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 achieving 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.

Below you will find an overview of what Year 11 students are learning in each of their subjects in Half Term 3 and 4 (January-Easter).

Subject	Spring Term Topics
English	**Half Term 3 Theme: Language Paper 1 and 2** Students are learning to excel at their understanding of the AQA Language Papers in preparation for the final examinations. Students will explore and develop: • How the writer's uses language, structure and setting to communicate their ideas • Their understanding the context of the era and how this has influenced the text • Their ability to engage with the texts and formulate a perceptive and critical argument and make valid comparisons • Their understanding of the writers' ideas and intended meaning • Their understanding of how the writer uses a range of linguistic and structural features to influence the reader • How to identify a range of versatile references from multiple sources • To write in an appropriate style with knowledge of vocabulary and sentence structure for effect • To communicate clearly, effectively and with imagination • To select and adapt tone, style and register for different forms, purposes and audiences. • To craft sophisticated and concise responses **Half Term 4 Theme: Revision** Students are revising all aspects of their GCSE English Literature and Language course, including: English Language paper 1 – 20th Century Literary Fiction English Language paper 2 – Viewpoints and Perspectives English Literature paper 1 – A Christmas Carol and An Inspector Calls English Literature paper 2 – Macbeth and Unseen Poetry

Maths	Analysis of pupil's mock exams will be used to identify specific areas for focus Foundation Tier **Angles and Circles** • Angle facts • Circles • Maps and bearings Higher Tier **Circles and Angles** • Angles in parallel lines; interior and exterior angles and basic rules of angles. • Circles and sectors • Circle theorems **Iteration and Interpreting Graphs** • Graph transformation • Iteration • Interpreting graphs • Area under a curve • Estimating gradients • Sequences • Repeated percentage change
Science	**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 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 into 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:** Students will study that 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. **Chemistry: Earth's atmosphere and resources** The use the Earth's natural resources to manufacture useful products. However, in order to operate sustainably, chemists seek to minimise the use of limited resources, use of energy, waste and environmental impact in the manufacture of these products. Chemists also aim to develop ways of disposing of products at the end of their useful life in ways that ensure that materials and stored energy are utilised. Pollution, disposal of waste products and changing land use has a significant effect on the environment, and environmental chemists study how human activity has affected the Earth's natural cycles, and how damaging effects can be minimised. The Earth's atmosphere is dynamic and forever changing. The causes of these changes are sometimes man-made and sometimes part of many natural cycles. The problems caused by increased levels of air pollutants require scientists and engineers to develop solutions that help to reduce the impact of human activity. **Physics: Wave Properties** Students will learn that waves transfer energy and can be generalised into longitudinal and transverse, definitions are given by comparing the direction of the oscillations to overall energy propagation. They will know wave characteristics and be able to recall and use the wave equation. Triple science students will also be able to describe reflection and refraction of waves, construct ray diagrams and show how images are formed using lenses They will study the ear, describing the way that it is able to convert wave disturbances between sound waves and solids Triple science students will learn that waves can be used to investigate and detect objects that cannot be seen. Ultrasound uses reflective properties to identify boundaries between materials of different acoustic impedance. Seismic waves generated by earthquakes have been used to identify the Earth's structure and to provide evidence for a partially molten mantle and the molten inner core. All students will know that the electromagnetic spectrum is a family of transverse waves. It is divided into seven sections (RMIVUXG). Each part of the spectrum has uses and dangers. Triple science students will study visible light in more detail, investigating total internal reflection when light travels into a material that is optically more dense and how this applies to fibre optic cables. They will also study how Colour perception depends on the wavelength of light. Objects appear to be different colours because the reflect particular wavelengths of light and they will know the difference between opaque, translucent and transparent materials. **Electromagnetism** Students will study how to create a vary the strength of an electromagnet, 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 Science Only) Students will learn that 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 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.
History	**Edexcel: https://qualifications.pearson.com/content/dam/pdf/GCSE/History/2016/specification-and-sample-assessments/gcse-9-1-history-specification.pdf** Students will study **Superpower Relations and the Cold War 1941-1991** Key skills- Causation, change, continuity, consequence, significance. **The origins of the Cold War 1941-58** • The Grand Alliance. The outcomes of the Tehran, Yalta and Potsdam conferences. The ideological differences between the superpowers and the attitudes of Stalin, Truman and Churchill. The impact on US-Soviet relations of the development of the atomic bomb, the Long and Novikov telegrams and the creation of Soviet satellite states in Eastern Europe. • The impact on US-Soviet relations of the Truman Doctrine and the Marshall Plan, 1947. The significance of Cominform (1947), Comecon (1949) and the formation of NATO (1949). Berlin: its division into zones. The Berlin Crisis (blockade and airlift) of 1948-49 and its impact. The formation of the Federal Republic of Germany and German Democratic Republic. • The significance of the arms race. The formation of the Warsaw Pact. Events in 1956 leading to the Hungarian Uprising, and Khrushchev's response. The international reaction to the Soviet invasion of Hungary. **Cold War Crises 1958-70** • The refugee problem in Berlin, Khrushchev's Berlin ultimatum (1958), and the summit meetings of 1959–61. Soviet relations with Cuba, the Cuban Revolution and the refusal of the USA to recognise Castro's government. The significance of the Bay of Pigs incident. Opposition in Czechoslovakia to Soviet control: the Prague Spring.

	• The construction of the Berlin Wall, 1961. The events of the Cuban Missile Crisis. The Brezhnev Doctrine and the re-establishment of Soviet control in Czechoslovakia. • Impact of the construction of the Berlin Wall on US-Soviet relations. Kennedy's visit to West Berlin in 1963. The consequences of the Cuban Missile Crisis, including the 'hotline'. Attempts at arms control: the Limited Test Ban Treaty (1963); the Outer Space Treaty (1967); and the Nuclear Non-Proliferation Treaty (1968). International reaction to Soviet measures in Czechoslovakia **The end of the Cold War 1970-1991** • Détente in the 1970s, SALT 1, Helsinki, and SALT 2. The significance of Reagan and Gorbachev's changing attitudes. Gorbachev's 'new thinking' and the Intermediate-Range Nuclear Force (INF) Treaty (1987). • The significance of the Soviet invasion of Afghanistan, the Carter Doctrine and the Olympic boycotts. Reagan and the 'Second Cold War', the Strategic Defence Initiative. • The impact of Gorbachev's 'new thinking' on Eastern Europe: the loosening Soviet grip on Eastern Europe. The significance of the fall of the Berlin Wall. The collapse of the Soviet Union and its significance in bringing about the end of the Warsaw Pact.
Geography	**Spring Half term 3 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 4: Resource Management** Students will understand how food, water and energy are fundamental to human development. They will understand how changing demand and provision of food, water and energy in the UK create opportunities and challenges. This will include: • A focus on energy resources • Global supply • Factors that affect supply • Impacts of insecurity • Strategies to increase security/supply • Case study example of a strategy • Sustainable growth

French	**Half term 3: Festivals and celebrations** Pupils will discuss typical traditions and celebrations in the UK and French-speaking countries. Content: • Talking about food and meals • Discussing clothes and what to wear • Shopping for clothes • Discussing your daily life / routine • Describing festivals and traditions • Describing family celebrations Grammar: Modal verbs: *pouvoir and devoir* Asking questions using *tu and vous* • Regular and irregular present tense verbs (1st and 3rd person) • Near future tense with ALLER to discuss future plans • The conditional tense: *Je voudrais / J'aimerais* Common regular and irregular verbs in the perfect tense to discuss what they have done **Half term 4: Revision** Students will revise vocabulary from all 3 themes and all 8 topics covered at KS4. Students will focus on the following exam skills: • Reading exam skills including literary texts • Listening exam skills • Translation into French • Translation into English • Speaking skills- role play, photo card and conversation questions • Writing skills- questions 1 & 2
Spanish	**Half Term 3: Jobs and Future Employment** Students will learn to: • Talk about jobs, work experience, what you do to earn money, summer jobs and future plans Students will learn: • Masculine and feminine noun endings • The use of indefinite articles • The conditional tense

	• Solía …. Future plans (using quiero, tengo la intención de, espero, pienso, voy a, me gustaría…) **Half Term 4: Social and Global Issues** Students will learn to talk about the environment, healthy and unhealthy living, poverty and homelessness, charity and voluntary work. This will include: • Se debería + infinitve. • Using the present and near future tenses together. • The present subjunctive • pluperfect tense
Computer Science	**Half Term 3:** Students are consolidating and revising. Students are focussing on exam technique for extended mark questions for: • Computer or CPU performance. • Ethical, Legal, Environmental Concerns surrounding technology This includes: • Discussing appropriate methods of secondary storage for a given scenario • Understanding the differences between volatile and non-volatile memory • Applying methods of Computational Thinking to solve, correct and complete algorithms • Applying booleon logic to logic gates and expressions to achieve the correct output **Half Term 4:** Students are consolidating and revising. This includes: • Identifying the correct role for each register in the Von Neumman Architecture • Applying the correct conversions and data transfer calculations to relevant units • Identifying the difference between lossy and lossless compression and the impact each has on the size and quality of a file • Discussing the role of an operating system • Understanding all elements of utility software and their respective roles • Illustrating different network topologies • Discussing the difference between a LAN and WAN network • Understanding the different network protocols and their roles in a network • Applying all methods of Computational Thinking to provide a suitable solution to given brief
iMedia	

	Students will be completing work on the second unit of coursework set by exam board. Student will be revising the topics and content of unit R093. • Media industry and product design • Preproduction planning • Legal issues and distribution
IT Eduqas	Students are consolidating and revising the key knowledge and skills needed for the Exam. Functionality of different hardware devices • Functionality of different software • Services provided by IT • Why data must be fit for purpose • How data is checked for errors • How data is transfer over networks • Different types of connectivity • Risks to information held on computers • Impact of data loss • Methods to protect information
Art	**Exam project** Students are developing and refining their exam project. Using the OCR exam paper students will identify a starting point to develop a personal response to their chosen exam theme. They will continue to produce sensitive, articulate and detailed observational work that demonstrates an embedded knowledge of the formal elements. They will be critically analyse artists' work alongside their own and will 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 plan and prepare for their exam by collecting resources, designing, planning and testing out their final idea before completing the final piece in the exam itself. This is worth 40% of their final Personal Portfolio grade.
Photography	**Exam project**

	Students are developing and refining their exam project. Using the OCR exam paper students will identify a starting point to develop a personal response to their chosen exam theme. They will continue to produce technically skilful, sensitive, and sophisticated photography that demonstrates an embedded knowledge of the formal elements. They will be critically analyse artists'/photographers' work alongside their own and will produce a thought provoking visual analysis in a refined way. Students will plan and prepare for their exam by taking photographs, collecting resources, designing, planning and testing out their final idea before completing the final piece in the exam itself. This is worth 40% of their final Personal Portfolio grade.
Graphics	**Spring 1 & 2** Pupils to start on their externally set task portfolio. The externally set task is worth 40% of the GCSE. The early release paper will be issued on 2 January each year and will provide learners with five themes, each with a range of written and visual starting points and stimuli. A response will be based on one of these options. Pupils will apply all the secure design skills, product analysis and critical thinking abilities that they have developed over the previous terms. Pupils apply their skills to produce a strong, consistent, sophisticated portfolio as a response to the brief, that showcases their development as a graphic designer. Pupils focus on all assessment objectives, AO1 AO2, AO3 and AO4: - A01 requires pupils to respond thoughtfully with reference to contextual sources, with evidence of perceptive investigation. Pupils will demonstrate an excellent critical understanding of sources. Pupils will critically analyse work from a range of designers and design companies and will show designer influence on their own work. - A02 requires pupils to explore a selection of media, materials, techniques and processes, with excellent evidence of the exploration of these processes. - A03 requires pupils to record their ideas, observations and insights referencing deeply considered reflections on outcomes. - A04 requires pupils to select and present their best quality work, showing strong development throughout the project. Pupils will finish with a portfolio of high-quality work ready for assessment and presentation for HE and career opportunities.
Food	**Spring 1:** Students will complete the following sections of their NEA: • Section A: Researching the task (fully complete) • Section B: Demonstration of technical skills x 3 cooking trials • Section C: Planning for the final menu • Section D: Making the final dishes • Weekly theory revision with exam questions. Homework will coincide with this learning. Topics revised are: • Cooking of food and heat transfer

	• Raising agents (biological, chemical, physical). • Cooking methods. • Food science key terminology - Coagulation, Denaturation, Caramelisation, Gelatinisation, Dextrinization, Aeration, Emulsification • Use of micro-organisms in food production. • Recap/review of cultural and religious diets. **Spring 2:** Students will complete and the following sections of their NEA: • Section E: Analyse and evaluate • NEA 1 & 2 submitted 2 weeks before the Easter holidays. Weekly theory revision with exam questions. Homework will coincide with this learning. Topics revised are: • Methods of sensory analysis. • Factors affecting choice including lifestyle, income, time available for preparation, availability, cost, time and day. • Recap/review of sustainability in food production, organic farming, land use, animal welfare, global warming, Fairtrade, growing/rearing crops/animals. • Additives, preservatives, fortification, sweeteners, emulsifiers and stabilisers. • Any other topics required to be re-taught post mock exam results.
Engineering	**Spring 1 & 2** Pupils will continue with their NEA. Task 4 (production plan), 5 (manufacture) & 6 (evaluation) will be a priority in Spring 1. In Spring 2 pupils will refine their NEA work (tasks 1 – 6) and will submit the NEA at the end of Spring 2. This work will be completed. The synoptic project is worth 60% of the NEA. Pupils to continue with weekly revision for their Summer examined assessment. The exam is worth 40% of the qualification and will assess the learner's knowledge and understanding of all content areas and target AO1, AO2 and AO3: **AO1 -** Recall knowledge and show understanding - the emphasis here is for learners to recall and communicate the fundamental elements of knowledge and understanding **AO2 -** Apply knowledge and understanding - the emphasis here is for learners to apply their knowledge and understanding to real-world contexts and novel situations. **AO3 -** Analyse and evaluate knowledge and understanding - the emphasis here is for learners to develop analytical thinking skills to make reasoned judgements and reach conclusions.

PE	Students will be tackling complex and demanding physical activities. They will get involved in a range of activities that develop personal fitness and promote an active, healthy lifestyle. Pupils will 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 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.
BTEC SPORT	Students will start to cover the following topics ready for their terminal exam: • Demonstrate knowledge of facts, components of fitness, fitness tests, training methods/processes/principles in relation to improving fitness in sport and exercise • Demonstrate an understanding of facts, components of fitness, fitness tests, training methods/processes/principles in relation to improving fitness in sport and exercise • Apply an understanding of facts, components of fitness, fitness tests, training methods/processes/principles in relation to improving fitness in sport and exercise • Make connections with concepts, facts, components of fitness, fitness tests, training methods/processes/principles in relation to improving fitness in sport and exercise
Drama	Students are studying Component Three: Texts in Practice Students will focus on: • Two by Jim Cartwright • Understanding and interpretation of a text • Create and communicate meaning • Understanding and justifying artistic intention in text-based drama
Music	Pupils will be assessed in Component 3-an external assessment-responding to a musical brief. This will be in 3 parts: • An initial response to a music brief • A video/recording of musical material • Commentary on the way the music has been adapted and how individuals have applied their musical knowledge and techniques to create a music product.

Finance	**Term 2; Unit 3 finance Services Sector** Pupils will study: • Managing for financial sustainability • The impact of technology • The global financial crisis • Global issues Prepare for the paper 3 written exam
Health and Social Care	**Component 3: Health and Wellbeing** (external synoptic) Learners will explore the factors that affect health and wellbeing, learning about physiological and lifestyle indicators, and person-centred approaches to make recommendations to improve an individual's health and wellbeing. **A1 Factors affecting health and wellbeing** Learners will explore how factors can affect an individual's health and wellbeing positively or negatively. This links to and extends knowledge and understanding of human lifespan development including life events, covered in Component 1. Here, however, the focus is on the current health and wellbeing of individuals. ● Definition of health and wellbeing: a combination of physical health and social and emotional wellbeing, and not just the absence of disease or illness. **B1 Interpreting health indicators - Physiological indicators** Learners will explore how physiological indicators are used to measure health. ● Interpretation of physiological data according to published guideline ● The potential significance of abnormal readings **B2 Interpreting health indicators - Lifestyle indicators** Learners will explore how lifestyle choices determine physical health. ● Interpretation of lifestyle data according to published guidelines
Child Development	**Component 3: Supporting Children to Play, Learn and Develop** (external synoptic) Learners will investigate how a child learns and develops and how to adapt activities to support the inclusion of all children in play. **A Investigate individual needs that may impact on play, learning and development** Learners will understand how the following individual needs can impact on a child's play, learning and development. **A1 Individual needs**

	● Physical needs ● Intellectual/Cognitive needs ● Language and Communication needs ● Emotional and Social needs **A2 Know how individual needs may impact on play, learning and development** ● All five areas of development are interlinked and affect each other ● Physical development ● Intellectual/Cognitive development ● Language and Communication development ● Emotional development ● Social development **B Create safe environments to support play, learning and development in children aged 0–5 years** Learners will consider how the environment can be adapted to safely meet the individual needs of children who require support to play, learn and develop. Learners will consider safety issues in the home, in community settings and in early years settings. They will need to consider adaptations that can be made for the following age groups: ● 0–18 months ● 18 months–3 years ● 3–5 years. **B1 Ensure all children are safe** ● Manage risks and hazards of environments and activities **B2 Health and safety considerations for inside environments for children with individual needs**

	B3 Health and safety considerations for outside environments for children with individual needs
Business	**Unit 5 finance** Student will study the finance unit of how business use and manage finance. • The role of finance • Sources of finance • Revenues, costs, profit and loss • Break even • Cash and cashflow **Unit 6 Influences on business** Students will study how external influences can affect how business operate. • Ethical and Enviromental's considerations • The economic climate • Globalisation **Revision** Student will begin revision of the course in preparation for exams.
RE	Students will study the following Students will consolidate prior learning and address gaps to prepare for final examinations. They will develop exam skills and revision will focus on closing gaps identified in the mock examinations
Citizenship	In the spring term of year 11 we review the mock exam and then finish the rest of Theme D followed by a teacher led time of revision covering the whole course. Students will also cover **Power and influence, including:** • The role of the United Nations • Is there still a point to the Commonwealth? • Are NATO and the World Trade Organisation a force for good in the world?