KING EDWARD VI
HANDSWORTH WOOD
GIRLS' ACADEMY

Educational excellence for our City

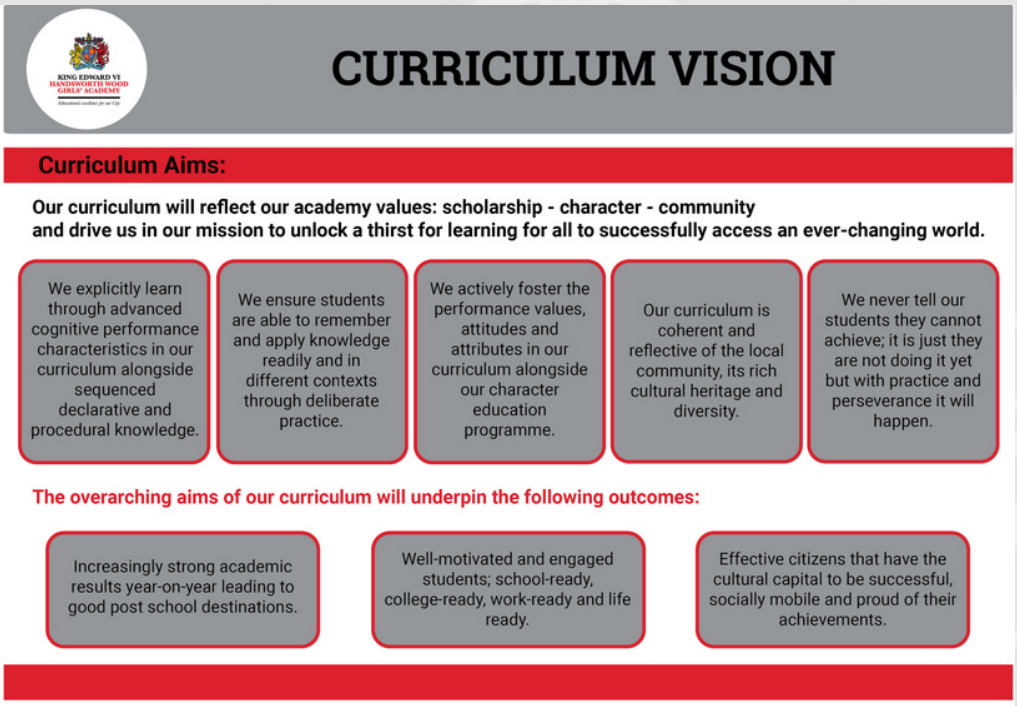
Family Guide
Year 12 Curriculum

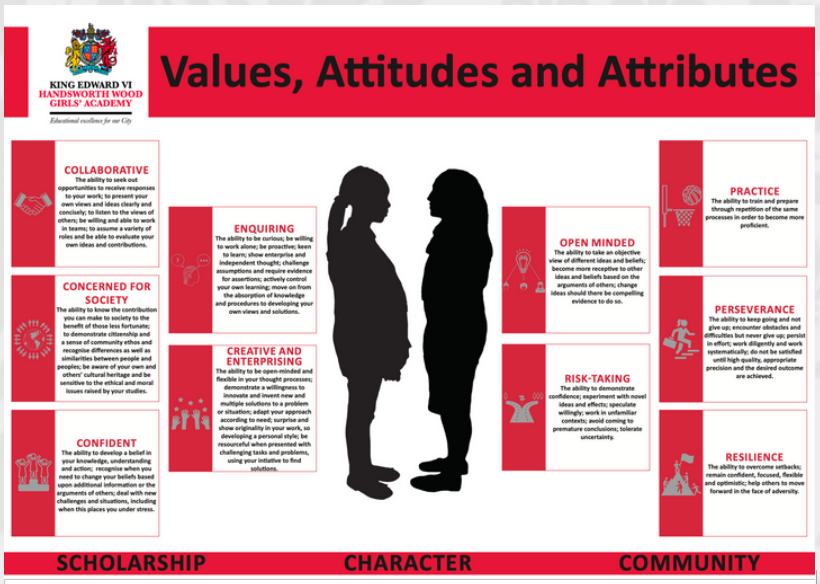
High Performance Learning
World Class School

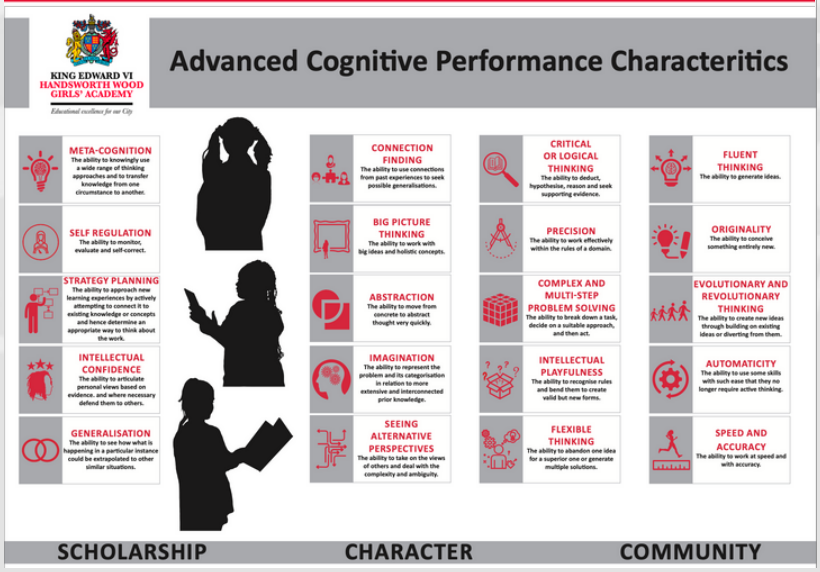
Scholarship - Character - Community

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.



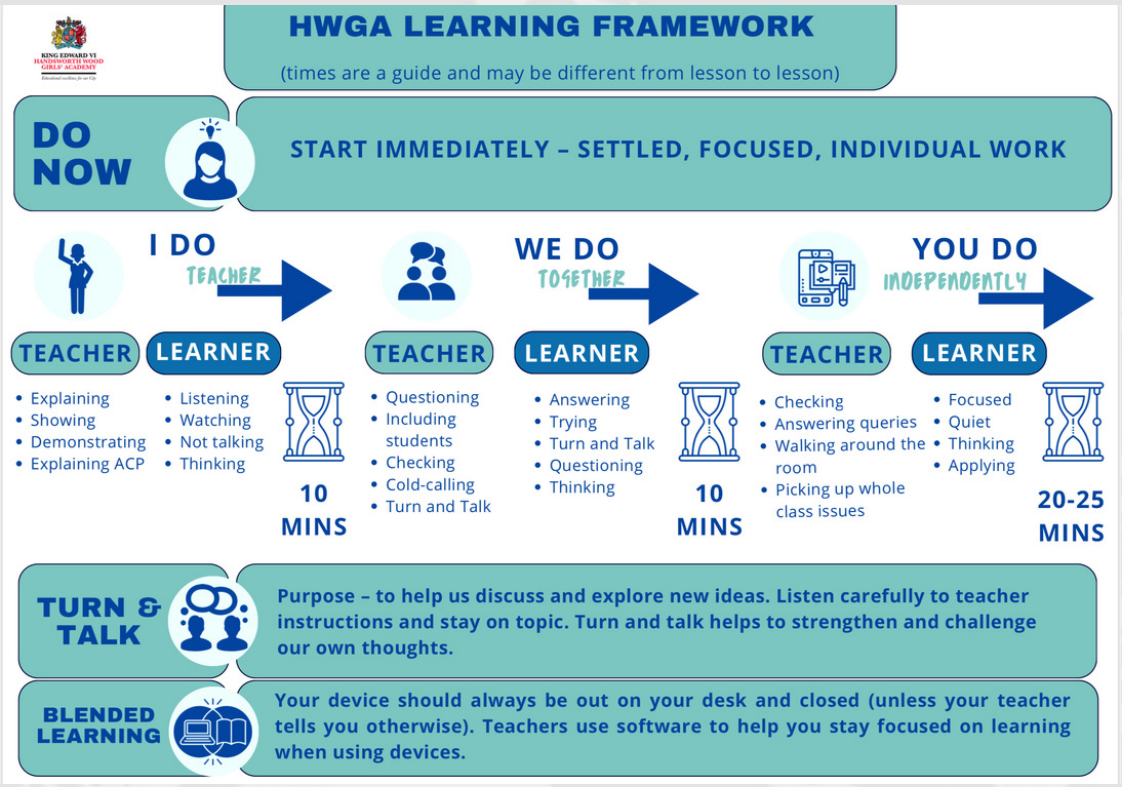




HIGH PERFORMANCE LEARNING

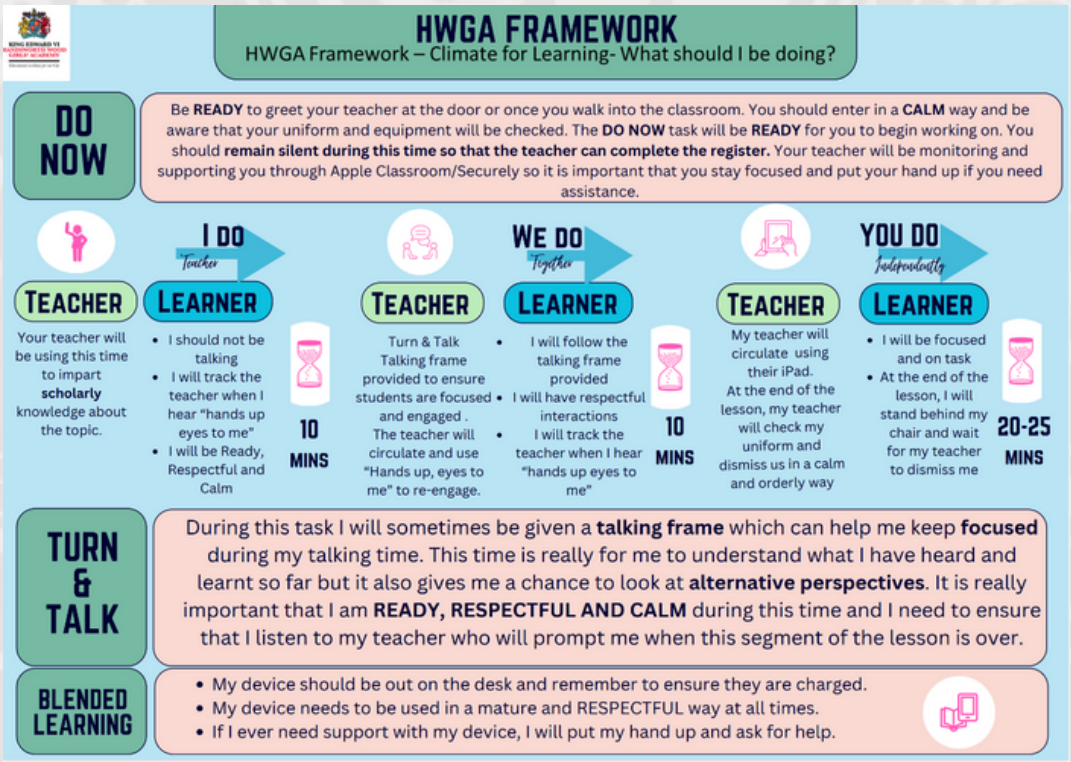
Our core aim is excellence for all which is underpinned by our vision, mission and values. We are a High Performance Learning World Class school which means that we believe in the HPL philosophy and framework. This means that we believe that all the students can be high performers, and we teach with 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.

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.



Year 12 Curriculum

KING EDWARD VI
HANDSWORTH WOOD
GIRLS' ACADEMY
Educational excellence for our City

SCIENCE - A LEVEL CHEMISTRY

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 do the chemical properties of elements depend on their atomic structure and electron arrangement?

How do chemists identify unknown substances?
What are the key principles for how the mass spectrometer works?

How do chemists measure and calculate the mass of particles?
How do chemists determine the number of fundamental particles in atoms and ions using mass number, atomic number and charge?
How are quantities calculated for reactants and products in chemical reactions and how is this information used?

Topics:
Atomic structure
Development of atomic models
TOF Mass spectrometer
Electron configuration
Ionisation energies
Using balanced equations to calculate masses volumes of gases percentage yields percentage atom economies, concentrations, and volumes for reactions in solutions.
Empirical Formula.
Make up a standard solution and carry out titrations

How do the physical and chemical properties of compounds depend on the ways in which the compounds are held together by chemical bonds and by intermolecular forces? How do the theories of bonding explain how atoms or ions are held together in these structures?
How do we name Carbon compounds and how do we draw the structures of chain, position, and functional group isomers?
How are alkanes modified by the process of cracking and how are alkenes structured and what effect does this have on their commercial use?

Topics:
Types of chemical bonding, their structures, and properties.
Types of physical bonding – forces between molecules and how properties change.
Polarity.
Shapes of molecules.
Organic molecules, nomenclature, and isomerism.
Alkanes, fractional distillation, and cracking.
Free-radical mechanism
Explaining trends across the periodic table.

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?

Topics:
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

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?

Topics:
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.

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?

Topics:
Mass spectrometry
Interpreting Mass Spectra
Infrared Spectroscopy
Interpreting IR Spectra

Practical Exam questions and review of techniques, equipment, and practical skills.

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

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

SCIENCE - BTEC NATIONAL DIPLOMA

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.

AUTUMN

How do scientists explore substances by analysing and investigating them? How do they then use and interpret data to make meaningful conclusions and evaluations?

Unit 2 –Practical Scientific Procedures and techniques

Unit 3H - Science investigation skills
Electrical Circuits

Unit 1: Principles and Applications of Science 1
Introduction to Waves

Topics:
Learning aim 2A & 2B 2A – Undertake titration, make a standard solution and colorimetry to determine the concentration of solutions. Plotting calibration graphs. Use of Beer-Lambert Law.
Calibrating equipment. Balances, pH meters / probes. Using a range of glassware safely.

2B – Undertake calorimetry to study cooling curves

1C C1 Working with waves and the features and types of waves. Application of diffraction grating. Using wave equations.

3H Electrical circuits, components series and parallel. Calculating current, voltage & power. Energy usage and transfer.

What is the basis for how communication devices work to deliver and receive messages across the world and possibly universe? How are circuits used which gives rise to a range of applications?

Unit 2 –Practical Scientific Procedures and techniques

Unit 3H - Science investigation skills
Uses of electromagnetic waves in communication

Topics:
Learning aim C & D
2C- Undertake chromatographic techniques to identify components in mixtures
2D – Review personal development for scientific skills for laboratory work

3H C2 Waves in communication
Electromagnetic spectra are grouped according to the frequency. How the applications of electromagnetic waves in communications are related to frequency, including: satellite, communication, mobile phones, Bluetooth®, infrared, Wi-Fi

SPRING

How do scientists propose hypothesis and research, then carry out investigations to provide evidence for further research?

Unit 4: Principles and Applications of Science 1

Unit 4A – Health and Safety

Unit 3 - Science investigation skills
3H Waves continued.
3E Diffusion
3G Fuels
3F Plants

Topics:
3H Waves continued.

3E Diffusion
Factors that affect the rate of reaction, arrangement, and movement of molecules.

3G Fuels
Types of fuels, hazards associated with fuel, calorimetry, and calculations. Units of energy.

3F Plants
Factors that affect plant growth and distribution, sampling techniques, sampling distribution and sizes.

How do industries ensure safety is of paramount importance to employers, consumers, and the workforces as a whole?

What fundamental principles are used to understand the properties of substances?

Unit 4A – Health and Safety

Unit 3 - Science investigation skills
3D Proteins

Unit 1: Principles and Applications of Science 1. A1 Periodicity and properties of elements

Unit 1C Revisit & Review of Waves

Topics:
4A: Application of health and safety legislation in scientific organisations. Awareness of the types of hazards.

3D Proteins
Protein structure, Enzymes as catalysts, factors that affect enzyme activity.
1A A2 Production and uses of substances in relation to properties.
Electronic configuration, Ionic, covalent & metallic bonding.
Intermolecular forces.
Balancing equations and quantitative chemistry consisting of relative atomic mass, mole, reacting masses, yield, and concentration calculations.

Review & revisit 3H Waves and 1C Electrical circuits

SUMMER

How do scientists' synthesis new materials and desired products use specialist laboratory techniques?

What rules and principles of key concepts are applied to manipulate a route or pathway to enable a particular product?

Unit 4: Principles and Applications of Science 1

4C Organic Solids

4D Scientific information and data

Topics:
1B
B1 Cell Structure and function
B2 Cell specialization
B3 Tissue structure and function
Structure & function of epithelial and endothelial tissue. Muscular and nervous tissue. Role of neurotransmitters. Effect of drugs on synoptic transmission. Imbalance of chemicals in the brain.

What knowledge and understanding is required to successfully answer Required Practical Question?

How do we revise and study independently?

4B Organic Liquids

4C Organic Solids

4D Scientific Information and Data

Topics:
4B Explore manufacturing techniques and testing methods for an organic liquid such as reflux, distillation, solvent extraction.
B1 Manufacturing techniques. Comparing laboratory with industrial methods. Boiling Point measurement and IR, HPLC & GC.

4C Crystallisation & Freezing. Purity.

4D: Understand how scientific information may be stored and communicated in a workplace laboratory D1 Systems for managing laboratory information
D2 Communicating information in a scientific organisation

Year 12 Curriculum

KING EDWARD VI
HANDSWORTH WOOD
GIRLS' ACADEMY
Educational excellence for our City

SCIENCE - A LEVEL BIOLOGY

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 equips them with the knowledge and skills necessary for further study and rewarding careers

AUTUMN

Why are carbon based biological molecules important to the survival of living organisms and how does water serve a wide range of roles in living organisms despite its small and simple nature?

How is genetic material replicated and how does this impact on characteristics of individuals including the inheritance of genetic disorders through mutations?

What is the role of ATP in various processes in the body and how is this molecule made available to cells?

Topic 1: Biological molecules – (biochemistry) covering key biological molecules found in living things and this provides indirect evidence for evolution. Carbohydrates used by cells as respiratory substrates and as structural components in plasma membranes and cell walls. Lipids uses, including the bilayer of plasma membranes, certain hormones, and as respiratory substrates.

Topic 2: Cells – studying the basic features in common and the differences between cells which are due to the addition of extra features. This also 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.

Topics: Using graticules to calculate sizes of organelles, transposing equation to calculate image size, magnification, and actual size of organelles, calculating mitotic index.

Why are biological molecules important in the transport of substances across cell surface membranes?

How are cell surface membranes adapted to enable efficient transport of essential molecules? How does the selectivity of the cell surface membrane contribute to the transport of molecules into and out of cells?

How does the body defend itself from pathogens? How do different types of white blood cells recognize and bring about responses that are specific and appropriate? How do vaccination programmes help eradicate disease?

Topic 1: Biological molecules – Proteins form many cell structures. They are also important as enzymes, chemical messengers, and components of the blood. Nucleic acids carry the genetic code to produce 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.

Topic 2: Cells – The basic structure of these plasma membranes is the same and enables control of the passage of substances across exchange surfaces by passive or active transport. Cell-surface membranes contain embedded proteins. Some of these are involved in cell signalling – communication between cells. Others act as antigens, allowing recognition of 'self' and 'foreign' cells by the immune system. Interactions between different types of cells are involved in disease, recovery from disease and prevention of symptoms occurring at a later date if exposed to the same antigen, or antigen-bearing pathogen.

Topics: Structure and function of cell surface membrane, different modes of transport, defence mechanisms, cell mediated and humoral Reponses, vaccination, and HIV. RP skills, maths skills, evaluating data, drawing calibration curves, increase/decrease in percentage mass calculations.

Practical skills, evaluating data on enzymes and calculating molarity and rates of reaction. Drawing tangents and applying structure of biological structures to their functions

SPRING

How are living organisms such as mammals, fish, insects and plants specialised in order to efficiently exchange substances with their environment?

How is the digestive system organised in order to carry out absorption efficiently?

Topic 3: Organisms exchange substances with the environment – covering the exchange of substances between the internal and external environments takes place at exchange surfaces, 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

Topic 4: Genetic information, variation, and relationships between organisms - A gene is a section of DNA located at a particular site on a DNA molecule. The base sequence of each gene carries the coded genetic information that determines the sequence of amino acids during protein synthesis. The genetic code used is universal, providing evidence for evolution. Genetic diversity within a species can be caused by gene mutation, chromosome mutation or random factors associated with meiosis and fertilisation. This genetic diversity is acted upon by natural selection, resulting in species becoming better adapted to their environment. Variation within a species can be measured using differences in the base sequence of DNA or in the amino acid sequence of proteins.

Topics: Structure and function of gas exchange surfaces. Explore the different parts of the digestive system, its adaptations and function in absorption of nutrients, opportunity to link to GCSE. Calculate rates of absorption, ventilation rates and ways to reduce the loss of water from gas exchange surfaces. Mechanism of ventilation and contrasting of breathing mechanisms in various organisms.

What is the role of mass transport in exchange and transport of substances such oxygen in blood and tissue fluid through the lymphatic system? How does the nervous system determine the functioning of the cardiac cycle?

Why do larger organisms need specialised transport systems and how are these systems adapted to perform effectively?

How does sexual reproduction lead to variation and what are the benefits of this?

How is this genetic material Tran scripted and translated in order to create the correct proteins in living organisms?
Evidence for a universal genetic code?

Topic 3: Organisms exchange substances with the environment –
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.

Topic 4: Genetic information, variation, and relationships between organisms
learning what biodiversity is – in the number of species of organisms, in the variation of individual characteristics within a single species and in the variation of cell types within a single multicellular organism. Differences between species reflect genetic differences.

Topics: Dissection of various organs, label various organs, learn their structural adaptations, sequence of cardiac cycle, creation of lymph and transport of glucose and water in plants. Genes and the triplet code, comparing different types of RNA.

SUMMER

Why do mistakes such as mutations cause distinct differences in individuals?

How does meiosis ensure that variation occurs in a population?
How does genetic diversity enable natural selection and survival of species?

What is the impact of natural selection on the development of antibiotic resistant superbugs and how could we reduce the creation of these?
How does selection ensure survival of a species?
Topic 3: Organisms exchange substances with the environment –
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.

Topic 4: Genetic information, variation, and relationships between organisms - Differences between individuals within a species could be the result of genetic factors, of environmental factors, or a combination of both. Biodiversity within a community can be measured using species richness and an index of diversity.

Statistics

How do organisms maintain their energy requirements?
How can we investigate energy transfer in organisms?
How do plants obtain the necessary nutrients in spite of hostile conditions?

Synoptic essay practice

Revision Topics 1-4

Y12 Finals

Topic 5: Energy transfers in and between organisms – learning how energy is transferred in bioenergetics reactions. In photosynthesis, light is absorbed by chlorophyll, and this is linked to the production of ATP.

Topics: Calculating percentage efficiency of energy transfer, interpreting data tables and graphs, cycles of nitrogen and phosphorous. Impact of nitrogen-based fertilisers and eutrophication.

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

SCIENCE - BTEC EXTENDED CERTIFICATE

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

AUTUMN

How do scientists explore substances by analysing and investigating them? How do they then use and interpret data to make meaningful conclusions and evaluations?

How do scientists analyse, evaluate and interpret data to make conclusions about their findings?
Unit 2 –Practical Scientific Procedures and techniques
Unit 3H - Science investigation skills
Electrical Circuits
Unit 1: Principles and Applications of Science 1
Introduction to Waves
Unit7A Contemporary Science Issues
Unit 7B Interpret, Analyse & Evaluate

Topics:
Learning aim 2A & 2B 2A – Undertake titration, make a standard solution and colorimetry to determine the concentration of solutions. Plotting calibration graphs. Use of Beer-Lambert Law.
Calibrating equipment. Balances, pH meters / probes. Using a range of glassware safely.

2B – Undertake calorimetry to study cooling curves

1C C1 Working with waves and the features and types of waves. Application of diffraction grating. Using wave equations.

3H Electrical circuits, components series and parallel. Calculating current, voltage & power. Energy usage and transfer.

7A Bias, policy issues, laws, drawbacks, benefits, risks, misuses, problems to solve and any solutions.

7B Using findings and drawing conclusions from the use of information and data and any variations of interpretation and analysis of data

What is the basis for how communication devices work to deliver and receive messages across the world and possibly universe? How are circuits used which gives rise to a range of applications?

How is research and investigative work reported? How do we collect and present data?
Unit 2 –Practical Scientific Procedures and techniques
Unit 3H - Science investigation skills
Uses of electromagnetic waves in communication
Unit7A Contemporary Science Issues
Unit 7B Interpret, Analyse & Evaluate
Unit 7C Science Reporting

Topics:
Learning aim C & D
2C- Undertake chromatographic techniques to identify components in mixtures
2D – Review personal development for scientific skills for laboratory work
3H C2 Waves in communication

Electromagnetic spectra are grouped according to the frequency. How the applications of electromagnetic waves in communications are related to frequency, including: satellite, communication, mobile phones, Bluetooth®, infrared, Wi-Fi

7ABC Research, discuss and present a contemporary issue in science. Examine findings and draw conclusions, for example about any drawbacks, benefits, risks, misuses, problems to solve and any solutions. Impact of any ethical, social, economic and environmental aspects. Collecting qualitative and quantitative data from more than one source; to include any visual data such as tables, charts, graphs, calculations, or statements using data. Using different sources of information and data about its sample size, authenticity, use and misuse, validity, reliability and accuracy.

SPRING

How do scientists propose hypothesis and research, then carry out investigations to provide evidence for further research?

What are the contemporary issues in society today and how do we target a audience? How do we draw conclusions?
Unit 4: Principles and Applications of Science 1
Unit 4A – Health and Safety
Unit 3 - Science investigation skills
3H Waves continued.
3E Diffusion
3G Fuels
3F Plants
Unit 7A Interpret, Analyse & Evaluate
Unit 7B Interpret, Analyse & Evaluate
Unit 7C Contemporary Science Issues

Topics:
3H Waves continued.

3E Diffusion
Factors that affect the rate of reaction, arrangement and movement of molecules.

3G Fuels
Types of fuels, hazards associated with fuel, calorimetry, and calculations. Units of energy.

3F Plants
Factors that affect plant growth and distribution, sampling techniques, sampling distribution and sizes.

7ABC How science and technology contemporary issues are reported and the relationship with the reporting medium, the target audience, the level and technicality of the language used, use of terminology, their accuracy, types of referencing, any bias, use of visuals, use of individuals and organisations. Using the above variables ask learners to carry out an investigation into contemporary issue from different sources.

How do industries ensure safety is of paramount importance to employers, consumers, and the workforces as a whole?

What fundamental principles are used to understand the properties of substances?

What is the interrelationship and nervous control of the cardiovascular and respiratory systems?
Unit 4A – Health and Safety
Unit 3 - Science investigation skills, 3D Proteins
Unit 1: Principles and Applications of Science 1. A1 Periodicity and properties of elements
Unit 1C Revisit & Review of Waves
Unit 7C Science Reporting
Unit 9A Human Regulation

Topics:
4A: Application of health and safety legislation in scientific organisations. Awareness of the types of hazards.

3D Proteins
Protein structure, Enzymes as catalysts, factors that affect enzyme activity.
1A A2 Production and uses of substances in relation to properties.
Electronic configuration, Ionic, covalent & metallic bonding. Intermolecular forces.
Balancing equations and quantitative chemistry consisting of relative atomic mass, mole, reacting masses, yield, and concentration calculations.

Review & revisit 3H Waves and 1C Electrical circuits

7C Present findings about different reporting mediums

9A Understand the interrelationship and nervous control of the cardiovascular and respiratory systems A1 Nervous system organisationA2 Cardiovascular and respiratory system regulation and control

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 importance A3 Protein structure and importance A4 Lipid structure and importance A5 Disruption in living organisms

SUMMER

How do scientists' synthesis new materials and desired products use specialist laboratory techniques?
What rules and principles of key concepts are applied to manipulate a route or pathway to enable a particular product?

How are the structures of biological molecules related to their functions?
What is the process of respiration?
How are homeostatic mechanisms used by the human body?
Unit 4 : Principles and Applications of Science 1
4C Organic Solids
4D Scientific information and data
Unit 10A Biological Molecules
Unit 10B Respiration
Unit 9B Human Regulation

Topics:
1B
B1 Cell Structure and function
B2 Cell specialization
B3 Tissue structure and function
Structure & function of epithelial and endothelial tissue. Muscular and nervous tissue. Role of neurotransmitters. Effect of drugs on synoptic transmission. Imbalance of chemicals in the brain.

9B Understand homeostatic mechanisms used by the human body B1 Feedback and control B2 Glands and organsB3 Homeostatic mechanismsB4 Impact of an imbalance

10B Explore the effect of activity on respiration in humans and factors that can affect respiratory pathways B1 Stages involved in respiratory pathway B2 Effect of activity on respiration B3 Factors that can affect respiration

10C Explore the factors that can affect the pathways and the rate of photosynthesis in plants C1 Pathways in photosynthesis C2 Factors that can affect pathways in photosynthesis

What knowledge and understanding is required to successfully answer Required Practical Question?

How do we revise and study independently?

What are the biochemical reactions in photosynthesis?

What is the role of hormones in the regulation and control of the reproductive system?
4B Organic Liquids
4C Organic Solids
4D Scientific Information and Data
Unit 10C Photosynthesis
Unit 9C Reproduction

EXAMS

Topics:
4B Explore manufacturing techniques and testing methods for an organic liquid such as reflux, distillation, solvent extraction.
B1 Manufacturing techniques. Comparing laboratory with industrial methods. Boiling Point measurement and IR, HPLC & GC.

4C Crystallisation & Freezing. Purity.

4D: Understand how scientific information may be stored and communicated in a workplace laboratory D1 Systems for managing laboratory information D2 Communicating information in a scientific organisation

9C Understand the role of hormones in the regulation and control of the reproductive system C1 Structure and function of reproductive anatomy C2 Reproductive processes.
10C Explore the factors that can affect the pathways and the rate of photosynthesis in plants C1 Pathways in photosynthesis C2 Factors that can affect pathways in photosynthesis.

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY

Educational excellence for our City

RELIGIOUS EDUCATION

Curriculum Aims:

THE CORE PURPOSE OF RELIGIOUS STUDIES AT KEVI HWGA:

- ENCOURAGES PHILOSOPHICAL THOUGHT, DECISION-MAKING SKILLS, COLLABORATION AND INDEPENDENT WORKING SKILLS AND THE SEARCH FOR COMPROMISE AND CONFLICT RESOLUTIONS THAT WORK.
- MAKES A KEY AND UNIQUE CONTRIBUTION 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 AND OTHERS' RIGHTS AND RESPONSIBILITIES.
- PLAYS A KEY ROLE IN CREATING SOCIAL COHESION AND GENERATING GENUINE UNDERSTANDING BETWEEN COMMUNITIES REDUCING FRICTION, INTOLERANCE AND SOCIAL UNREST.

AUTUMN	SPRING	SUMMER
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:** Arguments for the existence of God Sources of wisdom and authority Evil and suffering 2 The bible /church /Jesus	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 experience God Ethical theories Self, death and the afterlife	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:** Issues of human life and death Self, death and the afterlife Issues of animal life and death Expression of religious identity

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

ENGLISH

Curriculum Aims:
A Level English centres around reading seminal texts in different ways and considering the connections between texts across time. 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.

AUTUMN	SPRING	SUMMER
Bridging the gap: Literary eras **Love Through the Ages: Othello** **Bridging the gap: Critical theory** **Love Through the Ages: The Great Gatsby & pre-1900 poetry** Allusion and how it deepens understanding of characterisation, intertextuality, tragic aspects, irony, staging (proxemics), paralinguistics, form, themes, motifs, social, historical and cultural context, setting. **Topics:** Narrative perspective and structure, symbolism, allegory, non-linear plot and plot devices, intertextuality, characterisation, themes (aspects of love), motifs.	**Paper 1 exam technique** **Pre-1900 poetry** Allusion and how it deepens understanding of characterisation, intertextuality, tragic aspects, irony, staging (proxemics), paralinguistics, form, themes, motifs, social, historical and cultural context, setting. **Topics:** Symbolism, irony, satire, allegory, motif, poetic structure, thematic interpretation (aspects of love). **Introduction to Modern Times (1945-present day): Top Girls** **Introduction to NEA** Foreshadowing, allusions, irony, satire, allusion, allegory, plot, personal narratives, dramatic voice, intertextuality, narrative structure, thematic analysis, contemporary drama. **Topics:** Dependent on student text choice, likely to include: allusion, symbolism, motif, trope, literary style, narrative structure, thematic interpretation, relevant social, cultural and historical context.	**Modern Times: Feminine Gospels** **NEA** **Paper 2 exam practice: Top Girls & Feminine Gospels** **Paper 2 exam practice: unseen extracts** Poetic voice, intertextuality, poetic voice and structure, themes (gender, identity, marginality), aspects of contemporary poetry, patriarchal dynamics, feminism and sexuality. **Topics:** Dependent on student text choice, likely to include: allusion, symbolism, motif, trope, literary style, narrative structure, thematic interpretation, relevant social, cultural and historical context. Foreshadowing, allusions, irony, satire, allusion, allegory, plot, personal narratives, dramatic voice, intertextuality, narrative structure, thematic analysis, contemporary drama

Year 12 Curriculum

ART

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY

Educational excellence for our City

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
Fine art Specialism Students should produce practical and critical/contextual work in one or more areas of study, for example, drawing, painting, mixed-media, sculpture, ceramics, installation, printmaking, moving image (video, film, animation) and photography. **Project 1: 6-8 weeks** Introduction of basic skills, the formal elements and introducing the specification requirements which includes presentation of work and making connections with the work of others **AO1:**Develop ideas through sustained and focused investigations informed by contextual and other sources, demonstrating analytical and critical understanding. **AO3**:Record ideas, observations and insights relevant to intentions, reflecting critically on work and progress.	**Fine art Specialism** **Project 2: 14-16 weeks** **Mini Project** Students to develop a personal project that covers the requirements of Component 1 on a small scale. Which will cover all of the assessment objectives **AO1:**Develop ideas through sustained and focused investigations informed by contextual and other sources, demonstrating analytical and critical understanding. **AO2**: Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops. **AO3:**Record ideas, observations and insights relevant to intentions, reflecting critically on work and progress. **AO4:** Present a personal and meaningful response that realises intentions and, where appropriate, makes connections between visual and other elements.	**Fine Art Specialism** **Project 3: 16-24 weeks** **Sustained Project** **Component 1** Students to develop a sustained and focussed investigation in response to an issue, theme or area identified and chosen by the student A practical body of work - supported by written material - word count 1000 to 3000. Students can present work physically or digitally in sketchbooks, on boards, as models or a combination of all three approaches. **AO1:**Develop ideas through sustained and focused investigations informed by contextual and other sources, demonstrating analytical and critical understanding. **AO2**: Explore and select appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops. **AO3**:Record ideas, observations and insights relevant to intentions, reflecting critically on work and progress. **AO4**: Present a personal and meaningful response that realises intentions and, where appropriate, makes connections between visual and other elements.

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

BUSINESS STUDIES

Curriculum Aims:

The aim of year 12 is for students to be introduced to the market, explore the marketing and people functions and investigate entrepreneurs and business start up. In addition in Theme 4 students develop their understanding of the concepts introduced in Theme 1 and explore business activity in a global context.

Your paragraph text

AUTUMN	SPRING	SUMMER
Meeting customer needs: Mass markets vs niche markets and Dynamic markets. Product vs market orientation. Methods of market research. Uses and limitations of these methods. Market segmentation from market research results. **The market:** Introduction to the supply curve. Discuss movement along and of the supply curve, and factors influencing this. Combine work in demand and supply to illustrate price determination in a market. Calculation of PED & YED Interpretation of PED & YED and its importance to businesses **Marketing mix and strategy:** Design mix and how this might change. Types of branding Building a brand and changes in branding Generic versus branded products. Types of promotion. Types of pricing strategies and distribution methods. The product life cycle and extension strategies Boston Matrix Consumer behaviour How the marketing mix changes in response **Managing people:** Types of organisational structures, recruitment and selection. Importance of motivation Motivation theories Financial and non-financial incentives Links between leadership and motivation **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.	**Entrepreneurs and leaders:** Characteristics, skills and motivations of becoming a Entrepreneur. Outline and examples of Business objectives. Legal organisation and features. Opportunity costs, choices and trade offs. **Globalisation:** Measurements of different economies and economic performance. Specialisation of economies and business. Business growth via trade. Protectionism and Trading Blocs. **Global markets and business expansion:** Push and pull trade factors for businesses. How this is achieved and can be enhanced through working with other businesses. **Global marketing:** Marketing on a global scale. Influences on marketing strategy and Features of Niche markets and how these interact with cultural and social issues. **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.	**Global industries and companies** Ethical discussions raised by the activities of MNCs Revision and AS level exam preparation Revision and exam practice for AS level examinations and/or mock examinations for Theme 1 and Theme 2. **Raising finance** Internal and external sources of finance. Concept of limited liability. Business planning. Use and limitations of cash flow forecasts. **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.

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

MATHS

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.

AUTUMN

How does quadratic equations relate to formulating the speed of an object?

Students will learn about Algebraic expressions, Quadratics Equations & inequalities (Pure: Chapter 1,2,3)

How do particle physicists use graphs to determine the nature of subatomic particles?

Students will learn about graphs & transformations, straight line graphs (Pure Chapter 4 and 5)

How can we ensure we avoid bias with our sampling methods?

Students will learn about Data collection, (Applied: chapter 1)

How can surveyors use Trigonometry when planning building projects?

Students will build upon GCSE Trigonometry and about Trigonometric Ratios (Pure chapters 9, 10)

Topics:
Multiply and divide integer powers, expand a single term over brackets, expanding triple brackets, factorise linear quadratics and cubic expressions, use laws of indices, simplify and rationalise surds, sketch graphs, use intersection points of graphs to solve equations, translate graphs, stretch graphs, Expand a single term over brackets, expanding triple brackets. Midpoint of a line segment, equation of the perpendicular bisector of a line segment, equation of a circle, circle properties

How did the government use Statistics to address the nation during COVID-19?

Students will learn about measures of location and spread and representations of data (Applied Chapters 2,3)

What are the utilities of Pascal's Triangle?

Students will learn about Binomial Expansion (Pure Chapter 8)

What are the foundations of mathematical modelling?

Students will learn about modelling in mechanics and kinematics (Applied Chapters 8,9)

How are geostationary satellites used to learn about the Earth's surface and atmosphere?

Students will learn about algebraic methods (Pure Chapter 7)

Topics:
Use Pascals triangle to identify binomial coefficients and use them to expand simple binomial expressions, Use combinations and factorial notation, make approximations using the binomial expansion. Acceleration, velocity and distance travelled.

SPRING

What forces are involved when a car air-bag is inflated?

Students will learn about Newton's Laws of Motion and Vectors (Applied Chapters 10, 11)

How do sports teams plan strategies for future games?

Students will learn about Correlation and Probability (Applied Chapters 4,5)

How can we calculate a rate of change?

Students will be introduced to the concept of Differentiation? (Pure Chapter 12)

Topics:
Find Derivatives, identify increasing and decreasing functions, sketch the gradient function. Forces, Newtons First Law. Venn Diagram, Independent, Mutually Exclusive.

How can ascertain whether your results from an experiment were obtained by chance?

Students will learn about Statistical Distributions and Hypothesis Testing (Applied Chapter 6 and 7)

How do you prove that the sum of two consecutive prime numbers is always even?

Students will learn about constructing mathematical arguments (Pure Chapter 7)

How can we accurately calculate the area under a curved graph?

Students will be introduced to the concept of Integration (Pure Chapter 13)

Topics:
Find indefinite and definite integrals. Proof by deduction, exhaustion, counterexample. 1 tail, 2 tail, critical value, acceptance region.

SUMMER

What base of logarithms are used to express the size of seismic activity?

Students will learn about exponentials and logarithms (Pure Chapter 14)

When does a space rocket experience variable acceleration?

Students will learn about variable acceleration (Applied Chapter 11)

Topics:
Use laws of logs to solve problems. Use calculus for kinematics for motion in a straight line.

Revision applied & pure continued + EOY exams

Start Year 13 content Pure only

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

BTEC LEVEL 3 IT

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 1 – Information Technology Systems Explore the relationships between the hardware and software that form an IT system, and the way that systems work individually and together, as well as the relationship between the user and the system. Examine issues related to the use of IT systems and the impact that they have on organisations and individuals. In this unit you will draw on your learning from across your programme to complete assessment tasks. **Unit 2 – Creating Systems to Manage Information** Examine the structure of data and its origins, and how an efficient data design follows through to an effective and useful database. 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 of your database solution. **Topics:** Communication and coordination Hardware and Software Digital Literacy	**Unit 6 – Website Development** Review existing websites – commenting on their overall design and 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. **Topics:** Algorithms Problem Solving Communication and coordination Digital Literacy	**Unit 3 – Using Social Media in Business** Explore the impact of social media on the ways in which businesses promote their products and services. Develop a plan to use social media in a business to meet requirements. Implement the use of social media in a business. **Topics:** Hardware and Software Communication and coordination Digital Literacy

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

CRIMINOLOGY

Curriculum Aims:

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

AUTUMN

Unit 1

How does crime reporting affect the public perception of criminality?
How are campaigns used to elicit change?

Understand how crime reporting affects the public perception of criminality.
Pupils will explore:
1. Types of victims and offenders, level of public awareness and whether these crimes are criminal or deviant.
2. Personal, social and cultural reasons as to why crime is not reported.
3. The consequences of unreported crime.
4. Media platforms such as newspaper, TV,film, electronic gaming, social media and music.
5. Impact of media representations such as moral panic, changing public concerns, perceptions of crime trends, stereotyping of criminals.
6. Reliability, validity, ethics, strengths and lmitations, purpose of research.

Understand how campaigns are used to elicit change
Pupils will explore:
1. Change in policy, change in law, change in priorities o agencies, change in funding, change in awareness, change in attitude.
2. Media such as blogs, viral messaging, social networking, advertising, radio, TV, film, documentary, word of mouth, events, print.

How does crime reporting affect the public perception of criminality?
How are campaigns used to elicit change?
How would you plan a campaign for change?

Plan campaigns for change relating to crime.
Pupils will explore:
1. Aims and objectives, justification of choice of campaign, target audience, methods to be used, materials to be used, finances, timescales, resources needed.
2. Structure of information, use of images or other accentuating features to capture attention, use of persuasive language, promotion of action, consideration of target audience.
3. Presentation of a case of action,
4. Use of evidence in support of a case, use of persuasive language.

Topics:
Criminal
Deviance
Genocide
Atrocity
Crown Prosecution Service
Dark figure of crime
Cyber – bullying
Perpetrators
Stigma

SPRING

Unit 2

Is crime considered to be a social construct?
How can crime be linked to biology?
Is crime the responsibility of the individual?
What are the sociological theories of crime?

Understand social constructions of criminality.
Pupils will explore:
1. Social and legal definition, formal sanctions against criminals, variety of criminal acts.
2. How laws change from culture to culture, how laws change over time, how laws are applied differently according to circumstances in which actions occur, why laws are different according to place, time and culture.

Know theories of criminality.
Pupils will explore:
1. Learning theories, psychodynamic, psychological theories.
2. Social structure, interactionism, realism.
3. Genetic theories, physiological theories

How is crime caused within a society?
Why does social policy about crime need to be reviewed regularly?

Understand causes of criminality
Pupils will explore:
1. Different types of crime, individual criminal behaviour.
2. Individualistic, biological, sociological.

Topics:
Monozygotic
Dizygotic
Concordance
Somatotype
Obervational learning
Differential associations
Juvenile deliquent
Extraversion
Introversion

SUMMER

Unit 2

How is crime caused within a society?
Why does social policy about crime need to be reviewed regularly?

Understand causes of criminality.
Pupils will explore:
1. Different types of crime, individual criminal behaviour.
2. Individualistic, biological, sociological.

Understand causes of policy change.
Pupils will explore:
1. Inform policy making, formal policy making, crime control policies, state punishment policies.
2. Social values and norms, public perception of crime, structure of society, cultural changes.
3. Newspaper campaigns, individual campaigns, pressure group campaigns.

Topics:
Monozygotic
Dizygotic
Concordance
Somatotype
Observational learning
Differential associations
Juvenile delinquent
Extraversion
Introversion

Unit 3 prep

Criminology project
Crime scene investigation

Students will use all the learning from both units and come up with a project that is investigating one of the topic areas that has been covered in either unit 1 or 2.

Pupils will explore:
1. Crime reporting
2. One of the criminological theories and apply it to a real life example.
3. Social policy
4. How is crime caused within society?

Students will be expected to plan their project and them present it to the class or in smaller groups and write a report at the end answering their research question.

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

ECONOMICS

Curriculum Aims:
To develop an enquiring and analytical approach to study economics in order to enthuse learners to think like an economist.

AUTUMN

Economic Methodology and the Economic Problem
- Building economic models
- The economic problem
- Factors of production
- Scarcity and allocation of resources
- Production possibility diagrams

Individual Economic Decision Making
- Economic agents
- Economic statements
- Utility theory
- Behavioural economics

How the Macroeconomy Works
- Economic cycle
- Circular flow of income
- Determinants of Aggregate Demand (AD)
- Determinants of short-run and long-run Aggregate Supply (AS)
- AD and AS analysis.

Price Determination in a Competitive Market
- Law of Supply and Demand
- Diagrams for supply and demand
- Market equilibrium prices
- Supply and demand elasticities

Product, Costs and Revenue - 1
- Difference between production and productivity
- Specialisation and division of labour
- Law of diminishing returns
- Production costs
- Economies of scale

SPRING

Market Failure and Government Intervention
- Price mechanism and allocation of resources
- Market failure definition and causes
- Public and private goods
- Externalities
- Competition policy
- Market structures and regulation
- Government intervention and failure

Market Structures
- Perfect competition
- Imperfectly competitive markets
- Monopolistic markets
- Contestable markets
- Objectives of firms

Measures of Economic Performance
- Use of index numbers and percentage points
- Macroeconomic indicators: GDP
- Macroeconomic indicators: GNI
- Macroeconomic objectives
- Analysing economic growth trends
- Inflation and deflation
- Employment and unemployment

SUMMER

Labour Market
- Supply and demand of labour
- Marginal productivity theory
- Levels of employment and relative wage rates in different market structures
- Effect of trade unions on wages and level of employment
- The National Minimum Wage

Poverty and Inequality
- Difference between income and wealth
- Distribution of income and wealth
- Causes of poverty
- Government interventions to alleviate poverty
- Lorenz Curve and Gini Coefficient

Product, Costs and Revenue - 2
- Using the law of diminishing returns and returns to scale to to explain the relationship between input and output
- Benefits of specialisation and division of labour
- Difference between revenue and profit
- Calculating different types of revenue and profit

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

HEALTH & SOCIAL CARE - DIPLOMA (DOUBLE)

Curriculum Aims:

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

AUTUMN	SPRING	SUMMER
Unit 1 **Human Lifespan Development** **What are the main characteristics of Physical, intellectual, emotional and social development through the life stages?** Looking at human growth and development through the life stages. Factors affecting human growth and development. Looking at the effects of ageing. **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. What are the laws & policies that allow for HSC sectors to be treated fairly? **Topics:** ACP's Meta Cognition Intellectual confidence Automaticity Imagination Connection finding	Unit 1-Exam Jan 2024 Human Lifespan Development Unit 2 Exam Jan 2024 Working in Health and Social Care **Unit 5** **Meeting Individual Care and Support Needs** **What are the principles values and skills which underpin meeting the care and support needs of individuals?** **What are the ethical issues involved when providing care and support to meet individual 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 **Unit 14** **Physiological Disorders and their Care** **What are the main causes and effects of physiological disorders?** **How are physiological disorders diagnosed?** **What treatment is there for supporting service users with physiological disorders?** Looking at the causes and effects of physiological disorders Looking at the diagnosis of physiological disorders. Exam results Units 1 & 2 **Topics:** Meta Cognition Intellectual confidence Big Picture thinking Automaticity Imagination Connection finding Generalisation	**Unit 5** **Meeting Individual Care and Support Needs** **What are the principles behind enabling individuals with care and support needs to overcome challenges?** **What are the roles of professionals and how do they work together to provide care and support necessary to meet individual needs?** Looking at the roles of professionals and how they work together to provide care and support necessary to meet individual needs. Oral part of unit **Unit 14** **Physiological Disorders and their Care** **How would you construct a treatment plan for service users with physiological disorders, to meet their needs?** The treatment and support for service users with physiological disorders. Creating a treatment plan for service users with physiological disorders to meet their needs. Exam retakes units 1 & 2 **Topics:** ACP's Meta Cognition Intellectual confidence Big Picture thinking Automaticity Imagination Connection finding Generalisation Flexible thinking

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

HEALTH & SOCIAL CARE - EXTENDED CERTIFICATE (SINGLE)

Curriculum Aims:

In Health and Social Care, students will use their connection finding to look at physical, intellectual, emotional and social development across the human lifespan and the factors affecting development and the effects of ageing. They will use critical thinking to evaluate how physiological disorders affect individuals growth and development. Students will use critical logical thinking to explore physiological disorders and the development of a treatment plan.

AUTUMN

Unit 1

Human Lifespan Development

What are the main characteristics of Physical, intellectual, emotional and social development through the life stages?
How can various factors affect growth and development?
What are the Physical, psychological and societal effects of ageing?

Topics
Looking at human growth and development through the life stages.
A1- Physical development across life stages
A2- Intellectual development across life stages
A3- Emotional development across life stages
A4- Social development across life stages

Factors affecting human growth and development.
B1 The nature/nurture debate related to factors
B2 Genetic factors that affect development
B3 Environmental factors that affect development
B4 Social factors that affect development
B5 Economic factors that affect development
B6 Major life events that affect development

Looking at the effects of ageing.
C1 The physical changes of ageing
C2 The psychological changes of ageing
C3 The societal effects of an ageing population

ACP's
Meta Cognition
Intellectual confidence
Automaticity
Imagination
Connection finding

SPRING

Unit 1 - Exam Jan 2024
Human Lifespan Development

Unit 14

Physiological Disorders and their Care

What are the main causes and effects of physiological disorders?
How are physiological disorders diagnosed?

What treatment is there for supporting service users with physiological disorders?

Looking at the causes and effects of physiological disorders
A1 Types of physiological disorders and effects on body systems and functions
A2 Causes of physiological disorders
A3 Signs and symptoms of physiological disorders

Looking at the diagnosis of physiological disorders.
B1 Investigative procedures for physiological disorders
B2 Diagnostic procedures for physiological disorders

look at treatment and support for service users with physiological disorders
C1 Provision of treatment and support
C2 Types of carers and care settings

Exam results Unit 1

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

SUMMER

Unit 14

Physiological Disorders and their Care

How would you construct a treatment plan for service users with physiological disorders, to meet their needs?

The treatment and support for service users with physiological disorders.

Creating a treatment plan for service users with physiological disorders to meet their needs.

Topics
D1 Care methods and strategies
D2 Treatment planning processes

Exam retakes unit 1

ACP's:
Meta Cognition
Intellectual confidence
Big Picture thinking
Automaticity
Imagination
Connection finding
Generalisation
Flexible thinking

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

HISTORY

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

England 1485-1558: The Early Tudors:

Unit 1: The government of Henry VII and threats to his rule
- Henry VII's claim to the throne and Yorkist opposition
- Key individuals: Lovel, Stafford and Suffolk, the Pretenders, Simnel and Warbeck
- Relations with the nobility
- Yorkshire and Cornwall rebellions
- Councils, government and parliament

Unit 2: Henry VII's foreign policy
- Foreign policy aims
- Relations with burgundy, France, Scotland and Spain
- Marriage negotiations and treaties
- Trade agreements

Unit 3: Henry VIII and Wolsey
- Henry VIII's personality and role in government
- Aims and policies in foreign affairs
- Wolsey's foreign policy and administration of the government roles
- Finance, law and social reforms
- The divorce and Wolsey's fall

Democracy and dictatorship in Germany 1919-1963

Unit 1: The establishment and development of the Weimar Republic: 1919-1933
- WW1, Treaty of Versailles and Weimar constitution
- Revolts
- 1923 crisis year and Stresemann's Golden years
- Great depression
- Hitler's rise to power: political intrigue

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

SPRING

England 1485-1558: The Early Tudors:

Unit 4: The reign of Henry VIII after 1529
- Religious change and opposition
- Dissolution of the monasteries
- Pilgrimage of Grace
- Rise and fall of Thomas Cromwell
- Faction and foreign policy

Unit 5: Mid Tudor Crises: The stability of the monarchy
- Issues of Edward's age and Mary's gender
- Devise for succession in 1553 and 1558
- Faction and its impact during the rule of Somerset and Northumberland
- Paget and Gardiner

Unit 6: Mid Tudor Crises: Religious changes
- Religious and ecclesiastical policies 1547-1558
- Legislation, prayer books and Acts of Uniformity
- Unrest against changes
- Catholic restoration and persecution

Democracy and dictatorship in Germany 1919-1963

Unit 2: The establishment of Nazi Dictatorship and its domestic policies: Feb 1933-1939
- Hitler's consolidation of power
- Censorship and propaganda
- Use of terror
- German Labour Front
- Polices for women and the youth

Unit 3: The impact of war and defeat on Germany: 1939-1949
- The war economy and Total War
- The Final Solution
- Opposition and resistance
- Consequences of WW2
- Cold War, Potsdam, Division of Germany
- Berlin Blockade

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

SUMMER

England 1485-1558: The Early Tudors:

Unit 7: Mid Tudor Crises: Rebellion and unrest
- Causes and nature of rebellion and unrest
- Western and Kett rebellion
- Lady Jane Grey
- Wyatt
- Poverty, price rises and enclosure

Consolidation of Tudors unit

Democracy and dictatorship in Germany 1919-1963

Unit 4: Divided Germany: The Federal Republic and the DDR: 1949-1963
- The creation of West Germany and the DDR
- The economic miracle
- Foreign policy
- Political and social stability
- Berlin Wall
- West Germany 1963
- GDR in 1949
- Collectivisation
- Nationalisation and heavy industry
- Social changes: churches, trade unions, education and youth

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

NEA : Research and preparation

Year 12 Curriculum

In year 12, students will be able to demonstrate critical awareness of the influence and operation of the law in society.

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY

Educational excellence for our City

LAW

AUTUMN

The Nature of Law and the English Legal System

How are legal rules created and enforced in society?

Civil and Criminal law - English Legal System:
•outline of the court system.
•legal rules and other norms of behaviour
•sources of law
•rule of law

Civil and Criminal law - Parliamentary law making:
•legislative process
•Parliamentary supremacy

Civil and Criminal law - Delegated legislation:
•types of delegated legislation
•reasons why delegated legislation is used
•Parliamentary and judicial controls on delegated legislation.

Civil and Criminal law - Statutory interpretation:
•rules of statutory interpretation
•internal and external aids to statutory interpretation
•impact of the European Convention on Civil and Criminal law Human Rights (ECoHR) and EU law.

Civil and Criminal law Human Rights (ECoHR) and EU law. Judicial precedent:
•hierarchy of the courts
•elements of precedent – stare decisis, ratio decidendi and law reports
•operating precedent – overruling and distinguishing.

How are 'rules of law' applied effectively in today's Society?

Civil and Criminal law – Law Commission
European Union:
•institutions of the EU
•sources of EU law
•relationship between UK and EU law.

Civil law - Civil dispute resolution:
•civil courts
•alternative forms of dispute resolution (ADR).

Criminal law - Criminal courts:
•barristers, solicitors and legal executives
•regulation of the legal profession- Linked to BAME members in society in the profession/ Law Society.
•alternative sources of legal advice
•funding alternatives.
Judiciary:
•types and function of judges- EDI- Changing nature of appointment of judges in society today.
•judicial immunity.

Criminal Law - Criminal law/Actus reus/Mens rea/Causation
•voluntary acts
•omissions.
Actus reus (continued):
Causation
•causation in fact
•causation in law.
Mens rea:
•intention and subjective recklessness
•strict liability
•transferred malice
•coincidence of actus reus and mens rea.

Topics:
Civil and Criminal law
Actus reus
Mens rea
Causation

SPRING

How are criminal processes applied effectively in the legal system? Synoptic application.

Criminal Law

Criminal law/Actus reus/Mens rea/Causation - Non-fatal offences against the person:
•assault and battery
•Actual Bodily Harm (ABH), contrary to s47 Offences against the Person Act 1861 (OAPA 1861)

Criminal law/Actus reus/Mens rea/Causation - Non-fatal offences against the person:
•Grievous bodily harm (GBH) and wounding contrary, to s18 and 20 OAPA 1861.
•Discussion of structure and key application of case law.

How are tort processes applied effectively in civil matters? Synoptic application.

Tort

Civil law/ duty/breach/damage - Negligence – injury and damage to property:

Duty of care:
•the 'neighbour' principle and the Caparo three-part test
•theory of tort law – public policy factors governing the imposition of a duty of care.

•Breach of duty – the objective standard of care
•theory of tort law – factors governing the objective standard of care.

Damage:
•causation in fact
•causation in law (remoteness of damage).

Topics:
Civil and Criminal law
Actus reus
Mens rea
Causation
Duty of care
Breach of duty
Damage

SUMMER

How are legal rules applied to various disputes of civil matter? Synoptic application.

Tort

Civil law/ duty/breach/damage - Defences to an action in negligence:
•contributory negligence
•consent (volenti non fit injuria) in respect of visitors.

Civil law/ duty/breach/damage - Occupiers' Liability Act 1957
•liability in respect of visitors.
•Occupiers' liability to children.
•Trades people
•Contractors
•Remedies

Civil law/ duty/breach/damage - Occupiers' Liability Act 1984
•liability in respect of trespassers.
•The background of the duty
•The scope of the duty.
•Defences
•Remedies

How are legal rules applied to various offences of criminal Law? Synoptic application.

Criminal Law

Criminal law/Actus reus/Mens rea/Causation Homicide
Murder:

•murder
•AR/MR murder
•Transferred malice
•Mandatory life sentence

Criminal law/Actus reus/Mens rea/Causation - Voluntary manslaughter:
•loss of control
•Burden of proof
•Loss of self control
•Qualifying triggers
•Standard of self control.
•Diminished responsibility.
•Abnormality of mental functioning.
•Substantially impaired.
•DR and intoxication.

Criminal law/Actus reus/Mens rea/Causation Involuntary manslaughter:
•Unlawful act manslaughter
AR/MR Application
•Gross negligence manslaughter.
AR/MR Application

Topics:
Civil and Criminal law
Actus reus
Mens rea
Causation
Duty of care
Breach of duty
Damage

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY

Educational excellence for our City

PSYCHOLOGY

Curriculum Aim:

Students will be able to critically analyse key theories and research into Psychology.

AUTUMN	SPRING	SUMMER
SOCIAL INFLUENCE Paper 1 **Is society independent or are we manipulated by social influences and forces? How much does ambiguity affect conformity? Discuss the ethical considerations in social influence research?** **Is there an obedience personality type? How has the obedience alibi been used in real world applications? Dispositional vrs situational? Consider minority influence through Hitler and Rosa Parks? Do you think methodological criticisms undermine the link between social influence and social change?** **Conformity-** types and explanations **Conformity-** Asch's research Ethics issues and how to deal with them Hypotheses Sampling methods Designing research **Conformity to Social roles-** Zimbardo research **Obedience-** Milgram's Research Experimental method Control of variables Planning and conducting research **Obedience-** Situational variables **Obedience-** Social Psychological factors **Obedience-** Dispositional explanations Types of experiment Quantitative and Qualitative data Primary and Secondary data Normal Distributions Pilot studies Interpretation and display of quantitative data **Resistance to social influence** **Minority Influence** **Social influence and social change** Observational and self- report techniques and design **Topics:** Mathematical focus- baseline assessment Literacy Focus- Assessment of summer work/ written English Cornell note taking method ICT Focus- Digital bundle introduction Psychology Blog **MEMORY Paper 1** **In which terms should we consider LTM and STM? Does an abstract linear concept represent memory? What are the similarities between Episodic and Semantic** **Memory? Why is the WWM more representative of memory than the MSM? Explain- forgetting is the other side of the coin to remembering? Does the retrieval failure explanation have real life applications? Should we believe our own eyes? What ethical issues are involved in factors affecting EWT?** **Coding Capacity and duration** **Multistore model of memory** Correlation Data Analysis- kinds of data **Working memory model** **Explanations of forgetting-** Interference and retrieval failure. Data Analysis- Descriptive statistics **Factors effecting he accuracy of EWT-** Misleading information Anxiety Real life application Data Analysis- Graphs **Improving the accuracy of EWT-** Cog Interview. Mathematical content Statistical testing **Revision strategies- dual coding and cognitive load- flash cards and retrieval practice** **Topics:** Past paper Q's Real life application Revision strategies SCOUT Mathematical focus- Data Analysis Literacy focus- Terminology Keyword Glossary Cornell note taking ICT focus- Digital bundle activities Research project presentations	**ATTACHMENT Paper 1** **Is attachment research socially sensitive? Multiple vrs Specific attachment, which is more supported? Is extrapolation an issue in animal studies? Is there an alternative to OC and CC? Monotrophy vrs Temperament discuss? Is the Strange situation a culture bound test? What are the real implications of research on cultural variations for theories of attachment? Could maternal deprivation be a legal defence? Problems with long term effects of institutionalisation?** **Introduction to Attachment** **Schaffer's stages of attachment** Peer review of research projects from T1 **Animal studies** **Explanations of attachment-** Learning Theory and Bowlby theory, Updates to research projects **Ainsworth strange situation** **Cultural variations in attachment** Psychology and the economy **Bowlby theory of maternal deprivation** **Romanian Orphans studies** **Influence of early attachment on later relationships.** Economic implications **Topics:** Research methods Theory of Knowledge/ thinking hats Mathematical focus - Data application from analysis in T1 Literacy focus- AO3 Connectives and signposts Command words ICT focus- Prezi presentation of the research paper **PSYCHOPATHOLOGY Paper 1** **Can some people can be statistically unusual or deviate from social norms without being thought of as abnormal? Are Phobias and OCD just anxiety disorders? What is the comparison between the two explanations of the mood disorder Depressions?** **Behavioural or evolutionary explanation for Phobias? What is the link between attachment and depression? Difference between MZ/DZ twins?Should OCD trauma be treated with drugs?** **Definitions of Abnormality** **Phobias** **Depression** **OCD** Computation Intro to Descriptive statistics and statistical testing **The behavioural approach to explaining phobias** **The behavioural approach to treating phobias** Gender differences in fear practical research- measures of central tendency **The Cognitive approach to explaining depression** **The Cognitive approach to treating depression** Mental health in the media practical research- tally charts **The Biological approach to explaining OCD** **The Biological approach to treat OCD** Twin study and nature nurture debate **Topics:** Research Methods Mathematical focus- Statistics- Descriptive and Inferential, tally chart Literacy focus- Reading and research ICT focus- student ppt presentations for psychopathology- video, AO1/2/3 activity	**APPROACHES Paper 2** **What are the origins of Psychology- Science and introspection?What are the ethical and environmental determinism issues associated with Behaviourism? Methodological issues involved with the BOBO doll study? Real life benefits for cognitive neuroscience? Nature vrs Nurture debate in Biological approach? How does Psychic determinism compare with other approaches? What would be a behaviourist view of humanistic psychology be? What issues and problems might the Eclectic approach present?** **Origins of psychology** Timeline **Learning approach-** Behaviourism and SLT Student research project **Cognitive approach** **Biological approach** **Psychodynamic approach** **Humanistic approach** Student research project Biopsychology NS ad ES Neurons and synaptic transmission Student research project Comparison of all approaches **Topics:** Mock exam Paper 1 UCAS references Individual research project Exam techniques Timing key words Knowledge organisers Revision strategies Learning styles Carousel review sessions **RESEARCH METHODS Paper 2** **What is science?** **Key word terminology meaning- Objectivity, systematic, replication?** **What are Ethics and how do they link to modern society?** Case studies. Content analysis and cding. Thematic analysis Reliability Validity Choice of Statistical test Statistical tests Correlation Probabability and significance Psychological invesitigation reports Features of science Probability & Significance Ways of investigating the brain Reporting psychological investigation Features of science Reliability and validity Choosing a stats test Tests for difference and correlation Tests of association Parametric test Correlations Case studies and content analysis **Topics:**

Year 12 Curriculum

KING EDWARD VI HANDSWORTH WOOD GIRLS' ACADEMY
Educational excellence for our City

SOCIOLOGY

Curriculum Aims:

In Year 12, students are expected to use their critical and logical thinking to analyse and evaluate sociological theories in relation to education and the family.

AUTUMN

What are the core themes in Sociology and What is the purpose of Sociological Research?

Knowledge and Understanding of Sociological core themes and Research Methods:
*Themes in Sociology
*Sociological Theories
*Introduction to Research and Methods
* Key issues in Social Research
*Research Design
*Questionnaires
*Interviews
*Experiments
*Observations
*In-depth Research Methods
*Secondary data

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
Culture
Class
Ethnicity
Age
Gender
Society
Qualitative
Quantitative
Research
Practical factors
Theoretical factors
Ethical factors
Consensus
Conflict

How do sociologists explain the family and its role in society?

Knowledge and Understanding of Family:
*The nature and role of the family in society
*Changes in family structure
*Roles and Relationships within the family
*Family diversity

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
Culture
Class
Ethnicity
Age
Gender
Society
Family
Household
Family structure
Relationships
Childhood
Demography

SPRING

How do sociologists explain the family and its role in society?

Knowledge and Understanding of Family:
*Demography and the Family
*Family and social change
*The Social Construction of Childhood

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
Culture
Class
Ethnicity
Age
Gender
Society
Family
Household
Family structure
Relationships
Childhood
Demography

How do sociologists explain the role of education in British society?

Knowledge and Understanding of Education:
*The role of Education
*The history of British Education
*Relationships and Processes within schools.
*State policy and Education
*Application of Research Methods to Education.

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
Culture
Class
Ethnicity
Age
Gender
Society
School
Higher education
Further education
Internal factors
External factors

SUMMER

How do sociologists explain the role of education in British society?

Knowledge and Understanding of Education:

*Class and differential achievement in education.
* Ethnicity and differential achievement in education.
*Gender and differential achievement in education.

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
Culture
Class
Ethnicity
Age
Gender
Society
School
Higher education
Further education
Internal factors
External factors

Why do sociologists explain society and social change from different perspectives ?

Knowledge and Understanding of Sociological theories:
*Structuralism
*Action Theories
*Feminism
*Modernity and Postmodernity
*Sociology of a Science
*Value Freedom
*Sociology and Social Policy.

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
Culture
Class
Ethnicity
Age
Gender
Society