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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.





		Assessment(s)	Extra-Curricular Options
Term	ART Curriculum Content	(assessment title, duration and	(Places to visit; wider reading;
		approx date)	clubs to join)
In year 12 students w	t Curriculum Overview: we intentionally break students out of an outcome based model of working to focus on the vith opportunities to uncover their own personal creative style, visual genre and material procreative journey providing all the pre-requisite knowledge for their year 13 course. 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.	development and refinement of ir	magery and ideas. We provide
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.or g.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.





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 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 core practicals over the course of the year.

Biological molecules

Despite their great variety, the cells of all living organisms contain only a few groups of carbonbased 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 cell are involved in disease, recovery from

Year 12

HT1

Walthamstow Academy - Year 12 Curriculum Experience		Academy
	disease and prevention of symptoms occurring at a later date if exposed to the same antigen, or antigenbearing 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	
	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.	
Year 12 HT2	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 membranebound 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

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 to show 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.

Year 12 HT3

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 as 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.

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.

Year 12 HT4

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

Genetic diversity and adaptation

Genetic diversity as 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 are able to produce fertile offspring. Courtship behaviour as 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,

Year 12 HT5



	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, eg, 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	



Assessment(s) Extra-Curricular Options
Term BTEC BUSINESS Curriculum Content (assessment title, duration and pprox date) clubs to join)

Year 12 BTEC Business Curriculum Overview:

In Year 12 Students study the Mandatory Units that underpin the course. These range from Marketing to Finance. Externally assessed Units are also completed in the first year of this 2 year course. Skills students develop over Year 12 include Cognitive, Intrapersonal, Independence Skills. Literacy is also developed through Report writing as well as Numeracy skills in learning how to analyse Financial Accounts. Students research real Businesses based on their interests.

	Unit Titles:	Summative Assessment	Pearson BTEC National
	Exploring Business	Assignments based on Units 1	Textbook
	Personal & Business Finance	and 8	
	Recruitment & Selection Process		
Year 12 HT1	Students will learn about/ develop skills of: • Features of businesses • Stakeholders and their influence • Effective business communications • Functions and role of money • Different ways to pay • Recruitment of staff	Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. Personal & Business Finance is a written 2 Hour Exam sat in February	www.bized.co.uk www.businesscasestudies.co.uk
ı	Students study 2 selected Businesses and investigate reasons why they are successful.	Formative Assessment Unit 3 Past Papers	
	This Unit deals with the Principles of Business i.e Features & Ownership		D
	Unit Titles:	Summative Assessment	Pearson BTEC National
	Exploring Business		Textbook
	Personal & Business Finance	Non-ex Assignments based on	
	Recruitment & Selection Process	Units 1 and 8	www.tutor2U.com
Year 12			
HT2		Non-exam internal assessment	www.minwww.startups.co.uk
		set by Pearson, marked by the	
	Students will learn about/ develop skills of:	centre and moderated by	www.gov.uk/set-up-business
	Structure and organisation	Pearson.	
	Aims and objectives		



	 External environment Managing personal finance Explore the personal finance sector Job applications Students learn about the importance of Managing Personal Finance researching Bank Accounts and various forms of Credit 	Personal & Business Finance is a written 2 Hour Exam sat in Feb am internal assessment set by Pearson, marked by the centre and moderated by Pearson. Formative Assessment Unit 3 Past Papers	dtools.com
Year 12 HT3	Unit Titles: Principles of Management Personal & Business Finance Recruitment & Selection Process Pitching for a New Business Students will learn about/ develop skills of: Definitions of management and leadership Functions of management and leadership Understand the purpose of accounting Select and evaluate different sources of business finance Interviews and skills Exploration of ideas for a micro-business start-up Models for business opportunities Students study the Recruitment Process which will support them when applying for jobs in later life. Learning important topics such as Interview Skills.	Non-exam internal assessment set by Pearson, marked by the cen Assignments based on Units 1 and 8 Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. Personal & Business Finance is a written 2 Hour Exam sat in Feb. Formative Assessment Unit 3 Past Papers Unit 8 Past Papers	Pearson BTEC National Textbook www.gov.uk www.princes-trust.org.uk/help- for-young-people/support- starting-business
Year 12 HT4	Unit Titles: Principles of Management Recruitment & Selection Process Pitching for a New Business Students will learn about/ develop skills of:	Non-exam internal assessment set by Pearson, marked by the centre and moderated by Assignments based on Units 1 and 8	Pearson BTEC National Textbook www.startupbritain.org



	 Business culture Management and leadership styles Factors to be considered when setting up a micro-business Market analysis and planning Legal aspects Students study the Principles of Management preparing them for future employment and to apply their knowledge to a pre-release case study for their external assessment 	Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. Formative Assessment Unit 8 Past Papers	youtube video's of Dragon's Den
	Unit Titles: Recruitment & Selection Process Pitching for a New Business	Summative Assessment	Pearson BTEC National Textbook
Year 12 HT5	 Students will learn about/ develop skills of: Ethical and legal considerations in the recruitment process Personal CV Financial aspects Marketing mix SWOT Students produce a detailed Business Plan for a Micro-business start-up with a view to gain finance and investment. This includes all aspects of starting a Business from Marketing to Finance	Non-exam internal assessment set by Pearson, marked by the centre and moderated by Assignments based on Units 1 and 8 Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. Personal & Business Finance is a written 2 Hour Exam sat in Feb Pearson.	www.startupdonut.co.uk youtube video's of Dragon's Den
Year 12 HT6	Unit Title: Recruitment & Selection Process Pitching for a New Business	Summative Assessment Non-exam internal assessment	Pearson BTEC National Textbook www.startupdonut.co.uk
	Students will learn about/ develop skills of: • letter of application.	set by Pearson, marked by the centre and moderated by	



Waithamstow Academy Tear 12 carried and	LAPCHICHEC	
Designing interview questions.	Assignments based on Units 1	
Carry out a pitch for funding for the chosen micro-business	and 8	You tube video's of Dragon's
Review and evaluation of the pitch		Den
·	Non-exam internal assessment	
Having completed the Business Plan students develop their confidence, organisation	set by Pearson, marked by the	
and presentation skills by pitching their idea to the class and potential investors. They	centre and moderated by	
also develop communication skills in answering questions from their audience.	Pearson.	
	Personal & Business Finance is a	
	written 2 Hour Exam sat in Feb	

Pearson.



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)
n Year 12 irst exper inance to	Level Business Studies Curriculum Overview: Students complete two schemes of work simultaneously; these are Marketing & People and sience of studying Business, so they begin by understanding why businesses exist, their role in the enable this. They will be exposed to countless real world case studies on which to hang their even of Year 12 will enable them to become effective problem solvers. 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	Managing Business Activities. For n identifying and satisfying custome	nany students this will be their rs' needs and how they raise the
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



	Waithamstow Adademy Tear 12 Carriedian 1	Assessment(s)	Extra-Curricular Options
Term	CHEMISTRY Curriculum Content	(assessment title, duration and approx date)	(Places to visit; wider reading; clubs to join)
A-Level Ch how to con knowledge experimen work. In Ye simultaned The topics - Ph - Ind	hemistry Curriculum Overview: nemistry covers a wide variety of basic concepts such as the structure of the atom; the interactions; patterns in the periodic table and understanding carbon-based molecules. Structure at GCSE Chemistry. Many topics include mathematics calculations, and students with start regularly to consolidate class work and to build upon their skills and confidence in complete ear 12, students study Year 1 of the 2-year A-Level Chemistry specification. The course is split ously. It was teach in Year 12 are: In the structure, Amount of substance, Bonding and structure, Redox, Enganic Chemistry – Periodicity, Group 2, Group 7 In the structure, Alkanes, Alkenes, Haloalkanes, Alcohols, Organic analysis	udents will build upon skills and ill also be expected to carry out ting safe and accurate practical tinto two, taught by 2 teachers	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. The 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 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	



Walthamstow Academy - Year 12 Curriculum Experience 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 depend 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 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 **Energetics Test Energetics**

Year 12 HT2

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.

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	PPE 1 (Paper 1)
	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	PPE 1 (Paper 2)
	of the periodic table and models of atomic structure providing good examples of how	Device distance and Device. Took
	scientific ideas and explanations develop over time.	Periodicity and Redox Test
	Classification	Halogenoalkanes Test
	Physical properties of Period 3 elements	naiogenoaikanes rest
	Oxidation, Reduction and Redox Equations	Alkenes Test
	Student will be able to work out the oxidation state of a element in a formula or ion and	Airclies rest
	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 attach 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	
	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	Group 2 + Group 7 Test
Year 12	will understand the applications of these in medicine and agriculture.	
HT4	Group 7, the halogens	Alcohols Test
11 1 4	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	Organic Analysis Test
	oxidising agents and the halides to behave as reducing agents	
	Trends in properties	



	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 or organic molecules, their structure, and the way		
	they react, has been enhanced by organic analysis. This unit considers some of the		
	analytical techniques used by chemists, including the 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		
	Revision		
Year 12	Students will revise for their end of year exams covering everything they have learnt in		
HT5	Y12. This time will also be used to address misconceptions, re-teach topics and catch-up	Mock PPE	
1113	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.		
	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	End of Year PPE 2 (Paper 1)	
Year 12	important in understanding the stability of compounds and why chemical reactions	End of Year PPE 2 (Paper 2)	
HT6	occur. Students will understand how enthalpy change is linked to entropy change	2.10 01 100 11 2 2 (1 apc. 2)	
	enabling the free-energy change to be calculated.		
	Born Haber cycles		
	Gibbs free energy change and entropy change		
	Optical Isomerism (A level)		



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



Term Year 12 Co	COMPUTING Curriculum Content omputing Curriculum Overview:	Assessment(s) (assessment title, duration and approx date)	Extra-Curricular Options (Places to visit; wider reading; clubs to join)
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 – Wk5 SLR2 Types of Processor – Wk6	PG Online Resources Course Textbook Craig & Dave Videos Quizlet Isaac Computer Science https://www.101computing.ne t/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 the 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 – Wk8 SLR13 Data Types – Wk10 SLR15 Boolean Algebra – Wk12 SLR4 Operating Systems and Systems Software – Wk14	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 everchanging technological world by analysing appropriate legislation and exploring case studies. Students will also learn the stages of compilation that allow source code generate object code. Students will also consider different software methodologies, appreciating their strengths and weaknesses.	End-of-Topic Tests: SLR16 Computer Related Legislation – Wk17 SLR5 Application Generation – Wk19 SLR6 Software Development – Wk20	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	SLR10 Databases – Wk21	
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 builds 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	End-of-Topic Tests: SLR11 Networks – Wk23 SLR12 Web Technologies – Wk24 SLR17 Ethical, Moral and Cultural Issues – Wk25 SLR14 Data Structures – Wk26	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	End-of-Topic Tests: SLR18 Thinking Abstractly – Wk28 SLR19 Thinking Ahead – Wk29 SLR20 Thinking Procedurally – Wk30 SLR21 Thinking Logically – Wk31	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	Quizlet
SLR's. Once the PPE is complete, the Students will then prepare for their Unit	Isaac Computer Science
3 Project which is worth 20% of their final grade.	
• Revision	
 Yr13 Course Introduction and preparation for Unit 3 - Project 	



Term	ECONOMICS Curriculum Content	Assessment(s) (assessment title, duration and approx date)	Extra-Curricular Options (Places to visit; wider reading; clubs to join)		
Students in allocating decisions b	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. 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				
Year 12 HT1	 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 Unit Title:		
Year 12 HT6	 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



		Assessment(s)	Extra-Curricular Options
Half Term	ENGLISH LITERATURE Curriculum Content	(assessment title, duration and approx date)	(Places to visit; wider reading; clubs to join)
Year 12 En	glish 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 20 th Century Dystopia as a Paradigm	Knowledge Recall Pop Quiz	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
	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	No Assessment Coursework Unit Coursework Task One Due Date Jan 2023	Wider Knowledge Dystopian Film List & Film Club Articles on Dystopia and links to current affairs available via Google Classroom Extended Learning Folder
	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	Knowledge Recall Pop Quiz	Component 03 – Task One Wider Reading KS5 Reading List available on GC Fiction & Non-Fiction Texts that focus on
Year 12 HT2	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	No Assessment Coursework Unit Coursework Task One Due Date Jan 2023	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 	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
	Study of 1990's UK Context [AO3]		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 	June PPE 2 - Custom Exam Paper H472/02 Question 6 [30 marks] Exam Style Statement Question	
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]		



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



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 **Water and Carbon Cycles Epping Forest Fieldtrip** Students will focus on the major stores of water and carbon at or near the Earth's **Climate Change: The Facts** surface and the dynamic cyclical relationships associated with them. These are major https://www.bbc.co.uk/iplayer elements in the natural environment and understanding them is fundamental to many /episode/m00049b1/climateaspects of physical geography. change-the-facts Hazards **Revision Website:** Student will focus on the lithosphere and the atmosphere, which intermittently but https://www.coolgeography.co Year 12 regularly present natural hazards to human populations. By exploring the origin and .uk/advanced/water carbon c HT4, 5, 6 nature of these hazards and the various ways in which people respond to them, ycles.php students are able to engage with many dimensions of the relationships between people and the environments they occupy. Hazards: **Revision website:** https://www.coolgeography.co

The concept of hazard

- Nature, form and impact
- Hazard perception

.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/Pla te-Tectonics/

https://www.geolsoc.org.uk/Pla te-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/2 2522-hurricane-katrina- facts.html



Term	HEALTH AND SOCIAL CARE Curriculum Content	Assessment(s) (assessment title, duration and approx date)	Extra-Curricular Options (Places to visit; wider reading; clubs to join)
Year 13 Cu	rriculum Overview:		Y12 not running this year
	orking in Health & Social Care		(these units are for year 23/24)
	nquiries in Current Research exam		
	fe Practise & Principles in Health & Social Care		
Unit 8 – Pr	romoting Public Health exam		
	rriculum overview:		
	nan lifespan development (HT1 HT2)		
	eting individual care needs and support		
	upporting individuals with additional needs		
Unit 14: Pl	nysiological disorders (HT1 HT2)		
	Unit 1: Human lifespan development (exam)		https://courses.lumenlearning.
	This unit will develop student knowledge and understanding of patterns of human		com/wm-
	growth and development. They will explore the key aspects of growth and		lifespandevelopment/chapter/
	development, and the experience of health and wellbeing. Students will learn about		periods-of-human-
	factors that can influence human growth, development and human health. Some of		development/
	these are inherited and some are acquired through environmental, social or financial		
	factors during our lifespan. They will learn about a number of theories and models to		https://www.youtube.com/wa
	explain and interpret behaviour through the human lifespan. In this unit, students will explore the impact of both predictable and unpredictable life events, and recognise		tch?v=QxBOQl7-U4Q
	how they impact on individuals. They will then go onto study the interaction between		tcii:v=QxBOQi7-04Q
Year 12	the physical and psychological factors of the ageing process, and how this affects		
HT1	confidence and self-esteem, which in turn may determine how individuals will view		
	their remaining years.		https://www.bbc.co.uk/iplayer
	then remaining years.		/episodes/b04gw89n/28-up-
	Development through life stages:		millennium-generation
	- Physical development of life stages		milemium generation
	- Intellectual development of life stages to include Piaget and Chomsky's theory		
	- Emotional development to include: Bowlby, Schaffer & Emerson, Rutter, Mary		
	Ainsworth		
	- Social development of life stages		https://www.youtube.com/wa
			tch?v=QTsewNrHUHU



	Unit 14: Physiological Disorders (coursework):	
	- Definition, causes, signs and symptoms of 2 chosen physiological disorders	https://www.youtube.com/wa
	- Analyse the changes in body systems of 2 chosen physiological disorders	tch?v=K0iip5SK9e0
	- Evaluate the impact of 2 chosen physiological disorders on health and wellbeing	
	 Investigative and diagnostic testing for 2 chosen physiological disorders 	
	Nature Nurture debate:	https://www.youtube.com/wa
	Gesell Maturation theory (nature)	tch?v=wuhJ-GkRRQc
	Bandura's social learning theory (nurture)	
	Stress diathesis model	https://www.youtube.com/wa
	Biological factors impacting health	tch?v=CxGrdXP5cSo
	Environmental factors impacting health	
	Social/economic factors impact health	https://www.youtube.com/wa
	Cultural factors impacting health	tch?v=gGnl8dqEoPQ
	Holmes-Rahe scale and application	
	Ageing:	https://www.youtube.com/wa
Year 12	Physical changes of ageing	tch?v=y-5VLHcTDSQ
HT2	Intellectual/emotional and social changes of ageing	
	Ageing population and impact on economy	
	Theories of ageing: Social disengagement theory and Activity theory	https://www.controls.com/con
		https://www.youtube.com/wa tch?v=miYcqwHNObg
	Unit 14: Physiological disorders (coursework):	tcn:v=mrcqwnnobg
	- Treatment options for 2 chosen disorders	
	- Evaluation of treatment options of 2 chosen disorders	https://www.youtube.com/wa
	- Creating a care plan for case study	tch?v=yPGwA7t6bpl
	- Reviewing care plan for case study	ten: v-yr GwA7 tobbi
	- Evaluating care plan for case study	
	Unit 5 Meeting individual care needs and support (coursework):	https://www.youtube.com/
	All content should be taught and related to the case study given by Pearson.	watch?v=6PGcsdD54vA
	- Importance of Equality and Diversity for individuals with additional needs	
Year 12	- Explain the skills and attributes necessary for professionals	https://www.youtube.com/
HT3	- Analyse the impact of discrimination	watch?v=E9ID-L65uoo
	- Assess the different methods used by professionals when building relationships	
	and establishing trust.	
	- Ethical principles in care	



	- Analyse how to use an ethical approach	
Year 12	 Unit 5 Meeting individual care needs and support (coursework): Strategies and communication techniques used to overcome barriers Explain the benefits of promoting personalisation when overcoming barriers Assess strategies and communication techniques used to overcome barriers. How different agencies are involved in care Multidisciplinary team and roles and responsibilities Managing information between professionals. 	https://www.youtube.com/wtch?v=-Rv7WgSs3Qc https://www.youtube.com/wtch?v=BGkI49IIA2I
НТ4	 Unit 12: Supporting individuals with additional needs (coursework): All content should be related to 2 case studies from Pearson Diagnostic procedures to determine additional needs Assess requirement's for both individuals with additional needs Evaluate the significance to individuals, families, and society of a diagnosis of additional needs 	https://www.youtube.com/wtch?v=SpkFTNx02hw
Year 12 HT5 & HT6	 Unit 12: Supporting individuals with additional needs (coursework): All content should be related to 2 case studies from Pearson How disability is viewed as a social construct How health and social care workers support individuals with overcoming barriers Assess the impact of challenges to daily living Investigate current practice with respect to provision for individuals with additional needs. 	https://www.youtube.com watch?v=s-KLxderIRY https://www.youtube.com watch?v=7hm_W5j71T0 https://www.youtube.com watch?v=GJqLMNr7hIQ





Assessment(s) Extra-Curricular Options
Term HISTORY Curriculum Content (assessment title, duration and prox date) Extra-Curricular Options
(assessment title, duration and prox date) 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 are 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.

tau	taught concurrently in y12.				
	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				
Year 12 HT1	 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=DqVwc6nrHjl		



	 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/wa tch?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:	Formative assessment: - Key questions and hinge questions designed into all lessons - Teacher questioning Summative Assessment: Q: Comparing 2 Sources (Popular Culture)	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/wa tch?v=A3NEKSIzP_Y
	 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:	



	 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	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)	Visit the Imperial War museum: https://www.iwm.org.uk/
	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:	



	 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	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)	
	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 - 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 	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)
	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 - 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/wa tch?v=tlmx5Ktxbpl



Term	MATHS Curriculum Content	Assessment(s) (assessment title, duration and approx date)
	aths Curriculum Overview: 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



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



		Assessment(s)	Extra-Curricular Options
Term	MEDIA Curriculum Content	(assessment title, duration and approx date)	(Places to visit; wider reading; clubs to join)
Year 12 Mo	edia Curriculum Overview:	арргох иштеу	class to join)
			Film Production Club
			Publishing Club
Year 12	Unit Title: Introduction to Media Students will learn about/ develop skills of: Introduction to the theoretical framework of media analysis Introduction to key theorists Introduction to analysing texts	Knowledge assessment for key terms and language	Watch the TED talk Can you Spot the problem with these headlines? - here
HT1		Summative Assessment: Topic test on print media including knowledge based and analysis essay based questions	Go to the British Film Institute (BFI) and watch something from the National Archive
			The Guardian Media Supplement
	Unit Title: Media Language and Representation		Film Production Club
Year 12	 Students will learn about/ develop skills of: Media Language and Representation and contexts in Advertising and Marketing Tide and Wateraid advertising and Kiss of the Vampire film poster Media Language and Representation and contexts in Music Videos – Beyonce "Formation" and Vance Joy "Riptide" 	Analysis of studied texts responding to exam style	Publishing Club
HT2		questions.	Visit Museum of Brands
	Unit Title: Media Industries and Audiences and Contexts		Film Production Club
Year 12 HT3	Students will learn about/ develop skills of: • Media industries and contexts in Film – I, Daniel Blake		Publishing Club
	 Audiences and contexts in Advertising and Marketing – Tide print advert and Super. Human. Tokyo 2020 advertising 	PPE on Component 1 Section A	Visit Museum of Brands
	 Media industries and audiences and contexts in Video Games – Assassin's Creed franchise 		Visit British Film Institute



	Media industries and audiences and contexts in Radio – Woman's Hour and Have You Heard George's Podcast?		Video Game exhibition at V&A
			Read 'Postcolonial Melenacolia' by Paul Gilroy or 'All About Love' by Bell Hooks
Year 12 HT4	 Unit Title: Newspapers: In-depth Study Students will learn about/ develop skills of: A close look at Newspapers covering all area of the theoretical framework, including audiences, representations, media language and industries and contexts – Daily Mirror and The Times 	Analysis of Newspapers in exam style question	Film Production Club Publishing Club Read 'Power Without Responsibility: The Press & broadcasting in Britain' - Curran & Seaton Read 'Entertaining the Citizen: When Politics and Popular Culture Converge' by Leisbet Van Zoonen
Year 12 HT5	 Unit Title: Cross-Media Products Students will learn about/ develop skills of: Learners create an individual cross-media production on a range of platforms for an intended audience, applying their knowledge and understanding of media language and representation. The genre/style and intended audience will be specified in the brief Revision of Component 1 learning and preparation for PPEs How to read unseen texts and prepare for the exam 	Ongoing coursework based assessment and feedback	Film Production Club Publishing Club Book – Save the Cat by Blake Snyder Book – Making Media: Production, Practices and Professions – Deuze and Prenger
Year 12 HT6	Unit Title: Cross-Media Products Students will learn about/ develop skills of:	Ongoing coursework based assessment and feedback	Film Production Club Publishing Club



 Learners create an individual cross-media production on a range of platforms for an intended audience, applying their knowledge and understanding of 	PPE in Component 1 Section A and B	Book – Save the Cat by Blake Snyder
media language and representation.		
The genre/style and intended audience will be specified in the brief		Book – Making Media: Production, Practices and
Revision of Component 1 learning and preparation for PPEs		Professions – Deuze and Prenger
How to read unseen texts and prepare for the exam		· · · · · · · · · · · ·



Term	PHYSICS Curriculum Content	Assessment(s) (assessment title, duration and approx date)	Extra-Curricular Options (Places to visit; wider reading; clubs to join)
In Y12, stud These topic	ysics Curriculum Overview: dents study the core topics of physics of particles and radiation, waves and optics, mechanics is build on the KS4 curriculum studied in Y10 and Y11, refining knowledge and skills as studen breadth. Students also develop their working scientifically skills through 6 core practicals over Particles	s and martials, and electricity. nts study the topics with greater	
Year 12 HT1	Particles introduces 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	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)
	Vectors and their treatment are introduced followed by development of the student's knowledge and understanding of forces, energy and momentum. Students will learn about/ develop skills of: Scalars and vectors Moments		
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 	Ch.8 Newtons law's of motion assessment PPE 1	
	Mechanics - Projectile motion Vectors and their treatment are introduced followed by development of the student's knowledge and understanding of forces, energy and momentum.		
	Students will learn about/ develop skills of:		
	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	PPE 1	
	 Longitudinal and transverse waves Principle of superposition of waves and formation of stationary waves Interference 	Ch.4 Waves assessment	
Year 12 HT3	 Diffraction Refraction at a plane surface 	Ch.9 Forces and momentum assessment	
	Mechanics - Newtons Laws of Motion and Energy Vectors and their treatment are introduced followed by development of the student's knowledge and understanding of forces, energy and momentum.	Ch.10 Work, energy and power assessment	
	Students will learn about/ develop skills of: Newton's laws of motion Momentum Work, energy and power		



	Conservation of energy		
	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		Visit Oxford University's School
	are important to society.		Visit Oxford University's School of Material Science.
	Ctudents will learn about / develop skills of	Ch.5 Optics assessment	
	Students will learn about/ develop skills of: Basics of electricity		
	Current–voltage characteristics		
	Resistivity	Ch.12 Electric current	
Year 12	• Circuits	assessment	
HT4	Potential divider	Ch 44 Matariala assassant	
	Electromotive force and internal resistance	Ch.11 Materials assessment	
	Materials	PPE 2	
	The study of mechanics at Y12 culminates with the study of materials considered in terms	1122	
	of their bulk properties and tensile strength.		
	Students will learn about/ develop skills of:		
	Bulk properties of solids		
	The Young modulus		
	Further Mechanics:		
	The earlier study of mechanics is further advanced through a consideration of circular	Ch.13 DC circuits assessment	
	motion and simple harmonic motion (the harmonic oscillator).		
		Ch.17 Motion in a circle	
	Students will learn about/ develop skills of:	assessment	
HT5	Circular motion Simple horse price protion (CLIMA)		
	Simple harmonic motion (SHM) Simple harmonic systems	Ch.17 Motion in a circle	
	 Simple harmonic systems Forced vibrations and resonance 	assessment	
	1 orded vibrations and resonance	assessificit	
Year 12	Revision	PPE 2 – end of year exams	



нт6	Students will revise for their end of year exams covering everything they have learnt in Y12.	Ch.19 - Thermal Physics assessment	
	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		



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 Ps 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 (W.C. 06.09.22) • 6 Marker – models of memory (W.C. 27.09.22) • 16 Marker – research into EWT of memory (W.C. 18.10.22)	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 (W.C. 15.11.22) In Class Timed Assessments: • 16 Markers – (W.C. 06.12.22)	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 (W.C. 04.01.23) 16 Marker – Social (W.C. 31.01.23) 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 Student's 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 (W.C. 28.02.23) • MCQ Memory (W.C. 21.03.23)	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:	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 over come them Students will be taught evaluation using validity and reliability in research methodology in topics taught. 	 16 Marker – attachments (W.C. 18.04.23) MCQ Social (W.C. 16.05.23) 	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



Term	SOCIOLOGY Curriculum Content	Assessment(s) (assessment title, duration and approx date)	Extra-Curricular Options (Places to visit; wider reading; clubs to join)
	ciology Curriculum Overview: 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 (W.C. 06.09.22) 10 Marker – Social Class (W.C. 27.09.22) 20 Marker – Ethnicity (W.C. 18.10.22)	Social Class – Material Deprivation: https://www.youtube.com/wa tch?v=AKhDTFXDIRs https://www.youtube.com/wa tch?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 (W.C. 15.11.22) In Class Assessments: 10 Markers – Perspectives and Marketisation (W.C. 06.12.22)	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 (W.C. 04.01.23) • 20 Marker MIC – Observations (W.C. 31.01.23)	 Suggested Watch List: Years and Years (BBC I-player) The 'Up' series (e.g. 56



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 (W.C. 28.02.23) • 20 Marker– Feminism and the Family (W.C. 21.03.23)	http://www.youtube.com/wat ch?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 (W.C. 18.04.23) • 10 Marker– Marriage and Divorce and the Family (W.C. 16.05.23)	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
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