



**KING EDWARD VI
HANDSWORTH WOOD
GIRLS' ACADEMY**

Educational excellence for our City

Family Guide

Year 10 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.



CURRICULUM VISION

Curriculum Aims:

Our curriculum will reflect our academy values: scholarship - character - community and drive us in our mission to unlock a thirst for learning for all to successfully access an ever-changing world.

We explicitly learn through advanced cognitive performance characteristics in our curriculum alongside sequenced declarative and procedural knowledge.

We ensure students are able to remember and apply knowledge readily and in different contexts through deliberate practice.

We actively foster the performance values, attitudes and attributes in our curriculum alongside our character education programme.

Our curriculum is coherent and reflective of the local community, its rich cultural heritage and diversity.


We never tell our students they cannot achieve; it is just they are not doing it yet but with practice and perseverance it will happen.

The overarching aims of our curriculum will underpin the following outcomes:

Increasingly strong academic results year-on-year leading to good post school destinations.

Well-motivated and engaged students; school-ready, college-ready, work-ready and life ready.

Effective citizens that have the cultural capital to be successful, socially mobile and proud of their achievements.




Values, Attitudes and Attributes

COLLABORATIVE
The ability to seek out opportunities to receive responses to your work; to present your own views and ideas clearly and concisely; to listen to the views of others; be willing and able to work in teams; to assume a variety of roles and be able to evaluate your own ideas and contributions.

CONCERNED FOR SOCIETY
The ability to know the contribution you can make to society to the benefit of those less fortunate; to demonstrate citizenship and a sense of community ethics and recognise differences as well as similarities between people and people; be aware of your own and others' cultural heritage and be sensitive to the ethical and moral issues raised by your studies.

CONFIDENT
The ability to describe a belief in your knowledge, understanding and actions; recognise when you need to change your beliefs based upon additional information or the arguments of others; deal with new challenges and obstacles, including when this places you under stress.



ENQUIRING
The ability to work alone; be proactive; keen to learn; show enterprise and independent thought; challenge assumptions and require evidence for assertions; actively control your own learning; move on from the absorption of knowledge and procedures to developing your own views and solutions.

OPEN MINDED
The ability to take an objective view of different ideas and beliefs; become more receptive to other ideas and beliefs based on the arguments of others; change ideas should there be compelling evidence to do so.

RISK-TAKING
The ability to demonstrate confidence; experiment with novel ideas and effects; operate willingly; work in unfamiliar contexts; avoid coming to premature conclusions; tolerate uncertainty.


PRACTICE
The ability to train and prepare through repetition of the same processes in order to become more proficient.

PERSEVERANCE
The ability to keep going and not give up; encounter obstacles and difficulties but never give up; persist in effort; work diligently and work systematically; do not be satisfied until high quality, appropriate provision and the desired outcome are achieved.

RESILIENCE
The ability to overcome setbacks; remain confident, focused, flexible and optimistic; help others to move forward in the face of adversity.

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.



Advanced Cognitive Performance Characteristics


META-COGNITION
The ability to knowingly use a wide range of thinking approaches and to transfer knowledge from one circumstance to another.

SELF REGULATION
The ability to monitor, evaluate and self-correct.

STRATEGY PLANNING
The ability to approach new learning opportunities by actively attempting to connect it to existing knowledge or concepts and hence determine an appropriate way to think about the work.

INTELLECTUAL CONFIDENCE
The ability to articulate personal views based on evidence, and where necessary defend them to others.

GENERALISATION
The ability to see what is happening in a particular instance could be extrapolated to other similar situations.



CONNECTION FINDING
The ability to use connections from past experiences to seek possible generalisations.

BIG PICTURE THINKING
The ability to work with big ideas and holistic concepts.

ABSTRACTION
The ability to move from concrete to abstract thought very quickly.

IMAGINATION
The ability to represent the problem and its components in relation to more extensive and interconnected prior knowledge.

SEEING ALTERNATIVE PERSPECTIVES
The ability to take on the views of others and deal with the complexity and ambiguity.

CRITICAL OR LOGICAL THINKING
The ability to detect, hypothesise, reason and seek supporting evidence.

PRECISION
The ability to work effectively within the rules of a domain.

COMPLEX AND MULTISTEP PROBLEM SOLVING
The ability to break down a task, decide on a suitable approach, and then act.

INTELLECTUAL PLAYFULNESS
The ability to recognise rules and bend them to create valid but new forms.

FLEXIBLE THINKING
The ability to abandon one idea for a superior one or generate multiple solutions.

FLUENT THINKING
The ability to generate ideas.

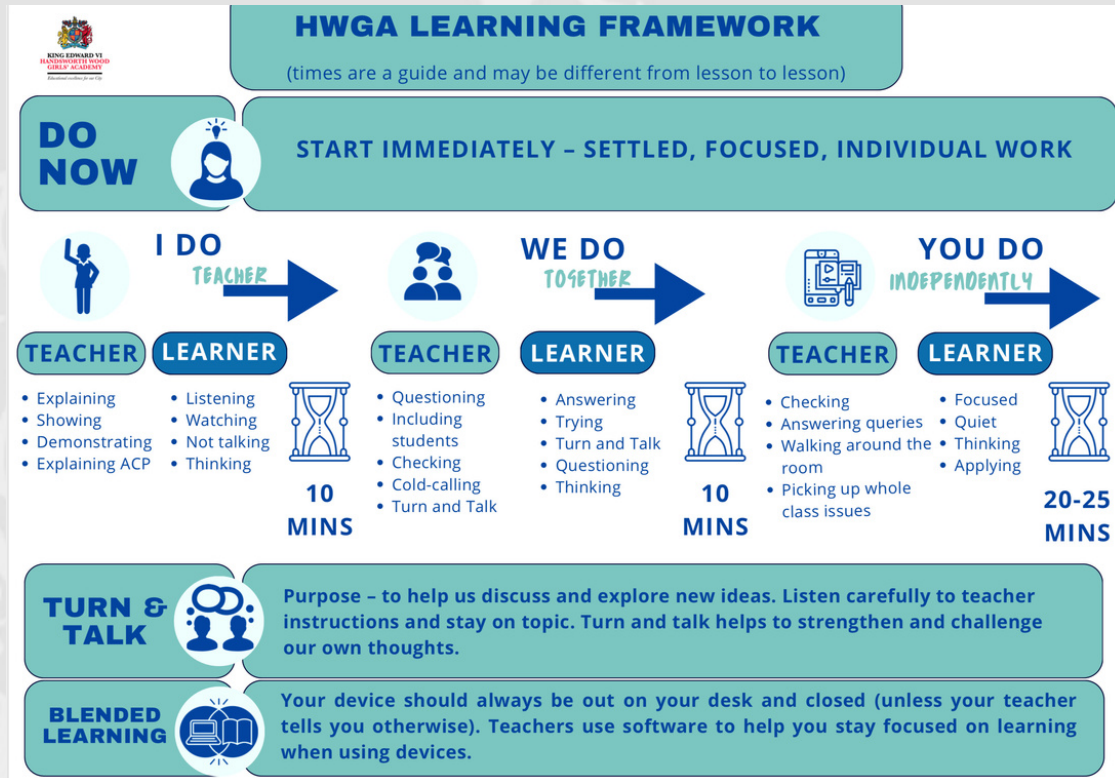
ORIGINALITY
The ability to conceive something entirely new.

EVOLUTIONARY AND REVOLUTIONARY THINKING
The ability to create new ideas through building on existing ideas or diverting from them.

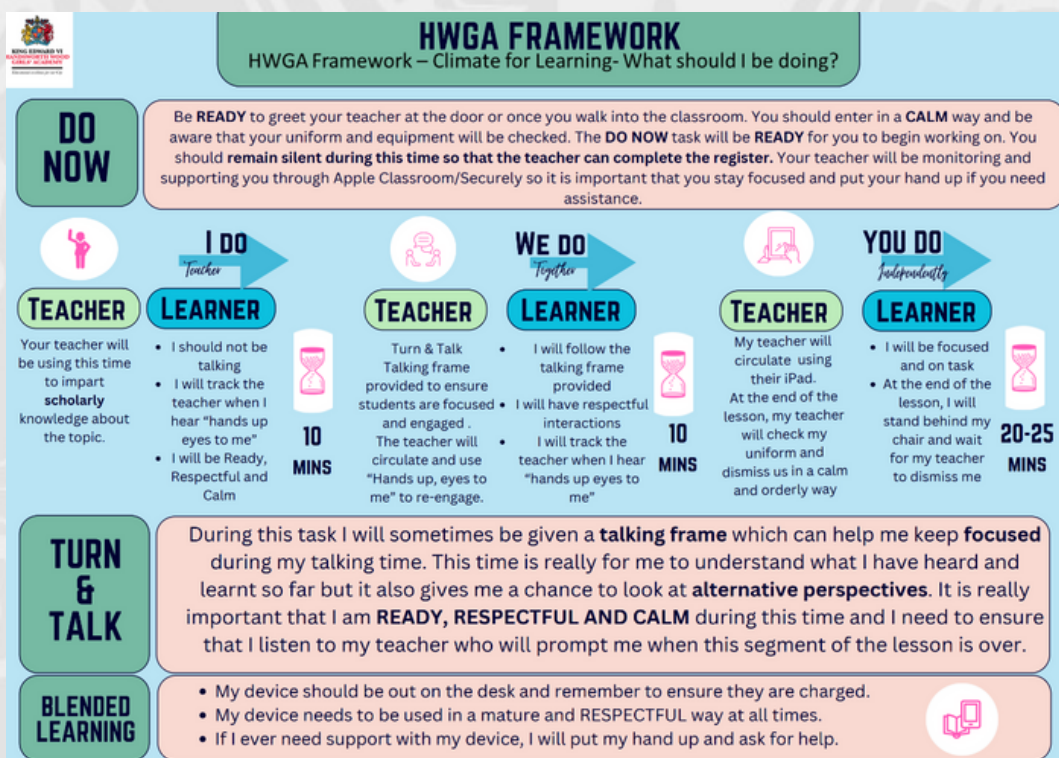
AUTOMATICITY
The ability to use some skills with such ease that they no longer require active thinking.

SPEED AND ACCURACY
The ability to work at speed and with accuracy.

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.





RELIGIOUS EDUCATION

Year 10 Curriculum



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
<p>Christianity beliefs, teachings and practices</p> <p>The nature of God:</p> <ul style="list-style-type: none"> • God as omnipotent, loving and just, and the problem of evil and suffering • the oneness of God and the Trinity: Father, Son and Holy Spirit. • Different Christian beliefs about creation including the role of Word and Spirit (John 1:1–3 and Genesis 1:1–3). • Different Christian beliefs about the afterlife and their importance, including: resurrection and life after death; judgement, heaven and hell <p>Jesus Christ and salvation</p> <ul style="list-style-type: none"> • Beliefs and teachings about: • the incarnation and Jesus as the Son of God • the crucifixion, resurrection and ascension • sin, including original sin • the means of salvation, including law, grace and Spirit • the role of Christ in salvation including the idea of atonement <p>Worship and festivals</p> <ul style="list-style-type: none"> • Different forms of worship and their significance: • liturgical, non-liturgical and informal, including the use of the Bible • Private worship. • Prayer and its significance, including the Lord's Prayer, set prayers and informal prayer. • The role and meaning of the sacraments: • the meaning of sacrament • the sacrament of baptism and its significance for Christians; infant and believers' baptism; different beliefs about infant baptism • The role and importance of pilgrimage and celebrations including: • two contrasting examples of Christian pilgrimage: Lourdes and Ion <p>The role of the church in the local and worldwide community</p> <ul style="list-style-type: none"> • The role of the Church in the local community, including food banks and street pastors. • The place of mission, evangelism and Church growth. • The importance of the worldwide Church including: • working for reconciliation • how Christian churches respond to persecution • the work of one of the following: Catholic Agency For Overseas Development (CAFOD), Christian Aid, Tearfund <p>Topics: Christian sources of wisdom and authority. The influence of the beliefs, teachings and practices studied on individuals, communities and societies. The range of different Christian perspectives</p>	<p>Islam beliefs, teachings and practices</p> <p>Islam: Beliefs and teachings</p> <p>The six articles of faith in Sunni Islam and five roots of Usul ad-Din in Shi'a Islam, including key similarities and differences.</p> <ul style="list-style-type: none"> • Tawhid (the Oneness of God), Qur'an Surah 112. • The nature of God: omnipotence, beneficence, mercy, fairness and justice/Adalat in Shi'a Islam, including different ideas about God's relationship with the world: immanence and transcendence. • Angels, their nature and role, including Jibril and Mika'il. • Predestination and human freedom and its relationship to the Day of Judgement. • Akhirah (life after death), human responsibility and accountability, resurrection, heaven and hell. <p>Authority</p> <p>Risalah (Prophethood) including the role and importance of Adam, Ibrahim and Muhammad.</p> <ul style="list-style-type: none"> • The holy books: • Qur'an: revelation and authority • the Torah, the Psalms, the Gospel, the Scrolls of Abraham and their authority. • The imamate in Shi'a Islam: its role and significance. <p>Worship</p> <ul style="list-style-type: none"> • Five Pillars of Sunni Islam and the Ten Obligatory Acts of Shi'a Islam (students should study the Five Pillars and jihad in both Sunni and Shi'a Islam and the additional duties of Shi'a Islam). • Shahadah: declaration of faith and its place in Muslim practice. • Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer (Jumma); key differences in the practice of salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer <p>Topics: Islam beliefs, teachings, and practices Islamic sources of wisdom and authority Different Muslim perspectives including those from Sunni and Shi'a Islam.</p>	<p>Islam practices</p> <p>Duties and festivals</p> <ul style="list-style-type: none"> • Sawm: the role and significance of fasting during the month of Ramadan including origins, duties, benefits of fasting, the exceptions and their reasons, and the Night of Power, Qur'an 96:1–5. • Zakah: the role and significance of giving alms including origins, how and why it is given, benefits of receipt, Khums in Shi'a Islam. • Hajj: the role and significance of the pilgrimage to Makkah including origins, how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance. <p>Jihad: different understandings of jihad: the meaning and significance of greater and lesser jihad; origins, influence and conditions for the declaration of lesser jihad.</p> <ul style="list-style-type: none"> • Festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meanings of Id-ul-Adha, Id-ul-Fitr, Ashura. <p>Topics: Islam beliefs, teachings, and practices Islamic sources of wisdom and authority Different Muslim perspectives including those from Sunni and Shi'a Islam.</p>

Year 10 Curriculum



ENGLISH

Curriculum Aims

At KS4, students will read and be encouraged to appreciate the depth and power of the English literary heritage through reading a range of challenging texts reflective of English literary heritage. Students will study Shakespeare's 'Macbeth'; 19th century fiction such as Dickens' 'A Christmas Carol'; a range of poetry across time as well as more modern texts such as 'An Inspector Calls'. Students will draw upon the seminal knowledge explored in KS3 and will apply this to their KS4 study. As such, KS4 students will be guided to critically explore a range of literature and will read in for different purposes such as summarising, the identification of characterisation, plot, themes and settings, the significance of context and the importance of using evidence to support judgements and justifications. KS4 students will also develop their use and analysis of vocabulary, grammatical and structural features. Furthermore, KS4 is the stage wherein we guide students to pull together their procedural knowledge of academic writing founded in KS3, and students are encouraged to think critically and make informed personal responses.

KS4 students will also develop on their KS3 knowledge of writing and will develop the fluency of their writing taking into consideration a range of purposes and audiences. Students will also spend more time on planning and practicing writing precision (selecting and organising ideas, selecting appropriate and challenging vocabulary and revising and editing drafts).

AUTUMN	SPRING	SUMMER
<p>ENGLISH LITERATURE</p> <p>'Macbeth'</p> <p>Exploring English literary heritage through the study of Shakespeare. The study of this seminal text not only allows students to explore dramatic methods but also acts as a vehicle to support students in critically evaluating Shakespearean literature.</p> <p>Topics: Irony, Symbolism, Motif, Allusion, Analysing metaphor, Ambiguity, Paradox, Light vs dark imagery, The Aristotelian hero, Flaw and façade, Characterisation, Soliloquy, Setting, Foils/antithetical characters, Shakespeare's tragedy, themes (supernatural, masculinity, nature), context (King James I, Divine Right of Kings, Supernatural, Jacobean era).</p> <p>ENGLISH LANGUAGE</p> <p>Paper 1 - Fiction (reading and writing) 'Being Human: the Human Condition'</p> <p>Topics: Noticing and analysing metaphor, writing metaphor, identifying and analysing voice and perspective, evaluating different perspectives, summary and synthesis, comparison, noticing patterns and juxtapositions, motifs, mirroring, analysing word forms and sentence types, identifying and exploring word class, descriptive and narrative writing, analysing structure.</p>	<p>ENGLISH LITERATURE</p> <p>A Christmas Carol</p> <p>Exploring works from the 19th century fiction to develop student understanding of literature and literary heritage. The study of this text gives students the opportunity to study a different historical and social context as well as exploring, in more depth, the significance of key themes, plot, modes of characterisation and literary style.</p> <p>Topics: Symbolism, Motif, Allusion (e.g., Hamlet), Allegory, Analysing metaphor, Extended metaphor, characterisation, antithetical characters, staves, cyclical structures, narrative structure, episodic structure, Victorian stock characters (e.g., the saintly child, monomyth theory, setting, motifs (e.g., fire, bells), context (Victorian London, socialism, Thomas Malthus).</p> <p>ENGLISH LANGUAGE</p> <p>Paper 2 – Non-Fiction (reading and writing) 'Influential Figures'</p> <p>Topics: Noticing and analysing metaphor, writing metaphor, identifying and analysing voice and perspective, evaluating different perspectives, summary and synthesis, comparison, noticing patterns and juxtapositions, motifs, mirroring, analysing word forms and sentence types, identifying and exploring word class, rhetoric.</p>	<p>ENGLISH LITERATURE</p> <p>'An Inspector Calls'</p> <p>Providing the students with the opportunity to explore modern literature through 'the well-made play'. 'An Inspector Calls' is utilised as a vehicle to further develop the exploration of plot, character, event, setting and the effect of each. This play, in particular, lends itself well to the exploration of character and character development and allows for the opportunity to discuss more contemporary social contexts such as capitalism and socialism.</p> <p>Topics: The character as a 'mouthpiece' for the writer, Characters as symbols, Antithetical characters, Flaw/façade, Irony, symbolism, Motif, Allusion, Analysing metaphor, theme (socialism, older and younger generations, gender, class), context (Titanic, World War I & II, Edwardian era, socialism and capitalism)</p> <p>Power and Conflict Poetry</p> <p>Students are provided with the opportunity to round off their KS4 experience with the study of poetry, exploring how themes occur across poems and exploring poetic effect across a range of poetry.</p> <p>Topics: Symbolism, metaphor, Narrative poetry, Poems as stories, Monologue in poetry, Poetic voice (speaker), poetic form, rhyme, metre, context (Romanticism, war through ages, British education system, migration).</p> <p>ENGLISH LANGUAGE</p> <p>Paper 1 - Fiction (reading and writing) 'Around the World'</p> <p>Topics: Noticing and analysing metaphor, writing metaphor, identifying and analysing voice and perspective, evaluating different perspectives, summary and synthesis, comparison, noticing patterns and juxtapositions, motifs, mirroring, analysing word forms and sentence types, identifying and exploring word class, descriptive and narrative writing, analysing structure.</p> <p>Spoken Language Endorsement</p> <p>Topics: Noticing and analysing metaphor, writing metaphor, identifying and analysing voice and perspective, evaluating different perspectives, summary and synthesis, comparison, noticing patterns and juxtapositions, motifs, mirroring, analysing word forms and sentence types, identifying and exploring word class, rhetoric.</p>



ART

Year 10 Curriculum

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 OWN WORKS OF ART, CRAFT AND DESIGN.

AUTUMN	SPRING	SUMMER
<p>How do we recall and develop our skills in Art and Design using different medias, materials, techniques and processes? (MINI SKILLS PROJECT)</p> <p>Students recall and develop their practical skills and theoretical knowledge in Art and Design. Through experimentation with different medias, materials, processes and techniques students develop their own artistic style.</p> <p>Topics: Fine art skills Experimentation Artist research Independence Procedural knowledge Declarative knowledge</p> <p>How do I implement my knowledge and skills to an Art project considering my own artistic style? (Component 1-Project 1)</p> <p>Students are introduced to Component 1: Portfolio. This is internally assessed coursework project worth 60% of their GCSE level. Students approach project by focusing on a specific starting point by recording initial ideas through drawing activities and study an artist influence.</p> <p>Topics: Artist appreciation Evaluation, Analysis Experimentation Research Procedural knowledge Declarative knowledge</p>	<p>How do we build on our ideas informed by our contextual research and put them into practice? (Component 1- Project 1)</p> <p>Students independently experiment with a range of different materials and processes relevant to their style and ideas. Pupils investigate artists to influence their ideas towards a personal response. Pupils begin to take ownership and personalise their project.</p> <p>Topics: Application of mediums Contextual research Fine art skills Procedural knowledge Declarative knowledge</p> <p>How do we design and present a personal response combining our contextual and practical work?</p> <p>Using the contextual research and practical investigations from their portfolio work, pupils develop final piece ideas. In a mock exam setting, students produce a final piece towards their project over a ten hour period.</p> <p>Topics: Creativity Planning Research Fine art skills Procedural Procedural knowledge Declarative knowledge</p>	<p>How do we explore and independently select projects, building on our prior learning? (Component 1-Project 2)</p> <p>Complete ownership and personalised approach focusing on a specific starting point and artist influence. Experimentation with art mediums through research, investigations and practice.</p> <p>Topics: Artist appreciation Evaluation, Analysis Experimentation Research Procedural knowledge Declarative knowledge</p> <p>How do we build on our ideas informed by our contextual research and develop personal and sophisticated responses? (Component 1-Project 2)</p> <p>Complete ownership and personalised approach focusing on a specific starting point and artist influence. Experimentation with art mediums through research, investigations and practice.</p> <p>Topics: Application of mediums Contextual research Fine art skills Procedural knowledge Declarative knowledge</p>



Year 10 Curriculum

Curriculum Aims:

Theme 1 content is taught in Year 10. Students focus on the key business concepts, issues, and skills involved in starting and running a small business. It provides a framework for students to explore core concepts through the lens of an entrepreneur setting up a business.

BUSINESS STUDIES

AUTUMN	SPRING	SUMMER
<p>Enterprise and entrepreneurship</p> <p>What is the role of business enterprise and the purpose of business activity. How do business ideas originate? Describe the impact of risk and reward on business activity?</p> <p>Students are introduced to the dynamic nature of business in relation to how and why business ideas come about. They also explore the impact of risk and reward on business activity and the role of entrepreneurship.</p> <p>Spotting a business opportunity</p> <p>What needs do customers have? What is the purpose of Market research and what methods can be used to collect market research? How can a business use market segmentation to target customers? How can competitors impact business decision-making?</p> <p>Students will explore how new and small businesses identify opportunities through understanding customer needs and conducting market research. They will also focus on understanding the competition.</p> <p>Topics: The dynamic nature of business Risk and reward The role of business enterprise Customer needs Market research Market segmentation The competitive environment</p> <p>Mosaic Challenge</p> <p>The Mosaic Challenge provides a highly interactive way for students to develop key employability skills as participants make as much profit as possible through playing a interactive enterprise game.</p> <p>Putting a business idea into practice</p> <p>Why do aims and objectives differ between businesses? What is the formula for Revenue, Cost and Profit. Why is cash important? How do cash and profit differ? How do you construct a cash-flow forecast. What sources of finance are available for start-up business or small established business?</p> <p>This topic focuses on making a business idea happen through identifying aims and objectives and concentrating on the financial aspects such as 'revenues, costs, profit, break-even and cash-flow'.</p> <p>Topics: Business aims and objectives Business revenues, costs and profits Cash and cash-flow Sources of business finance</p>	<p>Making the business effective</p> <p>What are the implications for the business owner(s) of limited and unlimited liability? How do types of business ownership for start-up businesses compare and contrast? How does the process of Franchising work? What factors influence business location? What is the marketing mix and the importance of each element. What is the role and importance of a business plan?</p> <p>Students will explore a range of factors that impact on the success of the business, including location, the marketing mix and the business plan.</p> <p>Topics: The options for start-up and small businesses Business location The marketing mix</p> <p>Business plans</p> <p>Understanding external influences on businesses</p> <p>Who are the business stakeholders and what are their objectives? What types of technology can businesses use and how does this impact on business activity? Explain the purpose and types of business legislation. How does the economic climate impact a business? How can businesses respond to changes in technology, legislation, the economic climate.</p> <p>Students are introduced to a range of factors, many of which are outside of the immediate control of the business, such as stakeholders, technology, legislation and the economy. Students will explore how businesses respond to these influences.</p> <p>Topics: Business stakeholders Technology and business Legislation and business</p>	<p>Understanding external influences on businesses</p> <p>Who are the business stakeholders and what are their objectives? What types of technology can businesses use and how does this impact on business activity? Explain the purpose and types of business legislation. How does the economic climate impact a business? How can businesses respond to changes in technology, legislation, the economic climate.</p> <p>Students are introduced to a range of factors, many of which are outside of the immediate control of the business, such as stakeholders, technology, legislation and the economy. Students will explore how businesses respond to these influences.</p> <p>Topics: The economy and business External influences</p> <p>Revision Theme 1</p> <p>How do we use the analysis of Mock Papers to devise a revision/study programme for the summer holidays? What knowledge and understanding are required to successfully answer the Theme 1 exam?</p> <p>Students will review areas of weakness and cover difficult topics. A series of self/peer/teacher assessment will also take place</p> <p>Theme 1 Mock Exam</p> <p>Growing the business</p> <p>What are the methods of business growth and how can inorganic/organic growth impact a business? How do business aims and objectives change as businesses evolve? What is the impact of globalisation on businesses? How can ethical/environmental considerations influence business activity</p> <p>Students are introduced to methods of growth and how and why business aims and objectives change as businesses evolve. The impact of globalisation and the ethical and environmental questions facing businesses are explored.</p> <p>Topics: Business growth Changes in business aims and objectives Business and globalisation Ethics, the environment and business</p>



SCIENCE

Year 10 Curriculum

Curriculum Aims:

TO PROVIDE STIMULATING AND EXCITING SCIENCE LESSONS TO ENABLE ALL STUDENTS TO MAKE THE BEST POSSIBLE PROGRESS AND DEVELOP A PASSION FOR SCIENCE THAT ENCOURAGES THEM TO HAVE A CAREER IN THE SCIENCES. DURING YEAR 10 THE STUDENTS WILL COVER A WIDE RANGE OF TOPICS TO PREPARE FOR THEIR GCSE EXAMS AT THE END OF YEAR 11. THROUGHOUT THE YEAR THEY WILL ROTATE THROUGH BIOLOGY, CHEMISTRY AND PHYSICS TOPICS WITH AN EMPHASIS ON DEVELOPING INVESTIGATIVE SKILLS THROUGHOUT THE COURSE. TOPICS FROM PREVIOUS YEARS ARE BUILT ON AND NEW MORE CHALLENGING CONCEPTS ARE INTRODUCED. STUDENTS WILL ALSO PRACTICE THEIR EXAM TECHNIQUE ON A RANGE OF WORKED EXAMPLES WITH THE TEACHER AS WELL AS INDEPENDENT WORK.

AUTUMN	SPRING	SUMMER
<p>How is the idea of energy used to explain the work output of devices and machinery and how physicists using their knowledge of energy to identify ways of reducing energy usage? (P1 Energy) Students will learn how energy is stored and changed and how we can calculate energy and efficiency of devices. Students will be able to analyse the pros and cons of a variety of methods for generating electricity as well as being able to explain trends in energy usage.</p> <p>How do chemists use the theories of structure and bonding to explain physical and chemical properties of materials? (C2 Bonding, Structure, and properties of matter) Students will learn about all the ways that elements can be bonded together, how these bonds determine the properties and will be able to discuss a number of specific examples.</p> <p>How do the digestive, respiratory and circulatory systems complete their bodily functions and how can damage to these systems be debilitating if not fatal? (B2 Principles of Organisation) Students will learn the structure and function of the major organ systems of the body and will analyse what will happen to these systems if they are treated poorly and become damaged by human excesses.</p> <p>Topics: Bonding, Structure, and properties of matter, Energy Principles of Organisation, Application of knowledge, analysis of data, practical skills, evaluation, and analysis</p> <p>What is electricity and how do we measure it, what do we use it for and how? What kind of Power Stations should we build for a sustainable future? (P2 Electricity) Students will learn all about circuits and how to make them, they will be able to predict potential difference and currents across components in different circuits and will be able to calculate resistance and charge. They will be able to identify components by the way they behave and the IV graph they produce. They will understand power and different methods of electricity generation.</p> <p>How do we use quantitative analysis to determine the formulae of compounds and the equations for reactions? (C3 Quantitative Chemistry) Students will learn how to calculate relative formula mass and apply this to reactions and be able to look for patterns and make predictions about the behaviour of chemicals.</p> <p>Topics: Electricity, Quantitative Chemistry, Required Practical skills and understanding, Application of knowledge, analysis of data, practical skills, evaluation, and analysis</p>	<p>How does our knowledge of chemical change allow us to predict exactly what new substance will be formed? (C4 Chemical Changes) Students will learn about the reactivity of metals and will be able to predict how and whether metals will react. Students will investigate how metals can be extracted in a number of different ways and how salts are formed from acid and alkali reactions.</p> <p>What pathogens make us ill and how are they transmitted and how do they make us ill? How does the body defend against these pathogens? (B3 Infection & Response) Students will learn about the 4 main pathogens and will learn about specific infections and diseases. They will learn how they are transmitted, how they affect the body and how the body defends itself.</p> <p>Topics: Electricity, Chemical changes, Infection & Response, Application of knowledge, analysis of data, practical skills, evaluation, and analysis.</p> <p>How can we use the particle model to predict behaviour of solids, liquids and gases and how do scientists use this knowledge to design submarines and spacecraft? (P3 Particle Model of Matter) Students will be able to explain changes in state using their knowledge of states of matter and internal energy and will investigate density and pressure and be able to explain its effects on objects and materials.</p> <p>Why are energy changes important in chemical reactions and what is the energy used for? (C5 Energy Changes) Students will learn about exothermic and endothermic reactions and how the energy is used to break and form bonds and how the process of electrolysis occurs and is used.</p> <p>How do plants harness the Sun's energy and how is the oxygen used to transfer the energy organism need to perform their functions? (B4 Bioenergetics) Students will learn about the process of photosynthesis and how it is limited as well as the processes of Anaerobic and Aerobic Respiration.</p> <p>Topics: Particle model of matter, Energy changes, Bioenergetics, Application of knowledge, analysis of data, practical skills, evaluation, and analysis.</p>	<p>What are the uses and dangers of ionising radiation and how have nuclear physicists learnt about the structure, forces, and stability of atoms? (P4 Atomic Structure) Students will learn about the development of the atomic model, radioactive decay and its dangers and the uses of radiation in medicine, industry agriculture and electrical power generation.</p> <p>What factors affect the rate of reactions and how do chemical engineers use this knowledge? (C6 Rate & extent of chemical change) Students will investigate what factors affect the rate of reaction and how to apply this knowledge to a variety of reactions and to the concept of maximising yield.</p> <p>How does the body effectively maintain and regulate internal conditions? (B5 Homeostasis & Response) Students will learn and investigate how the human body controls blood glucose, temperature and water levels and these automatic control systems may involve nervous responses or chemical responses.</p> <p>Topics: Atomic structure, Rate and extent of chemical change, Homeostasis and response, Application of knowledge, analysis of data, practical skills, evaluation, and analysis.</p> <p>How do we revise and study independently? Students will be taught and practice a variety of revision techniques and apply these to their areas of need.</p> <p>What knowledge and understanding are required to successfully answer Required Practical Questions in Paper 1? Students will undertake or observe required practical and answer examination style questions based upon these.</p> <p>How do we use the analysis of Mock Papers to devise a revision/study programme for the summer holidays? Students will be taught individually, in groups and as whole sets, areas of need based on the analysis of Mock Papers and will be provided a question level analysis that highlights their strengths and areas for development.</p> <p>Topics: Required practical, Revision Techniques Application of knowledge, analysis of data, practical skills, evaluation, and analysis, Plan</p>

Year 10 Curriculum



MATHS

Curriculum Aims:

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programme of study for key stage 4 is organised into apparently distinct domains, but pupils should develop and consolidate connections across mathematical ideas. They should build on learning from key stage 3 to further develop fluency, mathematical reasoning, and competence in solving increasingly sophisticated problems.

AUTUMN	SPRING	SUMMER
<p>FOUNDATION</p> <p>Unit 1: Number Students will learn about calculations, decimal numbers, place value, factors and multiples, squares, cubes and roots, index notation and prime factors. (Computer Science)</p> <p>Unit 2: Algebra Students will learn about Algebraic expressions, simplifying expressions, substitution, formulae, expanding brackets, factorising, using expressions and formulae. (Science)</p> <p>Unit 3: Graphs, tables, and charts Students will learn about frequency tables, two-way tables, representing data, time series, stem and leaf diagrams, pie charts and scatter graphs. (Physical Education)</p> <p>Unit 4: Fractions and percentages Students will learn about working with fractions, operations with fractions, fractions, decimals, and percentages and calculating percentages. (Music)</p> <p>Unit 5: Equations, inequalities, and sequences Students will learn about solving equations, inequalities, formulae, generating sequences and using the nth term of a sequence. (Science)</p> <p>HIGHER</p> <p>Unit 1: Number Students will learn about number problems and reasoning, place value and estimating, HCF and LCM, calculating with powers (indices), zero, negative and fractional indices, standard form, and surds. (Computer Science)</p> <p>Unit 2: Algebra Students will learn about algebraic indices, expanding and factorising, equations, formulae, linear sequences, and non-linear sequences. (Science)</p> <p>Unit 3: Interpreting and representing data Students will learn about Statistical diagrams, time series, scatter graphs, averages, and range. (Physical Education)</p> <p>Unit 4: Fractions, ratio, and percentages Students will learn about Fractions, ratios, ratio and proportion, percentages, fractions, decimals, and percentages (Music)</p> <p>Unit 5: Angles and trigonometry Students will learn about angle properties of triangles and quadrilaterals, interior and exterior angles of a polygon, Pythagoras' theorem, and trigonometry. (Design Technology)</p>	<p>FOUNDATION</p> <p>Unit 6: Angles Students will learn about properties of shapes, angles in parallel lines, angles in triangles, exterior and interior angles, and geometrical patterns. (Design Technology)</p> <p>Unit 7: Averages and range Students will learn about mean, mode, median and range, types of averages, estimating the mean and sampling. (Physical Education)</p> <p>Unit 8: Perimeter, area, and volume 1 Students will learn about rectangles, parallelograms, triangles, trapezia, changing units, area of compound shapes, surface area of 3D solids and volume of prisms. (Art)</p> <p>Unit 9: Graphs Students will learn about coordinates, linear graphs, gradient, $y = mx + c$, real-life graphs, and distance-time graphs. (Science)</p> <p>Unit 10: Transformations Students will learn about translation, reflection, rotation, enlargement, describing enlargements and combining transformations. (Art & Design Technology)</p> <p>Unit 11: Ratio and proportion Students will learn about writing ratios, using ratios, ratios, and measures, comparing using ratios, using proportion, proportion and graphs and proportion problems. (Food Technology)</p> <p>HIGHER</p> <p>Unit 6: Graphs Students will learn about linear graphs, graphing rates of change, real-life graphs, line segments, quadratic graphs, cubic and reciprocal graphs. (Science)</p> <p>Unit 7: Area and volume Students will learn about perimeter and area, units and accuracy, prisms, circles, sectors of circles, cylinders and spheres, pyramids, and cones (Art)</p> <p>Unit 8: Transformations and constructions Students will learn about 3D solids, reflection and rotation, enlargement, transformations and combinations of transformations, bearings, and scale drawings, constructions, and loci. (Art & Design Technology)</p> <p>Unit 9: Equations and inequalities Students will learn about solving quadratic equations, completing the square, solving linear and quadratic simultaneous equations, and solving linear inequalities (Science)</p> <p>Unit 10: Probability Students will learn about combined events, mutually exclusive events, experimental probability, independent events and tree diagrams, conditional probability, Venn diagrams and set notation. (Religious Education)</p> <p>Unit 11: Multiplicative reasoning Students will learn about growth and decay, compound measures, ratio, and proportion. (Physics)</p>	<p>FOUNDATION</p> <p>Unit 12: Right-angled triangles Students will learn about Pythagoras' theorem, the three trigonometric ratios, sine, cosine, and tangent. Finding lengths and angles using trigonometry. (Music)</p> <p>Unit 13: Probability Students will learn about calculating probability, experimental probability, Venn diagrams and tree diagrams. (Religious Education)</p> <p>Unit 14: Multiplicative reasoning Students will learn about percentages, growth and decay, compound measures, distance, speed and time, direct and inverse proportion. (Physics)</p> <p>Unit 15: Constructions, loci, and bearings Students will learn about 3D solids, plans and elevations, accurate drawings, scale drawings and maps, constructions, loci, regions, and bearings. (Art & Design)</p> <p>HIGHER</p> <p>Unit 12: Similarity and congruence Students will learn about congruence, geometric proof and congruence, similarity, and similarity in 3D solids. (Art & Design Technology)</p> <p>Unit 13: More trigonometry Students will learn about accuracy, graph of the sine and cosine function, the tangent function, calculating areas and the sine rule, the cosine rule and 2D trigonometric problems, solving problems in 3D and transforming trigonometric graphs. (Music)</p> <p>Unit 14: Further statistics Students will learn about sampling, cumulative frequency, box plots, drawing histograms, interpreting histograms, comparing, and describing populations. (Geography)</p> <p>Unit 15: Equations and graphs Students will learn how to Solve simultaneous equations graphically, represent inequalities graphically, graphs of quadratic functions, solve quadratic equations graphically and graphs of cubic functions. (Physical Education)</p>

Year 10 Curriculum



BTEC LEVEL 2 DIGITAL IT

Curriculum Aims:

Students develop core knowledge and understanding of different types of user interfaces, how user interface design principles are used to meet the needs of different users, and how organisations collect, manipulate and interpret data to draw conclusions and make decisions. Students to use knowledge in the development and application of skills such as project planning, iterative design of a user interface, using data manipulation tools to create a dashboard, interpreting and drawing conclusions from data. Students to reflect practice through the development of skills and techniques that allow learners to respond to feedback and to identify areas for improvement.

AUTUMN	SPRING	SUMMER
<p>Component 1, Learning Aim: A Exploring user interface design principles and project planning techniques</p> <p>Understand different types of user interfaces used by individuals and organisations: - Define user interfaces and understand their software and human features - Know different types of interface including text base, speech, GUI/WIMP, sensor, menus and forms - Know a range of uses and devices including computers, handheld devices, entertainment systems, domestic appliances, controlling devices and embedded systems</p> <p>Understand the factors affecting the choice of user interface including: - Performance / response time, ease of use - User requirements, user experience - Accessibility and storage space - Understand hardware and software influence - Operating systems and platforms, types/size of screen, types of user input - Hardware resources available such as processor and memory - Emerging technologies</p> <p>Be able to investigate the needs of audiences and how they affect the design of interfaces including: - Accessibility needs - visual, hearing, speech, motor, cognitive - Skill level – expert, regular, occasional, novice - Demographics – age, beliefs/values, culture, past experiences</p> <p>Component 1, Learning Aim: B Be able to use planning techniques to plan and design a user interface Component 1, Learning Aim: C Be able to develop and review a user interface</p> <p>Understand what project planning tools are used to plan a user interface - - Tasks lists - Written or graphical descriptions - Gantt charts - Mood boards - Mind maps - Be able to investigate the waterfall, agile and scrum methodologies</p> <p>When creating a project proposal understand the following: - Purpose and audience - Project requirements - User accessibility requirements - Constraints</p> <p>When creating a project plan understand: - Timescales - Key milestones</p> <p>Create an initial design that includes: - The user requirements - Input and output requirements - User accessibility needs</p> <p>Produce a design specification that includes: - Visualisation such as storyboard and sketches - Hardware and software requirements</p> <p>Discuss the aims of the design</p> <p>Develop an initial design using the following design principles: - Colour - Font style/size - Language - Amount of information - Layout - User perception - Retaining user attention - Intuitive design</p> <p>Be able to review the success of the user interface including the strengths and weaknesses in: - Meeting the user requirements - Suitability for purpose and audience - Ease of use - Accessibility features - How effectively the design principles have been met</p> <p>Review the chosen project planning techniques</p> <p>Suggest improvements that could be made to the user interface to better meet the audience needs</p> <p>Topics: Communication Digital Literacy Hardware and software</p>	<p>Component 2, Learning Aim: A Investigate the role and impact of using data on individuals and organisations</p> <p>Understand the concepts of data and that data is meaningless without converting it into information by adding structure and context.</p> <p>Understand the different ways of representing information and will be able to explain situations where they would be used. Students to use different ways to represent data and should be able to select the most suitable way to represent data based on the given situation.</p> <p>Understand the methods that can be used to ensure data input is suitable and within boundaries so that it is ready to be processed. Students to use various validation and verification methods, so that they know the importance of keeping data within parameters and verified.</p> <p>Understand how the data collection method and data collection features affect its reliability. Students will analyse data collection methods (primary and secondary) and use data collection methods to analyse data.</p> <p>Understand the factors that affect the quality of information and their impact on decision making. Students to identify quality of information factors and explain why these are important factors that affect the quality of information.</p> <p>Understand that different types of organisation use data modelling to help make decisions. Students to analyse different type of sectors and explain how different sectors use data to make important decisions.</p> <p>Understand the different threats that face individuals who have data stored about them. Students to explore threats to individuals and analyse ways how these threats can be eliminated.</p> <p>Topics: Communication Digital Literacy</p> <p>Component 2, Learning Aim: B Create a dashboard using data manipulation tools</p> <p>Understand how data can be imported from an external source. Students will then explore how to apply data processing methods. These include: data manipulation methods, macros, data validation, dashboard, cell comments and conditional formatting.</p> <p>Students will use a dashboard to select and display information summaries based on a given large data set. The dashboard should show data summaries from the data set, appropriate presentation methods and features used.</p> <p>Topics: Data Management</p>	<p>Component 2, Learning Aim: B Create a dashboard using data manipulation tools</p> <p>Understand how data can be imported from an external source. Students will then explore how to apply data processing methods. These include: data manipulation methods, macros, data validation, dashboard, cell comments and conditional formatting.</p> <p>Students will use a dashboard to select and display information summaries based on a given large data set. The dashboard should show data summaries from the data set, appropriate presentation methods and features used.</p> <p>Topics: Data Management</p> <p>Component 2, Learning Aim: C Draw conclusions and review data presentation methods</p> <p>Students will draw conclusions on the data set, using their dashboard to make recommendations. Students to demonstrate drawing conclusions based on trends, patterns, anomalies and possible errors.</p> <p>Using their dashboard, students to provide detailed recommendations by considering: which customers/areas to target for advertisement, where to deploy staff to deal with increased demands and how and when to adapt transport schedules.</p> <p>Students will assess how well they have used the presentation features (LAB), to ensure they do not lead to: information being misinterpreted, information being biased and inaccurate conclusions being made.</p> <p>Topics: Communication Digital Literacy</p>

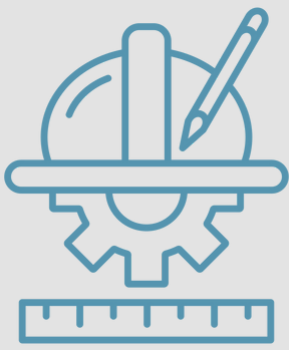
Year 10 Curriculum



Curriculum Aims:

Students understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms, and data representation. Students are required to analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs. Students to think creatively, innovatively, analytically, logically and critically. Students to understand the components that make up digital systems, and how they communicate with one another and with other systems. Students to understand the impacts of digital technology to the individual and to wider society. Students apply mathematical skills relevant to Computer Science.

AUTUMN	SPRING	SUMMER
<p>1.1 System Architecture</p> <p>Students to explain the purpose of the CPU and explain the stages of fetch-execute cycle. Students to know what actions occur at each stage of the fetch-execute cycle.</p> <p>Students to understand common CPU components and their function. Students to explain the role/purpose of each component and what it manages, stores, or controls during fetch-execute cycle.</p> <p>Students to understand the concept of Von Neumann architecture and understand how this architecture functions.</p> <p>Students to understand how data travels within the system architecture using buses.</p> <p>Students to identify the purpose of various CPU registers and understand how these registers functions within the system architecture.</p> <p>Topics: Hardware and Software</p> <p>1.2 Memory and Storage</p> <p>Students to understand the reasons between primary and secondary storage.</p> <p>Students to understand the key characteristics of RAM and ROM.</p> <p>Students to explain why virtual memory may be needed in a system.</p> <p>Students to explain how virtual memory works.</p> <p>Students to understand why computers have secondary storage. Students are able to recognise a range of secondary storage devices/medium.</p> <p>Students to compare advantages/disadvantages for each storage device and be able to apply knowledge in context within scenarios.</p> <p>Students to know why data must be stored in binary format.</p> <p>Students to be familiarised with data units and moving between each.</p> <p>Students be able to calculate capacity of devices.</p> <p>Students be able to calculate required capacity for a given set of files.</p> <p>Students to calculate file of sizes of sound, images and text files.</p> <p>Students to understand how to convert positive denary whole numbers to binary numbers (up to and including 8 bits) and vice versa).</p> <p>Students to understand how to add two binary integers together (Up to and including 8 bits) and explain overflow errors which may occur.</p> <p>Students to understand how to convert denary whole numbers into 2- digit hexadecimal numbers and vice versa.</p> <p>Students to understand how to convert binary integers to their hexadecimal equivalents and vice versa.</p> <p>Students to know why a binary shift occurs.</p> <p>Topics: Hardware and Software Mathematical concepts and logic</p>	<p>1.3 Computer networks, connections and protocols</p> <p>Students to understand why computers are connected in a network and know the characteristics of LANs and WANs.</p> <p>Students to understand the different factors that can affect the performance of a network.</p> <p>Students to find out different pieces of hardware within a network and understand the functions of these hardware.</p> <p>Students to understand the concept of the Internet as a network of computer networks.</p> <p>Students to find out the functions of servers and the role of clients within a client-server model.</p> <p>Students to understand the Cloud and know the advantages/disadvantages of the Cloud.</p> <p>Students to apply understanding of networks to a given scenario.</p> <p>Students to compare benefits and disadvantages of wired versus wireless connection.</p> <p>Students to recommend one or more connections for a given scenario.</p> <p>Students to understand the principles of encryption to secure data across network connections.</p> <p>Students to understand the purpose of IP addressing, MAC address and the principles of a standard (Ethernet).</p> <p>Students to understand the different types of protocols used for different purposes.</p> <p>Students to understand the layers used in protocols, and the benefits of using layers with the TCP/IP model.</p> <p>Topics: Communication and coordination</p> <p>1.4 Network Security</p> <p>Students to explain how various threats pose security threat to devices/systems.</p> <p>Students to understand how each threat (malware/social engineering/brute-force/DOS/data interception/theft/SQL injection) take can place and what mechanism should be in place to counteract.</p> <p>Students to understand how to limit the treats.</p> <p>Students to understand methods to remove vulnerabilities.</p> <p>Students to analyse a scenario and identify potential threats and recommend solutions.</p> <p>Topics: Security</p>	<p>1.5 Systems Software</p> <p>Students to identify what each function of an operating system does.</p> <p>Students to explain the features of a user interface.</p> <p>Students to understand how memory management works and how this allows for multitasking.</p> <p>Students to understand that data is transferred between devices and the processor and this process needs to be managed and what this entails (e.g. the use of buffers when transferring data to a printer).</p> <p>Students to explain how user management functions (e.g. allocation of an account, access rights, security etc).</p> <p>Students to understand the process of file management, and the key features (e.g. naming, allocation of folders, moving files, saving etc).</p> <p>Students to understand that computers often come with utility software, and how this performs housekeeping tasks.</p> <p>Students to explain the purpose of the identified utility software and why it is required.</p> <p>Topics: Software</p> <p>1.6 Ethical, legal, cultural and environmental impact</p> <p>Students to understand that technology introduce ethical, legal, cultural, environmental and privacy issues.</p> <p>Students to know a variety of examples of digital technology and how this impacts on society.</p> <p>Students to build confidence to discuss the impact of technology based around the issues listed.</p> <p>Students to know the purpose of each legislation and the specific actions it allows or prohibits.</p> <p>Students to understand the need to license software and the purpose of a software licence.</p> <p>Students to know the features of open source and proprietary software.</p> <p>Students to recommend a type of license for a given scenario including benefits/drawbacks.</p> <p>Students to discuss ethical, legal, cultural, environmental and privacy issues based on a given scenario.</p> <p>Students to build confidence to share ideas and collaborate of these issues and provide their opinions and suggest solutions.</p> <p>Topics: Digital Literacy</p>



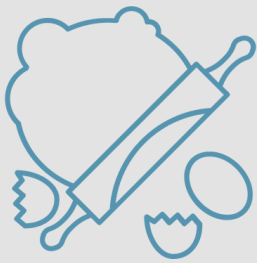
BTEC LEVEL 2 ENGINEERING

Year 10 Curriculum

Curriculum Aims:

With an emphasis on problem solving, Engineering design provides students with the opportunities for students to generate solutions to everyday problems from Scratch. The course comprises of 2 internally assessed coursework units and a final examination.

AUTUMN	SPRING	SUMMER
<p>RO38 INTRODUCTION</p> <p>You are surrounded by products that have been created to solve a particular problem, whether that be a backpack that needs to be strong enough to carry a specific piece of equipment, or a desk tidy that can help to store pens and writing equipment.</p> <p>These engineering designs do not magically appear; they are typically developed by following a design strategy or process.</p> <p>In this unit you will learn about the different design strategies and where they are used, as well as the stages that are involved in iterative design, which is currently one of the most widely used design strategies.</p> <p>You will learn about the type of information needed to develop a design brief and specification, and the manufacturing and other considerations that can influence a design. You will develop knowledge of the types of drawing used in engineering to communicate designs, as well as the techniques used to evaluate design ideas and outcomes, including modelling methods.</p> <p><u>RO38: Exam unit - Principles of engineering design</u></p> <p>This is assessed by an exam.</p> <p>In this unit you will learn about the design process, and all of the stages that are involved.</p> <p>Topics include:</p> <ul style="list-style-type: none"> o Designing processes o Designing requirements o Communicating design outcomes 	<p>RO39 ASSIGNMENT</p> <p>Unless designers can communicate their ideas to others, then it is unlikely that their engineering designs will be fully appreciated. By using drawing skills designers can provide a far better sense of what a new product will look like and encourage the creative process that can enhance a successful design.</p> <p>In this unit you will learn how to develop your techniques in sketching, and gain industrial skills in engineering drawing using standard conventions that include dimensioning, line types, abbreviations, and representation of mechanical features.</p> <p>You will enhance your confidence and capabilities by using computer aided design (CAD), 2D and 3D software, to produce accurate and detailed drawings and models that visually communicate your designs.</p> <p><u>RO39: Set Assignment - Communication of Design Ideas</u></p> <p>This is assessed by a set assignment.</p> <p>In this unit you will learn how to use sketching and engineering drawings to communicate your ideas.</p> <p>Topics include:</p> <ul style="list-style-type: none"> o Manual production of freehand sketches o Manual production of engineering drawings o Use of computer aided design (CAD) 	<p>RO40 ASSIGNMENT</p> <p>Designers need an understanding of how products are manufactured to ensure that their ideas can be produced effectively.</p> <p>Analysing how products are made can help to inform designs, and it can be useful to disassemble existing products to discover how they function and how they were manufactured.</p> <p>In this unit you will learn how designers can quickly create and test models to develop a working prototype of a design.</p> <p>You will develop your virtual modelling skills using computer aided design (CAD) 3D software, to produce a high-quality model that will be able to simulate your design prototype. You will also develop your physical modelling skills using modelling materials or rapid prototyping processes to produce a physical prototype.</p> <p><u>RO40: Set Assignment - Design, evaluation and modelling</u></p> <p>This is assessed by a set assignment.</p> <p>In this unit you will learn how to create and test models of your design.</p> <p>Topics include:</p> <ul style="list-style-type: none"> o Product evaluation o Modelling design ideas



Year 10 Curriculum

Curriculum Aims:

The aims and objectives of the design and technology department relate directly to those of the Academy. Creativity, flair, and innovation are encouraged from year 7 through to year 11. We see Creative Design as an area of practical and creative activity that aims to prepare young people for life in a changing technological society. We feel that the modern approach to teaching these subjects should emphasize on core life skills during key stage three and building on those with more industry specific skills at GCSE. We aim and endeavour to excite and challenge pupils.

FOOD PREPARATION AND NUTRITION

AUTUMN	SPRING	SUMMER
<p>Food commodities</p> <p>How do we prepare food using different techniques? how do we apply the principles of nutrition? How do we ensure the food we cook is safe to eat?</p> <p>Demonstrate knowledge and understanding of nutrition, food, cooking and preparation.</p> <p>Apply knowledge and understanding of nutrition, food, cooking and preparation.</p> <p>Topics: Principles of nutrition Food commodities /groups Technical Knowledge Health safety Hygiene</p> <p>Food commodities/diet and health</p> <p>How do we understand the properties of food? What impact does the environment have on food? How does nutrition contribute to lifestyle and overall health?</p> <p>Apply knowledge and understanding of nutrition, food, cooking and preparation.</p> <p>Topics: Principles of nutrition Diet and good health Where food comes from Food science Technical knowledge</p>	<p>How do we understand the properties of food? What impact does the environment have on food? How does nutrition contribute to lifestyle and overall health?</p> <p>Apply knowledge and understanding of nutrition, food, cooking and preparation.</p> <p>Topics: Principles of nutrition Diet and good health Where food comes from</p>	<p>How do we prepare and plan to follow a design brief, how do we answer an investigation using scientific terminology?</p> <p>Practice NEA task 1 Practice NEA task 2</p> <p>How do we prepare and plan to follow a design brief, how do we work practically following a time plan? How do we plan and revise for an exam?</p> <p>Practice NEA Task 2 Revision</p> <p>Topics: Iterative process Research Planning Testing Making Evaluations</p>



Year 10 Curriculum

Curriculum Aims:

THE CORE PURPOSE OF OUR STUDY OF GEOGRAPHY AT KEVI HWGA, AND 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 FUTURE.
- GEOGRAPHY EQUIPS STUDENTS WITH SKILLS FOR THE FUTURE.

GEOGRAPHY

AUTUMN	SPRING	SUMMER
<p>Global Hazards</p> <p>This topic allows learners to develop an understanding of a variety of hazards that impact human lives both within the UK and worldwide.</p> <p>Topics: Physical Geography Place Specific Knowledge Structure of Earth Plate Boundaries Volcanoes Earthquakes Map Skills Atmospheric Circulation Natural Hazards Forecasting/Presenting</p>	<p>Urban Futures</p> <p>This topic seeks to explore why, and consider how the global pattern of urbanisation is changing. Urban challenges and opportunities are varied and unique and learners will examine these through studying two cities.</p> <p>Topics: Human Geography Physical Geography Place Specific Knowledge Locational Knowledge Urban Change Map Skills Migration Urban Conditions Rural Conditions</p>	<p>Changing Climate</p> <p>In this topic learners will analyse patterns of climate change from the start of the Quaternary period to the present day, considering the reliability of a range of evidence for the changes.</p> <p>Topics: Human Geography Environmental Geography Climate Change Deforestation Burning Fossil Fuels Green House Effect</p> <p>The UK in the 21st Century</p> <p>This topic poses questions about the changing nature of people's lives and work in the UK in the 21st century.</p> <p>Topics: Human Geography Physical Geography Place Specific Knowledge Geopolitics Economics Population Culture</p>



HEALTH & SOCIAL CARE

Year 10 Curriculum

Curriculum Aims:

IN HEALTH AND SOCIAL CARE, STUDENTS WILL USE THEIR CRITICAL LOGICAL THINKING AND CONNECTION FINDING TO LOOK AT KEY CHARACTERISTICS ACROSS PIES IN THE SIX LIFE STAGES AND HOW VARIOUS FACTORS AFFECT THIS. STUDENTS WILL EXPLORE HEALTH AND SOCIAL CARE SERVICES AND HOW TO MEET THE NEEDS OF SERVICE USERS BY APPLYING CARE VALUES.

AUTUMN	SPRING	SUMMER
<p>Component 1: A1 Human growth and development.</p> <ol style="list-style-type: none"> 1. Infancy 2. Early childhood 3. Adolescence 4. Early adulthood 5. Middle adulthood 6. Later adulthood <p>Topics: Life stages. Growth and development. Physical, intellectual, Language, emotional and social development at each life stage.</p> <p>Component 1 – A2 Factors affecting growth and development</p> <ol style="list-style-type: none"> 1. Physical factors 2. Lifestyle factors 3. Social factors 4. Cultural Factors 5. Emotional Factors 6. Environmental Factors 7. Economic Factors <p>Topics: Physical factors Lifestyle factors Social factors Cultural factors Environmental factors Economic factor Emotional factors</p>	<p>Component 1: B1 Different types of life events.</p> <ol style="list-style-type: none"> 1. Health and wellbeing. 2. Relationship changes. 3. Life circumstances. <p>B2: Coping with change caused by life events.</p> <ol style="list-style-type: none"> 1. Character traits 2. Sources of support- informal; professional; voluntary, Community groups and faith-based organisations. 3. Types of support- Emotional Support, Informational support, Practical Support <p>Topics: Life events- health and wellbeing, relationship changes and Life circumstances. Character traits- Resilience Self-esteem Emotional intelligence Disposition working Coping with life events and adapting to change. Types of support – • Practical help, • Emotional support, • Information, advice and endorsed apps. Sources of Support Informal support – family, friends, neighbours. Formal support- Professional carers or services, Community groups, Multi agency working, multi-disciplinary working</p> <p>Component 2 – Health and Social Care Services and Values</p> <p>2A - Understand the different types of Health and Social Care services and the barriers to accessing them.</p> <p>A1: Health Conditions A1: Health Care Services A2: Social Care services A3: Barriers to accessing services</p> <p>Topics: Health conditions Primary care. Secondary and tertiary care. Allied Health professionals. Social Care services for children, young people and adults or children with specific needs</p>	<p>Component 2 – Health and Social Care Services and Values</p> <p>2A Understand the different types of Health and Social Care services and the barriers to accessing them.</p> <p>A1: Health Care Services A2: Social Care services A3: Barriers to accessing services</p> <p>Topics: Health conditions Primary care. Secondary and tertiary care. Allied Health professionals. Social Care services for children, young people and adults or children with specific needs</p> <p>Component 2 – Health and Social Care Services and Values</p> <p>2B: Understand the skills, attributes and values required to give care.</p> <p>B1: Skills and attributes in health and social care B2: Values in health and social care B3: The obstacles individuals requiring care may face. B4: The benefits to individuals of the skills, attributes and values in health and social care practice</p> <p>Topics: Skills: Problem solving Observation Dealing with difficult situations and organisation</p> <p>Attributes: Empathy, Patience Trustworthiness Honesty</p> <p>Values: Care Compassion Competence Communication Courage Commitment</p>



HISTORY

Year 10 Curriculum

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	SPRING	SUMMER
<p>Medicine through time:</p> <p>Unit 1: Medicine in medieval England</p> <ul style="list-style-type: none"> Supernatural and religious explanations for cause of disease Theory of the 4 humours and miasma theory Galen and Hippocrates Roles of physician, apothecary and barber surgeon The Black Death <p>Unit 2: The Medical Renaissance in England</p> <ul style="list-style-type: none"> Thomas Sydenham and improving diagnosis Impact of printing press and Royal Society The work of Andreas Vesalius on medical training The work of William Harvey and circulation of blood The Great Plague <p>Unit 3: Medicine in the 18th and 19th – century Britain</p> <ul style="list-style-type: none"> Pasteur's Germ Theory and Koch's work on microbes Improvement in hospital care and the influence of Florence Nightingale Changes to surgery: Anaesthetics and antiseptics Jenner and vaccinations Public Health Act Fighting cholera in London and the Broad Street Pump <p>Key concepts: Change over time Cause and consequence Perspective Significance Similarity and difference</p>	<p>Medicine through time:</p> <p>Unit 4: c1900-present: Medicine in modern Britain</p> <ul style="list-style-type: none"> The influence of genetics Lifestyle factors Improvements in diagnosis and technology Creation of NHS Magic bullets and antibiotics Mass vaccinations and government lifestyle campaigns Fleming, Florey and Chain's development of penicillin Fight against lung cancer <p>Unit 5: British sector of the Western front, 1914-18: injuries, treatments and the trenches</p> <ul style="list-style-type: none"> Key battles on the Western Front Trench system Medical treatment on the Western Front Nature of wounds: Shrapnel, gas attacks etc Work of RAMC and FANY Transport issues Thomas Splint and X-ray units Blood transfusions on the Western Front Use of historical sources Framing questions for enquiries and selecting sources for investigations <p>Early Elizabethan England</p> <p>Unit 1: Queen, government and religion, 1558-69</p> <ul style="list-style-type: none"> The situation of Elizabeth's accession The settlement of religion Challenges to the religious settlement The problem of Mary. Queen of Scots <p>Key concepts: Change over time Perspective Power Similarity and difference Cause and consequence Significance Democracy</p>	<p>Early Elizabethan England</p> <p>Unit 2: Challenges to Elizabeth at home and abroad, 1569-88</p> <ul style="list-style-type: none"> Plots and revolts at home Relations with Spain Outbreak of war with Spain, 1585-88 The Armada <p>Unit 3: Elizabethan society in the Age of Exploration, 1558-88</p> <ul style="list-style-type: none"> Education and leisure The problem of the poor Exploration and voyages of discovery Raleigh and Virginia <p>Key concepts: Power Similarity and difference Cause and consequence Significance Democracy</p>



Year 10 Curriculum

Curriculum Aims:

- To equip students with the skills needed to communicate in a foreign language
- To develop students' confidence in their ability to communicate
- To provide students with opportunities to discover the culture of other countries

MODERN FOREIGN LANGUAGES - SPANISH

AUTUMN	SPRING	SUMMER
<p>How do I talk about holidays? Using the present tense Describing normal holidays Holidays preferences Using the preterite tense Talking about a past holiday Using the imperfect tense and knowing the differences between preterite and imperfect Describing a trip to Barcelona Describing a disastrous holiday Booking a hotel and problems in a hotel</p> <p>Topics: Fluency: Pronunciation of "v" Accents impact on pronunciation Pronunciation of "ñ" Pronunciation of "j" ("jugué", "me alojé", "jabón", "viajé") Pronunciation of "g" ("gimnasio") "h" silent letter ("hay") Understanding, asking and answering questions Vocabulary: Holidays vocabulary and activities Frequency words Connectives Weather phrases (in the present tense and preterite) Opinion verbs and vocabulary Higher numbers Question words Hotel accommodations and problems Grammar: Present tense Opinion verbs with infinitives Preterite tense Imperfect tense Using verbs with "usted"</p> <p>How do describe my school life? Reviewing school subjects and giving opinions Describing school uniform Describing the school day (revising the time) Describing your school Describing primary school life Discussing school rules and pressure Using the near future tense Describing a future school trip Talking about activities and achievements in school</p> <p>Topics: Fluency: Pronunciation of "g" ("religion", "inglés", "elegante") Accents impact on pronunciation Pronunciation of "r" Pronunciation of "ll" ("llevar") Pronunciation of "r" Pronunciation of "y" Pronunciation of "u" ("usar", "punctual", "durante") Pronunciation of "v" ("voy") Understanding, asking and answering questions Vocabulary: School subjects Opinions verbs Qualifiers/quantifiers Clothes and colours Times and numbers School facilities Question words Saying "the good thing is" / "the bad thing is" School rules and school problems / pressure School trip activities School activities/clubs and achievements</p> <p>Grammar: Adjective agreement Making comparisons Using negatives Imperfect tense Phrases followed by the infinitives ("se debe" "no se debe" "no se permite")</p>	<p>How do I talk about myself and my likes/dislikes? Describing myself and others Reviewing the present tense Describing my family and what I do with my family Discussing my use of social networks Using the present continuous Talking about what you are doing now and making arrangements to go out Discussing reading preferences Describing relationships</p> <p>Topics: Fluency: Pronunciation of "j" ("jugar", "major") Pronunciation of "ll" ("llevar") Accents impact on pronunciation Pronunciation of "qu" ("qué", "quedamos", "quieres") Pronunciation of "c" ("ficción", "cómic", "cuando", "nunca") Pronunciation of "ñ" ("años") Understanding, asking and answering questions Vocabulary: Family members Vocabulary of description Activities on social networks Using "para + inf" Hobbies Book genres and opinions Connectives and frequency words Family relationships ("me llevo bien/mal con...") Grammar: Possessive adjectives Adjective agreement Revision of present tense Present tense of "estar" Present continuous introduction (+ present participle) Using "ser" and "estar"</p> <p>How do I talk about my hobbies? Talking about TV programme and films Talking about what you usually do Discussing what I do in my spare time Talking about sports (that I do, used to do and did) Using the perfect tense ("I have done") Talking about what is trending Discussing different types of entertainment Describing a role model</p> <p>Topics: Fluency: Pronunciation of "j" ("jugaba", "juego", "personajes") Pronunciation of "ll" ("maquillaje") Pronunciation of "v" Pronunciation of "ñ" "h" is a silent letter Accents impact on pronunciation Understanding, asking and answering questions Vocabulary: Free time activities Sports TV programmes and films Opinions Expressions of frequency Suelo + infinitive Question words Tener ganas de + infinitive Adjectives of personality Inspirational people and actions Grammar: Preposition "al" and "a la" Singular and plural forms of nouns Adjective agreements Preterite</p> <p>Imperfect tense Perfect tense (saying what you have done) Using adjectives "algunos", "otros", "muchos", "demasiados"</p>	<p>How do I talk about my city/town? Revising places in town and describing what there is Asking for and giving directions Describing features of a region/city Describing the weather Simple future Planning what to do Shopping for clothes Talking about advantages and disadvantages of your town Describing a visit to town using three-time frames Talking about transports and arranging travel</p> <p>Topics: Fluency: Pronunciation of "v" ("vivo") Reminder that "h" is a silent letter ("hay") Pronunciation of "ll" ("Amarillo", "llevo", "talla") Pronunciation of "ñ" ("señora") Pronunciation of "z" ("zapatos") Pronunciation of "qu" ("parques", "tranquillo") Accents impact on pronunciation Understanding, asking and answering questions Vocabulary: Places in town Directions Using "se puede" and "se pueden" General activities (that you can do in a region) Tourist information Days of the week Clothes and colours (revision) Opinions on shopping Advantages/disadvantages of a town Using "tanto(s)/tanta(s)" Grammar: Using "some", "many", "lots of" Adjective agreements Infinitives Simple future ("I will") Using "if" clauses ("Si hace calor, visitaré la catedral") Demonstrative adjectives</p> <p>How do I refer to different time frames and apply grammar accurately? Catching-up on missed content. Revising key grammar points.</p>



Year 10 Curriculum

Curriculum Aims:

- To equip students with the skills needed to communicate in a foreign language
- To develop students' confidence in their ability to communicate
- To provide students with opportunities to discover the culture of other countries

MODERN FOREIGN LANGUAGES - FRENCH

AUTUMN	SPRING	SUMMER
<p>How can I talk about who I am? Revisiting of key phrases to describe oneself Using the present tense Talking about my friends and what makes a good friend Talking about my family and family relationships Using the near future tense Inviting someone out Describing what makes an ideal partner Talking about marriage and partnerships</p> <p>Topics: Fluency: Pronunciation of feminine adjective ending (bavard/bavarde) Pronunciation of "é" Pronunciation of "ine", "ains", "ain" Final "e" silent (mange, passe...) Pronunciation of "ç" Pronunciation of "oi" (égoïste) "h" is silent ("heures") Final "s" silent Pronunciation of "é" Intonation when asking a question Understanding, asking and answering questions</p> <p>Vocabulary: Adjectives of personality Physical descriptions Characteristics of a good friend Family members Hobbies Question words Opinions on marriage and partnerships</p> <p>Grammar: "avoir" and "être" Present tense Adjective agreement Reflexive verbs in the present tense Possessive adjectives Near future tense Infinitives</p> <p>How do I talk about what I do in my free time? Revisit vocabulary of hobbies Talking about films and arranging to go to the cinema Talking about sports Describing how I use technology Talking about what I like to read and what music I like to listen to Comparing opinions on TV programmes Reviewing the perfect tense Talking about a day night out with friends</p> <p>Topics: Fluency: Pronunciation of "er" Final "s" silent ("films, écrits, faisons") Pronunciation of "temps" and "ent" ("de temps en temps", rarement) Pronunciation of "d'" ("un film d'aventure, un film d'action") Pronunciation of "uis" Pronunciation of "tion" ("action", "équitation", "natation") Pronunciation of "ais" and "ait" Pronunciation of "au", "aux", "eaux" Pronunciation of "oins" ("moins") Final "x" silent Understanding, asking and answering questions</p> <p>Vocabulary: Leisure activities Frequency words Opinions Types of films Question words Sports Using "depuis" Technology Types of books Types of music Types of TV programmes</p> <p>Grammar: Prepositions used with activities (du, de la, des, au, à la, aux...) Present tense of "vouloir" Present tense of "faire" Present tense of "lire", "écrire", "prendre", "mettre" Negatives Comparisons Adjective agreement Perfect tense</p>	<p>How do I talk about where I live and my region? How do I talk about healthy living? Describing my house Describing my bedroom Describing what there is in your town/city Discussing what we can do in your town Discussing advantages + disadvantages of your area Discussing plans and the weather Talking about food Discussing healthy and unhealthy living</p> <p>Topics: Fluency: Pronunciation of "y" Pronunciation of "ains" ("salle de bains") and "in" (jardin) Pronunciation of "eut" Final "s" silent Pronunciation of "ion" ("circulation", "pollution") Pronunciation of "ant" ("avant", "maintenant") Pronunciation of "eil", "eille" and "ill" ("soleil", "brouillard") Final consonant is silent ("chocolat", "tôt", "quand...") Pronunciation of "des" Understanding, asking and answering questions</p> <p>Vocabulary: Rooms in the house Furniture Prepositions Things to do in a town/city/region Weather phrases Food Quantities Actions that are healthy or unhealthy</p> <p>Grammar: Negative form of "il y a" "on peut" + infinitives Negatives Imperfect "Si" clauses Partitive articles Adverbs</p> <p>How do I talk about education and school? Revisiting the time and describing the timetable Giving opinions on subjects and school facilities Talking about your school and schools in France Revisiting clothes and colours Talking about the school uniform Discussing rules and regulations The imperfect tense Talking about primary school</p> <p>Topics: Fluency: Pronunciation of "ion" ("religion", "instruction") "h" is silent ("heures") Final "s" silent Final "t" silent ("fascinant", "passionnant...") Pronunciation of "ent" and "ont" (present tense ending) Pronunciation of "ais", "ait" Pronunciation of "ez" Pronunciation of "é" Pronunciation of "ç" Understanding, asking and answering questions</p> <p>Vocabulary: School subjects Opinions Numbers School facilities Clothes Colours School rules Extra-curricular activities</p> <p>Grammar: Definite articles Direct object pronouns Using "ils" and "elles" Adjective agreement and genders Using "il faut" Infinitives Imperfect Near future tense Perfect tense Combining three tenses</p>	<p>How do I talk about holidays and festivals? Talking about customs and festivals in French-speaking countries Describing family celebrations Weather in 3 tenses Talking about normal holidays Staying in a hotel/ Complaints at a hotel Travel and transport-buying tickets Ordering food at a restaurant Talking about what you do and did on holidays Discussing holiday disasters Talk about ideal holidays</p> <p>Topics: Fluency: Pronunciation of "qu'est-ce que" Pronunciation of "é" Final "s" silent Final consonant silent " H" is silent Pronunciation of "ez" ("rez", "chez") Pronunciation of "ion" ("television", "climatization") Pronunciation of "eu" (eg: difference between "heureux" and "j'ai eu") Pronunciation of "ç" Pronunciation of "ais" Understanding, asking and answering questions</p> <p>Vocabulary: Festivals and celebrations Question words Time expressions Weather phrases Countries Hobbies and holidays activities Transports Hotel facilities</p> <p>Grammar: Using "on" Present tense Comparisons Pronoun "y" Perfect tense Reflexive verbs and reflexive pronouns Near future tense</p> <p>Catch-up on any missed content</p> <p>Revision of key grammar points</p>



MUSIC

Year 10 Curriculum

Curriculum Aims:

In year 10 students will learn all about the elements of music and start applying them in depth to their performances. They will also explore past assignment briefs in preparation for their unit 2 composition as well as learning music theory to enable them to more easily access the composition process.

AUTUMN	SPRING	SUMMER
<p>How do we bridge the musical skills gap to create confident performers?</p> <p>Introduction to performance skills.</p> <p>Topics: Solo and Group Performance Skills Rehearsal Skills Performances to the class Instrumental Techniques</p> <p>How do we use our knowledge of music theory to develop further our understanding on how music is created?</p> <p>Introduction to Music Theory</p> <p>Topics: MR TIGHTS Melody Rhythm Texture Instruments Genre Harmony Tonality Structure</p> <p>Reading Sheet Music Composing basic melodies Analysing existing music</p>	<p>How do we use are knowledge of music theory to explore and develop our own piece of music?</p> <p>Introduction to music composition. Composing for an instrument Composing using technology</p> <p>Topics: Texture Timbre Tempo Dynamics Structure Pitch Rhythm Tonality</p> <p>How can we reflect on our own techniques to ensure we progress as musical performers?</p> <p>Development of Music Performance Creating reflections of rehearsals and class performances Peer feedback on class performances.</p> <p>Topics: Articulation Dexterity Dynamics Rhythm accuracy of pitch Texture Timbre Tempo Dynamics Structure Pitch Rhythm Tonality</p>	<p>Set Assignment briefs for Unit 1: Performance</p> <p>Topics: Working to a brief set by exam board Why are they performing their chosen piece(s), What is their target audience? What is the context of her piece? Creating Log Books for composition and performance rehearsals. Performance Skills (Articulation, dexterity, dynamics, rhythm, accuracy of pitch) Composition Skills (Use of DAW, use of appropriate instruments, Setting a scene with the use of musical elements) Evaluating performance</p> <p>How can we use are developed music theory understanding to create a piece of music to a brief?</p> <p>Using music theory to develop our own compositional skills. Composing to set brief Developing their composition</p> <p>Topics: Composition techniques Song Writing Lyrics Chords Texture Timbre Tempo Dynamics Structure Pitch Rhythm Tonality</p>



PHYSICAL EDUCATION

Year 10 Curriculum

Curriculum Aims:

- To enthuse and inspire students to participate fully and develop a lifelong involvement of physical activity, sport and exercise.
- Promoting good physical health, emotional and social wellbeing.
- To understand the importance of leading healthy and active lifestyles.

AUTUMN	SPRING	SUMMER
<p>How do body systems impact on health, fitness and performance in physical activity and sport?</p> <p>Chapter 1 - Anatomy and Physiology</p> <p>Topics: Understanding the Musculoskeletal System, The Joints, The Effects of Exercise and the Cardio-respiratory System.</p> <p>How do basic principles of movement effect performance in physical activity and sport?</p> <p>Chapter 2 - Movement Analysis</p> <p>Topics: Understanding Levers, Movement Analysis, Muscle Action and Planes & Axes.</p>	<p>How are principles of training and different training methods used in order to plan, carry out, monitor and evaluate personal exercise and training programmes?</p> <p>Chapter 3 - Physical Training</p> <p>Topics: Understanding Components of Fitness, Fitness Testing, Training Seasons, Safety Considerations and Types of Training.</p> <p>How are principles of training and different training methods used in order to plan, carry out, monitor and evaluate personal exercise and training programmes?</p> <p>Chapter 3 - Physical Training + Chapter 7 Use of Data</p> <p>Topics: How can data analysis be used in relation to key areas of physical activity and sport?</p>	<p>How do we get students to analyse their strengths and weaknesses and suggest ideas to improve practical performance in one chosen sport?</p> <p>Chapter 8 – Non- Examined Assessment coursework written evaluation.</p> <p>Paper 1 Revision</p> <p>Topics: Self evaluation -1 selected sport. Analysing strengths and weaknesses. Suggesting ideas for improvement.</p> <p>How do students develop knowledge and understanding of the psychological factors that can affect performers in physical activity and sport?</p> <p>Chapter 4 – Sports Psychology</p> <p>Topics: Classification of skill, understanding Goal Setting, Arousal and Aggression.</p>



PRODUCT DESIGN

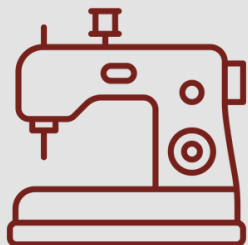
Year 10 Curriculum

Curriculum Aims:

The aims and objectives of the design and technology department relate directly to those of the Academy. Creativity, flair, and innovation are encouraged from year 7 through to year 11. We see Creative Design as an area of practical and creative activity that aims to prepare young people for life in a changing technological society. We feel that the modern approach to teaching these subjects should emphasize on core life skills during key stage three and building on those with more industry specific skills at GCSE. We aim and endeavour to excite and challenge pupils.

AUTUMN	SPRING	SUMMER
<p>How do we select the most appropriate materials and design with accuracy?</p> <p>Multi material CAD project</p> <p>Learning the principles of design.</p> <p>RESEARCH & DESIGN. This is done in a practical situation.</p> <p>Why is developing and modelling an important part of designing?</p> <p>Multi material CAD project</p> <p>Learning the principles of design.</p> <p>RESEARCH, DESIGN & DEVELOPING. This is done in a practical situation.</p> <p>Revision booklet for home study.</p> <p>Topics: Research -knowledge of the world, its context and problems Knowledge of materials, tools, technology, and design theory. Analytical -making use of information through analysis.</p>	<p>Evaluating helps us design and perfect are ideas, how?</p> <p>Multi material CAD project</p> <p>Learning the principles of design.</p> <p>RESEARCH & DESIGN, DEVELOPING & EVALUATING. This is done in a practical situation.</p> <p>Revision booklet for home study.</p>	<p>Designers don't normally just one material, how do we work with different materials in the same project?</p> <p>Multi material CAD project</p> <p>Learning the principles of design.</p> <p>RESEARCH & DESIGN, DEVELOPING & EVALUATING. This is done in a practical situation.</p> <p>Revision booklet for home study.</p> <p>Topics: Research -knowledge of the world, its context and problems Knowledge of materials, tools, technology, and design theory. Analytical -making use of information through analysis.</p> <p>How do we begin a design project?</p> <p>NEA Brief released from the exam board. Student to choose a brief and begin their 20-page (A3) Design and make project.</p> <p>Revision booklet for home study</p> <p>Topics: Research for the NEA. Task analysis, Market research and Secondary research.</p>

Year 10 Curriculum



TEXTILES

Curriculum Aims:

TEXTILES 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 OWN WORKS OF TEXTILES ART.

AUTUMN	SPRING	SUMMER
<p>How do we recall and develop our skills in Textiles using different medias, materials, techniques and processes? (MINI SKILLS PROJECT)</p> <p>Students recall and develop their practical skills and theory knowledge in Textiles from KS3. Through experimentation with different medias, materials, processes and techniques students develop their own artistic style and discover which approaches work best for them.</p> <p>Topics: Textiles skills (including use of the sewing machines and hand embroidery) Experimentation Photography Artist and designer research Independence Procedural knowledge Declarative knowledge</p> <p>How do I implement my knowledge and skills to a textiles project considering my own artistic style? (Component 1-Project 1)</p> <p>Students are introduced to Component 1: Portfolio. This is internally assessed coursework project worth 60% of their GCSE level. Students approach project by focusing on a specific starting point by recording initial ideas through drawing activities and study an artist influence.</p> <p>Topics: Artist appreciation Evaluation, Analysis Experimentation Research Procedural knowledge Declarative knowledge</p>	<p>How do we build on our ideas informed by our contextual research and put them into practice? (Component 1- Project 1)</p> <p>Students independently experiment with a range of different materials and processes relevant to their style and ideas. Pupils investigate artists to influence their ideas towards a personal response. Pupils begin to take ownership and personalise their project so it is unique to them.</p> <p>Topics: Application of mediums Contextual research Textiles skills Procedural knowledge Declarative knowledge</p> <p>How do we effectively design and present a personal response combining our contextual and practical work?</p> <p>Using the contextual research and practical investigations from their portfolio work, pupils develop final piece ideas. In a mock exam setting, students produce a final piece towards their project over a ten hour period.</p> <p>Topics: Creativity Planning Research Fine art skills Procedural Procedural knowledge Declarative knowledge</p>	<p>How do we explore and independently select projects, building on our prior learning? (Component 1-Project 2)</p> <p>Complete ownership and personalised approach focusing on a specific starting point and artist influence. Experimentation with textile mediums through research, investigations and practice.</p> <p>Topics: Artist and designer appreciation Evaluation, Analysis Experimentation Research Procedural knowledge Declarative knowledge</p> <p>How do we build on our ideas informed by our contextual research and develop personal and sophisticated responses? (Component 1-Project 2)</p> <p>Complete ownership and personalised approach focusing on a specific starting point and artist influence. Experimentation with art mediums through research, investigations and practice.</p> <p>Topics: Application of mediums Contextual research Fine art skills Procedural knowledge Declarative knowledge</p>