

The Academic Curriculum

The intent of our academic curriculum is to deliver **Powerful Knowledge** to our students. At Creative Education Trust this is not contextualised as ‘the knowledge of the powerful’, but specialised knowledge in a range of subject disciplines. This will include both disciplinary knowledge and substantive knowledge within each area of study. This curriculum is not only designed to endow children with the social assets, skills and cultural capital needed to succeed and achieve, but also to instil in our children the power and confidence to question, synthesise and scrutinise in a range of disciplines, a variety of social contexts and in their own lives. Beyond a range of academic qualifications, the intended impact of this curriculum is for our students to be able to integrate into any social, academic or professional environment, as well as to question, instigate change or lead within those environments.



**ABBAYFIELD
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Below you will find a detailed overview of what Year 11 students are learning in each of their subjects in Half Term 1 and 2 (September – December)

Year 11 Curriculum – Autumn Term 2020-21 - To support parents and students.

Subject	Autumn Term Topics
English	<p>Theme: An Inspector Calls Students are learning to excel at their understanding of how poets create meaning and influence the reader to prepare (Literature Paper 2). Students will explore and develop:</p> <ul style="list-style-type: none"> • How the poet uses language, structure and setting to communicate their ideas • Understanding the context of the era and how this has influenced the poem • The ability to engage with the poems and formulate a perceptive and critical argument and make valid comparisons • To understand the writers’ ideas and intended meaning • Understanding how the writer uses a range of linguistic and structural features to influence the reader • To identify a range of versatile references from multiple poems <p>Students will also be taking time to revise and prepare for their PPE exams.</p>
	<p>Students are learning a variety of topics dependent on student ability and gaps in knowledge as a result of lockdown:</p> <p>Topics could include:</p>

<p>Maths</p>	<ul style="list-style-type: none"> • Algebraic Fractions • Changing the Subject • Quadratic Equations • Graphs and Transformation of Graphs • Velocity Time Graphs • Circle Theorems • Probability • Histograms • Cosine rule • Area of non-right angled triangles • Trigonometric ratios for any angle up to 360° • Distance–time graphs. • Tangents • Vectors • Linear and non-linear graphs • Powers and standard form • Congruence and similarity • Combine Events • Properties of Circles • Variation • Rules of indices • Ratio, speed and proportion • Number and sequences • Perimeter and area • Percentage • Sequences and nth term • Right angled triangles - Pythagoras, trigonometry, bearings • Substituting into expressions • Equations parallel to the axis • Drawing straight line graphs • Gradient of a line and interpreting $y=mx+c$ • Binomials • Interior and exterior angles of polygons
	<p>Biology: Inheritance, Variation, Evolution Students are learning how the number of chromosomes are halved during meiosis and then combined with new genes from the sexual partner to produce unique offspring. Gene mutations occur continuously and on rare occasions can affect the functioning of the animal or</p>

plant. These mutations may be damaging and lead to a number of genetic disorders or death. Very rarely a new mutation can be beneficial and consequently, lead to increased fitness in the individual. Variation generated by mutations and sexual reproduction is the basis for natural selection; this is how species evolve. An understanding of these processes has allowed scientists to intervene through selective breeding to produce livestock with favoured characteristics. Once new varieties of plants or animals have been produced it is possible to clone individuals to produce larger numbers of identical individuals all carrying the favourable characteristic. Scientists have now discovered how to take genes from one species and introduce them in to the genome of another by a process called genetic engineering. In spite of the huge potential benefits that this technology can offer, genetic modification still remains highly controversial.

Chemistry:

Chemical Analysis:

Analysts have developed a range of qualitative tests to detect specific chemicals. The tests are based on reactions that produce a gas with distinctive properties, or a colour change or an insoluble solid that appears as a precipitate. Instrumental methods provide fast, sensitive and accurate means of analysing chemicals, and are particularly useful when the amount of chemical being analysed is small. Forensic scientists and drug control scientists rely on such instrumental methods in their work.

Organic Reactions (Triple only):

Students will be able to explain how the organic products of fractional distillation and cracking are converted into compounds which contain different functional groups. Organic molecules, such as alkenes, alcohols and carboxylic acids, undergo a series of chemical reactions in order to make new and useful materials such as polymers, pharmaceuticals, perfumes, flavourings, dyes and detergents.

Physics:

Electromagnetism

The poles of a magnet are the places where the magnetic forces are strongest. When two magnets are brought close together they exert a force on each other. Two like poles repel each other. Two unlike poles attract each other. Attraction and repulsion between two magnetic poles are examples of non-contact force. A permanent magnet produces its own magnetic field. An induced magnet is a material that becomes a magnet when it is placed in a magnetic field. Induced magnetism always causes a force of attraction. When removed from the magnetic field an induced magnet loses most/all of its magnetism quickly. Know that the region around a magnet where a force acts on another magnet or on a magnetic material (iron, steel, cobalt and nickel) is called the magnetic field. The force between a magnet and a magnetic material is always one of attraction. Know how to create a vary the strength of an electromagnet Know how the motor effect works and how to vary the speed of a motor and (Triple)how Loudspeakers and headphones use the motor effect to convert variations in current in electrical circuits to the pressure variations in sound waves. (Triple) know how the generator effect is used in an alternator to generate ac and in a dynamo to generate dc. And how Microphones use the generator effect to convert the pressure variations in sound waves into variations in current in electrical circuits. Know how a basic transformer works and how to calculate input and output voltages.

Space (Triple Only)

Our solar system consists of (in ascending size order): comets, dwarf planets, moons, eight planets, the Sun. Our sun and its solar system is part of a galaxy called the Milky Way. Nebula - a cloud of gas and dust which contracts due to the force of gravity. Protostar - Friction between particles causes high temperature and pressure, nuclear fusion starts Main Sequence Star - stable period of a stars life during which force due to radiation pressure outwards and gravity force inwards are balanced. Red Giant - star expands and cools, elements up to iron made by fusion White Dwarf and Planetary Nebula – layers drift into space and last fusion occurs until all hydrogen runs out Black Dwarf - Fusion eventually stops and the star no longer gives out light. Red super giant - star expands and cools elements up to iron made by fusion Supernova - layers collapse in on dense core in an explosion in which elements more massive than iron are made. Elements are

Science

	<p>scattered throughout the universe. Neutron star - a very dense ball of neutrons. Black hole - object so dense that not even light can escape its gravity field. All circular motions are caused by a force towards the centre of an orbit. For satellites this is caused by gravity. Planets, moons and artificial satellites all orbit a larger mass. Planets orbit stars, moons orbit planets, artificial satellites are put into orbit by humans. Red shift - the light observed from an object moving away from us (receding) shows an increase in wavelength. The faster the relative speed between the observer and the object the greater the observed increase in wavelength. The Big Bang Theory – this model explains the red-shift data by suggesting that the Universe began from a small hot dense region and has been expanding ever since.</p>
History	<p>Students will learn about the key features of Anglo-Saxon society, causes and consequences of the Norman Conquest and consolidation of Norman power in England. This will include:</p> <ul style="list-style-type: none"> • Sense of period – 1060 Britain to early Medieval England until 1088. • Substantive concepts – social, political, military, religious, hierarchy, succession, invasion, battle, tactics, warfare, rule. • Disciplinary concepts – cause, consequence, significance. • Links between Norman England and present day - law-making e.g. fines & government and land e.g. shires. • Death of Edward the Confessor and the succession crisis of 1066 – strengths and weaknesses of claimants. • Battle of Fulford, Battle of Stamford Bridge & Battle of Hastings. • Castles, law-making & financial rewards to consolidate Norman rule. • Rebellion & unrest 1067-1075 e.g. Battle of Ely, 1071 & Revolt of the Earls, 1075. • Harrying of the North, 1069. • Lanfranc and Church reform. • William’s death in 1087 & the succession of William Rufus over Robert ‘Curthose’.
Geography	<p>Half Term 1: Paper 2: The Changing Economic World</p> <p>Students will learn that there are global variations in economic development and quality of life. They will explore the different strategies for reducing the development gap. Students will explore:</p> <ul style="list-style-type: none"> • Development indicators (economic and social) and their use/usefulness. • DTM (Demographic Transition Model) • Causes and consequences of uneven development. • Disparities between global health and wealth. • Solutions to uneven development. • Tourism as a way of closing the development gap. • Case study of LIC/NEE (Low Income Countries/Newly Emerging Economies) - Industrial development and TNCs (Transnational Corporations) - social, economic and environmental change.

Half Term 2: Paper 2: The Changing Economic World

Students will understand how major changes in the economy of the UK have affected, and will continue to affect, employment patterns and regional growth. Students will explore:

- Causes of economic change in the UK
- Post Industrial Society - UK
- Employment sectors in UK (change over time)
- Science and business parks
- Environmental impacts of industry
- Population growth/decline in rural areas
- North/South divide. Changing infrastructure in UK
- UK in the wider world

Half Term 1 Theme: Holidays

Students are learning to be able to discuss:

- Booking a hotel
- Describing travel
- Describing a past holiday
- Ordering in a restaurant
- Talking about holiday disasters
- Ideal holiday plans

Students will learn:

- *Nous* verb form
- Possessive adjectives
- Comparative structures
- Pronoun *y*
- Present & perfect tense
- Reflexive verbs
- Using *en* + present participle
- Expressions with *avoir*
- Conditional tense

HIGHER : Reflexive verbs in perfect tense

Avant de + infinitive

Demonstrative pronouns

French

	<p>Half Term 2 Theme: Food and Festivals Students are learning to be able to discuss:</p> <ul style="list-style-type: none"> • Daily routine • Shopping for clothes & special meals • Describing festivals • Family celebrations and traditions <p>Students will learn:</p> <ul style="list-style-type: none"> • Modal verbs <i>devoir</i> & <i>pouvoir</i>, • Démonstrative adjectives • Interrogative adjectives • Present & near future tenses • Forming questions • Using polite forms of a verb <p>HIGHER: Pronoun <i>en</i> <i>Venir de</i> + infinitive</p>
Spanish	<p>Half Term 1 Theme: Culture Students will learn to discuss the theme of identity and culture through mealtimes, daily routine, illnesses, food and festivals.</p> <p>Students will learn: Reflexive verbs, <i>Estar</i> and <i>tener</i> for illnesses.</p> <ul style="list-style-type: none"> • The passive and avoiding the passive • Irregular verbs in the preterite tense (<i>tener</i>, <i>poner</i>, <i>poder</i>, <i>venir</i>, <i>traer</i>, <i>decir</i>) • Expressions followed by the infinitive (<i>para</i>, <i>al</i>, <i>sin</i>, <i>antes de</i>, <i>después de</i> ...) <p>Half Term 2 Theme: Jobs and Future Employment Students will learn to:</p> <ul style="list-style-type: none"> • Talk about jobs, work experience, what you do to earn money, summer jobs and future plans <p>Students will learn:</p> <ul style="list-style-type: none"> • Masculine and feminine noun endings • The use of indefinite articles • The conditional tense • <i>Solía</i> Future plans (using <i>quiero</i>, <i>tengo la intención de</i>, <i>espero</i>, <i>pienso</i>, <i>voy a</i>, <i>me gustaría</i>...)

<p>Computer Science</p>	<p>Students are learning about network security, computer ethics, robust programs, programming languages and IDE.</p> <p>Students will learn:</p> <ul style="list-style-type: none"> • The threats posed to devices/systems • The knowledge / principles of each form of attack • Common prevention methods • The Impacts of digital technology on wider society • Legislation relevant to Computer Science <ul style="list-style-type: none"> • What should be considered to ensure that a program caters for all likely input values • How to deal with invalid data in a program • Why commenting is useful and how to apply this appropriately • The purpose of testing • The types of testing • Using suitable test data • Characteristics and purpose of different levels of programming language • The purpose of translators • The characteristics of a compiler and an interpreter • Common tools and facilities available in an Integrated Development Environment (IDE)
<p>Art</p>	<p>Personal Portfolio Preparation</p> <p>Students are developing and refining their Personal Portfolios. Students will be exploring and developing their own personal themes whilst producing sensitive, articulate and detailed observational work that demonstrates an embedded knowledge of the formal elements. They will be learning to critically analyse artists' work and produce a thought provoking visual analysis in a refined way. Students will be able to exploit the qualities of materials independently and skilfully through experimentation and be able to critically evaluate and articulate the outcomes.</p> <p>Students will develop their projects towards a final outcome worth 25% of their final Personal Portfolio grade.</p>
<p>Construction</p>	<ul style="list-style-type: none"> • Students will learn to have a practical understanding of a range of wood joints including comb, lap, halving and dovetail. • Students are able to name the joints and use them accordingly and appropriately. • Students will learn how wood joints can be used for a variety of practical purposes. • Students will recognise links to carpentry skills. Skills learnt will be linked to specific coursework section on wood joints.

Graphics	<p>Personal Portfolio Preparation</p> <p>Students are developing and refining their Personal Portfolios. Students will be exploring and developing their own personal themes whilst producing hand-drawn and digital experimentation. They will be learning to critically analyse artists' and designers work and produce a thought provoking visual analysis in a refined way. Students will be able to exploit the qualities of materials independently and skilfully through experimentation and be able to critically evaluate and articulate the outcomes. Students will refine their CAD skills through programmes such as Photoshop.</p> <p>Students will develop their projects towards a final outcome worth 25% of their final Personal Portfolio grade.</p>
Food	<p>Half Term 1 Theme: Food Safety</p> <p>Students will recap bacterial contamination through preparing, buying, cooking, storing foods. Students will learn about food poisoning and bacteria (Campylobacter, Listeria, E. Coli, Salmonella, Staphylococcus Aureus)</p> <p>Students will consider:</p> <ul style="list-style-type: none"> • Food storage temperatures (-18, 1-4, 5-63, 75) • Correct food storage and handling with regard to cross-contamination • Suitable conditions needed for micro-organisms to thrive • Food spoilage and prevention <p>Half Term 2 Theme: Food Nutrition and Health</p> <p>Students will recap sources, functions, and symptoms of excess & deficiency of all macronutrients and micronutrients.</p> <ul style="list-style-type: none"> • Students will consider: • Portion control. • Creating a balanced diet. • Causes and prevention of obesity, CVD, Skeletal Disease, Iron Deficiency Anaemia, Type 2 Diabetes. • Food labelling specifically in relation to nutrition. <p>Students will also commence <u>NEA 2</u> Topic released 1st November</p>
	<p>Students will be tackling complex and demanding physical activities. They should get involved in a range of activities that develops personal fitness and promotes an active, healthy lifestyle. Pupils should be taught to use and develop a variety of tactics and strategies to overcome opponents in team and individual games. They will further develop their technique and improve their performance in other competitive</p>

PE Core	<p>sports. They will take part in a range of environments which present intellectual and physical challenges, which encourage pupils to work in a team, building on trust and developing skills to solve problems, either individually or as a group. They will evaluate their performances compared to previous ones and demonstrate improvement across a range of physical activities to achieve their personal best and continue to take part regularly in competitive sports and activities outside school through community links or sports clubs. The students will also have the opportunity to explore and focus on options that they may pursue outside of school which will explicitly link to their lifelong participation.</p>
GCSE PE	<p>Alongside their practical performance, students are working to complete their coursework, this involves:</p> <ul style="list-style-type: none"> • Evaluation of fitness test results, comparing to national averages and identifying strengths and weaknesses • Analysis of the components of fitness and justifying the impact they have on the chosen sport • Overview of key skills, describing the importance of each skill and how to perform them effectively • Assessment of the key skills, identifying strengths and weaknesses and justification for this • Movement analysis of a selected sporting action indicating exactly how it is carried out, and classification of the skill on the difficulty and environmental skill continuums, which justification • Action plan identifying and explaining what is going to be improved and how. This will include the principles of training, SMART targets, risk assessment and session plans <p>Throughout the term, students will also be revising anatomy and physiology and physical training for the PPE exam (paper 1).</p>
Media	<p>Students are working on the NEA section of the course, particularly the production element of their work.</p> <p>They are completing either:</p> <p>Film production: students are creating a new DVD cover and poster for a thriller film.</p> <p>Magazine: students are creating a front cover and double page spread of a magazine from a specialised genre.</p>
Dance	<p>Students are creating their own choreography piece in relation to one of the stimuli provided from AQA.</p> <p>Rehearsing and recording the Set Phrase Breathe.</p> <p>Students will be revising all 6 works from the anthology:</p> <ol style="list-style-type: none"> 1. Emancipation of Expressionism 2. A Linha Curva 3. Within Her Eyes 4. Infra 5. Artificial Things 6. Shadows

<p>Drama</p>	<p>Students are working to develop understanding for the text 'Blood Brothers'. They will continue to develop understanding of devising techniques created a final devised performance based on an exploration of stimuli.</p> <p>Students are recapping the text 'Blood Brothers' and are working to understand and confidently apply exam techniques for their written exam.</p> <p>Students are learning the skills necessary for their practical exam.</p> <p>Students are developing their understanding and knowledge of Drama and Theatre.</p>
<p>Music</p>	<p>Students are learning to prepare for final performances by developing the following skills:</p> <ul style="list-style-type: none"> • Accuracy • Fluency • Technical control • Intonation (where applicable) • Projection • Expression • Balance of ensemble • Communication with other performers • Stylistic awareness • Confidence <p>Students are completing a final draft of their own choice composition with considerations and developments of:</p> <ul style="list-style-type: none"> • Treble and bass clef notation • Develop more complex rhythms and compound time signatures • Use more complex harmonic language • Using modulations • Develop melodies with clear shape and structure • Organise pieces with clear shape and structure • Compose with stylistic awareness • Control of instruments and resources <p>Students are learning to play music for ensemble, whilst learning about:</p> <ul style="list-style-type: none"> • Chamber music • Jazz • Musical Theatre

	<ul style="list-style-type: none"> • Textures • Types of ensembles: e.g. solo, duo • Musical elements and devices • Instrumental and vocal techniques • Develop melodic and rhythmic dictation <p>Students will revise all assessment objectives and set works and develop exam technique in:</p> <ul style="list-style-type: none"> • Musical context • Musical elements • Musical styles • Musical devices • Instrumental and vocal playing techniques • Use of technology • Practise exam style questions
Health and Social Care	<p>Students will be exploring how factors can affect an individual's health and wellbeing positively or negatively. They will learn the definition of health and wellbeing: a combination of physical health and social and emotional wellbeing, and not just the absence of disease or illness. They will also explore the different physical, social, economic and environmental factors that can affect health and wellbeing:</p> <ul style="list-style-type: none"> • Genetic Inheritance • Diet and Exercise • Recreational Drugs • Personal hygiene • Relationships • Religion • Economic situation • Employment • Housing conditions <p>Students will have explored the features of health and wellbeing improvement plans. They will understand the importance of a person-centred approach that takes into account an individual's needs, wishes and circumstances.</p> <p>Students will learn about physiological and lifestyle Indicators: blood pressure, peak flow and BMI measurements. They will also interpret information regarding smoking, alcohol consumption and lifestyle choices.</p>

<p>Sociology</p>	<p>Students will learn to evaluate different sociological explanations of crime and deviance. This will include:</p> <ul style="list-style-type: none"> • Difference between crime and deviance • Social construction of crime and deviance • Difference between formal and informal social control • Functionalist view • Marxist view • Feminist view • Interactionist view <p>Students will understand patterns of crime:</p> <ul style="list-style-type: none"> • Main statistical data • Class and crime • Gender and crime • Ethnicity and crime • Age and crime • The prison system • Violent crime and sentencing • Media reporting of crime
<p>Business</p>	<p>Students are completing Component 3: Examination unit. This includes:</p> <ul style="list-style-type: none"> • Elements of the promotional mix and their purposes • Targeting and segmenting the market • Factors influencing the choice of promotional methods <p>Students will consider the factors affecting the choice of promotional method for an enterprise</p> <p>Students will complete, interpret and check the information on financial documents and statements. This includes:</p> <ul style="list-style-type: none"> • Financial documents • Payment methods • Sources of revenue and costs • Terminology in financial statements • Statement of comprehensive income • Statement of financial position • Profitability and liquidity Learners will interpret statements of comprehensive income and of financial position to calculate ratios. <p>Students will complete cash flow forecasts, and investigate the effects of positive and negative cash flow on an enterprise. This includes:</p>

- Using cash flow data
- Financial forecasting
- Suggesting improvements to cash flow problems
- Break-even analysis and break-even point

Students will construct and interpret a break-even chart, and recognise its limitation. This includes:

- Sources of business finance

Students will consider why enterprises may plan different sources of finance for different purposes or at different stages and the relevance of each source.