

Educational excellence for our City

Family Guide Year 13 Curriculum



Scholarship - Character - Community

Our Curriculum

Our curriculum vision is underpinned by our core values of scholarship, character and community. It is our mission to unlock a thirst for learning and ensure our students are school-ready, work ready and life-ready. This booklet is for families and students to see what learning is planned throughout the year in each subject. This can be used to revisit topics previously taught and prepare for future learning.



PEED AN

COMMUNITY



HIGH PERFORMANCE LEARNING

Our core aim is excellence for all which is underpinned by our vision, mission and values. We are a High Performance Learning World Class school which means that we believe in the HPL philosophy and framework. This means that we believe that all the students can be high performers, and we teach with these expectations in mind. We use HPL to develop our core values of scholarship, character and community which focuses on the Advanced Cognitive Performance skills and the Values, Attitudes and Attributes of the HPL framework. Your child will be taught these characteristics in the curriculum and through our pastoral support.

The HPL framework is a set of characteristics that are well researched to prepare students for now and the future world of work.

CHARACTER

Teaching & Learning Approach



We implement our curriculum using a consistent learning framework which starts with students retrieving knowledge previously taught. Your child will follow a framework of modelled practice where the teacher explicitly models learning during the 'I Do', time for collaboration and questioning in the 'We do', then handed over to students during the 'You do' phase to apply their thinking.

To maximise learning and engagement, the following climate for learning framework outlines the attitude to learning that will support great progress and excellent outcomes.



SCIENCE - BTEC

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AUTUMN

How are common principles and applications of science applied across chemistry, physics and biology? How do scientists create and test hypotheses?

5A1 Extraction and purification of inorganic substances. Acid-base nature of oxides. Extraction and purification of alumina from bauxite in industry. Extraction of titanium.

5B1 Cardiovascular Systems The path of the blood through the heart and the identification of the main arteries and veins leaving and entering the heart. ABO blood typing. ECG traces. Factors that increase the risk of cardiovascular disease. Effect of drugs on the heart rate.

5C1 Thermal Physics

Energy transfer, doing work and efficiency applied to mechanical measurements and the behaviour of gases. Conservation of energy. Adiabatic and isothermal process. First and second Law of Thermodynamics. How engines work. Energy calculations.

6A Investigative project of interest.

Undertake a literature search and review to produce an investigative project proposal A1 Literature review A2 Investigative project proposal. 68 Producing a plan for an investigative project based on the proposal B1 Schedule B2 Plan B3 Health and safety and ethical considerations

Topics

Unit 5: Principles and Applications of Science II 5A Properties and Uses of substances 5B Organs and Systems 5C Thermal Physics, materials and fluids

Unit 6: Investigative Project

6A Undertake a literature search and review to produce an investigative project proposal 6B Produce a plan for an investigative project based on the proposal

How do scientists collect and use results and use them to prove or disprove a theory?

How do we extract metals from rocks? How are materials chosen in domestic and industrial applications?

5A2 Organic Compounds Naming conventions, classification, different ways of representing structures, three-dimensional shapes, isomerism, different types of bonding and physical properties. Reactivity of alkanes and alkenes. 5B2 Ventilation and gas exchange in the lungs Structure of the lungs. Movement of the diaphragm and rib cage during

inhalation and exhalation. Lung Function and capacity.

5C2 Materials

Density, Hooke's Law, Elasticity, and properties. Tensile stress, strain and Young's Modulus. Metal fatigues. Energy Transfer.

5C3 Fluid in Motion

Streamline and turbulent flow of viscous materials. Rate of fluid flow to pressure and the Bernoulli principle.

6C Safely undertaking the project collecting, analysing and presenting the results C1 Experimental procedures and techniques C2 Collect, collate and analyse data C3 Data presentation

6D Drawing conclusions and evaluate the investigative project using correct scientific principles D1 Scientific report for investigative project D2 Scientific evaluation of findings

Topics: 5A Properties and Uses of substances 5B Organs and Systems

5C Thermal Physics, materials, and fluids

6C Undertake the project, collecting analysing and presenting the results 6D Continued

Year 13 Curriculum

Curriculum Aims:

Scientists will embark on an exciting journey that fosters curiosity, ignites inspiration, and cultivates a deep passion for the subjects of Chemistry, Biology, and Physics. Through rigorous theoretical exploration, independent research, and hands-on practical work, we aim to empower students. Equipped with the critical thinking skills needed to evaluate scientific and technological advancements that shape society, ultimately, preparing them for further study and fulfilling careers.

SPRING

What are the principles behind techniques such as X-rays, Radiotherapy and MRI?

What are the principles behind techniques such as X-rays, Radiotherapy and MRI?

In Reactions such as combustion and displacement. Perform calculations based

Structure of the kidney. Model of a nephron. Testing urine for glucose and protein.

Study of cell surface membrane including phospholipids, glycoproteins, channel

proteins, glycolipids, cholesterol, and channel proteins. Diffusion and Osmosis.

6D Drawing conclusions and evaluate the investigative project using correct

BA The impact of disorders of the musculoskeletal system and their associated

corrective treatments A1 Structure of the musculoskeletal system A2 Function of

21A Principles, production, uses and benefits of non-ionising instrumentation

techniques in medical applications A1 Magnetic Resonance Imaging (MRI) A2 LASERs A3 Infrared Thermography (IRT) A4 Ultrasound

scientific principles D1 Scientific report for investigative project D2 Scientific

musculoskeletal system A3 Disorders of the musculoskeletal system

How do they work and what information is provided?

How do they work and what information is provided?

upon experimental data and from literature data.

5B3 Urinary system structure and function

Osmoregulation including the role of ADH.

Active transport. endocytosis and exocytosis.

How does the urinatory system function?

How does the urinatory system function?

5A3 Energy changes in industry

5B4 Cell Transport Systems

evaluation of findings

Topics:



SUMMER

How does the digestive system function and what occurs when disease or dysfunction affects this system?

What are the safety precautions, side effects and risks for operators and patients of ionising radiation Safety precautions, side effects and risks for operators and patients of non-ionising radiation?

8C Physiology of the digestive system and the use of corrective treatment for nutritional deficiency C1 Structure of the digestive system C2 Function of the digestive system C3 Health matters and treatments related to the digestive system

21C Understand health and safety, associated risks, side effects and limitations of ionising and non-ionising instrumentation techniques in medical applications C1 Safety precautions, side effects and risks for operators and patients of ionising radiation C2 Safety precautions, side effects and risks for operators and patients of non-ionising radiation.

Topics: Review & revisit U5 Resit preparation

8C The physiology of the digestive system and the use of corrective treatments for dietary-related diseases

21C The health and safety, associated risks, side effects and limitations of ionising and non-ionising instrumental techniques in medical applications

Resit Preparation Unit 1 Unit 3 Unit 5

EXAMS, coursework submissions and certification.

Unit 8: Physiology of Human Body Systems

5A Properties and Uses of substances

techniques in medical applications

5B Organs and Systems

Unit 21: Medical Physics

8A The impact of disorders of the musculoskeletal system and their associated corrective treatments

U21A Principles, production, uses and benefits of ionising instrumentation

6C continued. 6D Review the investigative project using the correct scientific principles

What is Physiology? How do the systems function and what occurs when disease or dysfunction affects the system?

What are the principles, production, uses and benefits of techniques in Computerised tomography (CT) or Computerised axial tomography (CAT), Gamma Ray Imaging, Gamma Knife Surgery and Proton Beam Therapy

8B Understand the impact of disorder on the physiology of the lymphatic system and the associated corrective treatment B1 Structure of the lymphatic system B2 Function of the lymphatic system B3 Health matters and treatments related to the lymphatic system

21B Principles, production, uses and benefits of ionising instrumentation techniques in medical applications B1 X-rays B2 Computerised tomography (CT) or Computerised axial tomography (CAT) B3 Gamma Ray Imaging B4 Radiotherapy, Gamma Knife Surgery and Proton Beam Therapy

6D Drawing conclusions and evaluate the investigative project continued.

5A3 Energy changes in industry CONTINUED.

In Reactions such as combustion and displacement. Perform calculations based upon experimental data and from literature data.

Topics: 5A Properties and Uses of substances

8B The impact of disorders on the physiology of the lymphatic system and the associated corrective treatments

21B Principles, production, uses and benefits of ionising instrumental techniques in medical applications

SCIENCE - A LEVEL CHEMISTRY

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Year 13 Curriculum

Curriculum Aims:

Chemists will embark on an exciting journey that fosters curiosity, ignites inspiration, and nurtures a passion for the subject. Through in-depth exploration of Physical, Inorganic and Organic Chemistry, they will delve into theory, conduct research, engage in independent study, and participate in practical work.



AUTUMN

How can we distinguish between optical isomers and why do they even exist? How do we name acid anhydrides, amines, other acid derivatives using IUPAC?

How do aldehydes, ketones, carboxylic acids, and their derivatives use the carbonyl group to react and interact with nucleophiles? How can we use mechanisms to understand why carbonyls react the way they do? How can we predict the products of these reactions? Why is acylation important? How do we make aspirin?

How in rate equations does the mathematical relationship between rate of reaction and concentration give information about the mechanism of a reaction that may occur in several steps?

Explain and analyse rate equations, orders and initial rate methods as well as being able to explain and use the Arrhenius equation. Reactions, mechanisms, conditions of aldehydes/ketones/ esters/carboxylic acids/acid chlorides/acid anhydrides. Predicting outcomes and uses of products.

Use Arrhenius's rearranged equation with experimental data to plot a straight-line graph with slope –Ea /R

Measuring the rate of reaction: • by an initial rate method • by a continuous monitoring method

Topics:

Nomenclature & Stereoisomerism Carbonyl Chemistry Rate Equation

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Why was the structure of benzene tricky to discover? How is benzene an example of an aromatic and what do we know about its structure and its substitution reactions? How are aromatic compounds used around the world?

How are functional groups converted to the desired functional groups? What reagents are required? What conditions are necessary? How do we use mechanisms to understand how molecules will interact with reagents in chemical reactions. How and why are Acids and bases important in domestic, environmental, and industrial contexts. What causes Acidity in aqueous solutions and what kind of scale has been made to measure this? What is a Buffer solutions, and why are they important industrial and biological applications? What are Amines and what do they consist off? How do they react

as nucleophiles and cause further substitutions? What difficulties can this lead to?

Discovery of the structure of benzene. Evaluating and considering theories. Reaction and mechanisms of aromatic compounds. Making Aspirin. The laboratory techniques required to synthesis and purified organic products.

Addition and condensation reactions of polymers. Uses and properties of polymers.

How is one functional group changed to another. What conditions are needed and what steps are needed to make the desired product? Structures of acids and bases. The pH scale and how buffer solutions are made. Calculations required to produce buffers.

Topics: Aromatic Chemistry Organic Synthesis Acids & Bases Polymers Amines

SPRING

Why are Halogenoalkanes being much more reactive than alkanes. What are their uses and why has the use of some halogenoalkanes has been restricted? Outline the mechanisms for alkene reactions and explain the formation of major and minor products referring to the relative stabilities of primary, secondary, and tertiary carbocation intermediates. What are the trends and properties in Group 2 and Group 7? How does the study of kinetics enable chemists to determine how a change in conditions affects the speed of a chemical reaction. How can chemists manipulate variables in chemical reactions in order to speed them up or slow them down? How can enthalpy change be measured?

Enthalpy change and calculations Laboratory methods on measuring enthalpy change Plotting graphs, recording data, and evaluating. Calorimetry Hess's Law Calculating bond enthalpies Reactions of Alkenes. Reactions of group 2 and group 7 elements. Kinetics: Collision theory, Maxwell-Boltzmann distribution, effect of temperature, pressure, concentration on the rate of reaction. Practical work to investigate rates of reaction

Topics: Halogenoalkanes Alkenes Group 7 & Group 2 Energetics Kinetics

What is a Redox reaction and what does it involve? How can we identify the elements involved and how do we use half equations?

How do alcohols react and form new products? How is this done in the laboratory, what techniques are used and what conditions are required

How are electrons involved in redox reactions and what are oxidising and reducing agents' involvement? What is equilibrium and what is Chatelier's principle? How are

the principles used? How do redox reactions occur in inorganic and organic chemistry?

Reactions of alcohols, industrial production, reaction conditions and organic laboratory techniques and equipment. Practical skills oxidizing an alcohol. Organic analysis. Chemical Equilibria Le Chatelier's Principle and Kc calculations and constructing expressions. Predicting effects of changing conditions. Redox reactions: oxidation states, half equations and combining half equations.

Topics: Alcohols Organic Analysis Equilibria Redox

SUMMER

What analytical techniques are used by chemists, to analyse organic compounds?

How are practical techniques being purposeful to complete reactions, separate mixtures, work out concentrations and identify substances?

How do Period 3 elements react with oxygen? How does the pH of the solutions formed when the oxides react with water illustrates further trends in properties across this period?

Mass spectrometry Interpreting Mass Spectra Infrared Spectroscopy Interpreting IR Spectra

Topics: Analytic Techniques Practical Techniques Properties of Period 3 & their Oxides (A Level)

What knowledge and understanding are required to successfully answer required practical questions? How can we reflect on our study skills? How do we revise, retrieve and revisit previously learnt content? How do we study independently? How to we progress from working memory into long term memory? How do we consider our subject to planning our Careers further & plan for a successful UCAS application?

Topics:

Exam Technique Review of revision strategies Careers Research UCAS Support Supporting Yr11 Taster days Mock Exam



Curriculum Aims:

Biologists embark on an inspiring journey that fosters a deep passion for the subject. Through an in-depth exploration of key topics, students engage in theory, research, independent study, and practical work. Empowered to make sound connections to the world around them and equip them with the knowledge and skills necessary for further study and rewarding careers



AUTUMN

How do plants convert the light energy to chemical energy create in the form of carbohydrates?

How are messages transmitted across synapses?

What mechanisms control contraction of muscles?

How and why do multicellular organisms respond to stimuli both within and outside their bodies?

Topic 5: Energy transfers in and between organisms – Photosynthesis Learning how energy is transferred in bioenergetics reactions. In photosynthesis, light is absorbed by chlorophyll and this is linked to the production of ATP. The process of photosynthesis is common in all photoautotrophic organisms. In communities, the biological molecules produced by photosynthesis are consumed by other organisms, including animals, bacteria and fungi. Some of these are used as respiratory substrates by these consumers. Photosynthesis and respiration are not 100% efficient. The transfer of biomass and its stored chemical energy in a community from one organism to a consumer is also not 100% efficient.

Topic 6: Organisms respond to changes in their internal and external environments

Covering how a stimulus is detected by a receptor and a coordinator formulates a suitable response to a stimulus. An effector produces a response. Receptors are specific to one type of stimulus. Nerve cells pass electrical impulses along their length. A nerve impulse is specific to a target cell only because it releases a chemical messenger directly onto it, producing a response that is usually rapid, short-lived and localised.

Topics: Making synaptic links with AS modules e.g. Labelling different stages of the cycles, structure and function chloroplast and organelles within, various proteins used in transport of ions such as obtassium/sodium pump. Practical competencies during practical work

How does cellular respiration provide ATP for metabolic processes in living organisms? Why is maintaining a constant internal environment essential for living

organisms? How does our lifestyle impact metabolic diseases such as diabetes?

Topic 5: Energy transfers in and between organisms –Respiration In respiration, the hydrolysis of respiratory substrates is linked to the production of ATP. In both respiration and photosynthesis, ATP production occurs when protons diffuse down an electrochemical gradient through molecules of the enzyme ATP synthase, embedded in the membranes of cellular organelles. The process of respiration is common in all organisms, providing indirect evidence for evolution.

Topic 6: Organisms respond to changes in their internal and external environments

Mammalian hormones stimulate their target cells via the blood system. They are specific to the tertiary structure of receptors on their target cells and produce responses that are usually slow, long-lasting and widespread. Plants control their response using hormone-like growth substances.

Topics: Labelling various organs, dissecting kidney and liver 10 and 11. Data analysis and interpretation of graphs and data. Practical skills. Role of negative feedback in thermoregulation and osmoregulation. Importance of homeostasis. practical competencies during practical work What do offspring look similar to their parents? How does the combination of alleles contribute to variation in a

How does the combination of alleles contribute to variation in a species?

How can we use statistics to determine the probability of a genotype in a population?

SPRING

Why are some inherited diseases more common in males?How does affect evolution and can geographic isolation cause the evolution of a new species?

What can we do to encourage biodiversity?

Topic 7: Genetics, populations, and ecosystems

All new species arise from an existing species, resulting in different species sharing a common ancestry, as represented in phylogenetic classification. Common ancestry can explain the similarities such as common chemistry, physiological, cell structure, DNA as the genetic material and a 'universal' genetic code. The individuals of a species share the same genes but (usually) different combinations of alleles of these genes, inherited from their parent or parents. A species exists as one or more populations. There is variation in the phenotypes of organisms in a population, due to genetic and environmental factors. A change in the allele frequency of a population is evolution. These differences may ultimately lead to organisms in the isolated population becoming unable to breed and produce fertile offspring with organisms from the other populations. Competition occurs within and between these populations for the means of survival. Within a single community, one population is affected by other populations, the biotic factors, in its environment. Populations within communities are also affected by, and in turn affect, the abiotic (physicochemical) factors in an ecosystem

Topics: Chi square, Hardy Weinberg principles, calculating ratios and probability, drawing genetic diagrams, predicting genotypes and phenotypes, analysing family pedigree trees, and explaining linkage. Conservation methods, how succession occurs, Data analysis and calculations based on data. Practical competencies during practical work

What is the impact of external factors on gene expression? How can we manipulate our genome so as to treat disease, for medical, forensic and breeding purposes?

What is the connection between epigenetics and cancer?

Topic 8: Control of gene expression

Cells are able to control their metabolic activities by regulating gene expression. Although the cells within an organism carry the same coded genetic information, they translate only part of it. In multicellular organisms, this control of translation enables cells to have specialised functions, forming tissues and organs. There are many factors that control gene expression, some are external, environmental factors, and others are internal factors. The expression of genes is not as simple as once thought, with epigenetic regulation of transcription being increasingly recognised as important. Humans are learning how to control the expression of genes by altering the epigenome, and how to alter genomes and proteomes of organisms. This has many medical and technological applications. This should lead to an appreciation of common ailments resulting from a breakdown of these control mechanisms and the use of DNA technology in the diagnosis and treatment of human diseases.

Topics: Gene expression, recombinant DNA technology, gene location, screening and counselling, practical competencies

SUMMER

Revision Topics 1-8

Synoptic Essay Practice

Practical Question Practice

Exams



Curriculum Aims: Scientists will embark on an exciting journey that fosters curiosity, ignite inspiration, and cultivates a deep passion for the subjects of Chemistry, Biology, and Physics. Through rigorous theoretical exploration, independent research, and hands-on practical work, we aim to empower students. Equipped with the critical thinking skills needed to evaluate scientific and technological advancements that shape society, ultimately, preparing them for further study and fulfilling careers.



AUTUMN

CERTIFICATE

How are common principles and applications of science applied across chemistry, physics, and biology?	What are the principles behind techniques such as 3
How do scientists create and test hypotheses?	work and what information is provided?
How are metals extracted from ores, purified an useful? How do processes compare?	How does the urinatory system function?
How does the heart work and what are common causes of cardiovascular disease? How do engines work?	What are the biochemical reactions in photosynthe What is the role of hormones in the regulation and
5A1 Extraction and purification of inorganic substances. Acid-base nature of oxides. Extraction and	5A3 Energy changes in industry
purification of alumina from bauxite in industry. Extraction of titanium.	In Reactions such as combustion and displacement.
5B1 Cardiovascular Systems The path of the blood through the heart and the identification of the main	data and from literature data.
arteries and veins leaving and entering the heart. ABO blood typing. ECG traces. Factors that increase the	SB3 Urinary system structure and function
risk of cardiovascular disease. Effect of drugs on the heart rate.	including the role of ADH.
SCI Thermal Physics Energy transfer, doing work and efficiency applied to mechanical measurements and the behaviour of	5B4 Cell Transport Systems
gases. Conservation of energy. Adiabatic and isothermal process. First and second Law of	Study of cell surface membrane including phospholig
Thermodynamics. How engines work. Energy calculations.	cholesterol, and channel proteins. Diffusion and Osn exocytosis.
6A Investigative project of interest.	D Shall find a second second
Undertake a literature search and review to produce an investigative project proposal A1 Literature	6D Drawing conclusions and evaluate the investigat
review A2 Investigative project proposal.	Scientific report for investigative project D2 scientific
and safety and ethical considerations	8A The impact of disorders of the musculoskeletal st
	treatments A1 Structure of the musculoskeletal syste
10A Understand the importance of biological molecules in living organisms and the effect of disruption on the structure and function A1 Water structure and importance A2 Carbohydrate structure and	Disorders of the musculoskeletal system.
importance A3 Protein structure and importance A4 Lipid structure and importance A5 Disruption in	21A Principles, production, uses and benefits of nor
living organisms	medical applications A1 Magnetic Resonance Imagin (IRT) A4 Ultrasound
9A Understand the interrelationship and nervous control of the cardiovascular and respiratory systems	
A1 Nervous system organisationA2 Cardiovascular and respiratory system regulation and control PC Understand the role of harmones in the regulation and control of the reproductive system C1	10C The factors that can affect the pathways and th
Structure and function of reproductive anatomy C2 Reproductive processes	in photosynthesis C2 Factors that can affect pathway
Topics:	9B Understand homeostatic mechanisms used by the
Unit 5: Principles and Applications of Science II	Glands and organsB3 Homeostatic mechanismsB4 In
5A Properties and Uses of substances	9C Understand the role of hormones in the regulati
5B Organs and Systems	Structure and function of reproductive anatomy c2 r
SC Thermal Physics, materials and fluids	Topics:
Unit 6: Investigative Project	5A Properties and Uses of substances
6A Undertake a literature search and review to produce an investigative project proposal	5B Organs and Systems
6B Produce a plan for an investigative project based on the proposal	Linit 21: Modical Diverses
10A Biological Molecules	U21A Principles, production, uses and benefits of ior
Unit 9A & 9C	applications
Human Regulation and Reproduction	Unit 8: Physiology of Human Body Systems
How do scientists collect and use results and use them to prove or disprove a theory?	and the impact of disorders of the musculoskeletal sy
How do we extract metals from rocks?	6C continued.
How are materials chosen in domestic and industrial applications?	6D Review the investigative project using the correct
What is the process of respiration?	
	10C Photosynthesis
5A2 Organic Compounds Naming conventions, classification, different ways of representing structures,	one so a se numan regulation and reproduction
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Density, Hooke's Law, Elasticity, and properties. Tensile stress, strain, and Young's Modulus. Metal	8B Understand the impact of disorder on the physic corrective treatment B1 Structure of the lymphatics
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principle.	applications B1 X-rays B2 Computerised tomography
6C Safely undertaking the project collecting, analysing and presenting the results C1 Experimental	B3 Gamma Ray Imaging B4 Radiotherapy, Gamma Kr
procedures and techniques C2 Collect, collate and analyse data C3 Data presentation	6D Drawing conclusions and evaluate the investigat
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10B Effect of activity on respiration in humans and factors that can affect respiratory pathways B1 Stages	uata anu nominerature uata.
involved in respiratory pathway B2 Effect of activity on respiration B3 Factors that can affect respiration	9B Understand homeostatic mechanisms used by th
OA Hadevatered the intervolutionship and nervous central of the conditions whereas device terms	Glands and organsB3 Homeostatic mechanismsB4 In
A1 Nervous system organisationA2 Cardiovascular and respiratory systems	
	9C Understand the role of hormones in the regulati
9C Understand the role of hormones in the regulation and control of the reproductive system C1	Structure and function of reproductive anatomy C2 F
Structure and function of reproductive anatomy C2 Reproductive processes	Topics:
Topics:	5A Properties and Uses of substances continued.
5A Properties and Uses of substances	
5B Organs and Systems	8B The impact of disorders on the physiology of the
5C Thermal Physics, materials, and fluids	treatments
6C Undertake the project, collecting analysing and presenting the results	21B Principles, production, uses and benefits of ionis
	applications
10B Respiration	

Unit 9A & 9C Human Regulation and Reproduction

6D Continued

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SPRING

What are the principles behind techniques such as X-rays, Radiotherapy and MRI? How do they	How does the digestive system function and what occ
work and what information is provided?	system?
How does the urinatory system function?	What are the safety precautions, side effects and risks
What are the biochemical reactions in photosynthesis? What is the role of hormones in the regulation and control of the reproductive system?	radiation Safety precautions, side effects and risks for radiation?
5A3 Energy changes in industry	8C Physiology of the digestive system and the use of c
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5B4 Cell Transport Systems	and risks for operators and patients of ionising radiation
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treatments A1 Structure of the musculoskeletal system A2 Function of musculoskeletal system A3	Topics:
Disorders of the musculoskeletal system.	Review & revisit U5
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21A Principles, production, uses and benefits of non-ionising instrumentation techniques in	
medical applications A1 Magnetic Resonance Imaging (MRI) A2 LASERs A3 Infrared Thermography	8C The physiology of the digestive system and the use
(IRT) A4 Ultrasound	diseases
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in photosynthesis C2 Factors that can affect pathways and the rate of photosynthesis in plants C1 Pathways in photosynthesis.	instrumental techniques in medical applications
98 Understand homeostatic mechanisms used by the human body R1 Seedback and control R2	Pecit Preparation
Glands and organsB3 Homeostatic mechanisms B4 Impact of an imbalance	Unit 1
9C Understand the role of hormones in the regulation and control of the reproductive system C1	Unit 3
Structure and function of reproductive anatomy C2 Reproductive processes.	Unit 5
Topics:	Unit 9B & 9C Human Regulation and Reproduction
5A Properties and Uses of substances	
5B Organs and Systems	EXAMS
Unit 21: Medical Physics	Coursework submissions and certification.
U21A Principles, production, uses and benefits of ionising instrumentation techniques in medical	Unit OD R OC United Description and Description
applications	Unit 98 & 9C Human Regulation and Reproduction
Unit 8: Physiology of Human Body Systems	8C The physiology of the digestive system and the use
8A The impact of disorders of the musculoskeletal system and their associated corrective treatments	diseases
6C continued. 6D Review the investigative project using the correct scientific principles	21C The health and safety, associated risks, side effects instrumental techniques in medical applications
10C Photosynthesis	
Unit 98 & 9C Human Regulation and Reproduction	
What is Physiology? How do the systems function and what occurs when disease or dysfunction affects the system?	
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Health matters and treatments related to the lymphatic system B2 Function of the lymphatic system B3	
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B3 Gamma Ray Imaging B4 Radiotherapy, Gamma Knife Surgery and Proton Beam Therapy	A
6D Drawing conclusions and evaluate the investigative project continued.	
5A3 Energy changes in industry CONTINUED.	
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Glands and organsB3 Homeostatic mechanismsB4 Impact of an imbalance	
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Structure and function of reproductive anatomy C2 Reproductive processes	
Topics: EA Despecties and Uses of substances continued	
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SUMMER

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for operators and patients of ionising operators and patients of non-ionising

orrective treatment for nutritional deficiency digestive system C3 Health matters and

ide effects and limitations of ionising and pplications C1 Safety precautions, side effects on C2 Safety precautions, side effects and risks

human body B1 Feedback and control B2 act of an imbalance

and control of the reproductive system C1 productive processes

of corrective treatments for dietary-related

and limitations of ionising and non-ionising

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RELIGIOUS **EDUCATION**

Year 13 Curriculum

Curriculum Aims:

CALL TELECORE PURPOSE OF RELIGIOUS STUDIES AT KEVI HWGA: THE CORE PURPOSE OF RELIGIOUS STUDIES AT KEVI HWGA: • CHCOURAGES PHILOSOPHICAL THOUGH, DECISION-MAKING SKILLS, COLLABORATION AND INDEPENDENT WORKING SKILLS AND THE SEARCH FOR COMPROMISE AND CONFLICT RESOLUTIONS THAT WORK. • MAKES A KEY AND UNIQUE CONTHIBUTION TO UNDERSTANDING BRITISH HERITAGE, PLURALITY, VALUES AND FUTURES. • ENABLES PUPILS TO BE ABLE TO LEARN HOW TO RESPECT THEMSELVES AND UNDERSTAND THEIR OWN IDENTITY, TO RESPECT OTHERS, AND TO UNDERSTAND THEIR OWN IDENTITY, TO RESPECT OTHERS, AND TO UNDERSTAND THEIR OWN IDENTITY, TO RESPECT OTHERS, AND TO UNDERSTAND INCLUS AND TO UNDERSTAND THEIR OWN AND OTHERS' RIGHTS AND RESPONSIBILITIES. • LAVYS A KEY ROLE IN CORENTING COREININE UNDERSTANDING BETWEEN COMMUNITIES REDUCING FRICTION, INTOLERANCE AND SOCIAL UNREST.



The influence of beliefs and teachings on individuals, communities, and societies The significance of similarities and differences in beliefs and teachings Analyse and evaluate the views and arguments of key scholars Use specialist language and terminology

Topics: Religious language Miracles Religion, gender and sexuality Religion and science Self and life after death Religion and secularisation Religion and religious pluralism

SPRING

The influence of beliefs and teachings on individuals, communities, and societies The significance of similarities and differences in beliefs and

teachings

Analyse and evaluate the views and arguments of key scholars

Use specialist language and terminology

Topics:

Introduction to meta ethics Free will and moral responsibility Bentham and Kant Section B: The dialogue between philosophy of religion and religion



The influence of beliefs and teachings on individuals, communities, and societies

The significance of similarities and differences in beliefs and teachings

Analyse and evaluate the views and arguments of key scholars

Use specialist language and terminology

Topics: Section C: The dialogue between ethical studies and religion.





ENGLISH

Year 13 Curriculum



Curriculum Aims:

A Level English centres around reading seminal texts in different ways and considering generic connections between texts. The study of these texts is also enhanced by the study of critical theory, which encourages students to develop their own interpretations of texts and the links between them. Year 13 study intends to broaden students' understanding of the genre of tradegy and tragic aspects as well as allowing students to think critically about texts in wider social contexts.

AUTUMN

Social and Political Protest writing. 'The Handmaid's Tale' and unseen texts

Key knowledge:

Narrative perspective and structure, symbolism, nonlinear plot and plot devices, intertextuality, characterisation, themes (gender, religion, marginalisation, discrimination), aspects of social and political writing, epigraphs, dystopia, bildungsroman, context (Christian fundamentalism, Afghanistan), feminism, Marxism.

Social and Political Protest writing: "The Kite Runner'

Key knowledge:

Narrative perspective and structure, symbolism, nonlinear plot and plot devices, intertextuality, characterisation, themes (gender, religion, marginalisation, discrimination), aspects of social and political writing, epigraphs, dystopia, bildungsroman, context (Christian fundamentalism, Afghanistan), feminism, Marxism, elements of social and political protest (conformity, indoctrination etc)

SPRING

Aspects of Tragedy Revision: Keats poetry

Key knowledge:

Poetic forms, poetic structure, allusion, biblical references, tragic aspects, gender dynamics (e.g. femme fatale), intertextuality, tragic themes, context (Romanticism).

Revision: Death of a Salesman

Key knowledge:

Narrative structure, the two-act tragedy, stage craft (exposition – restoration), context (American Dream, Great Depression), Marxism.

Social and Political Protest writing. Revision: 'The Handmaid's Tale' and Blake poetry.

Key knowledge:

Poetic forms, poetic structure, allusion, biblical references, tragic aspects, gender dynamics (e.g. femme fatale), intertextuality, tragic themes, context (Romanticism).

Aspects of Tragedy Revision: Othello

Key knowledge:

Allusion and how it deepens understanding of characterisation, intertextuality, tragic aspects, irony, staging (proxemics), paralinguistics, form, themes, motifs, social, historical and cultural context, setting.

SUMMER

Personalised revision for class dependent on areas required.

Exam practice for both papers.



Curriculum Aims:

ART AS A SUBJECT HAS THE POTENTIAL TO BROADEN PERCEPTION, ENHANCE AND DEVELOP MOTOR SKILLS, CAPTURE, AND ENCOURAGE IMAGINATION, AND DEVELOP AWARENESS OF THE PHYSICAL WORLD, IN INTERPRETATION OF COLOUR, LIGHT AND FORM THROUGH VISUAL PERCEPTION. AS STUDENTS PROGRESS, THEY SHOULD BE ABLE TO THINK CRITICALLY AND DEVELOP A MORE RIGOROUS UNDERSTANDING OF ART AND DESIGN. THEY SHOULD KNOW HOW ART AND DESIGN BOTH REFLECT AND SHAPE OUR HISTORY, CULTURE, AND CREATIVITY, ART SHOULD ENGAGE, INSPIRE AND CHALLENGE STUDENTS, EQUIPPING THEM WITH THE KNOWLEDGE AND SKILLS TO EXPERIMENT, INVENT AND CREATE THEIR WORK OWN WORKS OF ART, CRAFT AND DESIGN.



AUTUMN SPRING SUMMER



BUSINESS STUDIES

Year 13 Curriculum

Curriculum Aims:

In Year 13, students explore the finance and operations functions and investigate external influences on business. Later on they move onto Theme 3 where they develop their understanding of the concepts introduced in Theme 2 and explore influences on business strategy and decision-making.



AUTUMN

Financial planning

Sales forecasting purpose and factors influencing sales forecasts. Calculation of sales revenue and volume fixed and variable costs. Break-even and Budgeting.

Managing finance

Statement of comprehensive income and financial position. Concept of Business Failure.

Resource management

Methods of production, Productivity and efficiency. Calculation, implications and ways of improving capacity utilisation. Stock Control diagrams and key features. Quality Assurance methods, costs and benefits.

External influences

Macroeconomic variables: inflation, exchange rates Economic policy: interest rates, taxation and government spending. Different areas of businesses affected by legislation.

Topics:

Students must investigate different types and sizes of organisation in various business sectors and environments, and in local, national and global contexts. To develop their knowledge, skills and understanding in business, students need to have acquired competence in quantitative skills that are relevant to and applied in the context of this theme. For this theme, students will need to be aware of the accounting ratios and focus on quantitative skills.

SPRING

Business objectives and strategy

Corporate Objective Strategic and tactical decisions - Ansoff, Porter, Boston Matrix, SWOT Analysis and PESTLE.

Influences on business decisions

Corporate influences and Corporate Culture. Trade-offs between profit and ethics and how this relates to objectives. Conflicts between stakeholders and stakeholders and the business

Introduction to the broad pre-released context (available from June) for A level Paper 3. Set summer research project for A level students. Link to Extended Project Qualification if applicable.

Business growth

Compare and contrast with mergers and takeovers, and reasons for staying small. Links to new, highly competitive markets and avoidance of diseconomies of scale.

Decision-making techniques

Uses and limitations of quantitative sales forecasting. Methods of Investment Appraisal, calculation and interpretation. Construction and limitations of Decision trees and Critical Path analysis.

Topics:

Students must investigate different types and sizes of organisation in various business sectors and environments, and in local, national and global contexts. To develop their knowledge, skills and understanding in business, students need to have acquired competence in quantitative skills that are relevant to and applied in the context of this theme. For this theme, students will need to be aware of the accounting ratios and focus on quantitative skills.

SUMMER

Assessing competitiveness

Statement of comprehensive income and statement of financial position. Uses of Ratio Analysis and Quantitative measures of HR performance.

Managing change

Causes and effects of change and Planning to reduce risk.

Revision and A level exam preparation

Revision of Themes 1, 2, 3 and 4 Exam preparation

Topics:

Students must investigate different types and sizes of organisation in various business sectors and environments, and in local, national and global contexts. To develop their knowledge, skills and understanding in business, students need to have acquired competence in quantitative skills that are relevant to and applied in the context of this theme. For this theme, students will need to be aware of the accounting ratios and focus on quantitative skills.



BTEC LEVEL 3 IT

Students to eva database soluti Students to eva requirements. Topics: Data Management Problem Solving

Year 13 Curriculum

Curriculum Aims:

Students are required to analyse how ICT is shaping our world and understand how they are required to adjust to new innovative world. Students apply skills in creating a website and social media platforms for a given scenario. Students are required to analyse data and design an effective relational database and use database skills to manage data, perform queries and generate reports.



AUTUMN	SPRING	SUMMER
Unit 2 – Creating Systems to Manage Information	Unit 6 – Website Development	Personalised revision for class dependent on areas
Examine the structure of data and its origins, and how an efficient data design follows through to an effective and useful database.	Review existing websites – commenting on their overall design and effectiveness.	required.
Examine a given scenario and develop an effective design solution to produce a database system. Test your solution to ensure that it works correctly. Evaluate each stage of the development process and the effectiveness	Use scripting languages such as Hypertext Markup Language (HTML), Cascading Style Sheets (CSS) and JavaScript® and a simple text editor, or rapid application development tools. Reflect on the website design and functionality using a testing and review process.	Exam resit in June.
of your database solution. The purpose and structure of relational database management systems (relational database management systems, manipulating data structures and data in relational databases and normalisation)	Website products (purpose and principle, factors affecting performance) Students to analyse purpose of various websites and explain the key	
Students to understand types of relational database management systems (RDBMS) and their characteristics. Students to manipulate data structures and data in relational databases.	principles of website design. Students to understand how media, objects, creativity and innovation techniques can be used to enhance the website design.	
Students to normalise database by going through the stages of normalisation (UNF – 1NF – 2NF – 3NF)	Students to use search engine optimisation techniques to promote their website. Students to find out factors affecting website performance and understand scripts, browser compliance, server-side factors, and client-side factors.	
Standard methods and techniques to design relational database solutions (relational database design and design documentation)	Website design (tools and techniques used to create websites)	
Students to select RDBMS and use SQL software tools, techniques and processes. Students to understand the features and characteristics of relational database design techniques and their application to solve problems.	Students to understand the steps involved in developing a design for a client website (problem definition, purpose, application of website design, initial design ideas/prototypes, client-side scripting design tools, obtaining and using feedback, test plan and identifying technical and design constraints.	
Creating a relation database structure (producing a database solution and testing and refining the database solution)	Students to use common tools and techniques when producing their websites. This includes: HTML, tables, forms, navigation, interactive components, colour schemes, CSS, embedded multimedia,	$\geq 1/2$
Students to select and configure appropriate RDBMS and SQL tools to produce a database solution to meet client's requirements.	accessionity reatures, platform compatibility and exporting and compressing of digital assets.	
Students to carry out testing and make refinements based on feedback.	Develop a website (Client-side scripting languages, website development, website review, website optimisation, skills/knowledge/behaviours) Students to use client-side scripting	/ 7 F K
Evaluating a database development project (database design evaluation, evaluation of database testing and evaluation of the database)	languages to create their website and develop interactive website. Students to fully review their website in terms of: quality in comparison with other similar website, suitability for intended	CASON IT I
Students to understand the characteristics, concepts, impact and implications of testing methodologies to monitor and evaluate database design, the database created, testing processes and success of the solution	purpose and audience, suitability against the client's requirements, legal and ethical constraints and strengths/improvements. Topics:	
Students to evaluate a design against the given requirements.	Algorithms Problem Solving	10000
Students to evaluate the application of test data to ensure that the database solution meets requirements.	Communication and coordination Digital Literacy	DD
Students to evaluate the software outcome against the given requirements.		
Topics:		



MATHS

Year 13 Curriculum



Curriculum Aims:

A level Mathematics course gives students the opportunity to study 'pure' topics such as geometry, calculus and trigonometry and to use these ideas within the 'applied' topics such as mechanics and statistics. Although mathematics is highly logical, it also requires imagination and determination to

work well on your own: working on problems is the surest way to develop the knowledge and intuition required to do well and to develop the discipline needed to clearly communicate the solution. Students will learn how to model real-life situations in mathematical terms, how models are refined and how to identify limitations within this process.

SPRING

AUTUMN

How are algebraic methods used in the day-to-day operations in the finance and business world?

Students will learn about Algebraic methods, functions and graphs (Pure: Chapter 1, 2)

How does the use of Binomial expansion help to provide a basis in probability theory to estimate fluctuations in economics?

Students expand their previous knowledge of binomial expansion. (Pure : Chapter 4)

How did the government use statistics to address the nation regarding COVID19?

Students will learn about Regression and correlation (Applied: Chapter 1, 2, 3)

How a quadratic equation can model the perfect trajectory of a basket ball or a cannon ball ?

Students will delve into the study of moments, Forces and Friction and Projectiles. (Applied: Chapter 4, 5, 6)

Topics

Multiply and divide algebraic fractions, convert improper fractions into partial fraction forms, estimating coefficients in exponentials models, calculate moment correlation Turning effect, resultant moment, equilibrium problems, no- uniform problems, problems at the point of tilting, resolving forces, triangle law, smooth & rough planes, friction coefficient, vertical components, quadratic, modelling trajectories, derive formula for time and range.

Why is the use of radians as a measure more appropriate than degrees at higher level maths?

Students will appreciate and use radians, advanced trigonometric functions. (Pure : Chapters 5,6)

How can sequences and series help us to model a range of real-life financial problems?

Students will learn about different types of sequences (Pure : Chapters 3)

How can we identify if a distribution can be appropriately modelled using a Normal Approximation?

Students will build on the knowledge of Probability from Year 1 and be introduced to the Normal Distribution. (Applied Chapters 2, 3)

Topics:

Substitution, arithmetic sequences, set notation, Venn diagrams, conditional probability, two way tables, tree diagrams, normal distribution curve, standard deviation, binomial distribution, approximation. Arc length, fractions, area of a circle, trigonometric graphs, Pythagoras, angle approximations, trigonometric identities increasing and decreasing functions, consecutive proof, ratio, partial fractions, binomial expansion, Pascal's triangle, infinite series.

How is differentiation and optimisation used in engineering to reduce waste cost?

Students will also learn how to draw and differentiate parametric function, more advanced Differentiation (Pure: Chapter 8, 9)

Why are numerical methods a rapidly moving field in mathematical sciences ?

Students will learn application of Numerical methods. (Pure: Chapter 10)

How can we synthesise our knowledge of Trigonometry to help us model real-life situations?

Students will develop their skills in Trigonometric Modelling (Pure: Chapter 7)

How do engineers apply classical mechanics when modelling the forces acting upon an object?

Students will learn the application of forces and further kinematics (Applied: Chapter 7, 8)

Topics:

Double angle, proof, substitution, rearranging, proving identities, , trigonometric modelling, converting parametric to cartesian form, trigonometric identities, coordinate geometry, modelling using parametric functions. Differentiate and Integrate trigonometric functions, exponentials, logarithms, parametric functions, implicit differentiation, second derivatives, rates of change. Locating roots, iteration, Newton-Raphson procedure, apply numerical methods to solve problems. Solving for unknown forces in equilibrium system, statics, pulleys, tension, inclined planes, smooth & rough, problems with connected particles, vector equations of motion, displacement, velocity, acceleration, differentiation, vectors with respect with time.

How can integrals be used to calculate the moment of inertia of a games utility vehicle?

Students will build upon their knowledge of Integration from Year 1 (Pure Chapter 11)

What are the similarities and differences between the different types of Hypothesis Testing in you're A-Level Course?

Students will build upon their knowledge of Integration from Year 1. (Applied Chapter 3 CNTD)

Topics:

Integration, trigonometric function, hypothesis testing in the normal distribution.

SUMMER

Diagnostic Teaching

Revision (past papers)

FINAL Exams





Curriculum Aims:

In Criminology, students will use their critical and logical thinking to explore the criminal justice system in the UK.

AUTUMN

Unit 3

What techniques are used in criminal investigations? How is evidence processed? What rights do individuals have in criminal investigations?

Understand the process of criminal investigations. Pupils will explore:

- 1. Crime scene investigators, forensic scientists, forensic specialists, police officers, detectives, CPS, pathologists.
- 2. Forensic, surveillance techniques, profiling techniques, intelligence databases, interview techniques. 3. Physical evidence, testimonial evidence.

What is the process of prosecution?

Understand the process for prosecution of suspects. Pupils will explore:

- 1. Criminal Justice Act 2003. Prosecution of Offences Act 1985. Full code test.
- 2. Pre trial, bail, plea bargaining, courts, appeals.

3. Relevance and admissibility, discolure of evidence, hearsay

- rule and exceptions, legislation and case law. 4. Evidence, media, witnesses, experts, politics, judiciary,
- barristers and legal teams.
- 5. Juries and magistrates.

Be able to review criminal cases

Pupils will explore:

- 1. Bias, opinion, circumstances, currency, accuracy, evidence, trail transcripts, media reports, judgements, law reports.
- 2. Just verdicts, miscarriage, safe verdict, just sentencing.

Topics:

DNA Surveillance Geographical profiling Investigative psychology Typological profiling Barnum effect Patent Latent Forensic

What does the criminal justice system look like in England

SPRING

Why do we have punishment within society?

Understand the criminal justice system in England and Wales. Pupils will explore:

- 1. Government processes and judicial processes.
- 2. Police, law creation, courts, formal punishment,
- relationships.

Unit 4

and Wales?

3. Due process, crime control

Understand the role of punishment in a criminal justice system Pupils will explore:

- 1. Internal forms, external forms, control theory.
- 2. Aims of punishment for example retribution,
- rehabilitation, deterrence
- 3. Forms of punishment: imprisonment, community, financial, discharge.

How do we measure punishment in society?

Understand measures used in social control

- Pupils will explore:
- 1. Roles and agencies
- 2. Contribution measures.
- 3. Limitations of agencies in social control.
- 4. Agencies, charities and pressure groups.

Topics:

Imprisonment Social Control Coercion Retribution Rehabilitation Reformation Community sentence

SUMMER

Parliament



Curriculum Aims: THE CORE PURPOSE OF OUR STUDY OF GEOGRAPHY AT KEVI HWGA, AND WHAT WE WANT STUDENTE TO GAIN EPON IT CAN BE SUMMARISED IN

WHAT WE WANT STUDENTS TO GAIN FROM IT, CAN BE SUMMARISED IN THREE STATEMENTS: GEOGRAPHY STIMULATES A SENSE OF WONDER ABOUT THE WORLD, GEOGRAPHY INSPIRES STUDENTS TO WANT TO SHAPE A BETTER

Year 13 Curriculum

• GEOGRAPHY EQUIPS STUDENTS WITH SKILLS FOR THE FUTURE.



GEOGRAPHY

AUTUMN

PHYSICAL

Hazardous Earth

Movement of the Earth's land masses, from Pangaea to present day are evidence that forces beneath our feet are at work. Seismic and volcanic activity creates hazards as populations have grown and inhabited more of the Earth. Although hazardous, earthquakes and volcanoes create new landforms and can support life on Earth from flora and fauna to population As technology has evolved, the capacity to predict and mitigate against tectonic hazard events has improved although the impact of an event can leave communities and countries devastated. Risks from tectonic hazards varies spatially and over time, with continued research and development there may be a point in the future when it will be possible to mitigate against the vulnerability to risk.

Topics: Human Geography Physical Geography Place Specific Knowledge Locational Knowledge Environmental Geography Structure of Earth Plate Boundaries Volcanoes Earthquakes Map Skills

HUMAN

Disease Dilemmas

Diseases do not discriminate who becomes infected or develops symptoms Diseases can be communicable and noncommunicable and a number of physical and human factors affect an individual's and a community's susceptibility to the risk. The global nature of some diseases in terms of the geographical spread and scale has encouraged international efforts to combat them.

Topics: Human Geography Physical Geography Place Specific Knowledge Locational Knowledge Environmental Geography Population Change Migration Data Analysis Disease Mitigation

SPRING

PHYSICAL

Hazardous Earth

Movement of the Earth's land masses, from Pangaea to present day are evidence that forces beneath our feet are at work. Seismic and volcanic activity creates hazards as populations have grown and inhabited more of the Earth. Although hazardous, earthquakes and volcanoes create new landforms and can support life on Earth from flora and fauna to populatio As technology has evolved, the capacity to predict and mitigate against tectonic hazard events has improved although the impact of an event can leave communities and countries devastated. Risks from tectonic hazards varies spatially and over time, with continued research and development there may be a point in the future when it will be possible to mitigate against the vulnerability to risk.

Topics:

Human Geography
Physical Geography
Place Specific Knowledge
Locational Knowledge
Environmental Geography
Structure of Earth
Plate Boundaries
Volcanoes
Earthquakes
Map Skills
HUMAN

Disease Dilemmas

Diseases do not discriminate who becomes infected or develops symptoms. Diseases can be communicable and noncommunicable and a number of physical and human factors affect an individual's and a community's susceptibility to the risk. The global nature of some diseases in terms of thei geographical spread and scale has encouraged international efforts to combat them.

Topics: Human Geography Physical Geography Place Specific Knowledge Locational Knowledge Environmental Geography Population Change Migration Data Analysis Disease Mitigation

NEA

Learners should use the geographical skills to collect, analyse and interpret geographical information throughout their studies, whilst gaining the ability to understand and apply suitable analytical approaches.

Topics: Physical Geography Human Geography Environmental Geography Hypothesis Methodology Data Collection Data Analysis Data Evaluation

SUMMER

NEA

Learners should use the geographical skills to collect, analyse and interpret geographical information throughout their studies, whilst gaining the ability to understand and apply suitable analytical approaches.

Topics: Physical Geography Human Geography Environmental Geography Hypothesis Methodology Data Collection Data Analysis Data Evaluation

Exams



HEALTH & SOCIAL CARE - DIPLOMA (DOUBLE)

Year 13 Curriculum

Curriculum Aims: In Health and Social Care, students will use their connection finding to link PIES to different health and social care settings.



AUTUMN

Unit 4

Enquiries into Current Research in Health and Social Care

What are the types of issues where research is carried out in the HSC sector? I

Looking at the following Research Methods Surveys (Quantitative):

[*]Interviews (Qualitative) [*]Experiments (Qualitative) [*]Experiments (Quanitative) [*]Mixed Methods (Qualitative and Quantitative) [*]Questionnaire (Quantitative) [*]Secondary Data Analysis (Both) [*]Case Study (Both) [*]Cospervations (Participant and non-participant) [*]Longitudinal Studies (Both) [*]Primary Data (Both)

Demonstrating evaluative skills such as: *]Ethics (*]Bilas (*]Pilot study (*]Secondary Sources (*]Cualitative Research (*]Quantitative Research

[*]Limitations [*]Validity [*]Reliability

Unit 7

Principles of Safe Practice in Health and Social Care

How does a duty of care contribute to safe practice in HSC settings?

Understanding the duty of care and how it is applied and contributes to safe practice in HSC settings.

Topics:

ACP's Meta Cognition Intellectual confidence Big Picture thinking Automaticity Imagination Connection finding Generalisation Critical or logical thinking SPRING

Enquiries into Current Research in Health and Social Care

Unit 8

Promoting Public Health

What strategies are there for developing public health policy to improve the health of individuals and the population?

Strategies for developing public health policy to improve the health of individuals and the population.

Factors affecting health and the impact of addressing these factors to improve public health.

How health promotion encourages individuals to change their behaviour in relation to their own health.

Unit 12

Supporting Individuals with Additional Needs

What are the reasons why individuals may experience additional needs?

Knowing the definitions of mild, moderate, severe and profound learning disabilities.

Knowing how to overcome the challenges to daily living faced by people with additional needs.

Exam results Unit 4

Topics: Meta Cognition Intellectual confidence Big Picture thinking Automaticity Imagination Connection finding

SUMMER

Supporting Individuals with Additional Needs

low are the challenges to daily living faced by people with dditional needs overcome?

Looking at current practice with respect to provision for individuals with additional needs, and applying it to two case studies.

Exam retakes unit 4

Init 1

Topics: ACP's Strategy planning Self regulation Imagination Fluent thinking



HEALTH & SOCIAL CARE - EXTENDED CERTIFICATE (SINGLE)

Year 13 Curriculum



Curriculum Aims:

In Health and Social Care, students will use their connection finding to link PIES to different health and social care settings.

AUTUMN

Unit 2

Working in Health and Social Care

What are the roles and responsibilities of people who work in the HSC sector?

What are specific needs of people in the HSC sector and how are their needs met?

Knowing the roles and responsibilities of people who work in HSC settings.

Knowing the roles of organisations in the HSC sector.

Knowing about working with people with specific needs in the HSC sector.

Topics: ACP's Meta Cognition Intellectual confidence Big Picture thinking Automaticity Imagination Connection finding Generalisation Critical or logical thinking

SPRING

Unit 2 Exam Unit 5

Meeting Individual Care and Support Needs

Identifying the principles, values and skills which underpin meeting the care and support needs of individuals.

Looking at the ethical issues involved when providing care and support to meet individuals needs.

Topics: ACP's Meta Cognition Intellectual confidence

Big Picture thinking Automaticity Imagination Connection finding

SUMMER

Unit 5

Meeting Individual Care and Support Needs

Looking at the roles of professionals and how they work together to provide care and support necessary to meet individual needs.

Exam retakes Unit 2

Topics: ACP's Strategy planning Self regulation Imagination Fluent thinking



Curriculum Aims:

An enquiry-based approach that encourages students to question and evaluate ideas and concepts. Helping students to recognise that History is contested, constructed, inescapable and fascinating. Engages with Britain's past and that of the wider world in order to promote students becoming active in historical debate and using evidence to make judgements with confidence.



AUTUMN

Protest, agitation and parliamentary reform in Britain, c1780 – 1928:

Aspects in breadth study: Reform of Parliament, c1780-1928

Aspects in breadth: Changing influences in parliament: the impact of parliamentary reform, c1780-1928

Aspect in depth: Radical reformers, c1790-1819

Key concepts: Power Change over time Cause and consequence Perspective Significance Persecution Democracy

NEA: Students to complete research and plans for coursework

NEA: Students to analyse historians views and research to write first draft of coursework

SPRING

Protest, agitation and parliamentary reform in Britain, c1780 – 1928

Aspect in depth: Chartism, c1838-c1850

Aspect in depth: Contagious Diseases Act and the campaign for their repeal, 1862-86

Aspect in depth: The Women's Social and Political Union, 1862-86

Aspect in depth: Trades union militancy, 1915-27

Key concepts: Power Change over time Cause and consequence Perspective Significance Persecution Democracy

NEA: Students to respond to feedback provided and submit final coursework to be marked and moderated

SUMMER

Revision and consolidation activities: Y12 topics on Russia and Maos's China and Y13 Protest and Agitation for summer examinations.

Key concepts: Power Change over time Cause and consequence Perspective Significance Persecution Democracy



LAW

Criminal Law

Actus reus appropriation

property

dishonesty

obbery

harm
 fault

aw and justice:

aw and fault:

Tort

duty of care.

injury

Private nuisance

Theft

Year 13 Curriculum

In year 13, students will develop their meta-thinking skills through analysis and legal reasoning to legal arguments.



AUTUMN SPRING SUMMER Contract Law Revision of all topics are criminal processes applied effectively in the legal system? ow are the processes in contract law applied effectively in civil matters? Offer and acceptance: Synoptic application practice. unilateral and bilateral contracts offers Exam Practice invitations to treat lapse of offers belonging to another. Theft – mens rea: acceptance postal rule. intention permanently to deprive Theory of contract law – offer and acceptance: offers, unilateral offers and invitations to treat actus reus of robberv acceptances, including the postal rule. Mens rea of robbery onsideration Theory in criminal law: past consideration adequacy of consideration sufficiency of consideration. principles of criminal law. Privity and intention to create legal relations: doctrine of privity definition of justice intention. achieving justice in the legal system. Implied terms: •distinction between express and implied terms •terms implied into a contract to supply goods aw and morality: definition of morality (diversity of views) enforcement of moral values by the legal system. terms implied into a contract to supply services. Exclusion clauses: fault in the criminal law fault in the civil law. common law controls statutory controls theory of contract law – freedom of contract and the need to protect the consumer aw and competing interests: theory of contract law – nature and effective ess of exclusi nature of different interests which may conflict •the role of the law in resolving competing interests. Misrepresentation: •definition fraudulent, negligent and innocent ow are the processes in tort law applied effectively in civil matters? rescission and damages. Theory of tort law: Economic duress: public policy factors governing the imposition of a economic duress (definition and remedies) theory of contract law – consideration, privity and economic duress Negligence – injury and damage to property: Discharge of a contract: breach of duty – the objective standard of care performance theory of tort law – factors governing the objective standard of care. •breach conditions, warranties and innominate terms. Negligence – psychiatric injury elability for psychiatric injury sustained by primary and secondary victims theory of tort law – policy factors governing the imposition of liability for psychiatric rustration definition remedies for frustration Negligence – economic loss: emedies elability for economic loss caused by negligent acts and negligent misstatements theory of tort law – policy factors governing the imposition of liability for economic loss. Damages specific performance. Occupiers' Liability Act 1957 – liability in respect of visitors. Occupiers' Liability Act 1984 – liability in respect of thespassers •factors governing an unlawful interference. Theory of contract law: •nature and effectiveness of contract remedies nature and effectiveness of consumer remedies. defences to an action for nuisance remedies of damages and injunctions theory of tort law – factors governing the grant of an injunction. Topics: ontract law Breach of duty he rule in Rylands v Fletcher Damage elements required to establish liability defences and remedies available Revision of all topics

synoptic application practice.

am Practice

Vicarious liability • an employer's liability for the actions of an employee during the course of employment • other areas of vicarious liability theory of tort law – nature and purpose of vicarious liability

Criminal Law practice questions

Topics: Civil and Criminal law Actus reus viens rea Duty of care each of duty



<u>Curriculum Aims:</u>

 Students will be able to use connection finding to interlink the topics they have covered throughout their course.
 Students will be able to critically analyse research conducted in Psychology.



AUTUMN

ISSUES AND DEBATES Paper 3

To what extent do the findings from psychological studies have ethical implications? Are the theories gender or culture biased? Is human behaviour the product of genetic inheritance or the environment? Are our thoughts and behaviour freely chosen or determined by factors that we cannot control?

Resit Paper 1 mock Review research methods Review Paper 2 topics- Biospsych and Approaches Paper 2 mock.

Gender and Culture bias in psychology Sexism Gender bias Culture bias Freewill and determinism Nature Nurture debate

Holism and reductionism Idiographic and nomothetic approaches Ethical implications of research studies and theories Application of stats test to independent research project from Term 3

Features of Science Reporting psychological investigations

Topics: Application Consolidation Evaluation

Idea Revision strategies SYNOPCICITY Focus on links to approaches, assumptions and theories from Paper 1. Application and comparison Review of revision strategies

STRESS Paper 3 What are the advantages of understanding the physiology of stress? Link to Bio psych- immunosuppression and CD link to stress? Is stress always destructive? What societal benefits can be acquired from understanding workplace stress? Psychological or physiological stress man

Physiology of stress Role of stress in illness Sources of stress-Life changes Daily hassles Workplace stress Measuring stress Individual differences Personality types Hardiness Managing and coping with stress Drug therapy Stress inoculation therapy Biofeedback Gender differences Role of social support

Questionnaires Correlations Validity and Reliability

Topics: Application Practical research activity Statistical test Consolidation Evaluation Questionnaires Revision strategies SYNOPCICITY Home study- student choice- 1 essay 1 essay plan Focus on depth and argument in essays AO3 Timed class essays Model plans for all questions GRAVEE GRENADE

SPRING

RELATIONSHIPS Paper 3

Is reproductive fitness central to evolutionary fitness? I there an issue with cross cultural relationship research? Are economic theories cynical? How has modern da virtual and computer mediated communication affected romantic relations? Are parasocial relationships a global concept?

Sexual selection and human reproductive behaviour Factors effecting attraction-Self-disclosure Physical attractiveness Filter theory Theories of romantic relationships-SET Equity theory Rusbult's investment model Virtual relationships in social media Para social Relationships Stats test review- tests for difference, parametric tests, association and correlation

Topics: Flipped research activity Idea Applications Practical's

Research methods Consolidation Evaluation SYNOPCICITY Home study- student choice- 1 essay 1 essay plan Focus on depth and argument in essays AO3 Timed class essays Model olans for all questions

ORENSIC Paper 3

How does historic and cultural issues affect the definition of crime? Classification versus Geographical profiling? The peak of scientific racism- Eugenics? Discuss. Does biological determinism and reductionism have ethical issues? Does criminality have a cognitive basis? Should custodial sentencing a correct measure if the offender has mental health issues?

Defining and measuring crime Offender profiling Top down ottom up Biological explanations-Atavistic form enetic and neural sychological explanations-Eysenck's theory Cognitive explanations Differential association sychodynamic explanations Dealing with offender behaviour-Custodial sentencing Behaviour modification Anger management Restorative justice Case studies ontent analysis opics: Application Practical research activities Evaluation Think/Pair/Share Serial Killer presentation

Think/Pair/Share Serial Killer presentation Role play Research methods SYNOPCICITY Written timed essay practice Depth of PEEL AO3 Gravee and Grenade Focus on depth and argument in essays AO3 Timed class essays Model plans for all questions Revision and past paper exam practice of Paper3/2/1

SUMMER

A LEVEL EXAMINATION PREPARATION

Seneca Microsoft teams forms Timed essay questions Timed practice questions using Exampro Paper 3 mock Review Paper Paper 2 mock Review Paper Paper 1 Mock Review Paper 1

PAPER 1 MOCK Revision strategies Student Paper1 revision Past topic paper analysis Past paper practice timed conditions + Mark schemes Social Influence Memory Attachment Psychopathology Research methods Y1 AQA past papers and mark schemes Exampro timed and department designed exam questions SENECA revision groups



Curriculum Aims:

In Year 13, students are expected to use their critical and logical thinking to analyse and evaluate sociological theories in relation to crime and society.



AUTUMN

How do sociologists explain Crime and Deviance in society?

Knowledge and Understanding of Crime and Deviance: *Defining C&D *Functionalist theories of crime *Labelling theory of crime

- *Marxist theory of crime
- *Left and Right Realist theories of crime.
- *Analysing crime statistics and Victims

Knowledge and Understanding of Crime and Deviance:

*Crime and Ethnicity *Crime and Social Class *Crime and Gender *Recent Issues in C&D *The Media *Globalisation, Green crime and state crime *Control, Prevention and Punishment.

Application of theories linked to contemporary British society

Analysis and Evaluation of different sociological theories, concepts, evidence and research methods.

Topics: Crime Deviance Criminology State crime Green crime Crime prevention

SPRING

How do sociologists explain inequality that exists within society?

Knowledge and Understanding of stratification and inequality:

Pupils to explore: *Stratification by class, gender, ethnicity *Inequality by class, status and power. *Life chances. *Social mobility.

Application of theories linked to contemporary British society

Analysis and Evaluation of different sociological theories, concepts, evidence and research methods.

Topics: Status Power Inequality Life chances Social mobility

SUMMER

Review of Family and Education topics from Year 12

Review and check knowledge and understanding of Year 12 Topics: Pupils will review selective sub-topics within Family and

Application of theories linked to contemporary British society Analysis and Evaluation of different sociological theories, concepts, evidence and research methods.

Topics: Norms Values Socialisation Consensus Perspectives

Education.