits and how firms behave in various market structures.<br>Understand economies and diseconomies of scale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Market structures/labour markets/government intervention</b><br>To understand the issues of competition and efficiency within various market structures. To understand concept of wage determination. To understand various forms of government intervention                                                                                                                                                                                                                                                                                                                                                                         |
| English                                 | <b>The Murder of Roger Ackroyd</b><br>To gain a critical understanding of The Murder of Roger Ackroyd, including an awareness of genre conventions, historical and literary context, and core themes, alongside Christie's use of language and structure.<br>To evaluate critical interpretations of Christie and the genre, incorporating these into written responses.<br>To be able to balance these elements in an extended critique of the text.<br>To establish a holistic overview of the genre, drawing connections between literary texts                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                         | <b>When Will There Be Good News?</b><br>AO1: articulate informed, personal and creative responses to literary texts, using associated concepts and terminology, and coherent, accurate written expression<br>AO2: analyse ways in which meanings are shaped in literary texts<br>AO3: demonstrate understanding of the significance and influence of the contexts in which literary texts are written and received<br>AO4: explore connections across literary texts<br>AO5: explore literary texts informed by different interpretations<br>Students will know the text well, understand how the novel fits into the crime fiction genre, and be able to construct clear arguments which carefully consider the author's use of methods in response to questions. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| French                                  | <b>Criminality</b><br>Examine different attitudes to crime<br>Discuss prison and its merits and problems<br>Consider alternative forms of punishment<br><b>Politics:</b><br>Discuss arguments relating to the vote and examine the French political system and its evolution.<br>Discuss engagement levels of young people and their influence on politics.<br>Discuss the future of politics and political engagement                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Further Mathematics                     | <b>Complex Numbers and Elasticity</b><br>To develop their understanding of complex numbers and introduce Hooke's law.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Statistical Tests and Collisions</b><br>To use a multitude of statistical tests to analyse data and develop their understanding of elastic collisions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Geography                               | <b>Coasts</b><br>To know how the coast works as a system<br>To understand the geomorphological processes involved in shaping the coastal environment<br>To understand the formation of the different aspects of the coastal landscape<br>To be able to evaluate a range of coastal management strategies.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                         | <b>Changing Places</b><br>To know how people experience place, how people experience place and how identity is attached to place.<br>To appreciate the range of factors which shape place and alter place over time<br>To complete two detailed studies of contrasting places<br>To consider the above using a range of qualitative and quantitative skills                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| German                                  | Einwanderung- Gründe<br>Goodbye Lenin – DDR back ground knowledge and research                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Integration – Maßnahme<br>Goodbye Lenin<br>Deutschland und die EU -Rolle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | Der Besuch der alten Dame<br>Goodbye Lenin – Berlin Wall and Regime Collapse and Reunification<br>Imperfect of verbs – reading and writing                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| History     | <b>The British Empire, 1957-1967</b><br>How did the Empire influence British attitudes and culture?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | <b>The Birth of the USA, 1760-1801</b><br>What was the significance of the The War of Independence, 1776–1783?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | <b>The Establishment of Civil Rights in America – Historical Investigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Mathematics | <b>Trigonometry, Binomial formula and Modulus functions</b><br>To develop their prerequisite knowledge of trigonometric functions, further their understanding of the Binomial expansion and the use of the modulus function.                                                                                                                                                                                                                                                                                                                                                                                            | <b>Projectiles, Roots, Differentiation and Normal distribution</b><br>To solve problems using projectile motion, develop their understanding of gradient functions and test continuous data in a statistical model.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Philosophy  | <b>Metaphysics of God</b><br>This unit aims to equip students with an understanding of and an ability to critique the issues raised by the concept of the God of classical theism, key arguments for and against the existence of God and an understanding of the language used in relation to God.                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | <b>Metaphysics of Mind</b><br>A sustained philosophical analysis of the mind's relationship to the body, from Cartesian dualism to physicalist theories and hybrids such as property dualism or functionalism, the aim here is to inquire what we mean when we talk about "mind" both ontologically and linguistically.                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| PE          | <b>Sports Psychology – Factors that influence participation</b><br>Develop the understanding of sports psychology and recognise why some performers are mentally more prepared than others for sport                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|             | <b>Biomechanics – Principles, levers and motion</b><br>Develop understanding and application of biomechanics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Physics     | <b>Further Mechanics</b><br>Define angular displacement and angular speed<br>Calculate centripetal acceleration<br>Describe the phase difference between two oscillation that are out of step<br>State the fundamental conditions for SHM                                                                                                                                                                                                                                                                                                                                                                                | <b>Fields</b><br>Define radial Field and uniform field<br>Explain what is meant by Gravitational and Electric Field Strength<br>Gravitational Potential and Electric potential<br>Explain the significance of Potential gradient<br>And compare the graph of V against r<br>Explain Faradays law and Lenz Law of Electromagnetic Induction                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Politics    | One independently chosen non-core ideology (selecting from anarchism, feminism, nationalism, ecologism and multi-culturalism)/ to what extent do specified thinkers within these non-core ideologies coincide with or contradict those within the three core ideological traditions (synoptic focus).<br>What is the historical, structural and cultural context in which American politics and government takes place?<br>What is structural theory/where and how can structural, rational and cultural approaches to political analysis be applied to the government and politics of the UK and USA? (synoptic focus). | What are the origins and key principles of the US Constitution/What are its relative democratic advantages and disadvantages compared to the UK and is it more effective, for example, in protecting individual rights?<br>What is the role, function and constitutional powers of the US judiciary/How do their powers compare with UK judges and are US judges essentially 'politicians in robes'?<br>What is the role, function and constitutional powers of the US President/How does their power compare to the UK's PM and are presidents more 'imperial' or 'imperilled' in exercising power?<br>What is the role, function and constitutional powers of the US Congress/How does their power and effectiveness compare with the UK's Parliament and is Congress now the 'broken branch' of US government? |
| Psychology  | <b>Biopsychology-to apply biological theory to psychological concepts. Relationships- to understand how relationships are formed, are maintained and breakdown.</b><br><b>Biopsychology-</b><br>Localisation of function in the brain and hemispheric lateralisation<br>Plasticity and functional recovery of the brain after trauma.<br>Ways of studying the brain<br>Biological rhythms<br><b>Relationships</b> 1st half-<br>Theories of romantic relationships<br>Duck's phase model of relationship breakdown                                                                                                        | <b>Aggression – to understand the causes of aggression and apply these theories to examples</b><br><b>Relationships</b> 2nd half-<br>The evolutionary explanations for partner preferences.<br>Factors affecting attraction in romantic relationships.<br>Virtual relationships in social media<br>Parasocial relationships<br><b>Aggression</b> 1st half-<br>Neural and hormonal mechanisms in aggression.<br>Genetic factors in aggression.<br>The ethological explanation of aggression.                                                                                                                                                                                                                                                                                                                       |

| Year 13 Spring Term Curriculum Overview |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subject                                 | Spring 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Spring 2                                                                                                                                                                                                                                                                                                                                       |
| Art                                     | <b>Developing</b><br>To propose different combinations of relevant media, techniques and processes for own work<br>Exploring and developing ideas within a set theme<br>To gain knowledge of a range of artists; looking at historical and contemporary practice                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                |
| Biology                                 | <b>Organisms respond to changes to their internal and external environment</b><br>To understand how organisms respond to changes to their internal and external environment via hormonal and neural mechanisms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Control of gene expression</b><br>To understand that cells are able to control their metabolic activities by regulating gene expression.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
| Chemistry                               | <b>Acids and Bases</b><br>Calculating pH of weak and strong acids and bases<br>pH of buffer solutions<br>pH during neutralisation reactions<br>How to choose indicators for titrations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Electrode potentials</b><br>How to build an electrochemical cell<br>How to represent what is happening in an electrochemical cell<br>How conditions effect electrochemical cells<br>How batteries and fuel cells work<br><b>Reactions of period 3 oxides</b><br>How period 3 elements react<br>How their oxides react                       |
|                                         | <b>Polymers</b><br>How polymers are formed<br>Key properties and structure of condensation and addition polymers<br><b>Amino acids and proteins</b><br>The structure of biological molecules such as proteins and DNA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Transition metals</b><br>How transition elements form ions<br>The shape of the ions formed<br>How this gives rise to coloured compounds<br>The reactions of these ions in different conditions<br>How transition metals act as catalysts                                                                                                    |
| Computing                               | <b>Computational methods</b><br><b>Exchanging data</b><br><b>Design and development</b><br>Know and explain computational methods which can be used to solve problems<br>How data is exchanged safely, effectively whilst maintaining data integrity<br>Developing the solution                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Exchanging methods</b><br><b>Computational thinking elements</b><br><b>Evaluation</b><br>Understand the importance of network types, protocols, standards, models and hardware involved and web technologies.<br>Consider caching, reusable components and concurrent processing whilst solving problems                                    |
| DT                                      | <b>Analysis and evaluation</b><br><b>Designing to inform</b><br><b>Examination skills</b><br>Understanding and applying different methods of analysis and evaluation to inform projects and reach conclusions<br>Recognising that design is a tool that can be used to influence/inform a user.<br>Understanding the positive and negative impact of this.<br>Scrutinising examination questions in advance of the upcoming exams.                                                                                                                                                                                                                                                                          | <b>Revision of content</b><br><b>Examination skills</b><br>Revisiting content through different methods, questions, short projects, group activities to ensure all knowledge is embedded. Largely student-driven to ensure what the cohort needs is what is delivered.<br>Scrutinising examination questions in advance of the upcoming exams. |
| Economics                               | <b>International economics/development/ poverty and inequality</b><br>To be able to explain the significance of globalisation and international trade.<br>To understand concepts of absolute and comparative advantage, trading blocks and protectionist policies. To discuss problems associated with poverty/inequality.                                                                                                                                                                                                                                                                                                                                                                                  | <b>Financial economics/the role of the state in the macroeconomy</b><br>To understand public finance, macroeconomic policies and the role of the financial sector in a global context. To understand how market failure can occur in financial markets. To understand macroeconomic policies in a global context.                              |
| English                                 | <b>Crime poetry</b><br>To gain a critical understanding of the poetry collection.<br>To be able to critique and compare the poems in the anthology, showing an awareness of genre conventions, themes, and technique.<br>To establish a holistic overview of the genre, drawing connections between literary texts.                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Unseen crime fiction</b><br>AO1: articulate informed, personal and creative responses to literary texts, using associated concepts and terminology, and coherent, accurate written expression<br>AO2: analyse ways in which meanings are shaped in literary texts<br>AO3: demonstrate understanding of the significance and influence of the contexts in which literary texts are written and received<br>AO4: explore connections across literary texts<br>AO5: explore literary texts informed by different interpretations<br>Pupils should become adept at exploring unseen extracts by at first discussing structure, suspense, representation and the nature of the crime presented in the source. |                                                                                                                                                                                                                                                                                                                                                |
| French                                  | <b>Marginalised in society:</b><br>Examine different groups who are socially marginalised<br>Discuss measures to help those who are marginalised<br>Consider contrasting attitudes to people who are marginalised<br><b>Strikes and Union movement:</b><br>Understand the important role of unions.<br>Talk about strikes and protests and consider different methods of protesting<br>Discuss different attitudes towards strikes, protests and other political tensions                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                |
| Further Mathematics                     | <b>Polar Coordinates and Calculus</b><br>To understand polar coordinates and curves, and further their understanding of Calculus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Differential Equations and Hyperbolic functions</b><br>To develop their knowledge of differential equations and introduce hyperbolic functions.                                                                                                                                                                                             |
| Geography                               | <b>Coasts</b><br>To know how the coast works as a system<br>To understand the geomorphological processes involved in shaping the coastal environment<br>To understand the formation of the different aspects of the coastal landscape<br>To be able to evaluate a range of coastal management strategies.                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>Changing Places</b><br>To know how people experience place, how people experience place and how identity is attached to place.<br>To appreciate the range of factors which shape place and alter place over time<br>To complete two detailed studies of contrasting places<br>To consider the above using a range of qualitative and quantitative skills                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                |
| German                                  | Rassismus – Opfer<br>Die Wiedervereinigung – Revolution<br>Die Politik und Jugend – Engagement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Die Wiedervereinigung – Wunsch<br>Translation<br>Skills                                                                                                                                                                                                                                                                                        |
| History                                 | <b>The British Empire, 1957-1967</b><br>How did the indigenous peoples respond to British rule?<br>How important was the role of key individuals and groups and how were they affected by developments?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>The Birth of the USA, 1760-1801</b><br>How was the Republic founded, 1776–1789?<br>What was the significance of Washington and Adams, 1789–1801?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                |
|                                         | <b>The Establishment of Civil Rights in America – Historical Investigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                |
| Mathematics                             | <b>Integration, Series and Vectors</b><br>To further their understanding of Calculus, develop their knowledge of an array of sequences, series and Vectors in 3D.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Dynamics, Parametric equations and Analysing data</b><br>To discover ladder problems, develop their knowledge of functions of time and evaluate the relationship between variables.                                                                                                                                                         |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Philosophy | <b>Metaphysics of God</b><br>This unit aims to equip students with an understanding of and an ability to critique the issues raised by the concept of the God of classical theism, key arguments for and against the existence of God and an understanding of the language used in relation to God.                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|            | <b>Metaphysics of Mind</b><br>A sustained philosophical analysis of the mind's relationship to the body, from Cartesian dualism to physicalist theories and hybrids such as property dualism or functionalism, the aim here is to inquire what we mean when we talk about "mind" both ontologically and linguistically.                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PE         | <b>Sport and Society – Technology &amp; Commercialisation,</b><br>Develop the essay skills needed.<br>Understand modern day contemporary sport                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|            | <b>Coursework and practical Moderation</b><br>Allow students correct time for developing their coursework and evidence gathering for practical performance                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Physics    | <b>Nuclear /Thermal</b><br>Describe how the nucleus was discovered<br>Describe how the intensity of the gamma radiation changes as it spreads out<br>Define Half Life of a radioactive isotope and its decay constant<br>Describe how dense the nucleus is?<br>Describe binding energy and Mass defect                                                                                                                                                                                                                                                                                                   | <b>Turning Points</b><br>Explain how Milikan discovered the charge of an electron<br>What is Newtons Corpuscular theory of Light<br>To be able to understand how Huygens wave theory explained refraction<br>Describe Youngs Double Slit Experiment<br>To be able to calculate the speed of light in Vacuum using Maxwell equation.                                                                                                                                                                                                                                                                        |
| Politics   | What is the historical, structural and cultural context in which American politics takes place/Is US voting behaviour best understood in rational (issues based) or more expressive (identity based) terms? /Compare the nature and extent of long- and short-term voting influences in the US and UK.<br>What are the main features of the US electoral system at federal and state level/ is the Electoral College system fit for purpose and are ballot measures good for democracy?                                                                                                                  | What is the historical, cultural and ideological context in which American politics US party politics takes place/ Why do we have two party domination and why are third parties less successful than in the UK?<br>What structural and rational factors explain the significant power played by pressure groups in the USA/ Compare the power and effectiveness of pressure groups in the US and UK.                                                                                                                                                                                                      |
| Psychology | <b>Schizophrenia</b> - to understand the symptoms and diagnosis of schizophrenia and explanations and treatments.<br><b>Aggression</b> 2nd half-<br>Social psychological explanations of human aggression.<br>Institutional aggression in the context of prisons.<br>Media influences on aggression.<br><b>Schizophrenia</b> --Classification of schizophrenia.<br>Reliability and validity in diagnosis.<br>Biological explanations<br>Drug therapy<br>Psychological explanations<br>Psychological treatments<br>The importance of an interactionist approach in explaining and treating schizophrenia. | <b>Issues and Debates</b> – to understand the key issues and debates that run through all aspects of psychology and to be able to give examples for each.<br>Research Methods- Inferential Testing<br><b>Issues and debates</b><br>Gender and culture in Psychology universality and bias.<br>Free will and determinism<br>The nature-nurture debate<br>Holism and reductionism<br>Ethical implications of research studies and theory.<br><b>Statistical testing</b> -Introduction to statistical testing; the sign test. -Probability and significance -Factors affecting the choice of statistical test |

| Year 13 Summer Term Curriculum Overview |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Subject                                 | Summer 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Art                                     | <b>Realising</b><br>To present a coherent body of work that is reflective of the personal project<br>Gain knowledge of a design idea process and realise intentions                                                                                                                                                                                                                                                                                                                                |  |
| Biology                                 | <b>Organisms respond to changes to their internal and external environment</b><br>To understand how organisms respond to changes to their internal and external environment via hormonal and neural mechanisms.                                                                                                                                                                                                                                                                                    |  |
|                                         | <b>Control of gene expression</b><br>To understand that cells are able to control their metabolic activities by regulating gene expression.                                                                                                                                                                                                                                                                                                                                                        |  |
| Chemistry                               | <b>NMR Spec</b><br>How an NMR machine works<br>The spectra generated by an NMR machine<br>How to build a structure from the spectra<br><b>Chromatography</b><br>How does chromatography work?<br>What are the main types of chromatography?<br>How are these used?                                                                                                                                                                                                                                 |  |
|                                         | <b>Reactions of inorganic ions in solutions</b><br>How inorganic ions of different charges react<br><b>Organic synthesis</b><br>How can you create one molecule from another                                                                                                                                                                                                                                                                                                                       |  |
| DT                                      | <b>Revision of content</b><br>Revisiting content through different methods, questions, short projects, group activities to ensure all knowledge is embedded. Largely student-driven to ensure what the cohort needs is what is delivered.<br><b>Examination skills</b><br>Scrutinising examination questions in advance of the upcoming exams.                                                                                                                                                     |  |
| Economics                               | <b>Revision and exam preparation</b><br>To prepare students for their three exam papers. To fine tune examination technique. To provide an opportunity for any student to cover any gaps they may have in their knowledge of any topic area.                                                                                                                                                                                                                                                       |  |
| English                                 | Revision                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| French                                  | <b>Diversity:</b><br>Consider the benefits of living in an ethnically diverse society.<br>Consider the need for tolerance and respect of diversity.<br>Consider how we can promote diversity to create a richer world.<br><b>Immigration</b><br>Discuss some of the political issues concerning immigration in francophone countries<br>Consider the viewpoints of political parties regarding immigration<br>Consider immigration from the standpoint of immigrants, as well as aspects of racism |  |
| Further Mathematics                     | Exam Preparation<br>To be confident in answering exam style questions and evaluate problems effectively.                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Geography                               | Revision of key content.<br>Examination skills                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| German                                  | Translation, skills and revision                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| History                                 | Revision                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Mathematics                             | Exam Preparation<br>To be confident in answering exam style questions and evaluate problems effectively.                                                                                                                                                                                                                                                                                                                                                                                           |  |
| Philosophy                              | Exam preparation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| PE                                      | Recap, revision and review                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| Physics                                 | Exams Revision<br>Exams technique<br>Revision and past papers<br>Multiple choice questions practise.                                                                                                                                                                                                                                                                                                                                                                                               |  |
| Politics                                | Revision and Exam Skills Focus                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| Psychology                              | Revision of areas identified by students and past exam paper practice.                                                                                                                                                                                                                                                                                                                                                                                                                             |  |