Walthamstow Academy – Year 12 Curriculum Experience

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Welcome to the Curriculum Experience for Year 12!

In this Curriculum Experience you can look at everything you'll be studying this academic year for the subjects you study: all the topics you'll be learning about and the knowledge and skills you will gain, in preparation for your final examinations at the end of Year 13. You can also see what assessments are going to be set each half term in each subject, so you can plan your revision and prepare yourself for your assessments and PPEs. Our teachers have also included information for you on what extra-curricular opportunities you can pursue in order to study subjects and topics in more depth – from books, to websites, to documentaries, to places to visit.

If you have any questions about anything in this document, you can ask your subject teacher, your form tutor or your Head of Year.

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Term	ART Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Art Curriculum Overview: In year 12 we intentionally break students out of an outcome-based model of working to focus on the development and refinement of imagery and ideas. We provide students with opportunities to uncover their own personal creative style, visual genre and material preferences. These elements establish students on their own individual creative journey providing all the pre-requisite knowledge for their year 13 course.			
Year 12 HT1	**Unit Title: Foundation- record** Students will expand and develop their skills in gathering, recording and communicating visual information: • A range of approaches to drawing and drawing materials • Digital photography, lights and lighting • Impression and direct press printing **Independent study ongoing unit: "My eyes- my art"** An ongoing series of independent study tasks to start the process of identifying students' own interests, style and "visual voice". We use the information and self-reflection gathered through these to assist students develop as individual artists in HT6.	Students receive ongoing formative assessment through 1-1 tutorials and group critiques. Summative assessment is in October referencing students' use and understanding of: • Image analysis of the visual elements used: colour, line, tone, texture, shape, form, viewpoint • audience and purpose of the work • genres and artistic movements	Students will be given a gallery challenge in September of suggested smaller London galleries with free entry which we suggest they visit and expand their understanding of the art and design professional world. We hope to encourage students to establish visiting galleries as a regular habit not a termly event. This will support and extend their whole course of study.
Year 12 HT2+3	**Unit Title: Foundation- what if?** Through experimentation we spend a term purely focusing on development and refinement of imagery that will develop creative curiosity and develop depth of experimentation as a working habit. We aim to dispel the myth of a "final outcome". Every art object created starts to be recognised as a steppingstone in a longer creative process. As artist/designers, every work we do becomes a thread in the tapestry of our creative career influencing future work. • Printmaking • Sculpture and 3d construction • Digital imaging and CAD-CAM processes • Textile processes	Students receive ongoing formative assessment through 1-1 tutorials and group critiques. Summative assessment is in February referencing students' use and understanding of the conventions artists use figurative/representational and abstract/non-representational imagery.	**The Design Museum, London.** https://designmuseum.org/ **Tate Modern, London.** **https://www.tate.org.uk/visit/tate-modern** **Victoria and Albert Museum, London. (V&A)** **https://www.vam.ac.uk/**

	• Surrealism • Abstraction • Cubism Scale		
Year 12 HT4+5	**Unit Title: Foundation- oil painting: light, colour and composition** Students will learn to work within a longer, extended process about/ develop skills of: • Oil painting techniques • Compositional rules including pictorial space, rhythm, scale and structure • Extend colour theory Light: colour temperatures and shadow direction according to the time of day and season	Students receive ongoing formative assessment through 1-1 tutorials and group critiques. Summative assessment is in June referencing students' use and understanding of: • Artists' context, cultural influences and the context of work • Image analysis of the pictorial space, composition, rhythm, scale and structure	**Turner wing: Tate Britain, London.** **https://www.tate.org.uk/visit/tate-britain** **The National Gallery, London.** **https://www.nationalgallery.org.uk/**
Year 12 HT6	**Unit Title: developing a personalised project** Students will be guided to develop a personalised direction of study from investigations and observations from your "My eyes, my Art" diary. Students will identify and develop skills to ensure they can present a **Personal** and **Meaningful visual** response.	Students receive ongoing formative assessment through 1-1 tutorials and group critiques.	These will be identified and given to students individually by their teachers depending on the themes and content of their independent project.

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Term	BIOLOGY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*
Year 12 Curriculum Overview: *In Y12, students study the core topics of biological molecules, cells, organisms exchange substances with their environment, and genetic information, variation and relationships between organisms. These topics are built on the KS4 curriculum studied in Y10 and Y11, refining knowledge and skills as students study the topics with greater depth and breadth. Students also develop their working scientifically skills through core practicals over the course of the year.*		
Year 12 HT1	**Biological molecules** Despite their great variety, the cells of all living organisms contain only a few groups of carbon-based compounds that interact in similar ways. Carbohydrates are commonly used by cells as respiratory substrates. They also form structural components in plasma membranes and cell walls. Lipids have many uses, including the bilayer of plasma membranes, certain hormones and as respiratory substrates. Proteins form many cell structures. They are also important as enzymes, chemical messengers and components of the blood. Nucleic acids carry the genetic code for the production of proteins. The genetic code is common to viruses and to all living organisms, providing evidence for evolution. The most common component of cells is water; hence our search for life elsewhere in the universe involves a search for liquid water. Students will learn about/ develop skills of: • Carbohydrates- monosaccharides, disaccharides and polysaccharides • Lipids • Proteins • Enzyme action • Factors affecting enzyme action • Enzyme inhibition **Cells** All life on Earth exists as cells. These have basic features in common. Differences between cells are due to the addition of extra features. This provides indirect evidence for evolution. All cells arise from other cells, by binary fission in prokaryotic cells and by mitosis and meiosis in eukaryotic cells. All cells have a cell-surface membrane, and in addition, eukaryotic cells have internal membranes. The basic structure of these membranes is the same and enables control of the passage of substances across exchange surfaces by passive or active transport. Cell-surface membranes contain embedded proteins. Some of these are involved in cell signalling – communication between cells. Others act as antigens, allowing recognition of 'self' and 'foreign' cells by the immune system. Interactions between different types of cells are involved in disease, recovery from	

	disease and prevention of symptoms occurring later if exposed to the same antigen, or antigen-bearing pathogen. Students will learn about/ develop skills of: • The structure of eukaryotic cells • The structure of prokaryotic cells and of viruses • Methods of studying cells • The stages of mitosis • Transport across cell membranes- diffusion, facilitated diffusion, osmosis, active transport, and co-transport • Cell recognition and the immune system	
Year 12 HT2	**Organisms exchange substances with their environment** The internal environment of a cell or organism is different from its external environment. The exchange of substances between the internal and external environments takes place at exchange surfaces. To truly enter or leave an organism, most substances must cross cell plasma membranes. In large multicellular organisms, the immediate environment of cells is some form of tissue fluid. Most cells are too far away from exchange surfaces, and from each other, for simple diffusion alone to maintain the composition of tissue fluid within a suitable metabolic range. In large organisms, exchange surfaces are associated with mass transport systems that carry substances between the exchange surfaces and the rest of the body and between parts of the body. Mass transport maintains the final diffusion gradients that bring substances to and from the cell membranes of individual cells. It also helps to maintain the relatively stable environment that is tissue fluid. Students will learn about/ develop skills of: • Exchange between organisms and their environment • Gas exchange in single-celled organisms and insects • Gas exchange in fish • Gas exchange in the leaf of a plant • Limiting water loss • Structure of the human gas-exchange system • Mechanism of breathing • Exchange of gases in the lungs	

	Digestion and absorption During digestion, large biological molecules are hydrolysed to smaller molecules that can be absorbed across cell membranes. Digestion in mammals of: • carbohydrates by amylases and membrane-bound disaccharidases • lipids by lipase, including the action of bile salts • proteins by endopeptidases, exopeptidases and membrane bound dipeptidases. Mechanisms for the absorption of the products of digestion by cells lining the ileum of mammals, to include: • co-transport mechanisms for the absorption of amino acids and of monosaccharides • the role of micelles in the absorption of lipids. Students will learn about/ develop skills of: • Enzymes and digestion • Absorption of the products of digestion	
Year 12 HT3	**Mass transport in animals** The haemoglobins are a group of chemically similar molecules found in many different organisms. Haemoglobin is a protein with a quaternary structure. The role of haemoglobin and red blood cells in the transport of oxygen. The loading, transport and unloading of oxygen in relation to the oxyhaemoglobin dissociation curve. The cooperative nature of oxygen binding shows that the change in shape of haemoglobin caused by binding of the first oxygens makes the binding of further oxygens easier. The effects of carbon dioxide concentration on the dissociation of oxyhaemoglobin (the Bohr effect). Many animals are adapted to their environment by possessing different types of haemoglobin with different oxygen transport properties. The general pattern of blood circulation in a mammal. Names are required only of the coronary arteries and of the blood vessels entering and leaving the heart, lungs and kidneys. The gross structure of the human heart. Pressure and volume changes and associated valve movements during the cardiac cycle that maintain a unidirectional flow of blood. The structure of arteries, arterioles and veins in relation to their function. The structure of capillaries and the importance of capillary beds as exchange surfaces. The formation of tissue fluid and its return to the circulatory system. Students will learn about/ develop skills of: • analyse and interpret data relating to pressure and volume changes during the cardiac cycle • analyse and interpret data associated with specific risk factors and the incidence of cardiovascular disease • evaluate conflicting evidence associated with risk factors affecting cardiovascular disease • recognise correlations and causal relationships.	

	Mass transport in plants Xylem is the tissue that transports water in the stem and leaves of plants. The cohesion-tension theory of water transport in the xylem. Phloem as the tissue that transports organic substances in plants. The mass flow hypothesis for the mechanism of translocation in plants. The use of tracers and ringing experiments to investigate transport in plants. Students will learn about/ develop skills of: • recognise correlations and causal relationships • interpret evidence from tracer and ringing experiments and to evaluate the evidence for and against the mass flow hypothesis.	
Year 12 HT4	**DNA, genes and chromosomes** In prokaryotic cells, DNA molecules are short, circular and not associated with proteins. In the nucleus of eukaryotic cells, DNA molecules are very long, linear and associated with proteins, called histones. Together a DNA molecule and its associated proteins form a chromosome. The mitochondria and chloroplasts of eukaryotic cells also contain DNA which, like the DNA of prokaryotes, is short, circular and not associated with protein. A gene is a base sequence of DNA that codes for: • the amino acid sequence of a polypeptide • a functional RNA (including ribosomal RNA and tRNAs). A gene occupies a fixed position, called a locus, on a particular DNA molecule. A sequence of three DNA bases, called a triplet, codes for a specific amino acid. The genetic code is universal, non-overlapping and degenerate. In eukaryotes, much of the nuclear DNA does not code for polypeptides. There are, for example, non-coding multiple repeats of base sequences between genes. Even within a gene only some sequences, called exons, code for amino acid sequences. Within the gene, these exons are separated by one or more non-coding sequences, called introns. Students will learn about/ develop skills of: • Genes and the triplet code • DNA and chromosomes • The structure of RNA • Protein synthesis- transcription and splicing • Protein synthesis- translation	

	Genetic diversity Gene mutations involve a change in the base sequence of chromosomes. They can arise spontaneously during DNA replication and include base deletion and base substitution. Due to the degenerate nature of the genetic code, not all base substitutions cause a change in the sequence of encoded amino acids. Mutagenic agents can increase the rate of gene mutation. Mutations in the number of chromosomes can arise spontaneously by chromosome non-disjunction during meiosis. Meiosis produces daughter cells that are genetically different from each other. The process of meiosis only in sufficient detail to show how: • two nuclear divisions result usually in the formation of four haploid daughter cells from a single diploid parent cell • genetically different daughter cells result from the independent segregation of homologous chromosomes • crossing over between homologous chromosomes results in further genetic variation among daughter cells. Students will learn about/ develop skills of: • Mutations • Meiosis and genetic variation • Genetic diversity and adaptation • Types of selection	
Year 12 HT5	**Genetic diversity and adaptation** Genetic diversity is the number of different alleles of genes in a population. Genetic diversity is a factor enabling natural selection to occur. Students will learn about/ develop skills of: • Use unfamiliar information to explain how selection produces changes within a population of a species • • Interpret data relating to the effect of selection in producing change within populations • • Show understanding that adaptation and selection are major factors in evolution and contribute to the diversity of living organisms. **Species and taxonomy** Two organisms belong to the same species if they can produce fertile offspring. Courtship behaviour is a necessary precursor to successful mating. The role of courtship in species recognition. A phylogenetic classification system attempts to arrange species into groups based on their evolutionary origins and relationships. It uses a hierarchy in which smaller groups are placed within larger groups, with no overlap	

	between groups. Each group is called a taxon (plural taxa). One hierarchy comprises the taxa: domain, kingdom, phylum, class, order, family, genus and species. Each species is universally identified by a binomial consisting of the name of its genus and species, e.g., Homo sapiens. Recall of different taxonomic systems, such as the three domain or five kingdom systems, will not be required. Students will learn about/ develop skills of: • Advances in immunology and genome sequencing that help to clarify evolutionary relationships between organisms. **Biodiversity within a community and investigating diversity** Biodiversity can relate to a range of habitats, from a small local habitat to the Earth. Students will learn about/ develop skills of: • Calculating an index of diversity • Recognise the balance between conservation and farming • Interpret data relating to similarities and differences in the base sequences of DNA and in the amino acid sequences of proteins to suggest relationships between different organisms within a species and between species • Appreciate that gene technology has caused a change in the methods of investigating genetic diversity, inferring DNA differences from measurable or observable characteristics has been replaced by direct investigation of DNA sequences	
Year 12 HT6	**Revision:** Students will revise for their end of year exams covering everything they have learnt in Y12. **Practical and mathematical skills:** Students will learn about/ develop skills of: • Build on practical and mathematical skills	

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Term	A LEVEL BUSINESS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 A Level Business Studies Curriculum Overview: *In Year 12 students complete two schemes of work simultaneously; these are Marketing & People and Managing Business Activities. For many students this will be their first experience of studying Business, so they begin by understanding why businesses exist, their role in identifying and satisfying customers' needs and how they raise the finance to enable this. They will be exposed to countless real world case studies on which to hang their new knowledge and will develop the skills of analysis and evaluation that by the end of Year 12 will enable them to become effective problem solvers.*			
Year 12 HT1	**Theme 1: Marketing and people** Students will learn about/ develop skills of: • Characterising markets as either mass or niche and understanding dynamic markets and how business adapt to change • How competition affects the market in terms of business conduct and profitability • Managing risk to reduce uncertainty **Theme 2: Managing business activities** Students will learn about/ develop skills of: • Internal and external sources of finance • The implications of limited liability for raising finance • The importance of business planning and cash-flow forecasting to reduce the risk of business failure	**Reading comprehension activities to assess the understanding of dynamic markets** **Extended writing activity: justification of appropriate sources of finance for different businesses**	
Year 12 HT2	**Theme 1: Marketing and people** Students will learn about/ develop skills of: • How businesses conduct market research to collect quantitative and qualitative data to anticipate customer needs and wants whilst understanding the limitations of market research methods • The techniques of market segmentation and market mapping • How to establish competitive advantage through product differentiation and adding value to products and services	**Quantitative skills assessment: practicing calculation of revenue, costs and break-even**	https://www.gov.uk/write-business-plan

	Theme 2: Managing business activities Students will learn about/ develop skills of: • Sales forecasting; its uses and limitations • Calculating sales revenue, fixed and variables costs • Break-even analysis and establishing the margin of safety in sales volume		
Year 12 HT3	**Theme 1: Marketing and people** Students will learn about/ develop skills of: • Factors affecting the market forces of supply and demand and market equilibrium; drawing supply and demand diagrams • Calculating price and income elasticities of demand to anticipate changes in customer demand • The Design Mix and changes in its elements brought about by social trends, resource depletion and ethical responsibility **Theme 2: Managing business activities** Students will learn about/ develop skills of: • The process of budgeting, variance analysis • Calculating gross, operating and net profit • Ways to measure and improve profitability (profit ratios)	**Quantitative skills assessment: calculating PED and YED** **PPE 1 – January 2023** **2 x 60-minute papers** **(Theme 1 & Theme 2)**	
Year 12 HT4	**Theme 1: Marketing and people** Students will learn about/ develop skills of: • The power of branding and how businesses build brand value • Pricing strategies to achieve business objectives • How to choose and develop appropriate distribution channels • The product life cycle and product portfolio **Theme 2: Managing business activities** Students will learn about/ develop skills of: • The balance sheet and measures of liquidity	**Quantitative skills assessment: Current ratio and Acid Test ratio** **Extended writing assessment to assess business liquidity and make recommendations on how to improve it**	

	• How to improve liquidity and the preservation of working capital to avoid business failure • The internal and external causes of business failure		
Year 12 HT5	**Theme 1: Marketing and people** Students will learn about/ develop skills of: • Approaches to staffing and managing employer/employee relationships • Recruitment and selection and ways to train staff • Organisational design; hierarchies and their impact on business efficiency and staff motivation • Motivational theory and financial and non-financial incentives to improve employee performance • Leadership styles **Theme 2: Managing business activities** Students will learn about/ develop skills of: • Methods of production • How to measure and improve productivity to increase business efficiency • Understanding labour and capitally intensive businesses and the pursuit of production at the lowest possible average cost • Capacity utilisation	**Individual research assignment to investigate different organisation structures in competing businesses**	**Reading:** **The Witch Doctors: What Management Gurus are Saying, Why it Matters and How to Make Sense of It**
Year 12 HT6	**Theme 1: Marketing and people** Students will learn about/ develop skills of: • The role of the entrepreneur and their motivations for starting a business, including financial and non-financial • Business objectives and forms of business ownership: sole trader, partnership, LTD and stock market floatation to PLC **Theme 2: Managing business activities** Students will learn about/ develop skills of:	**PPE 2 – June 2023** **2 x 60-minute papers** **(Theme 1 & Theme 2)**	

	• Stock control systems: Just in Time v buffer stocks, waste minimisation and interpreting stock control diagrams • Approaches to quality management and their impact on costs • External economic influences on business: inflation, interest rates, exchange rates, government and taxation and the business cycle • The effects of legislation on business • The competitive environment and assessing the level of competition in a market based on the number of competitors, market share and market size		

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Term	CHEMISTRY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Chemistry Curriculum Overview: *A-Level Chemistry covers a wide variety of basic concepts such as the structure of the atom; the interaction of matter and energy an; how to control reactions; patterns in the periodic table and understanding carbon-based molecules. Students will build upon skills and knowledge learned at GCSE Chemistry. Many topics include mathematics calculations, and students will also be expected to carry out experiments regularly to consolidate class work and to build upon their skills and confidence in completing safe and accurate practical work. In Year 12, students study Year 1 of the 2-year A-Level Chemistry specification. The course is split into two, taught by 2 teachers simultaneously.* *The topics we teach in Year 12 are:* - *Physical Chemistry – Atomic structure, Amount of substance, Bonding and structure, Redox, Energetics, Kinetics, Equilibria* - *Inorganic Chemistry – Periodicity, Group 2, Group 7* - *Organic Chemistry – Alkanes, Alkenes, Haloalkanes, Alcohols, Organic analysis*			**Royal Society of Chemistry** **Chemistry Olympiads** **Playerfm/Chemistry podcasts** **Oxford Chemistry reading list**
Year 12 HT1	**Atomic structure** Atomic Structure introduces students to the fundamental ideas of chemistry, which are further built upon throughout the specification. Students will appreciate that knowledge and understanding of atomic structure has evolved over time. They will be able to determine the number of fundamental particles in atoms, ions using the periodic table and explain the existence of isotopes in addition to interpreting simple mass spectra of elements and calculating relative atomic mass from isotopic abundance. They should also be able to explain how first ionisation energies give evidence for electron configuration in sub shells. • Fundamental Particles • Mass number and isotopes • Electron Configuration **Amount of Substance** Amount of Substance introduces students to the maths skills that will be heavily required throughout the course. It builds upon basic maths skills learned at GCSE and gives students a deeper understanding of why these calculations are so important for chemists. In this unit students are also introduced to the first required practical, in which they will be assessed on their experimental and analytical skills. • Relative atomic mass + Relative molecular mass • The mole and Avogadro's constant • The Ideal Gas Equation	**Atomic Structure Test** **Amount of Substance Test** **Bonding Test** **Kinetics Test**	

	• Empirical and molecular formula • Balanced equations and associated calculations • RP: Making up a volumetric solution **Bonding** Students build upon bonding knowledge and understand the physical and chemical properties of compounds depending on the ways in which the compounds are held together. They also are introduced to theories of bonding and how to deduce the shape of molecules. This unit of study again builds upon students basic knowledge obtained at GCSE level and is crucial to progressing throughout the 2 years of study. • Ionic Bonding • Covalent Bonding • Metallic Bonding • Shapes of simple molecules and ions • Bond Polarity • Forces between molecules **Kinetics** The study of kinetics enables chemists to determine how a change in conditions affects the speed of a chemical reaction. They also understand and appreciate that whilst the reactivity of chemicals is a significant factor in how fast chemical reactions proceed, there are variables that can be manipulated to speed them up or slow them down. Students are also taught how to draw and interpret distribution curves for different temperatures and are also introduced to another CPAC. • Collision Theory • Maxwell-Boltzmann distribution • Effect of temperature on reaction rate • Effect of concentration and pressure • Catalysts • RP: Investigation of how rate changes with temperature		
Year 12 HT2	**Energetics** Students will learn how to define the different types of enthalpy changes and understand reactions can be endothermic or exothermic. They will understand how the enthalpy change in a chemical reaction can be measured accurately and appreciate the importance of this value for chemical reactions, as well as be exposed to the applications of these reactions in everyday life.	**Energetics Test** **Equilibria Test** **Intro to Organic Test** **Alkanes Test**	

	• Enthalpy Changes • Calorimetry • Applications of Hess' Law • Bond enthalpies • RP: Measurement of an enthalpy change **Chemical equilibria, Le Chatelier's principle, and Kc** In contrast with kinetics, a study of equilibria indicates how far reactions will go. Students learn how Le Chatelier's principle can be used to predict the effects of changes in temperature, pressure, and concentration on the yield of a reversible rection; which has important consequences for many industrial processes. The further study of the equilibrium constant Lc, considered how the mathematical expression for the equilibrium constant enables us to calculate how an equilibrium yield will be influenced by the concentration of the reactants and products • Chemical equilibria and Le Chatelier's principle • Equilibrium constant Kc for homogeneous systems **Introduction to Organic Chemistry** Students are introduced to Organic Chemistry and will appreciate that there are various structurally diverse compounds in living systems and how organic compounds demonstrate human ingenuity in the vast range of synthetic materials created by chemists. Students will also be taught how organic compounds are named using the IUPAC system and understand how mechanisms are used to explain reactions. • Nomenclature • Reaction mechanisms • Isomerism **Alkanes** Students will learn how alkanes are the main constituent of crude oil, and the importance of this raw material for the chemical industries. They will also understand the uses of them and the environmental consequences of them are considered in this unit. • Fractional distillation of crude oil • Modifications of alkanes by cracking • Combustion of alkanes • Chlorination of alkanes		
Year 12	**Periodicity**		

HT3	Students will learn about how the periodic table provides chemists with a structured organisation of the known chemical elements from which they can make sense of their physical and chemical properties. In addition to appreciating the historical development of the periodic table and models of atomic structure providing good examples of how scientific ideas and explanations develop over time. • Classification • Physical properties of Period 3 elements **Oxidation, Reduction and Redox Equations** Students will be able to work out the oxidation state of an element in a formula or ion and write half equations identifying oxidation, reduction and redox processes; in addition to learning how to combine half equations to give an overall redox equation **Halogenoalkanes** Students will learn how to outline the mechanisms involved for these compounds. They will learn how halogenoalkanes are much more reactive than alkanes and their many uses as solvents and in pharmaceuticals. • Nucleophilic Substitution • Elimination • Ozone depletion **Alkenes** This section covers how the high electron density of the carbon-carbon double bond leads to attack on these molecules by electrophiles. It also covers the mechanism of addition to the double bond and introduces addition polymers, which are commercially important and have many uses in society • Structure, bonding and reactivity • Addition reactions of alkenes • Addition polymers	**PPE 1 (Paper 1)** **PPE 1 (Paper 2) Periodicity and Redox Test** **Halogenoalkanes Test** **Alkenes Test**	
Year 12 HT4	**Group 2, the alkaline earth metals** Students will learn about the elements in group 2, the trends in the solubilities of the hydroxides and sulphates of these elements and how they are linked to their use. They will understand the applications of these in medicine and agriculture. **Group 7, the halogens** Students will learn about the halogens in Group 7. Trends in their physical and chemical properties are examined and explained. And the ability of the halogens to behave as oxidising agents and the halides to behave as reducing agents • Trends in properties	**Group 2 + Group 7 Test** **Alcohols Test** **Organic Analysis Test**	

	• Uses of chlorine and chlorate (I) • RP: Carry out simple test-tube reactions to identify ions **Alcohols** Students will learn how alcohols have many scientific, medicinal, and industrial uses. Students should also be able to outline the mechanisms for the formation of alcohols from alkenes and from fermentation. They will also be taught chemical tests used to distinguish between products of oxidation of alcohols. • Alcohol production • Oxidation of alcohols • Elimination • RP: Distillation of a product from a reaction **Organic Analysis** Students will learn our understanding of organic molecules, their structure, and the way they react, which has been enhanced by organic analysis. This unit considers some of the analytical techniques used by chemists, including test-tube reactions and spectroscopic techniques • Identification of functional groups by test-tube reactions • Mass spectrometry • Infrared spectroscopy • RP: Tests for alcohol, aldehyde, alkene, and carboxylic acids		
Year 12 HT5	**Revision** Students will revise for their end of year exams covering everything they have learnt in Y12. This time will also be used to address misconceptions, re-teach topics and catch-up for students to be ready for their End of Year exams/AS exams; and to be ready to begin Year 2 content after these exams.	**Mock PPE**	
Year 12 HT6	**Thermodynamics (A level)** Students will begin Year 2 content by studying thermodynamics which is the further study of energetics and builds upon knowledge and concepts learnt in that unit. It is important in understanding the stability of compounds and why chemical reactions occur. Students will understand how enthalpy change is linked to entropy change enabling the free-energy change to be calculated. • Born Haber cycles • Gibbs free energy change and entropy change **Optical Isomerism (A level)**	**End of Year PPE 2 (Paper 1)** **End of Year PPE 2 (Paper 2)**	

	Students will learn that compounds that contain an asymmetric carbon atom form stereoisomers that differ in their effect on plane polarised light.		

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Term	COMPUTING Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Computing Curriculum Overview:			
Year 12 HT1	**Unit Title:** Students will learn about the intricacies of the CPU (LMC) and understand how the various components of the CPU interact and communicate, appreciating the role of Buses, Registers and the like. Students will understand that there are two main Processor Architectures out there, and that modern Processors will borrow from either Architecture to better achieve its goal. Students will also develop their programming ability through a range of structured activities. • SLR1 Structure and Function of the Processor • SLR2 Types of Processor • Programming Practice	End-of-Topic Tests: SLR1 Structure and Function of the Processor SLR2 Types of Processor	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science** **https://www.101computing.net/LMC/**
Year 12 HT2	**Unit Title:** Students will learn how data is captured, manipulated, output and stored. They will then learn how data can take various forms and appreciate the implications of *interpretation*. Students will also learn advanced Boolean Algebra that will allow them to develop efficient code and explore operating systems and systems software to better understand the processes involved. Students will also develop their programming ability through a range of structured activities. • SLR3 Input, Output and Storage • SLR13 Data Types • SLR15 Boolean Algebra • SLR4 Operating Systems and Systems Software • Programming Practice	End-of-Topic Tests: SLR3 Input, Output and Storage SLR13 Data Types SLR15 Boolean Algebra SLR4 Operating Systems and Systems Software	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**
Year 12 HT3	**Unit Title:** Students will appreciate how Legislation has had to adapt to the ever-changing technological world by analysing appropriate legislation and exploring case studies. Students will also learn the stages of compilation that allow source code to generate object code. Students will also consider different software methodologies, appreciating their strengths and	End-of-Topic Tests: SLR16 Computer Related Legislation SLR5 Application Generation SLR6 Software Development SLR10 Databases	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**

	Students will also learn about databases, create their own and learn SQL by manipulating this Database. Students will also develop their programming ability through a range of structured activities. • SLR16 Computer Related Legislation • SLR5 Application Generation • SLR6 Software Development • SLR10 Databases • Programming Practice		
Year 12 HT4	**Unit Title:** Students will examine networks and extend this knowledge into web technologies to better appreciate the interaction between the two, and therefore the wealth of facility provided. They will then consider the ethical, moral and cultural issues that arise when delivering services globally. Data structures build on their Database knowledge acquired last HT. Students will also develop their programming ability through a range of structured activities. • SLR11 Networks • SLR12 Web Technologies • SLR17 Ethical, Moral and Cultural Issues • SLR14 Data Structures • SLR8 Introduction to Programming	<u>End-of-Topic Tests:</u> SLR11 Networks SLR12 Web Technologies SLR17 Ethical, Moral and Cultural Issues SLR14 Data Structures	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**
Year 12 HT5	**Unit Title:** Students will learn about how professional programmers apply certain techniques appropriate for the task, to develop programs that satisfy the needs of their clients. • SLR23 Programming Techniques • SLR18 Thinking Abstractly • SLR19 Thinking Ahead • SLR20 Thinking Procedurally • SLR21 Thinking Logically • SLR25 Algorithms	<u>End-of-Topic Tests:</u> SLR18 Thinking Abstractly SLR19 Thinking Ahead SLR20 Thinking Procedurally SLR21 Thinking Logically	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**
Year 12 HT6	**Unit Title:**	**PPE Examination**	**PG Online Resources** **Course Textbook** **Craig & Dave Videos**

	Students will revise for their PPE Examination by completing Craig and Dave SLR's. Once the PPE is complete, the students will then prepare for their Unit 3 Project which is worth 20% of their final grade. • Revision • Yr13 Course Introduction and preparation for Unit 3 - Project		**Quizlet** **Isaac Computer Science**

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Term	ECONOMICS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Economics Curriculum Overview: *Students in Year 12 are typically learning Economics for the first time so the cornerstone of the curriculum is understanding the fundamental economic problem of allocating scarce resources amongst infinite wants and needs. Students gain an understanding of the power of the market forces of supply and demand to make these decisions but also that market failure can lead to inefficiency and therefore the need for government intervention. In macroeconomics they learn how to measure economic performance, what the government tries to achieve in terms of the wider economy and the macroeconomic policies they use in pursuit of these objectives.*			
Year 12 HT1	**Unit Title: The Operation of Markets and Market Failure** Students will learn about/ develop skills of: • Economic methodology; Economics as a social science and the existence of positive and normative statements in economic theory and principle • Factors of production, the problem of scarcity of resources and the concept of opportunity cost through the drawing and analysis of Production Possibility Frontier diagrams • The determinants of supply and demand, price, cross and income elasticities of demand and how market forces determine equilibrium prices • Production, productivity, specialisation and the division of labour, leading to the need for money to unlock the benefits of specialisation and trade • Costs of production in both the short and long-run and the differences between variable, fixed, average and total costs • That in the long-run economies/diseconomies of scale exist • Average revenue is equal to a firm's demand curve	**Initial numeracy assessment** **What is economics? open essay**	**Freakonomics: Stephen J. Dubner and Steven levitt**
Year 12 HT2	**Unit Title: The Operation of Markets and Market Failure** Students will learn about/ develop skills of: • Market structures and how to distinguish between them on the spectrum of competition • The objectives of firms and how these impact conduct and behaviour • Competitive markets and the model of perfect competition • Monopoly and monopoly power and its impact on efficiencies and profits	**Multiple choice question test on topics from HT1**	

	• The rationing, incentive and signalling functions of price in allocating resources		
Year 12 HT3	**Unit Title: The Operation of Markets and Market Failure** Students will learn about/ develop skills of: • The meaning of market failure • The characteristics of public goods, private goods and quasi-public goods and the free rider problem • Positive and negative externalities as a cause of market failure; merit and demerit goods and their under/over consumption in a free market • Market imperfections: asymmetric information, monopoly power and factor immobility • The inequitable distribution of income and wealth as a source of market failure • Government intervention; indirect taxation, subsidies, price controls, state provision and regulation to correct market failure • Government failure	**Market failure essay: demerit goods and negative externalities in consumption** **PPE** **1 x 60-minute exam: Microeconomics**	
Year 12 HT4	**Unit Title: The national economy in a global context** Students will learn about/ develop skills of: • The main objectives of government macroeconomic policy and how conflict between these objectives may arise, at least in the short run • Macroeconomic indicators to measure economic performance and the use of index numbers • How the macroeconomy works: the circular flow of income • Aggregate demand and aggregate supply analysis; the determinants of AD and AS • The accelerator and multiplier processes • The determinants of short-run and long-run AS	**Multiple choice questions test**	**Read:** **The Economist: "the problem with Germany's trade surplus"**
Year 12 HT5	**Unit Title:** Students will learn about/ develop skills of:	**Extended writing: AD/AS analysis, economic growth and multiplier effects**	

	• Economic growth and the economic cycle and the difference between short-run and long-run growth • Negative and positive output gaps and demand-side and supply-side shocks that affect the level of economic activity • Employment and unemployment • Inflation (cost-push and demand-pull) and deflation • The importance of external trade; the balance of payments on current account		
Year 12 HT6	**Unit Title:** Students will learn about/ develop skills of: • Monetary policy, the role of the MPC and the impact on exchange rate • Fiscal policy and how it can be used to influence aggregate supply and aggregate demand • The difference between direct and indirect taxes; the difference between progressive, proportional and regressive taxation • The budget balance and national debt • Supply-side policy and supply-side improvements and their potential for impacting the underlying trend rate of growth, employment and the balance of payments on current account	**PPEs** **2 x 90-minute AS level papers** **Paper 1 – Microeconomics** **Paper 2 – Macroeconomics**	**Watch:** **The decade the rich won, BBC iPlayer**

Walthamstow Academy - Year 12 Curriculum Experience

Half Term	ENGLISH LITERATURE Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 English Literature Curriculum Overview:			
Year 12 HT1	**Unit Title: Introduction to Dystopia as a Literary Genre (Mr Bell-Brown)** *Students will learn about/ develop skills of:* • Origins of Dystopia • Definition of Dystopia • Types & Features of Dystopia • Evolution of Dystopia in 20th Century • Dystopia as a Paradigm **Unit Title: Introduction to Coursework Task One (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Read Poetry Collection *The World's Wife* by Carol Ann Duffy • Explore Duffy's Poetry Toolbox	**Knowledge Recall Pop Quiz** No Assessment Coursework Unit **Coursework Task One Due Date Jan 2023**	**Component 02 – Comparative Essay** **Wider Reading** Dystopian Set Text List *Brave New World* by Aldous Huxley *Children of Men* by PD James *1984* by George Orwell **Wider Knowledge** Dystopian Film List & Film Club Articles on Dystopia and links to current affairs available via Google Classroom Extended Learning Folder
Year 12 HT2	**Unit Title: Study of Set Text - *Fahrenheit 451* by Ray Bradbury** *Students will learn about/ develop skills of:* • Features of Dystopia evident in the Text • Type of Dystopia imagined by Writer **Unit Title: Introduction to Coursework Task One (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Coursework Essay writing Method • Coursework Essay writing Model	**Knowledge Recall Pop Quiz** No Assessment Coursework Unit **Coursework Task One Due Date Jan 2023**	**Component 03 – Task One** **Wider Reading** KS5 Reading List available on GC Fiction & Non-Fiction Texts that focus on issues of identity, gender, roles in Society **Wider Knowledge** Articles on Identity and gender and links to current affairs available via Google Classroom Extended Learning Folder
Year 12 HT3	**Unit Title: Study of Set Text - *Fahrenheit 451* by Ray Bradbury** *Students will learn about/ develop skills of:* • 1950's USA Contextual Influences	**January PPE 1 - Generic Paper** P1 – Dystopia as Genre short written response questions	

	• How Bradbury transposes these ideas & influences in the text • Key Episodes **Unit Title: Introduction to Coursework Task Two (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Read Task Two Text: *Closer* by Patrick Marber • Study of 1990's UK Context [AO3]	P2 – Fahrenheit 451 Contextual Influences extended written response P3 – Fahrenheit 451 Unseen Passage as prompt for Exam Style Statement Question	**Component 03 – Task Two** **Wider Reading** *Patrick Marber* by Graeme Saunders (Digital download of book available on GC Extended Learning Folder) **Wider Knowledge** Interviews with Patrick Marber and cast members available on Youtube.com Film Version 2004 (dir. Mike Nichols)
Year 12 HT4	**Unit Title: Study of Set Text - *The Handmaid's Tale* by Margaret Atwood** *Students will learn about/ develop skills of:* • Features of Dystopia evident in the Text • Type of Dystopia imagined by Writer **Unit Title: Introduction to Coursework Task Two (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Study of Marber's Language & Style [AO2] • Study of Marber's use of Genre, Structure & Form [AO2] • Study of Critical Interpretation of the Text [AO5]	**Knowledge Recall Pop Quiz**	**Component 02 – Comparative Essay** **Wider Reading** Bank of Critical Commentaries and Essays, plus Articles and Reviews, available in GC Extended Learning Folder Connell Guide to *The Handmaid's Tale* *TV Series One (Hula 2017)*
Year 12 HT5	**Unit Title: Study of Set Text - *The Handmaid's Tale* by Margaret Atwood** *Students will learn about/ develop skills of:* • 1980's USA Contextual Influences • How Atwood transposes these ideas & influences in the text • Key Episodes **Unit Title: Introduction to Coursework Task Two (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Read Task Two Text: *Never Let Me Go* by Kazuo Ishiguro • Study of Context in Ishiguro's fiction [AO3]	**Knowledge Recall Pop Quiz** *Comparative Contextual Essay* Part One Practise Writing HWK/IS and Exam Conditions in Class Part Three Practise Writing HWK/IS and Exam Conditions in Class	**Component 03 – Task Two** **Wider Reading** Bank of Critical Commentaries and Essays, plus Articles and Reviews, available on GC Extended Learning Folder Connell Guide to *Never Let Me Go* James Wood *Ishiguro* Essay in *The Fun Stuff* (2012) collection of Critical Essays **Wider Knowledge** Imagine Interview with Ishiguro available on BBC iPlayer Film Version 2010 (dir. Mark Romanek)
Year 12 HT6	**Unit Title: Comparative Contextual Essay Preparation** *Students will learn about/ develop skills of:*	*Comparative Contextual Essay* Part Two Practise Writing HWK/IS and Exam Conditions in Class	

	• Extended Essay writing Method • Extended Essay writing Model • Exam Question Planning and Timing • Adapting Textual Evidence/Episodes to variety of Exam Questions **Unit Title: Introduction to Coursework Task Two (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Study of Ishiguro's Language & Style [AO2] • Study of Ishiguro's use of Genre, Structure & Form [AO2] • Study of Critical Interpretation of the Text [AO5]	**June PPE 2 - Custom Exam Paper** H472/02 Question 6 [30 marks] Exam Style Statement Question	

Walthamstow Academy - Year 12 Curriculum Experience

Term	GEOGRAPHY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Geography Curriculum Overview:			**Revision notes for all topics:** https://www.physicsandmathstutor.com/geography-revision/a-level-aqa/
Year 12 HT1, 2 and 3	**Coastal landscapes and systems** This focuses on coastal zones, which are dynamic environments in which landscapes develop by the interaction of winds, waves, currents and terrestrial and marine sediments. Student engagement with subject content fosters an informed appreciation of the diversity of coasts and their importance as human habitats. The section offers the opportunity to exercise and develop observation skills, measurement and geospatial mapping skills, together with data manipulation and statistical skills, including those associated with and arising from fieldwork. **Changing Places** Students will focus on people's engagement with places, their experience of them and the qualities they ascribe to them, all of which are of fundamental importance in their lives. Students acknowledge this importance and engage with how places are known and experienced, how their character is appreciated, the factors and processes which impact upon places and how they change and develop over time. Through developing this knowledge, students will gain understanding of the way in which their own lives and those of others are affected by continuity and change in the nature of places. Study of this section offers particular opportunities to exercise and develop qualitative (and quantitative) investigative techniques and practice-related observation, measurement and various mapping skills, together with data manipulation and statistical skills including those associated with and arising from fieldwork. *Nature and importance of place* • What is place and why is it important (identity + insiders/outsiders). • Categories of place: near/far + media/experienced. • Endogenous and exogenous factors that make up the character of a place. *Relationships and connections*	**Assess topics as we complete them – this will mean amalgamating Paper 1 and Paper 2 where appropriate. The first PPE is likely to only last 100 mins as only two topics would have been covered by this point.**	**Urban fieldwork – Walthamstow and Stratford Coasts landforms -** https://www.youtube.com/watch?v=ZWEJq03NBao **Revision Website:** https://www.coolgeography.co.uk/advanced/coastal_systems.php **Changing Places** **Visit: Stratford/Canary Wharf** **Revision Website:** https://www.coolgeography.co.uk/advanced/changing_places.php

	• How shifting flows of people, money, resources and ideas affect the demographic, cultural, economic characteristics of a place and may lead to social inequality. • How external forces can change the character of a place. (Stratford) • How past and present connections shape places (Sheffield) *Meaning and representation* • What is meant by meaning and representation and why it is important. • How external agents shape representation of place (incl. Stratford case study). • Quantitative and Qualitative representation of place. • Past and present development shapes representation (Sheffield) *Near place study (Walthamstow)* • Context • Relationships and connections • Quantitative and Qualitative representation *Distant place study (Blaenau Ffestiniog)* • Context • Relationships and connections • Quantitative and Qualitative representation		
Year 12 HT4, 5, 6	**Water and Carbon Cycles** Students will focus on the major stores of water and carbon at or near the Earth's surface and the dynamic cyclical relationships associated with them. These are major elements in the natural environment and understanding them is fundamental to many aspects of physical geography. **Hazards** Students will focus on the lithosphere and the atmosphere, which intermittently but regularly present natural hazards to human populations. By exploring the origin and nature of these hazards and the various ways in which people respond to them, students are able to engage with many dimensions of the relationships between people and the environments they occupy. *The concept of hazard* • Nature, form and impact • Hazard perception		**Epping Forest Fieldtrip** **Climate Change: The Facts -** **https://www.bbc.co.uk/iplayer/episode/m00049b1/climate-change-the-facts** **Revision Website:** **https://www.coolgeography.co.uk/advanced/water_carbon_cycles.php** Hazards: **Revision website:** **https://www.coolgeography.co.uk/advanced/hazards.php**

	• Hazard Management Models *Plate tectonics* • Structure of the earth • Plate tectonic theory and movement • Plate boundaries: constructive, destructive, conservative • Hotspots *Volcanic hazards* • Nature, spatial distribution, frequency and predictability • Hazards • Impacts and response • In depth case study: Montserrat *Seismic hazards* • Nature, spatial distribution, frequency and predictability • Hazards • Impacts and response • In depth case studies: Japan and Haiti *Storm hazards* • Nature, spatial distribution, frequency and predictability • Hazards • Impacts and response • In depth case studies: Matthew and Katrina *Fires in nature* • Nature, spatial distribution, frequency and predictability • Hazards • Impacts and response • In depth case studies: Black Saturday (Australia) and Algeria *Multi-hazardous environment case study (Philippines)* • Causes and nature of hazards • Impacts		Great interactive map for distribution https://www.geolsoc.org.uk/Plate-Tectonics/ https://www.geolsoc.org.uk/Plate-Tectonics/Chap3-Plate-Margin **GeolSoc website:** Great explanation for plate margins https://www.geolsoc.org.uk/Plate-Tectonics/Chap3-Plate-Margins/Mid-plate/Hawaiian-Islands The key role of NGOs in bringing disaster relief in Nepal (2015) http://theconversation.com/the-key-role-of-ngos-in-bringing-disaster-relief-in-nepal-40883 Earthquakes: prediction, forecasting and mitigation (Geolsoc) https://www.geolsoc.org.uk/earthquake-briefing PODCAST: How do we predict earthquakes? https://itunes.apple.com/gb/podcast/rgs-ibg-ask-the-experts/id1196746426?mt=2

	• Preparation and response		Mapping the Destruction of Hurricane Katrina http://news.bbc.co.uk/1/shared/spl/hi/americas/05/katrina/html/ Hurricane Katrina: Facts, Damage & Aftermath https://www.livescience.com/22522-hurricane-katrina-facts.html

Walthamstow Academy - Year 12 Curriculum Experience

Term	HISTORY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Curriculum Overview: - In y12 students begin with their Paper 1 Breadth Study 'Britain Transformed, 1918-97 with Historical Interpretations. They will study KT4 The changing quality of life, 1918-79 in which students develop a high level of understanding of the key social and economic changes in the British society between 1918-79. KT4 provides students the foundational understanding for the other 3 key topics. - KT3 is the next unit studied in y12 because it focuses on the social and cultural changes taking place in British society between 1918-79. This includes a range of diverse histories of New Commonwealth immigration and the Windrush Generation, also a breadth study of the changes in the role and status of women between 1918-79 including the women's movement and feminism during the 1960s and 1970s. - KT2 is the next y12 paper 1 unit which is focused on the development of welfare, education and health between 1918-1979. Students have already covered aspects of the education system and healthcare in KT3 when learning about social class and inequalities between the classes. They also cover content in relation to the developments in welfare between 1918-79 including the creation of the welfare state which is the reason why the key topics for the Paper 1 Breadth Study are taught in this order because content for KT2 is taught in KT3 which means that students grasp the new knowledge at a much higher level. - In y12 students also study the Paper 2 Depth Study, USA Conformity and Challenge, 1955-92. Students complete the 4 key topics in chronological order because it is a depth study and each key topic follows on from the previous key topics. Students will study key topics 1 and 2 in y12 and key topics 3 and 4 in y13. The Paper 2 key topics and the paper 1 key topics 3 and 4 share a wide range of subject knowledge and concepts of continuity and change in relation to class, culture of consumerism, affluence, inequalities, teenage culture, popular culture and challenges to traditional culture. Therefore, these Paper 1, and Paper 2 key topics are taught concurrently in y12.			
Year 12 HT1	**Unit Title: Democracies in change: Britain and the USA in the twentieth century:** **Paper 1, Option 1H: Britain transformed, 1918–97:** **Theme 4: The changing quality of life, 1918–79** **Students will learn about:** • Changing living standards: the impact of boom, crisis and recovery, and the significance of regional differences, 1918–39; the effects of 'total war' and austerity, 1939–51; the growth of a consumer society, 1951–79. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a wide period of time. • Leisure and travel: the growth of spectator sports from the 1920s; increased leisure time and the development of mass tourism from the 1930s; the impact of car ownership and travel developments, 1918–79.	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Teacher questioning** **Summative Assessment:** **Q: To what extent did living standards change between 1918-79 (20)**	**Britain in the 1950s documentary:** **https://www.youtube.com/watch?v=DqVwc6nrHjI**

Walthamstow Academy - Year 12 Curriculum Experience

	Unit Title: Democracies in change: Britain and the USA in the twentieth century: The USA, 1955–92: conformity and challenge: **Theme 1: Affluence and conformity, 1955–63** • Urbanisation and affluence: the changing nature of cities; expansion of the suburbs; highway development; growing ownership and use of cars; white collar jobs and service industries; consumerism and domestic technology. • Cultural conformity and challenge: suburban conformity and social change in film and TV; advertising; the challenge of teenage culture and music; beatnik' culture. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative Assessment:** **Q: Explain why so many Americans were willing to conform in the period between 1955-63. (20)**	**1950s US Documentary:** **https://www.youtube.com/watch?v=qXOq04idCi4**
Year 12 HT2	**Unit Title: Paper 1, Option 1H: Britain transformed, 1918–97:** **Theme 4: The changing quality of life, 1918–79** **Students will learn about:** • Popular culture and entertainment: the impact of mass popular culture, including cinema, radio and music, 1918–79; the influence of television from the 1950s and youth culture, 1955–79. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a long period of time **Unit Title: The USA, 1955–92: conformity and challenge:** **Theme 1: Affluence and conformity, 1955–63** **Students will learn about:** • The civil rights movement, including the Montgomery and Birmingham protests; the impact of the Washington march; the Ku Klux Klan and White Citizens' Committees.	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Teacher questioning** **Summative Assessment:** **Q: Comparing 2 Sources (Popular Culture)** **Formative assessment:**	**Visit Carnaby Street, London: The centre of the Swinging Sixties** **ITV News Debate: Is there a North South divide in Britain:** **https://www.youtube.com/watch?v=A3NEKSlzP_Y**

	Unit Title: Theme 2 Protest and reaction, 1963–72 • Civil rights: the significance of Malcolm X, Black Power and the Black Panthers; King's changing priorities, including the campaigns in Selma and Chicago; King's achievements and the impact of his assassination; the work of Cesar Chavez. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of 2 contemporary sources content and provenance using contextual own knowledge. Students must analyse the 2 sources together	**- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative Assessment: Q: 'The Montgomery Bus Boycott was the most successful civil rights campaign in the years between 1955'. How far do you agree? (20)**	**Eyes on the Prize: Award winning PBS documentary charting the Civil Rights Movement: https://www.youtube.com/watch?v=Ts10IVzUDVw&list=PLOwK3r1sMvSZVth7XGlcpfLSjS3tAp90T**
Year 12 HT3	**Unit Title: Paper 1, Option 1H: Britain transformed, 1918–97: Theme 3: Society in transition, 1918–79** **Students will learn about:** • Class and social values: class, social change and the impact of wars, 1918–51; the emergence of the 'liberal society', and its opponents, 1951–79. • The changing role and status of women: the right to vote and political advancement, 1918–79; changes in family life and the quest for personal freedoms, 1918–79. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a long period of time **Unit Title: The USA, 1955–92: conformity and challenge: Theme 2 Protest and reaction, 1963–72** **Students will learn about:** • Johnson's Great Society, 1964–68: tackling poverty and unemployment; improving housing and education; Medicare and Medicaid; civil rights laws; Johnson's achievements.	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Teacher questioning** **Summative assessment: Q: To what extent did Britain become a liberal society during the 1960s and 1970s. (20)** **Formative assessment:**	**Visit the Imperial War museum: https://www.iwm.org.uk/**

	Students will develop skills of: • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of 2 contemporary sources content and provenance using contextual own knowledge. Students must analyse the 2 sources together	**- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment: Q: Comparing 2 sources (Johnson's Great Society Programme)**	
Year 12 HT4	**Unit Title: The USA, 1955–92: conformity and challenge:** **Theme 2 Protest and reaction, 1963–72** **Students will learn about:** • Protest and personal freedom: student protest; counterculture and its key features; the growth of the women's movement; the impact of sexual liberalisation; the origins of gay rights. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of 2 contemporary sources content and provenance using contextual own knowledge. Students must analyse the 2 sources together **Unit Title: Paper 1, Option 1H: Britain transformed, 1918–97:** **Theme 3: Society in transition, 1918–79** **Students will learn about:** • Race and immigration: immigration policies and attitudes towards ethnic minorities, 1918–39; the impact of the Second World War and new Commonwealth immigration; racial controversy and the impact of government policies on race relations and immigration, 1958–79. **Students will develop skills of:**	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Interpretation analysis tasks** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment: Q: To what extent did the women's movement achieve their aims between 1963-72 (20)** **Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks**	

	• Analysing and evaluating continuity and changes of political, social and economic changes over a long period of time	**- Teacher questioning** **Summative assessment:** **Q: To what extent did attitudes towards immigration change in the years 1918-79 (20)**	
Year 12 HT5	**Unit Title: The USA, 1955–92: conformity and challenge:** **Theme 2 Protest and reaction, 1963–72 and Theme 3 Social and political change, 1973–80** **Students will learn about:** • Reactions to the counterculture, 1968–72: the rise of the 'silent majority'; the role of the media in influencing attitudes; the impact of events in Vietnam and at Kent State; Nixon's appeal and his attack on the Great Society. • The extent of progress in individual and civil rights: the political and social impact of Roe v. Wade; women's rights; workers' rights; gay rights; Native American rights and the impact of Red Power; the status of black Americans. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of 2 contemporary sources content and provenance using contextual own knowledge. Students must analyse the 2 sources together **Unit Title: Paper 1, Option 1H: Britain transformed, 1918–97:** **Theme 2: 2 Creating a welfare state, 1918–79** **Students will learn about:** • Providing social welfare: the extent, and nature of, social welfare provision, 1918–39; the impact of the Second World War, the Labour government and consensus, 1939–64; the reasons for increasing challenges to state welfare provision, 1964–79. **Students will develop skills of:**	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment:** **Q: To what extent was progress made in individual and civil rights in the years 1973-80? (20)** **Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Teacher questioning** **Summative assessment:** **Q: 'The Second World War was the main reason for the**	

	• Analysing and evaluating continuity and changes of political, social and economic changes over a long period of time	**introduction of welfare reforms in the years between 1918-79'. How far do you agree? (20)**	
Year 12 HT6	**Unit Title: Paper 1, Option 1H: Britain transformed, 1918–97:** **Theme 2: 2 Creating a welfare state, 1918–79** **Students will learn about:** • Public health: health provision, 1918–45; the creation and impact of the National Health Service (NHS), 1945–79, and the challenge of medical advances. • Education and widening opportunities: education policy, 1918–43; the significance of the 'Butler Act' 1944, and the development of comprehensive education to 1979; the growth and social impact of university education, 1918–79. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a long period of time	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Teacher questioning** **Summative assessment:** **Q: 'The National Health Service was a great success in the period between 1948-79'. To what extent do you agree? (20)**	**BBC Panorama The Best Days 1977 Documentary TV Episode Britain's Schools: https://www.youtube.com/watch?v=tImx5KtxbpI**

Walthamstow Academy - Year 12 Curriculum Experience

Term	MATHS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*
Year 12 Maths Curriculum Overview: Pupils are taught the AS course in one year**.** Maths is taught over 10 lessons a fortnight – 7 in Pure and 3 in Applied.		
Year 12 HT1	In Pure Maths, students will learn about/ develop skills of: • Algebra and functions • Coordinate geometry in the (x, y) plane In Applied Maths, students will learn about/ develop skills of: • Statistical sampling • Data presentation and interpretation • Probability	End of topics tests for 1 hour after every topic
Year 12 HT2	In Pure Maths, students will learn about/ develop skills of: • Further algebra In Applied Maths, students will learn about/ develop skills of: • Statistical distributions • Statistical hypothesis testing Probability	End of topics tests for 1 hour after every topic
Year 12 HT3	In Pure Maths, students will learn about/ develop skills of: • Trigonometry • Vectors (2D) In Applied Maths, students will learn about/ develop skills of: • Quantities and units in mechanics • Statistical hypothesis testing Probability	End of topics tests for 1 hour after every topic
Year 12 HT4	In Pure Maths, students will learn about/ develop skills of: • Differentiation In Applied Maths, students will learn about/ develop skills of: • Kinematics 1 (constant acceleration)	End of topics tests for 1 hour after every topic

Walthamstow Academy - Year 12 Curriculum Experience

Year 12 HT5	In Pure Maths, students will learn about/ develop skills of: • Integration In Applied Maths, students will learn about/ develop skills of: • Forces & Newton's laws	End of topics tests for 1 hour after every topic
Year 12 HT6	In Pure Maths, students will learn about/ develop skills of: • Exponentials and logarithms In Applied Maths, students will learn about/ develop skills of: • Kinematics 2 (variable acceleration)	End of topics tests for 1 hour after every topic

Walthamstow Academy - Year 12 Curriculum Experience

Term	PHYSICS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Physics Curriculum Overview: *In Y12, students study the core topics of physics of particles and radiation, waves and optics, mechanics and martials, and electricity. These topics build on the KS4 curriculum studied in Y10 and Y11, refining knowledge and skills as students study the topics with greater depth and breadth. Students also develop their working scientifically skills through 6 core practicals over the course of the year.*			
Year 12 HT1	**Particles** Particles introduce students both to the fundamental properties of matter, and to electromagnetic radiation and quantum phenomena. We begin with this topic to provide a new interest and knowledge dimension beyond GCSE. Through a study of these topics, students become aware of the way ideas develop and evolve in physics. They will appreciate the importance of international collaboration in the development of new experiments and theories in this area of fundamental research. Students will learn about/ develop skills of: • Constituents of the atom • Stable and unstable nuclei • Particles, antiparticles and photons • Particle interactions and classification of particles • Quarks and antiquarks • Applications of conservation laws **Mechanics - Moments** Vectors and their treatment are introduced followed by development of the students' knowledge and understanding of forces, energy and momentum. Students will learn about/ develop skills of: • Scalars and vectors • Moments	**Ch.1 Particles assessment** **Ch.2 Quarks and leptons assessment** **Ch. 6 Forces in equilibrium assessment**	**Richard Feynman's 6 easy pieces of physics** **Join the institute of physics (IoP)**
Year 12 HT2	**Quantum Physics** Building on particle physics, to electromagnetic radiation and quantum phenomena. This culminates in the study of wave-particle duality to have a full understanding of the particle and wave-like nature of physics.	**Ch.3 Quantum Physics assessment** **Ch.7 on the move assessment**	

	Students will learn about • The photoelectric effect • Collisions of electrons with atoms • Energy levels and photon emission • Wave-particle duality **Mechanics - Projectile motion** Vectors and their treatment are introduced followed by development of the students' knowledge and understanding of forces, energy and momentum. Students will learn about/ develop skills of: • Motion along a straight line • Projectile motion	**Ch.8 Newtons law's of motion assessment** **PPE 1**	
Year 12 HT3	**Waves and optics** GCSE studies of wave phenomena are extended through a development of knowledge of the characteristics, properties, and applications of travelling waves and stationary waves. Topics treated include refraction, diffraction, superposition and interference. Students will learn about/ develop skills of: • Progressive waves • Longitudinal and transverse waves • Principle of superposition of waves and formation of stationary waves • Interference • Diffraction • Refraction at a plane surface **Mechanics - Newtons Laws of Motion and Energy** Vectors and their treatment are introduced followed by development of the students' knowledge and understanding of forces, energy and momentum. Students will learn about/ develop skills of: • Newton's laws of motion • Momentum • Work, energy and power	**PPE 1** **Ch.4 Waves assessment** **Ch.9 Forces and momentum assessment** **Ch.10 Work, energy and power assessment**	

	• Conservation of energy		
Year 12 HT4	**Electricity:** Electricity builds on and develops earlier study of these phenomena from GCSE. It provides opportunities for the development of practical skills at an early stage in the course and lays the groundwork for later study of the many electrical applications that are important to society. Students will learn about/ develop skills of: • Basics of electricity • Current–voltage characteristics • Resistivity • Circuits • Potential divider • Electromotive force and internal resistance **Materials** The study of mechanics at Y12 culminates with the study of materials considered in terms of their bulk properties and tensile strength. Students will learn about/ develop skills of: • Bulk properties of solids • The Young modulus	**Ch.5 Optics assessment** **Ch.12 Electric current assessment** **Ch.11 Materials assessment** **PPE 2**	**Visit Oxford University's School of Material Science.**
Year 12 HT5	**Further Mechanics:** The earlier study of mechanics is further advanced through a consideration of circular motion and simple harmonic motion (the harmonic oscillator). Students will learn about/ develop skills of: • Circular motion • Simple harmonic motion (SHM) • Simple harmonic systems • Forced vibrations and resonance	**Ch.13 DC circuits assessment** **Ch.17 Motion in a circle assessment** **Ch.17 Motion in a circle assessment**	
Year 12	**Revision**	**PPE 2 – end of year exams**	

HT6	Students will revise for their end of year exams covering everything they have learnt in Y12. **Thermal Physics** Building on Y12 mechanics, further mechanics allows the thermal properties of materials, the properties and nature of ideal gases, and the molecular kinetic theory to be studied in depth. Students will learn about/ develop skills of: • Thermal energy transfer	**Ch.19 - Thermal Physics assessment**	

Walthamstow Academy - Year 12 Curriculum Experience

Term	PSYCHOLOGY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Psychology Curriculum Overview:			
Year 12 HT1	**Unit Title: Memory** Students will learn about/ develop skills of: • The role of memory - the multi store model of memory. • The working memory model. • Explanations for forgetting. • Factors affecting the accuracy of eyewitness testimony and improving the accuracy of eyewitness testimony. **Interleave RM** students will develop the skills of research methods: the use of experiments in psychological research.	**In Class Assessments:** • **Psychology pre assessment test** • **6 Marker – m o d e l s of memory** • **16 Marker – research into EWT of memory**	**Memory** **Podcast: the human body and mind. Radio 4** **BPS readers Digest** **TED: E. Loftus: How reliable is your memory** **black and ethnic minorities in psychology an psychiatry network**
Year 12 HT2	**Unit Title: Social Influence** Students will learn about/ develop skills of: • Understand the types of conformity and explanations for conformity: informational social influence and normative social influence and evaluate these explanations. • Ket study APFCC: Zimbardo. Milgram. Asch, Hofling, Jennes. • To outline and evaluate explanations for obedience. • Dispositional explanation for obedience: the Authoritarian Personality. **Interleave RM** Students will develop an understanding of ethical issues within research and how to overcome these issues. Students will use the cost versus benefit analysis. Students will be taught to apply effective evaluation in looking at the strengths and weakness of experiments	**PPE 1 –** • **Sections of Paper 1 In Class Timed Assessments:** • **16 Markers**	**Social influence** **The psych show** **Zimbardo: the secret powers of time** **TED: the psychology of evil**
Year 12 HT3	**Unit Title: Social Influence** Students will learn about/ develop skills of:	**In Class Assessments:**	**Suggested Watch List:**

	• Explanations of resistance to social influence. • Minority influence including reference to consistency, commitment and flexibility. The role of social influence processes in social change. **Unit Title: Psychopathology** Students will learn about/ develop skills of: • Definitions of abnormality. including deviation from social norms, failure to function adequately, statistical infrequency and deviation from ideal mental health. • The behavioural approach to explaining and treating phobias • The cognitive approach to explaining and treating depression • The biological approach to explaining and treating OCD	• **2, 4, 6 Markers. RM Experiments** • **16 Marker – Social** • **HW: Psychopathology**	TED : assessing complex social change How-overcome-6-barriers-self-care-men TED talks: mental health playlist confronting bullies- **how to heal** Assessing Perceptual Disturbances With the Rorschach assessing evidence-serotonin-failure-does-not-cause-depression
Year 12 HT4	**Unit Title: Attachment** Students will learn about/ develop skills of: • Caregiver-infant interactions in humans: reciprocity and interactional synchrony. Stages of attachment identified by Schaffer. Multiple attachments and the role of the father. • Animal studies of attachment: Lorenz and Harlow. • Explanations of attachment: learning theory and Bowlby's monotropic theory. The concepts of a critical period and an internal working model. **Interleave RM** Students will understand how researchers design and use observation techniques including the strengths and weaknesses of this methodology.	**In Class Assessments:** • **1 Hour Paper in psychopathology and RM** • **MCQ Memory**	the-blossoming-child-psychology-in-post-war-America relationship-attachment-style-test how early attachment affects later relationships
Year 12 HT5	**Unit Title: Attachment** Students will learn about/ develop skills of:	**In Class Assessments:** • **16 Marker – attachments**	Growing up in an orphanage

	• Ainsworth's 'Strange Situation'. Types of attachment: secure, insecure-avoidant, and insecure-resistant. Cultural variations in attachment, including van Ijzendoorn. • Bowlby's theory of maternal deprivation. Romanian orphan studies: effects of institutionalisation. • The influence of early attachment on childhood and adult relationships, including the role of an internal working model. **Interleave RM** • Students will understand how self-report: questionnaires and interviews are used in research and be able to evaluate this type of methodology • Students will understand issues surrounding research and how to overcome them • Students will be taught evaluation using validity and reliability in research methodology in topics taught.	• **MCQ Social**	Netflix - babies Stats in Research
Year 12 HT6	**Unit Title: Biopsychology** Students will learn about/ develop skills of: • The divisions of the nervous system: central and peripheral (somatic and autonomic). • The structure and function of sensory, relay and motor neurons. The process of synaptic transmission, including reference to neurotransmitters, excitation, and inhibition. • The function of the endocrine system: glands and hormones. • The fight or flight response including the role of adrenaline.	**PPE 2 – Introductory topics in psychology full paper 1** **In class test: RM thus far. W.C?**	The Brain: a secret history Regulate-your-nervous-system-right-now careers in psychology

Walthamstow Academy - Year 12 Curriculum Experience

Term	SOCIOLOGY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 12 Sociology Curriculum Overview: *What will year 12s study and learn this academic year? Why this/ why now?*			
Year 12 HT1	**Unit Title: Education** Students will learn about/ develop skills of: • The role of the education system according to sociological perspectives • Inequalities in the education system according to social class • Inequalities in the education system according to gender and ethnicity	**In Class Assessments:** • **Sociology Points Test** • **10 Marker – Social Class** • **20 Marker – Ethnicity**	**Social Class – Material Deprivation:** https://www.youtube.com/watch?v=AKhDTFXDIRs https://www.youtube.com/watch?v=ekHA8_SDwjA
Year 12 HT2	**Unit Title: Education / Research Methods** Students will learn about/ develop skills of: • The impact of educational policies in shaping the school system • Introduction to the research methods used to conduct sociological studies. • The analysis of each method – strengths and weaknesses.	**PPE 1 – Education** • **Paper 1** **In Class Assessments:** • **10 Markers – Perspectives and Marketisation**	https://www.independent.co.uk/news/uk/boris-johnson-prime-minister-nadhim-zahawi-schools-bill-b2074325.html
Year 12 HT3	**Unit Title: Research Methods with Context** Students will learn about/ develop skills of: • The analysis of each method – strengths and weaknesses.	**In Class Assessments:** • **20 Marker MIC – Experiments** • **20 Marker MIC – Observations**	**Suggested Watch List:** ● Years and Years (BBC I-player) ● The 'Up' series (e.g. 56 Up, 63 Up - on Netflix or YouTube) ● The Secret Life of 5 year olds (Channel 4 series)

Walthamstow Academy - Year 12 Curriculum Experience

Year 12 HT4	**Unit Title: Family and Households** Students will learn about/ develop skills of: • Introduction to traditional family structure and how the family has progressed and why. • Sociological Perspectives on the family – the role of the family within society.	**In Class Assessments:** • **1 Hour Education and Methods Paper** • **20 Marker– Feminism and the Family**	**http://www.youtube.com/watch?v=qq1qH3cRlfg** **What does the family teach us? How does this help children fit into wider society?**
Year 12 HT5	**Unit Title: Family and Households** Students will learn about/ develop skills of: • Couples – exploring roles within the family and analysing whether they have become more equal or remain unequal. • Childhood – how has the role of children in the family changed? • Trends in marriage and divorce • Demographic trends and their impact on the UK population and families	**In Class Assessments:** • **20 Marker – Couples** • **10 Marker– Marriage and Divorce and the Family**	Have a look at this article: **https://www.bbc.co.uk/news/uk-england-birmingham-61584708 - Death of Arthur Labinjo Hughes** How does this show that childhood is not always a place of innocence and love? **Suggested watch list:** • The trial of Gabriel Hernandez (Netflix)
Year 12 HT6	**Unit Title: Family and Households / Introduction to Crime and Deviance** Students will learn about/ develop skills of: • The impact of family policies in shaping the family structure and its functions • Introduction to sociological perspectives of crime	**PPE 2 –** **Paper 1 – Education with Methods (2 hours)** **Paper 2 – Family and Households (1 hour)** **W.C.?**	**https://www.youtube.com/watch?v=3wCpiVh4NFQ - impacts of policy on the family structure** **https://www.youtube.com/watch?v=boYg74Ik0Ac – impact of policy on gender roles** **https://www.youtube.com/watch?v=W2_PG8Lg2hw – impact of policy on childhood**

Walthamstow Academy – Year 13 Curriculum Experience

Walthamstow Academy – Year 13 Curriculum Experience

Welcome to the Curriculum Experience for Year 13!

In this Curriculum Experience you can look at everything you'll be studying this academic year for the subjects you study: all the topics you'll be learning about and the knowledge and skills you will gain, in preparation for your final examinations at the end of this academic year. You can also see what assessments are going to be set each half term in each subject, so you can plan your revision and prepare yourself for your assessments and PPEs. Our teachers have also included information for you on what extra-curricular opportunities you can pursue in order to study subjects and topics in more depth – from books, to websites, to documentaries, to places to visit.

If you have any questions about anything in this document, you can ask your subject teacher, your form tutor or your Head of Year.

Walthamstow Academy - Year 13 Curriculum Experience

Term	ART Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Art Curriculum Overview: Our art curriculum aims to develop our students into curious artist designers, who are critical thinkers and confident communicators through visual, written and linguistic forms. Year 13 is the cumulation of this where we support students to create a portfolio of work which meets the AQA A-level criteria and allows students to fully express themselves as artist designers.			
Year 13 **HT1+2** **Art, craft and design**	**Unit 1 coursework component** Students will develop skills of: • Contextual investigation • Oral presentations • Written essay component Individual coursework project	Students receive ongoing formative assessment through 1-1 tutorials and group critiques. Summative assessment is in January after a 10-hour period of independent working in exam conditions (mock exam).	These will be identified and given to students individually by their teachers depending on the themes and content of their independent project.
Year 11 **HT3,4+5** **Art, craft and design**	**Unit Title: Unit 2 exam component.** AQA our exam board, send out a list of exam titles in January. Students explore these and select which one best matches their strengths and interests, completing a full project from their chosen starting exam title. • Students are to investigate the titles given. • Select a title, explore and select relevant artists. • Gather and experiment with primary imagery. Develop your own body of work in response to the title.	This whole unit is an exam unit over a period of 10 weeks duration. Students receive ongoing formative assessment through 1-1 tutorials and group critiques. Summative assessment is in May after a 15 hour period of independent working in exam conditions.	These will be identified once the exam titles are released by our exam board AQA in January.

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Term	BIOLOGY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Curriculum Overview: *In Y13 Biology students build on their Y12 biology knowledge, practical skills and mathematic skills to develop a complete understanding and fluency of biology. At the end of the course, students are ready to continue their studies in biology or science-related degree.*			
Year 13 HT1	**Energy transfer in and between organisms- photosynthesis** In communities, the biological molecules produced by photosynthesis are consumed by other organisms, including animals, bacteria and fungi. Some of these are used as respiratory substrates by these consumers. Photosynthesis and respiration are not 100% efficient. The transfer of biomass and its stored chemical energy in a community from one organism to a consumer is also not 100% efficient. Students will learn about/ develop skills of: • The light-dependent reaction • The light-independent reaction • Identify factors that limit the rate of photosynthesis **Respiration** Respiration produces ATP. Students will learn about/ develop skills of: • Glycolysis • Link reaction and Krebs cycle • Oxidative phosphorylation • Anaerobic respiration • **Energy and ecosystems** In any ecosystem, plants synthesise organic compounds from atmospheric, or aquatic, carbon dioxide. Most of the sugars synthesised by plants are used by the plant as		

	respiratory substrates. The rest are used to make other groups of biological molecules. These biological molecules form the biomass of the plants. Students will learn about/ develop skills of: • Food chains and energy transfer • Energy transfer and productivity • Nutrient cycles • Use of natural and artificial fertilisers • Environmental issues concerning the use of nitrogen-containing fertilisers		
Year 13 HT2	**Organisms respond to changes in their environment- Response to stimuli** A stimulus is a change in the internal or external environment. A receptor detects stimulus. A coordinator formulates a suitable response to a stimulus. An effector produces a response. Receptors are specific to one type of stimulus. Nerve cells pass electrical impulses along their length. A nerve impulse is specific to a target cell only because it releases a chemical messenger directly onto it, producing a response that is usually rapid, short-lived and localised. In contrast, mammalian hormones stimulate their target cells via the blood system. They are specific to the tertiary structure of receptors on their target cells and produce responses that are usually slow, long-lasting and widespread. Plants control their response using hormone-like growth substances Students will learn about/ develop skills of: • Survival and response • Plant growth factors • A reflex arc • Receptors • Control of heart rate • Nervous coordination and muscles **Homeostasis** Homeostasis in mammals involves physiological control systems that maintain the internal environment within restricted limits. The importance of maintaining a stable core temperature and stable blood pH in relation to enzyme activity. The importance of maintaining a stable blood glucose concentration in terms of availability of respiratory		

	substrate and of the water potential of blood. Negative feedback restores systems to their original level. The possession of separate mechanisms involving negative feedback controls departures in different directions from the original state, giving a greater degree of control. Students will learn about/ develop skills of: • Principles of homeostasis • Feedback mechanisms • Hormones and the regulation of blood glucose concentration • Diabetes and its control • Control of blood water potential • Role of nephron in osmoregulation • Role of hormones in osmoregulation		
Year 13 HT3	**Genetics, populations, evolution and ecosystems- Inherited change** The theory of evolution underpins modern Biology. All new species arise from an existing species. This results in different species sharing a common ancestry, as represented in phylogenetic classification. Common ancestry can explain the similarities between all living organisms, such as common chemistry (e.g. all proteins made from the same 20 or so amino acids), physiological pathways (e.g. anaerobic respiration), cell structure, DNA as the genetic material and a 'universal' genetic code. Students will learn about/ develop skills of: • Inheritance • Probability and genetic crosses • Codominance and multiple alleles • Sex-linkage • Autosomal linkage • Epistasis • The chi-squared test **Populations and evolution**		

	Individuals within a population of a species may show a wide range of variation in phenotype. This is due to genetic and environmental factors. The primary source of genetic variation is mutation. Meiosis and the random fertilisation of gametes during sexual reproduction produce further genetic variation. Students will learn about/ develop skills of: • Population genetics • Variation in phenotype • Natural selection • Effects of different forms of selection on evolution • Isolation and speciation **Populations in ecosystems** Populations of different species form a community. A community and the non-living components of its environment together form an ecosystem. Ecosystems can range in size from the very small to the very large. Students will learn about/ develop skills of: • Populations in ecosystems • Variation in population size • Competition • Predation • Investigating populations • Succession • Conservation of habitats		
Year 13 HT4	**The control of gene expression** Cells are able to control their metabolic activities by regulating the transcription and translation of their genome. Although the cells within an organism carry the same coded genetic information, they translate only part of it. In multicellular organisms, this control of translation enables cells to have specialised functions, forming tissues and organs. There are many factors that control the expression of genes and, thus, the		

	phenotype of organisms. Some are external, environmental factors, others are internal factors. The expression of genes is not as simple as once thought, with epigenetic regulation of transcription being increasingly recognised as important. Humans are learning how to control the expression of genes by altering the epigenome, and how to alter genomes and proteomes of organisms. This has many medical and technological applications. Consideration of cellular control mechanisms underpins the content of this section. Students who have studied it should develop an understanding of the ways in which organisms and cells control their activities. This should lead to an appreciation of common ailments resulting from a breakdown of these control mechanisms and the use of DNA technology in the diagnosis and treatment of human diseases. Students will learn about/ develop skills of: • Gene mutations • Stem cells and totipotency • Regulation of transcription and translation • Epigenetic control of gene expression • Gene expression and cancer • Genome projects		
Year 13 HT5	**Recombinant DNA technology** Recombinant DNA technology involves the transfer of fragments of DNA from one organism, or species, to another. Since the genetic code is universal, as are transcription and translation mechanisms, the transferred DNA can be translated within cells of the recipient (transgenic) organism. Students will learn about/ develop skills of: • Producing DNA fragments • Gene cloning- the use of vectors and the polymerase chain reaction • Locating genes, genetic screening, and counselling • Genetic fingerprinting		

Walthamstow Academy - Year 13 Curriculum Experience

Term	BTEC BUSINESS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 BTEC Business Curriculum Overview: *In Year 13 students study mostly optional Units and complete their re-sits of External Assessments. Students are required to produce a Marketing Plan based on a Case Study. Students also plan and stage a Business Event which develops their Organisational and Management Skills. Finally they gain an International perspective on Business by assessing the viability of a chosen Business in locating abroad.*			
Year 13 HT1	**Unit Title: Developing a Marketing Campaign** Students will learn about/ develop skills of: • Developing the Rationale • Principles of Marketing • The Role of Marketing • Influences on Marketing Activity • Using information to develop Marketing Campaign • Purpose of Market Research • Market Research Methods Students learn how to develop a Rationale for a Marketing Campaign. They develop research and problem-solving skills in identifying the aims and purposes of their Marketing Campaign.	**Formative Assessment** Practice Past Papers **Summative Assessment** 3hr Supervised Externally Marked Task in January	BTEC National Textbook Research on-line Marketing Campaigns Pearson Exam Website Pearson BTEC National Revision Guide
Year 13 HT2	**Unit Title: Developing a Marketing Campaign** Students will learn about/ develop skills of: • Planning and Developing a Marketing Campaign • Marketing Campaign Activity • Marketing Mix • The Marketing Campaign • Appropriateness of Marketing Campaign	**Formative Assessment** Practice Past Papers **Summative Assessment** 3hr Supervised Externally Marked Task in January	BTEC National Textbook Pearson BTEC National Revision Guide

	Students develop their research skills by undertaking extensive Market research for their Marketing Campaign. The Unit culminates in them writing a Marketing Campaign in their external assessment based on a pre-release Case Study		
Year 13 HT3	**Unit Title: International Business** Students will learn about/ develop skills of: • Explore the International Context for Business Operations • Investigate the International Economic Environment in which Business operates • Investigate the External Factors that influence Businesses • Investigate the Cultural Factors that influence International Businesses • Examine the Strategic and Operational Approaches to Developing International Trade Students investigate the opportunities and barriers to trading Internationally. This encourages students to consider working in the international job market. Their evaluative and decision-making skills are developed by deciding which countries their chosen Businesses should operate in.	3 Assignments based on Learning Aims A,B,C,D & E Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson.	BTEC National Textbook **www.britishchambers.org.uk/business/international-trade** http://www.britishchambers.org.uk/business/international-trade **www.wto.org** http://www.wto.org/ **www.gov.uk/government/organisations/uk-export-finance**
Year 13 HT4	**Unit Title: Managing a Business Event** Students will learn about/ develop skills of: • Explore the Role of an Event Organiser • Investigate the feasibility of a Proposed Event • Develop a Detailed Plan for a Business or Social Enterprise Event • Factors to be considered including Budget, Resources and Contingency Planning • Stage and Manage a Business or Social Enterprise Event • Reflect on the running of the Event and Evaluate Own Skills Development Students develop a wide range of transferable skills in Time Management, Leadership, Organisation, and communication skills in organising a Business event at the Academy. After producing a detailed plan, they must manage the event successfully keeping a log/diary.	Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson.	BTEC National Textbook **www.simplypsychology.org/likert-scale.html** http://www.simplypsychology.org/likert-scale.html **www.snapsurveys.com/blog/attitude-surveys-the-likert-scale-and-semantic-differentials/**
Year 13	**Unit Title: Portfolio Building**		

HT5	Students complete all outstanding work by Pearson Deadline and organise their work in to an Organised Portfolio of Evidence. They also use the Pearson on-line Grade Calculator to predict final grade based on their Portfolio of evidence		

Walthamstow Academy - Year 13 Curriculum Experience

Term	A LEVEL BUSINESS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 A Level Business Curriculum Overview: *The second year of A level study sees the focus shift from function to strategy and crucially how businesses must plan for growth, change and the presence of risk. They also investigate the global nature of business today. In an increasingly connected world, markets are now globalised bringing with them enormous gains in terms of scale and reduced costs of production. But they also face a multitude of ethical and moral dimensions that may eventually threaten the sustainability of businesses if they fail to deliver on corporate social responsibility.*			
Year 13 HT1	**Theme 3: Business decisions and strategy** Students will learn about/ develop skills of: • The development of corporate objectives and a critical appraisal of mission statements/corporate aims • Development of strategy using Ansoff's Matrix and Porter's Strategic Matrix • The impact of strategic and tactical decisions on the resources of a business • Using tools such as SWOT, PESTLE and Porter's Five Forces to assess the impact of external influences on business **Theme 4: Global business** Students will learn about/ develop skills of: • The growth rate of the UK economy compared to emerging economies • The implications of growth for trade and employment • Indicators of economic growth: GDP, literacy, health, HDI • Exports and imports between countries, flows of FDI and the link to business growth	**Reading comprehension activities: Identifying corporate strategy through business behaviour** **Individual research assignment: Fact finding economic data for a broad range of markets**	**Reading: The Economist – search for articles and features on economic development**
Year 13 HT2	**Theme 3: Business decisions and strategy** Students will learn about/ develop skills of: • Growth; market share, market power, economies of scale and increased profitability • The problems associated with growth: diseconomies of scale, overtrading • Mergers and acquisitions for growth	**PPE 1 – November 2022 2 x 90 minute papers in Themes 1 & 4 and 2 & 3**	

	• Reasons for staying small: differentiation, development of Unique Selling Points, flexibility in responding to customer needs **Theme 4: Global business** Students will learn about/ develop skills of: • Factors contributing to increased globalisation • Protectionism: tariffs, quotas, domestic subsidies and legislation • The expansion of trading blocs and their impact on business		
Year 13 HT3	**Theme 3: Business decisions and strategy** Students will learn about/ develop skills of: • Decision making techniques including quantitative sales forecasting, methods of investment appraisal, decision trees and critical path analysis (CPA) • Corporate influences on timescales • The impact of corporate culture • The role of stakeholders and the potential for conflict **Theme 4: Global business** Students will learn about/ develop skills of: • Conditions that prompt trade: push and pull factors • Extending the product life cycle by selling in multiple markets and assessing a country as a market • Assessing a country as a possible production location • Global mergers and joint ventures • Achieving global competitiveness through exchange rate fluctuation, cost competitiveness, differentiation • The impact of skills shortages on international competitiveness	**Quantitative skills assessment: Investment appraisal techniques, decision trees and CPA**	**Reading:** **The Economist – search for articles and features about global M&A activity**
Year 13 HT4	**Theme 3: Business decisions and strategy** Students will learn about/ develop skills of: • Business ethics: balancing objectives and corporate social responsibility	**Quantitative skills assessment: Ratio analysis of financial statements**	

	• Interpretation of financial statements (Statement of comprehensive income and Statement of financial position) • Ratio analysis to measure gearing, return on investment (ROCE) and to aid decision making • Measuring the effectiveness of human resources and methods to improve productivity, retention, staff turnover and absenteeism **Theme 4: Global business** Students will learn about/ develop skills of: • Global marketing strategy and global localisation; global niche markets • The impact on business of culture, tastes, language, unintended meanings, inappropriate translations/branding/promotion	**PPE 2 – March 2023** **2 x 120-minute papers in Themes 1 & 4 and 2 & 3**	
Year 13 HT5	**Theme 3: Business decisions and strategy** Students will learn about/ develop skills of: • Managing change; the effects on culture, structure and overcoming resistance to change • Scenario planning to reduce risk • Mitigation of risk by planning for business continuity and succession planning **Theme 4: Global business** Students will learn about/ develop skills of: • The growing impact of Multinational Corporations (MNCs) on local labour forces, wages, job/wealth creation, the local community and the environment • Impact of MNCs on FDI flows, balance of payments, technology and skills transfer, consumer, business culture and tax revenues • Global ethical considerations • Controlling MNCs through political influence, legislation, pressure groups and the use of social media	**Paper 3 preparation and practice**	

Walthamstow Academy - Year 13 Curriculum Experience

Term	CHEMISTRY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Chemistry Curriculum Overview: *In Y13 Chemistry students build on their Y12 chemistry knowledge, practical skills and mathematic skills to develop a complete understanding and fluency of chemistry. At the end of the course, students are ready to continue their studies in chemistry or science related degree.* *The topics we teach in Year 13 are:* - *Physical Chemistry – Thermodynamics, Acids and Bases, Electrode potentials, Rate equations, Equilibrium constant Kp* - *Inorganic Chemistry – Period 3 Oxides, Transition Metals, Reactions of Aqueous ions in solution* - *Organic Chemistry – Optical Isomerism, Aldehydes, Ketones, Carboxylic Acids, Esters, Amines, Aromatics, Organic Analysis*			**Royal Society of Chemistry** **Chemistry Olympiads** **Playerfm/Chemistry podcasts** **Oxford Chemistry reading list**
Year 13 HT1	**Acids and Bases** Students will learn how acids and bases are important in domestic, environmental, and industrial contexts. They will understand how acidity in aqueous solutions is caused by hydrogen ions and a logarithmic scale, pH, as been devised to measure acidity. They will appreciate how buffer solutions can be made from partially neutralised weak acids, resist changes in pH and find many important industrial and biological applications. • Bronsted-Lowry acid-base equilibria in aqueous solution • Definition and determination of pH • The ionic product of water, Kw • Weak acids and bases, Ka for weak acids • pH curves, titrations and indicators • Buffer action • RP: Investigate how pH changes when a weak acid reacts with a strong base • RP: Investigate how pH changes when a strong acid reacts with a weak base **Equilibrium constant, Kp for homogeneous systems** Students will further study equilibria and consider how the mathematical expression for the equilibrium constant Kp enables us to calculate how an equilibrium yield will be influenced by the partial pressures of reactants and products and the consequences of this on reactions in industry. **Aldehydes and Ketones** Students learn how to construct mechanisms to show the additional reactions of aldehydes and ketones.	**Acids and Bases Test** **Equilibrium constant Test** **Organic Test**	

	Carboxylic acids and esters Students learn how carboxylic acids are weak acids, and the reactions of them with alcohols in the presence of an acid catalyst give an ester. Students also learn how to identify esters and the uses of products of reactions of carboxylic acids in industry, food and fuels.		
Year 13 HT2	**Electrode Potentials and Electrochemical cells** Students will learn redox reactions take place in electrochemical cells where electrons are transferred from the reducing agent to the oxidising agent indirectly via an external circuit. A potential difference is created that can drive an electric current to do work. Students will appreciate the applications of electrochemical cells commercially as a portable supply of electricity to power electronic devices, and on a larger scale to power vehicles • Electrode potentials and cells • Commercial applications of electrochemical cells • RP: Measuring the EMF of an electrochemical cell **Properties of Period 3 elements and their oxides** The reactions of Period 3 elements with oxygen are considered. Students will learn the trends of melting points of the oxides in terms of structure and bonding, in addition to the reactions of these oxides with water and the types of products they produce. **Acylation** Students learn the structures of acid anhydrides, acyl chlorides and amides. As well as the industrial advantages of ethanoic anhydride over ethanoyl chloride in the manufacture of the drug aspirin - RP: Preparation of a pure organic solid and test its purity - RP: Preparation of a pure organic liquid **Aromatic Chemistry** Aromatic Chemistry takes benzene as an example of this type of molecule and students look at the structure of the benzene ring and its substitution reactions. Students should be able to use thermochemical evidence from enthalpies of hydrogenation to account for this extra stability and explain why substation reactions occur in preference to addition reactions **Rate equations** In rate equations, the mathematical relationship between rate of reaction and concentration gives information about the mechanism of a reaction that may occur in several steps.	**PPE 1 (Paper 1)** **PPE 1 (Paper 2)** **PPE 1 (Paper 3)** **Electrode potentials Assessment** **Period 3 Oxides Assessment** **Acylation and Aromatics Assessment** **Rate equations Assessment**	

	• Rate equations • Determination of rate equation • RP: Measuring the rate of reaction by initial rate method • RP: Measuring the rate of reaction by continuous monitoring method		
Year 13 HT3	**Transition metals** Students will learn how the 3d block consists of the most useful metals in industry and everyday life. The characteristics of these elements will be studied in much detail and students will be to explain the importance of these properties linked to their usefulness. In addition to understanding and drawing the shape of complex ions and building upon knowledge of stereoisomerism. • General properties of transition metals • Substitution reactions • Shapes of complex ions • Formation of coloured ions • Variable oxidation states • Catalysts **Electrophilic Substitution** Students should be able to outline the electrophilic mechanisms of nitration and acylation reactions. Students will appreciate how nitration is an important step in synthesis. **Amines** Students learn how amines are compounds based on ammonia where hydrogen atoms have been replaced by alkyl or aryl groups. This unit also includes their reactions as nucleophiles • Preparation • Base properties • Nucleophilic properties **Polymers** Students learn the study of polymers is extended to include condensation polymers. The formation of condensation polymers is studied, together with their properties, uses and problems associated with the reuse or disposal of them • Condensation Polymers • Biodegradability and disposal of polymers **Amino Acids**	**Transition metals Assessment** **Organic Assessment**	

	Students learn how amino acids, proteins and DNA are molecules of life. In this unit the structure and bonding in these molecules and the way they interact is studied. This unit has cross-curricular links with A Level Biology. • Amino acids • Proteins • Enzymes • DNA • Action of anti-cancer drugs		
Year 13 HT4	**Reactions of ions in aqueous solution** Students will build upon knowledge obtained in transition metals and now look deeply at the reactions of transition metals in aqueous solution. They will understand how these ions can be identified by test-tube reactions in the laboratory. They will also be able to explain the acidity of the ions produced • RP: Carry out simple test-tube reactions to identify transition metal ions in aqueous solution **Organic Synthesis** Students will be able to explain why chemists aim to design processes that do not require a solvent and that use non-hazardous materials; in addition to explain why they aim to design a production with fewer methods and steps to ensure a high percentage atom economy. And to use reactions in this specification to devise a synthesis map for organic compounds; linking everything they have learned in organic chemistry. **Nuclear magnetic resonance spectroscopy** Students will have an appreciation that scientists have developed a range of analytical techniques which together enable the structures of new compounds. In addition to understanding how to use NMR spectra to determine the structure and how chemical shifts depend on the molecular environment and use proton and carbon NMR respectively. **Chromatography** Students will learn how chromatography provides an important method of separating and identifying components in a mixture. Different types of chromatography are used depending on the composition of mixture to be separated • RP: Separation of species by thin-layer chromatography	**PPE 2 (Paper 1)** **PPE 2 (Paper 2)** **PPE 2 (Paper 3)** **Reactions of aqueous solution Assessment** **Organic Synthesis Assessment** **NMR Assessment**	
Year 13 HT5	**Revision** Students will use this term to revise and prepare for their A-Level exams	**A-Level Chemistry Paper 1 (2 hours)** **A-Level Chemistry Paper 2**	

		(2 hours) **A-Level Chemistry Paper 3** **(90 mins)**	

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Term	COMPUTING Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Computing Curriculum Overview: *What will year 13s study and learn this academic year? Why this/ why now?*			
Year 13 HT1	**Unit Title:** Students will recap SLR's 1-6 from Yr12 as it nicely dovetails into SLR7 where Students will investigate several Programming Languages. In SLR9, they will also learn about different Compression, Encryption and Hashing techniques, appreciating their advantages and disadvantages and likely scenarios where to use them. • SLR1 - 6 recap • SLR7 Types of Programming Language • SLR9 Compression, Encryption and Hashing • **Project**: Definition and Analysis	<u>End-of-Topic Test:</u> SLR7 Types of Programming Language – Wk6 SLR9 Compression, Encryption and Hashing – Wk7	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**
Year 13 HT2	**Unit Title:** Students will learn about Databases, Networks and Web Technologies that synergise around the representation of data, and their transmission and storage. • SLR10 Databases • SLR11 Networks • SLR12 Web Technologies • SLR13 Data Types • **Project**: Design and Development	**PPE Assessment**	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**
Year 13 HT3	**Unit Title:** Students will further develop their understanding of Boolean Algebra and revisit SLR's 16 Computer Related Legislation & 17 Ethical, Moral and Cultural Issues. • SLR15 Boolean Algebra • SLR 16 & 17 Recap • **Project**: Development	<u>End-of-Topic Test:</u> SLR14 Data Structures - Wk17	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**

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Year 13 HT4	**Unit Title:** Students will revise SLR's 18-23 and be introduced to Computational Methods (efficient algorithms) that achieve a variety of tasks. • SLR18 – 23 Recap • SLR24 Computational Methods • **Project**: Development	End-of-Topic Test: SLR24 Computational Methods – Wk26	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**
Year 13 HT5	**Unit Title:** Students will recap SLR25 and will code the efficient algorithms of SLR24. • SLR25 Recap • SLR26 Algorithms • **Project**: Evaluation	End-of-Topic Test: SLR26 Algorithms – Wk32	**PG Online Resources** **Course Textbook** **Craig & Dave Videos** **Quizlet** **Isaac Computer Science**

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Term	ECONOMICS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Economics Curriculum Overview: *In Year 13 students deepen their understanding of the economic decision making of individuals, firms and governments. They explore in detail the theory of the firm and its diagrammatic analysis to identify efficiencies, surpluses, welfare losses and how markets are increasingly dynamic because of technological change. They explore the labour market, its imperfections, interventions and outcomes for employers and workers. In macroeconomics they learn about the role of financial markets and their potential for fuelling economic growth and welfare creation, but also how their mismanagement can lead to widespread economic collapse. Finally they consider economic growth and development globally, considering the case for and against free trade, why more free trade does not occur and the how international cooperation aims to create sustainable and fair growth for everyone.*			
Year 13 HT1	**Unit Title: Individuals, firms, markets and market failure** Students will learn about/ develop skills of: • Consumer behaviour, utility theory and the importance of the margin when making choices • Behavioural economic theory and its uses in shaping economic policy • The law of diminishing returns and return to scale and the shape(s) of the long-run average cost curve • Technological change; its impact on production, efficiency and the breaking-down of existing markets/creation of new markets • Market structures that exist between the extremes of perfect competition and monopoly i.e. monopolistic competition and oligopoly	**In-class assessment**	
Year 13 HT2	**Unit Title: Individuals, firms, markets and market failure** Students will learn about/ develop skills of: • The conditions necessary for price discrimination, its forms and a diagrammatic analysis of each degree of price discrimination • The dynamics of competition and creative destruction • Static and dynamic efficiencies • Consumer and producer surplus and their link to price discrimination and the deadweight welfare losses associated with monopoly power • The labour market; labour demand and marginal productivity theory • Labour supply	**PPEs** **2 x 90-minute papers Paper 1 – Microeconomics Paper 2 – Macroeconomics**	

	• The determination of wage rates in perfectly competitive and monopsony labour markets and those impacted by the presence of trade unions • The National Living Wage, forms of labour discrimination		
Year 13 HT3	**Unit Title: Individuals, firms, markets and market failure** Students will learn about/ develop skills of: • Measures of inequality: the Lorenz curve and Gini coefficient, benefits and costs of more equal and more unequal distributions • Government policies to alleviate poverty **Unit Title: The national and international economy** Students will learn about/ develop skills of: • Financial markets; debt and equity, money markets, capital markets and foreign exchange markets • The inverse relationship between market interest rates and bond prices • The role of commercial and investment banks in the economy • The importance of maintaining stability and liquidity in commercial banks • How banks create credit • The role of central banks in monetary policy • Regulation of the financial system, moral hazard and systemic risk	**Labour market exam style essay questions in class**	
Year 13 HT4	**Unit Title: The national and international economy** Students will learn about/ develop skills of: • Fiscal policy, government borrowing and the significance of national debt • Free market v interventionist supply-side policies • Globalisation • Trade, the model of comparative and absolute advantage and how specialisation and trade can increase total output		**Complete a deep dive investigation into the macroeconomic history, performance and challenges faced by a developing economy of your choice**
Year 13 HT5	**Unit Title: The national and international economy** Students will learn about/ develop skills of: • The costs of international trade	**Paper 3 practice and preparation**	

	• The UK's pattern of trade and recent changes in it • Protectionism and trading blocs/customs unions • Economic growth and development around the world: barriers to growth and development and policies to promote it • The role of aid		

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Half Term	ENGLISH LITERATURE Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 English Literature Curriculum Overview:			
Year 13 HT1	**Unit Title: Critical Commentary of UNSEEN passage** *Students will learn about/ develop skills of:* • Identifying Types & Features of Dystopia [AO1] • Making links between Unseen Passage & Contextual Influences [AO3] • Making links between Unseen Passage & other Dystopian Texts • Placing Unseen passage in Dystopian Paradigm [AO1] **Unit Title: Introduction to Coursework Task Two (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Comparison of Task Two Set Texts [AO4] *Never Let Me Go* by Kazuo Ishiguro and *Closer* by Patrick Marber • Writing Frame/Model for Coursework Task Two	This unit is continuously assessed through Classwork Practise Passages, IS tasks and HWK using an Order of Enquiry Model	**Component 02 – Unseen Passage** **Wider Reading** Brave New Worlds Volume 1 and 2 Collections of Dystopian Short Stories **Component 03 – Task One & Task Two** **Wider Reading** **Wider Knowledge** All material from Year 12 will be needed in this term to complete Coursework
Year 13 HT2	**Unit Title: Critical Commentary of UNSEEN passage** *Students will learn about/ develop skills of:* • Identifying Stylistic Features and Tropes [AO2] • Relate Style features to Dystopian Paradigm [AO1] • Consider different stylistic approaches to Dystopian Writing **Unit Title: Pre 1900 Drama and Poetry Comparative Essay (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Read *The Doll's House* by Henrik Ibsen • Study of Victorian Context & Genre Context [AO3]	**November PPE 1 - Custom Exam Paper** H472/02 Question 6 [30 marks] Exam Style Statement Question H472/02 Question 5 [30 marks] Exam Style Unseen Passage **Coursework Task One** Final Version Due Date Jan 2024 **Coursework Task Two** First Draft Due Date Jan 2024	**Component 02 – Unseen Passage** **Wider Reading** Brave New Worlds Volume 1 and 2 Collections of Dystopian Short Stories **Component 01 – Pre 1900 Drama** **Wider Reading** Bank of Critical Commentaries and Essays, plus Articles and Reviews, available in GC Extended Learning Folder Connell Guide to *The Doll's House*

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Year 13 HT3	**Unit Title: Interpretative Discussion of changing views of *The Tempest*** *Students will learn about/ develop skills of:* • Jacobean Context of the Play [AO3] • Changing Interpretations of the play through time [AO5] • Study of Theatrical Interpretations [AO5] • Study of Film Interpretations [AO5] • Literary Theories & Types [AO5] *Marxist/Feminist/Psychoanalytical/Historicist/Post-Colonial* **Unit Title: Pre 1900 Drama & Poetry Comparative Essay** *Students will learn about/ develop skills of:* • Study of Ibsen's Language & Style [AO2] • Study of Ibsen's use of Genre, Structure & Form [AO2] • Study of Critical Interpretation of the Text [AO5]	**Knowledge Recall Pop Quiz** + This unit is continuously assessed through Classwork Practise Passages, IS tasks and HWK using an Order of Enquiry Model **Coursework Task Two** Second Draft Due Date March 2024	**Component 01 – The Tempest** **Wider Reading** Bank of Critical Commentaries and Essays, plus Articles and Reviews, available in GC Extended Learning Folder Connell Guide to *The Tempest* *The King & The Playwright documentary* Prof James Shapiro **Wider Knowledge** Film Versions of *The Tempest* *Forbidden Planet (1956)* *The Tempest – Derek Jarman (1980)* *The Tempest – Julie Taymor (2011)*
Year 13 HT4	**Unit Title: Critical Commentary of UNSEEN passage from *The Tempest*** *Students will learn about/ develop skills of:* • Identifying Stylistic Features and Tropes [AO2] • Identifying Stylistic Features and Tropes [AO1] • Relating Style & Structure Features to Later Plays Paradigm **Unit Title: Pre 1900 Drama and Poetry Comparative Essay (Mr Tweed / Ms Capstick)** *Students will learn about/ develop skills of:* • Read *OCR Poetry Anthology* by Christina Rossetti • Study of Victorian Context & Genre Context [AO3] • Study of Rossetti's Language & Style [AO2] • Study of Rossetti's use of Genre, Structure & Form [AO2] • Study of Critical Interpretation of the Text [AO5]	**H472/Component 01** In Class practise Exam Questions **March PPE 2 - Custom Exam Paper** H472/02 Question 6 [30 marks] Exam Style Statement Question H472/02 Question 5 [30 marks] Exam Style Unseen Passage **H472/Component 01** In Class practise Exam Questions Using Order of Enquiry Writing Frame	**Component 01 – Pre 1900 Drama** **Wider Reading** Bank of Critical Commentaries and Essays, plus Articles and Reviews, available in GC Extended Learning Folder Connell Guide to *Christina Rossetti*
Year 13 HT5	**Unit Title: Exam Preparation and Practice Papers**	**Coursework Task One** Final Submission date May 2024 **Coursework Task Two**	
		Final Submission date May 2024	

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Term	GEOGRAPHY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Geography Curriculum Overview:			**Revision notes for all topics:** https://www.physicsandmathstutor.com/geography-revision/a-level-aqa/
Year 13 HT1 and 2	**Non-Examined Assessment (NEA)** Year 13 starts off with pupils completing the Non-Assessed Examination (NEA) and Population and the Environment. For the NEA pupils are required to carry out their own investigation into a geographical theme of their choosing covered in the specification. They will then devise questions, collect, and analyse data before drawing conclusions and evaluating their study. • Aims/hypotheses/sub-questions • Literature review – link to the geography • Locational context • Methodology + sampling • Data presentation, analysis and interpretation • Analysis: using statistical techniques to manipulate data • Interpretation and conclusion • Evaluation • Ethical considerations **Population and the Environment** This topic explores the relationships between key aspects of physical geography and population numbers, population health and well-being, levels of economic development and the role and impact of the natural environment. Engaging with these themes at different scales fosters opportunities for students to contemplate the reciprocating relationships between the physical environment and human populations and the relationships between people in their local, national, and international communities.	**Coasts, Hazards and Water and Carbon – 2hr 30mins**	**Stratford urban fieldwork trip.** **Epping Forest physical geography trip.** **Geographical Skills and Fieldwork Investigations support:** https://www.physicsandmathstutor.com/geography-revision/a-level-aqa/fieldwork/

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Year 13 HT3 and 4	**Global Systems and Governance** This section of our specification focuses on 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. Increased interdependence and transformed relationships between people, states and environments have prompted more or less successful attempts at a global level to manage and govern some aspects of human affairs. Students engage with important dimensions of these phenomena with particular emphasis on international trade and access to markets and the governance of the global commons. Students contemplate many complex dimensions of contemporary world affairs and their own place in and perspective on them. • Globalisation – flows and factor • Global systems • Unequal flows of people, money, ideas and technology • Unequal Power Relations • International trade and access to markets • Trends in international trade and investment • Trading relationships • Differential access to markets • TNCs (Apple) • Trade in Coffee • Consequences of globalisation • Global governance • The 'global commons' and the Antarctica		**Rotten (Netflix documentary on food trade) - https://www.netflix.com/gb/title/80146284** **Revision Website: https://www.coolgeography.co.uk/advanced/global_systems.php**
Year 13 HT5	**Revision –** this is the half-term before the A level examinations. Pupils will use this time to revise knowledge and exam technique needed for the exam.		

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Term	HISTORY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Curriculum Overview: - In y13 students will also study and carryout research for their Paper 4 Coursework focusing on the Historical controversy about whether Germany was responsible for causing WWI. This coursework is focused on students developing the high level skill of analysing and evaluating 3 Historians' views and why they differ about what was the main cause of WWI. The coursework study and research is carried out in y13 because it is very challenging and therefore, students have been developing their capacity to read and understand Historians' works. Students have covered this topic at a high level in y9 but of course not sufficiently high enough for A level. Students have also been introduced to the key History skill of analysing and evaluating Historians' interpretations throughout ks3 and answering an Interpretation question as the main part of their GCSE Paper 3 depth study throughout ks4. - Finally, in y13 students study their Paper 1, Section C Interpretation question, analysing and evaluating different Historians' views about the Historical controversy about whether Thatcher's economic policies transformed the British economy between 1979-97. Students study this unit for Paper 1 last because at this point students have developed very high level skills of analysing and evaluating Historians' interpretations for their coursework study. Students also have developed relevant subject knowledge of the consensus economic policies and trade unionism militancy that developed between 1951-79. Therefore, students have a high level understanding of Thatcher's New Right arguments against post war consensus policies. - Students also study this Paper 1, Section C topic last because students will also have just completed their Paper 2 KT4 Unit in which they study the period of Reagan's presidential campaign and presidency in which he introduces his New Right economic policies. These Paper 2 lessons are scaffolded with subject knowledge in which students learn that similar economic policies were being introduced in Britain by Thatcher and the New Right, and this will be the focus of their final Paper 1 Section C Interpretation question. Therefore, students have high level skills in analysing and evaluating Interpretation questions as well as having a very good understanding of the New Rights economic policies and their political challenge to the post war economic policies which increased the role of the government and government expenditure.		
Year 13 HT1	**Unit Title: The USA, 1955–92: conformity and challenge:** **Theme 3 Social and political change, 1973–80** **Students will learn about:** • Changing popular culture: business interests in sports; the fragmentation of popular music; contradictions in film and TV, including the depiction of political and social tensions and a return to escapism; developments in news media. • The crisis of political leadership: the impact of Watergate on politics and the presidency; Ford, Carter and a new style of leadership; growing political disillusion, including the impact of the Iranian hostage crisis; the political impact of environmentalism.	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Interpretation analysis tasks** **- Teacher questioning** **Summative assessment:** **Q: Comparing 2 Sources**	**All the President's Men: Hollywood film about the Watergate scandal:** **https://www.youtube.com/watch?v=5InyOk-Mcao**

	• The impact of economic change on society: the effects of inflation on family incomes; the growth of homelessness; the oil crisis and the end of cheap energy; the impact of foreign competition; the response of the government. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of 2 contemporary sources content and provenance using contextual own knowledge. Students must analyse the 2 sources together **Unit Title: COURSEWORK: Historical Controversy: Explain why Historian's disagree about the main cause of World War One** **Students will learn about:** • Students given all the sources, research materials and mark scheme. • Background to German foreign policy 1815-1890 • Wilhelm II's departure from Bismarkian foreign policy, 1890 • Weltpolitik, 1894 and the role of foreign minister von Bulow • The development of the Triple Alliance and the Triple Entente • The Moroccan Crises, 1908 and 1911 • The Balkans Crises, 1908 and 1912-13 • The assassination of Franz Ferdinand and the July Crisis, June and July 1914 • Aggressive foreign policy and diplomacy during the July Crisis and mobilisation **Students will develop skills of:** • Analysing Germany foreign policy 1815-1894 • Research the above topics using research materials and historians' sources		**Students provided with a wide range of resources and documentaries for their coursework**
Year 13 HT2	**Unit Title: Paper 3: Protest, agitation and parliamentary reform in Britain, c1780–1928: Theme 1 Reform of parliament** **Students will learn about:** • Changes in the franchise, c1780–1928: the franchise c1780 and its significance for representation of the people; pressures for change and reasons for	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Interpretation analysis tasks** **- Teacher questioning**	**Blackadder sitcom satirising elections in the 18th C.** **BBC Iplayer**

	resistance (key developments: the Representation of the People Acts of 1832, 1867, 1884, 1918 and 1928). • Reform and redistribution, c1780–1928: the problems of representation c1780; the failure of Pitt's proposals; reasons for resistance to, and key changes brought by, reform (key developments: Representation of the People Acts 1832–1928, Redistribution Act 1885, the Ballot Act 1872, the Corrupt Practices Act 1883); the extent of change by 1928. **Students will develop skills of:** • Analyse and evaluate the reasons for franchise reform and electoral reforms between 1815-1928. Explain whether the main factor for change was extra-Parliamentary pressure or political rivalry between the 2 main political parties, or a combination of both **Unit Title: COURSEWORK: Historical Controversy: Explain why Historian's disagree about the main cause of World War One** **Students will learn about:** • Teacher will review subject knowledge that students' find challenging • Teacher will provide examples and models about how to compare historians' views using own knowledge context • Teacher will show structure required for comparisons • Teacher will explain how to reference their work	**Summative assessment:** **Q: Political Rivalry was the main reason for Parliamentary reform in the period 1815-1928'.** **How far do you agree? (20)**	
Year 13 HT3	**Unit Title: The USA, 1955–92: conformity and challenge:** **4 Republican dominance and its opponents, 1981–92** **Students will learn about:** • New directions in economic policy: the impact of Reagan's policies on workers and the family; the trade and budget deficit; the significance of Bush's decision to raise taxes. • The Religious Right and its critics: the promotion of traditional values; campaigns against abortion and homosexuality; Nancy Reagan's 'Just Say No' campaign; the growth of bitter political divisions and their significance.	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment:**	**PBS Reagan and the New Right documentary:** **https://www.youtube.com/watch?v=oUEPiX3HbBg**

	• Cultural challenge: trends in youth culture; the impact of technology on popular culture; the growth of cable television and the influence of MTV; the impact of the AIDS crisis; controversial social issues in film and television. • Social change: the changing status of ethnic minorities; the impact of black American success in politics, business, sport and popular culture; the extent of racial tolerance and integration by 1992; the impact of women in politics and the workplace; the changing status of women by 1992. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of 2 contemporary sources content and provenance using contextual own knowledge. Students must analyse the 2 sources together **Unit Title: Paper 3: Protest, agitation and parliamentary reform in Britain, c1780–1928: Theme 3 Contagious Diseases Acts and the campaign for their repeal, 1862–86** **Students will learn about:** • Reasons why the Contagious Diseases Acts were introduced, including the committee established in 1862 to look into the extent of venereal disease in the armed forces. • The Acts' impact on prostitutes and ordinary women. • The roles of Josephine Butler and Elizabeth Wolstenholme and the significance of Ladies' Association for the Repeal of the Contagious Diseases Act; reasons for the Acts' repeal. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of a contemporary source's content and provenance using contextual own knowledge. **Unit Title: Paper 3: Protest, agitation and parliamentary reform in Britain, c1780–1928: Theme 4 The Women's Social and Political Union, 1903–14** **Students will learn about:**	**Q: Comparing 2 sources (Reagan and the New Right)** **Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment: Q: Josephine Butler's leadership was the main reason for the repeal of the Contagious Diseases Act'. How far do you agree? (20)**	**'Suffragettes' Movie:** **https://www.amazon.co.uk/Suffragette-Anne-Marie-Duff/dp/B01BHFHMU2**

	• reasons for, and impact of, increased militancy after 1908. • The roles of Emily Davison and Christabel, Emmeline and Sylvia Pankhurst; extent of the WSPU's success by 1914. • Government attitudes to female suffrage and WSPU; reasons for the failure of the Women's Suffrage bill 1909, the Conciliation Committee and the Conciliation bills 1910 and 1911, and the Government Franchise bill 1913. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of a contemporary source's content and provenance using contextual own knowledge.		
Year 13 HT4	**Unit Title: Paper 3: Protest, agitation and parliamentary reform in Britain, c1780–1928: Theme 1 Radical reformers, c1790–1819** **Students will learn about:** • Aims, tactics and impact of extra-parliamentary protest: the London Corresponding Society, 1792–93, the Spa Fields meetings, 1816, the Pentridge Rising, 1817, and Peterloo, 1819; extent of success by 1819. • Government responses: the trial of the leaders of the London Corresponding Society and suspension of Habeas Corpus, 1794, the Treason Act and Seditious Meetings Act 1795, the Gagging Acts 1817 and the Six Acts 1819. • The influence of Tom Paine and the Rights of Man, John Cartwright and the Hampden Clubs, William Cobbett and the Political Register; the role of Henry Hunt as a radical orator. **Students will develop skills of:** • Analysing and evaluating continuity and changes of political, social and economic changes over a short period of time • Analysing and evaluating utility of a contemporary source's content and provenance using contextual own knowledge. **Unit Title: Paper 1, Option 1H: Britain transformed, 1918–97: Historical interpretations: What impact did Thatcher's governments (1979–90) have on Britain, 1979–97?**	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment: Q: Source Q (Extra-Parliamentary Pressure) (20)** **Formative assessment:**	**Watch 'Peterloo' the Movie:** https://www.youtube.com/watch?v=LPUn8GgZm2M **The Peterloo Massacre Drama:** https://www.youtube.com/watch?v=-BYK_1xH8wU **Thatcher: A Very British Revolution:** **BBC Series that tells you everything you need to understand for this Section C Interpretation Unit:**

	Students will learn about: • The effect of Thatcher's economic policies. • The extent to which state intervention and the public sector were 'rolled-back'. • The extent of political and social division within Britain. • The effect of Thatcherism on politics and party development. **Students will develop skills of:** • Analysing and evaluating the different views of 2 Historian's about the success of Thatcher's economic policies during her term in office between 1979-90 and successive governments between 1990-97	**- Key questions and hinge questions designed into all lessons** **- Interpretation analysis tasks** **- Teacher questioning** **Q: Interpretation Q (20)**	**https://www.bbc.co.uk/programmes/m0005brf/episodes/guide** **Thatcher and Reagan BBC documentary:** **https://www.bbc.co.uk/iplayer/episode/m0016dvf/thatcher-reagan-a-very-special-relationship-series-1-episode-2**
Year 13 HT5	**Unit Title: REVISION**	**Formative assessment:** **- Key questions and hinge questions designed into all lessons** **- Interpretation analysis tasks** **- Source analysis tasks** **- Source inference tasks** **- Teacher questioning** **Summative assessment:** **A range of past papers**	

Walthamstow Academy - Year 13 Curriculum Experience

Term	MATHS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*
Year 13 Maths Curriculum Overview: Maths A Level exam has 2 Pure exams of 100 marks each and 1 exam of Applied for 100 marks		
Year 13 HT1	In Pure Maths, students will learn about/ develop skills of: • Proof • Algebraic and Partial Fractions • Functions and modelling In Applied Maths, students will learn about/ develop skills of: • Regression and Correlation • Probability	End of topics tests for 1 hour after every topic
Year 13 HT2	In Pure Maths, students will learn about/ develop skills of: • Sequences and Series • The Binomial Theorem • Trigonometry In Applied Maths, students will learn about/ develop skills of: • The Normal Distribution	End of topics tests for 1 hour after every topic
Year 13 HT3	In Pure Maths, students will learn about • Parametric Equations • Differentiation • Numerical Methods In Applied Maths, students will learn about/ develop skills of: • Moments: Force's turning effect • Forces and Friction	End of topics tests for 1 hour after every topic
Year 13 HT4	In Pure Maths, students will learn about • Integration • Vectors	End of topics tests for 1 hour after every topic

	In Applied Maths, students will learn about/ develop skills of: • Applications of Kinematics Projectiles • Application of forces • Further Kinematics	
Year 13 HT5	Revision Programme	Past paper practice

Walthamstow Academy - Year 13 Curriculum Experience

Term	PHYSICS Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Physics Curriculum Overview: *In Y13 Physics students build on their Y12 physics knowledge, practical skills and mathematical skills to develop a complete understanding and fluency of physics. At the end of the course, students are ready to continue their studies in physics or science related degree.*			
Year 13 HT1	**Thermal Physics** Building on Y12 mechanics, further mechanics allows the thermal properties of materials, the properties and nature of ideal gases, and the molecular kinetic theory to be studied in depth. Students will learn about/ develop skills of: • Thermal energy transfer • Ideal gases • Molecular kinetic theory model **Fields and their consequences – Gravitational fields.** The concept of field is one of the great unifying ideas in physics. The ideas of gravitation, electrostatics and magnetic field theory are developed within the topic to emphasise this unification. Many ideas from mechanics and electricity from earlier in the course support this and are further developed. Practical applications considered include planetary and satellite orbits, capacitance and capacitors, their charge and discharge through resistors, and electromagnetic induction. These topics have a considerable impact on modern society. Students will learn about/ develop skills of: • Fields • Gravitational fields • Gravitational field strength • Gravitational potential • Orbits of planets and satellites	**Ch.19 - Thermal Physics assessment** **Ch.21 - Gravitation fields assessment**	
Year 13 HT2	**Thermal Physics** Building on Y12 mechanics, further mechanics allows the thermal properties of materials, the properties and nature of ideal gases, and the molecular kinetic theory to be studied in depth.	**Ch.20 - Gasses assessment** **Ch.22 - Electric fields**	

	Students will learn about/ develop skills of: • Thermal energy transfer • Ideal gases • Molecular kinetic theory model **Fields and their consequences – Electric fields** The concept of field is one of the great unifying ideas in physics. The ideas of gravitation, electrostatics and magnetic field theory are developed within the topic to emphasise this unification. Many ideas from mechanics and electricity from earlier in the course support this and are further developed. Practical applications considered include planetary and satellite orbits, capacitance and capacitors, their charge and discharge through resistors, and electromagnetic induction. These topics have a considerable impact on modern society. Students will learn about/ develop skills of: • Coulomb's law • Electric field strength • Electric potential		
Year 13 HT3	**Nuclear Physics – Radioactivity** This section builds on the work of Particles and radiation to link the properties of the nucleus to the production of nuclear power through the characteristics of the nucleus, the properties of unstable nuclei, and the link between energy and mass. Students should become aware of the physics that underpins nuclear energy production and also of the impact that it can have on society Students will learn about/ develop skills of: • Rutherford scattering • α, β and γ radiation • Radioactive decay **Fields and their consequences – Capacitance** The concept of field is one of the great unifying ideas in physics. The ideas of gravitation, electrostatics and magnetic field theory are developed within the topic to emphasise this unification. Many ideas from mechanics and electricity from earlier in the course support this and are further developed. Practical applications considered include planetary and satellite orbits, capacitance and capacitors, their charge and discharge through resistors, and electromagnetic induction. These topics have a considerable impact on modern society.	**Ch.26 - Radioactivity assessment** **Ch.23 - Capacitors assessment**	

	Students will learn about/ develop skills of: • Capacitance • Parallel plate capacitor • Energy stored by a capacitor • Capacitor charge and discharge		
Year 13 HT4	**Nuclear Physics – Nuclear energy** This section builds on the work of Particles and radiation to link the properties of the nucleus to the production of nuclear power through the characteristics of the nucleus, the properties of unstable nuclei, and the link between energy and mass. Students should become aware of the physics that underpins nuclear energy production and also of the impact that it can have on society Students will learn about/ develop skills of: • Nuclear instability • Nuclear radius • Mass and energy • Induced fission and safety issues **Fields and their consequences – Magnetic Fields and Electromagnetic Induction** The concept of field is one of the great unifying ideas in physics. The ideas of gravitation, electrostatics and magnetic field theory are developed within the topic to emphasise this unification. Many ideas from mechanics and electricity from earlier in the course support this and are further developed. Practical applications considered include planetary and satellite orbits, capacitance and capacitors, their charge and discharge through resistors, and electromagnetic induction. These topics have a considerable impact on modern society. Students will learn about/ develop skills of: • Magnetic flux density • Moving charges in a magnetic field • Magnetic flux and flux linkage • Electromagnetic induction • Alternating currents • The operation of a transformer	**Ch.27 - Nuclear energy assessment** **Ch.24 - Magnetic fields assessment** **Ch.25 - Electromagnetic induction assessment**	

Year 13 HT5	**Turning points in physics:** Turning points in physics is intended to enable key concepts and developments in physics to be studied in greater depth than in the core content. Students will be able to appreciate, from historical and conceptual viewpoints, the significance of major paradigm shifts for the subject in the perspectives of experimentation and understanding. Many present-day technological industries are the consequence of these key developments and the topics in the option illustrate how unforeseen technologies can develop from new discoveries. Students will learn about/ develop skills of: • The discovery of the electron • Wave-particle duality • Special relativity	**Turning points in physics assessment.**	

Walthamstow Academy - Year 13 Curriculum Experience

Term	PSYCHOLOGY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Psychology Curriculum Overview: *What will year 13s study and learn this academic year? Why this/ why now?*			
Year 13 HT1	**Unit Title: Approaches – referring to the summer work completed.** Students will learn about/ develop skills of: • Learning approaches: i) the behaviourist approach ii) social learning theory and Bandura's research APFCC. • The cognitive approach: the study of internal mental processes. The emergence of cognitive neuroscience. • The biological approach: the influence of genes, biological structures, and neurochemistry on behaviour • Humanist & Psychodynamic **Interleave RM** Students will be taught descriptive statistics, pilot studies, the role of peer review in the formation of research. They will learn how research benefits the economy and begin to implement statistical testing using the sign test.	**In Class Assessments:** • **MCQ – attachment** • **2x 8 Markers – biopsychology** • **Short answer questions in RM**	what happens when computers become smarter than us how your brain decides what is beautiful history_vs_sigmund_freud what will humans look like_in_100_years Mas l ow 's hier ar c hy of Needs
Year 13 HT2	**Unit Title: Schizophrenia** Students will learn about/ develop skills of: • Classification of schizophrenia. Positive / negative symptoms of schizophrenia. Reliability and validity in diagnosis and classification of schizophrenia. **Interleave: debate culture and gender bias** and symptom overlap. • Biological explanations for schizophrenia: genetics and neural correlates, including the dopamine hypothesis. (**interleave: debate Reductionism/holism / free will / determinism)** • Drug therapy: typical and atypical antipsychotics • Psychological explanations for schizophrenia: family dysfunction and cognitive explanations, including dysfunctional thought processing. • Cognitive behaviour therapy and family therapy as used in the treatment of schizophrenia. Token economies as used in the management of schizophrenia.	**PPE 1:** • **Paper 1 – in full** • **Paper 2 – Biopsychology, RM, approaches** **In Class Assessments:** • **16 Marker– approaches** • **8 marker– approaches**	TED: what you can do to change gender bias what anti psychotic drugs are like My story: living with schizophrenia

	• The importance of an interactionist approach **(interleave debates)** in explaining and treating schizophrenia; the diathesis-stress model. **(Interleave nature / nurture debate)**		
Year 13 HT3	**Unit Title: Gender** Students will learn about/ develop skills of: • Sex and gender. Sex-role stereotypes. • The role of chromosomes and hormones (testosterone, oestrogen and oxytocin) in sex and gender. Atypical sex chromosome patterns: Klinefelter's syndrome and Turner's syndrome **(interleave debate: nature / nurture)** • Cognitive explanations of gender development **(interleave debate: reductionism / holism)** • Psychodynamic explanation of gender development, Freud's psychoanalytic theory **(interleave debate: idiographic / nomothetic)** • Social learning theory as applied to gender development. The influence of culture and media on gender roles. • Atypical gender development: gender dysphoria; biological and social explanations for gender **dysphoria (interleave debate: ethical implications of research. SSR)**	**In Class Assessments:** • **MCQ Approaches** • **16 Marker– schizophrenia** • **8 Marker – schizophrenia**	Gender stereotyping and education how to avoid gender stereotyping Gender stereotypes begin in childhood Gender Dysphoria Still me - Gender Binary
Year 13 HT4	**Unit Title: Aggression** Students will learn about/ develop skills of: • Neural and hormonal mechanisms in aggression, including the roles of the limbic system, serotonin and testosterone. Genetic factors in aggression, including the MAOA gene **(interleave debate; nature / nurture)** • The ethological explanation of aggression, including reference to innate releasing mechanisms and fixed action patterns. Evolutionary explanations of human aggression **(interleave debate: free will / determinism)** • Social psychological explanations of human aggression, including the frustration-aggression hypothesis, social learning theory as applied to human aggression, and de-individuation **(interleave debate: environmental reductionism)** • Institutional aggression in the context of prisons. • Media influences on aggression, including the effects of computer games	**In Class Assessments:** • **MCQ schizophrenia** • **8 and 16 Marker– Gender**	Video games increase depression does playing violent video games cause aggression How_octopuses_battle_each other bad to the bones are humans naturally aggressive
Year 13 HT5	Unit Title: Debates / RM Students will learn about/ develop skills of:	**PPE 2:**	

	• Gender and culture bias • Free will and determinism. • The nature-nurture debate; the interactionist approach. • Holism and reductionism. • Idiographic and nomothetic approaches to psychological investigation. • Ethical implications of research studies and theory, including reference to social sensitivity. • Correlations. Analysis of the relationship between co-variables. The difference between correlations and experiments. • Content analysis. • Case studies. • Features of science: objectivity and the empirical method; replicability and falsifiability; theory construction and hypothesis testing; paradigms and paradigm shifts. • Reporting psychological investigations. Sections of a scientific report. • Probability and significance: use of statistical tables and critical values in interpretation of significance; Type I and Type II errors. • Factors affecting the choice of statistical test, including level of measurement and experimental design. When to use the following tests: Spearman's rho, Pearson's r, Wilcoxon, Mann-Whitney, related t-test, unrelated t-test and Chi-Squared test.	• **Paper 3 – schizophrenia, aggression, gender, RM** **In Class Assessments:** • **16 marker debates** • **8 marker debates**	how to control someone el s e's arm with your brain a recipe for you to be happy and successful Tutor2U: Ideographic / nomothetic choosing a stat test Probability Interpreting inferential stats The Sign Test measures of central tendency

Walthamstow Academy - Year 13 Curriculum Experience

Term	SOCIOLOGY Curriculum Content	Assessment(s) *(assessment title, duration and approx date)*	Extra-Curricular Options *(Places to visit; wider reading; clubs to join)*
Year 13 Sociology Curriculum Overview: *What will year 13s study and learn this academic year? Why this/ why now?*			
Year 13 HT1	**Unit Title: Crime and Deviance** Students will learn about/ develop skills of: • Students will establish the difference between an act that is criminal and one that is deviant. • Students will develop their knowledge of sociological perspectives, applying them to the role of crime in society, who does or does not benefit and why. • Students will continue to explore criminal activity according to different social groups (class, gender and ethnicity).	**In Class Assessments:** • **Points Test – Education, methods and family & households** • **10 Marker– Functionalism and Crime** • **30 Marker– Marxism and Crime**	https://www.bbc.co.uk/news/uk-58746108 **- The death of Sarah Everard (Feminism)** **Suggested watch list:** • When They See Us (Netflix)
Year 13 HT2	**Unit Title: Crime and Deviance** Students will learn about/ develop skills of: • Students will continue to explore criminal activity according to different social groups (class, gender and ethnicity). • Students will explore the relationship between crime and the media • Establish how crime has shifted in line with globalisation • How crime is controlled and punished • Analyse statistical data regarding the victims of crime	**PPE 1:** • **Paper 3 – crime and deviance** **In Class Assessments:** • **10 Marker– Media and Crime** • **10 Marker– State Crime**	**Suggested reading:** • Outsiders: Studies in Sociology of Deviance – Howard S Becker • Folk Devils and Moral Panics – Stanley Cohen **Suggested watch list:** • The 13th (YouTube)
Year 13 HT3	**Unit Title: Theory and Methods** Students will learn about/ develop skills of: • Explore whether sociology can be objective / value free or not • Explore whether sociology is a science • Analyse sociological perspectives and their theories	**In Class Assessments:** • **Paper 1 Mock – Education** • **20 Marker– Sociology and Science**	https://www.tutor2u.net/sociology/reference/is-sociology-a-science-the-case-for-yes

		• **10 Marker – Feminism**	**https://www.tutor2u.net/sociology/reference/is-sociology-a-science-the-case-for-no**
Year 13 HT4	**Unit Title: Theory and Methods / Beliefs in Society** Students will learn about/ develop skills of: • Explore how modernists, postmodernists and late modernists explain changes in society • Identify how sociology influences social policy • Introduction to sociological perspectives on the role of religion	**In Class Assessments:** • **Paper 2 Mock – Family & Households** • **10 and 20 Marker– Theories of Religion**	**https://www.bbc.co.uk/news/world-us-canada-55419894 - Religiosity in the pandemic (Functionalism and religion)** **https://www.bbc.co.uk/news/world-us-canada-54513499 - Roe v Wade (Feminism and religion)**
Year 13 HT5	**Unit Title: Beliefs in Society** Students will learn about/ develop skills of: • What role religion plays in driving change in society • Explore whether religion still has an influence over society and why certain sociologists reject the idea of secularisation (the decline in religious beliefs) • What is the role of religion in economic development in a global world? • What are the main types of religious organisation? What are their characteristics? • What are the different views of science as a belief system?	**PPE 2:** • **Paper 3 – Crime and Deviance** **In Class Assessments:** • **Paper 2 Mock – Family & Households** • **Paper 2 Mock – Family & Households**	**Suggested watch list:** • Keep Sweet: Pray and Obey (Netflix) • Jonestown (YouTube) • The Azande – Ted Talk: https://www.youtube.com/watch?v=JlX7RfYAY5U&t=835s