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 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 a detailed overview of what Year 10 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: Macbeth Students will extend their knowledge of Shakespeare's work and engage with paper one texts using the requirements of the exam criteria to be able to produce an evaluative, written response. Students will be extending prior knowledge and understanding of texts to identify, understand and analyse how writer's use: • Character, structure and setting to communicate their ideas. • Their understanding the context of production and reception over time • Ideas in the texts are contextually linked and shaped by society at the time. • The ability to engage with the whole text and tracking character and theme throughout in order to formulate a perceptive and critical argument. Half Term 4 Theme: Writers' Viewpoints and Perspectives Non-fiction texts (Language Paper 2) Students will extend the knowledge of non-fiction for Language paper two texts and use the requirements of the exam criteria to be able to produce an evaluative, written responses. Students are extending prior knowledge of non-fiction texts in order to understand and analyse how the writer's use: • Implicit and explicit meanings • Contextual situations to influence their text • Language and structure to create meaning • The structure of a text • Form, tone and a range of other methods to influence reader response • Convey their own viewpoints and perspectives in a clear and convincing manner • Adapt tone, style and register for different forms, purposes and audiences in their own writing • Vocabulary and sentence structure for quality, purpose and effect

	Core
	Probability
	Single and combines events
	Two-way tables
	Tree diagrams
	Venn diagrams
	Expected outcomes
	Relative frequency
	Equations and Inequalities
	Expanding and factorising
	Substitution
	Linear equations
	Simultaneous equations
	Inequalities
	Extension
Maths	Expressions, Equations and Inequalities
	Expressions and identities
	Manipulate expressions
	Quadratics
	Inequalities
	Simultaneous equations
	Numerical powers
	• Indices
	Standard form
	Surds
	Functions and Graphs
	Function
	• Proof
	Parallel and perpendicular lines
	Types of graph
	Equations of tangents
	Graphical solutions to equations and inequalities
Science	Biology: Circulation

Plants have a transport system consisting of the xylem and phloem. Transpiration is the movement of water and mineral ions through a plant. The rate of transpiration is affected by many environmental factors. Water leaves the plant mainly via the stomata. The human breathing system allows adequate gaseous exchange to occur at the alveoli through an effective ventilation process. Gas exchange causes differences in composition between inhaled and exhaled air.

Biology: Respiration

Both animals and plants use oxygen to oxidise food in a process called aerobic respiration which transfers the energy that the organism needs to perform its functions. Conversely, anaerobic respiration does not require oxygen to transfer energy. During vigorous exercise the human body is unable to supply the cells with sufficient oxygen and it switches to anaerobic respiration. This process will supply energy but also causes the build-up of lactic acid in muscles which causes fatigue

Chemistry: Electrolysis

Students are learning that when an ionic compound is melted or dissolved in water, the ions are free to move about within the liquid or solution. These liquids and solutions are able to conduct electricity and are called electrolytes and the ions can be separated by electrolysis. Triple science students will also learn about chemical cells, batteries and fuel cells.

Physics: Molecules and matter

Mass is the amount of matter in a substance and is measured in kilograms, density is the mass per unit volume. Students learn techniques to measure the density of regular and irregular shaped objects. Building on knowledge from KS3 students can talk about states of matter and changes of state relating to particles and kinetic energy. Changes of state can be analysed from heating and cooling curves. The energy transferred to a substance when it changes state is called latent heat. Gas particles move about very quickly and collide with the surface of a container, the pressure of a gas changes when it is heated in a sealed container.

Physics: Radioactivity

Students will be learning about the different types of nuclear radiation (alpha, beta and gamma). They will understand the terms lon, lonisation, Isotope, contamination, irradiation and half-life and how these relate to specific uses. They will also understand the mechanisms isotopes use to become more stable, constructing nuclear equations to explain these. Students will know the nature of Alpha, Beta and Gamma radiation (and neutron emission) and their dangers and uses. Triple Science Students will also study nuclear fission and fusion as a means to generate electricity.

Edexcel: https://qualifications.pearson.com/content/dam/pdf/GCSE/History/2016/specification-and-sample-assessments/gcse-9-1-history-specification.pdf

History

Students will study

The British sector of the Western Front 1914-18; injuries, treatment and the trenches.

The historic environment section of paper 1 enables students to examine the relationship between a place and historical events and developments. Students will need to develop the skills necessary to analyse, evaluate and use contemporary sources to make substantiated judgements, in the context of the historical events studied.

- -The context of the British sector of Western Front and the theatre of war in Flanders and northern France: the Ypres salient, the Somme, Arras and Cambrai. The trench system its construction and organisation, including frontline and support trenches. The use of mines at Hill 60 near Ypres and the expansion of tunnels, caves and quarries at Arras. Significance for medical treatment of the nature of the terrain and problems of the transport and communications infrastructure.
- -Conditions requiring medical treatment on the Western Front, including the problems of ill health arising from the trench environment.

nature of wounds from rifles and explosives. The problem of shrapnel, wound infection and increased numbers of head injuries. The effects

of gas attacks.

- -The work of the RAMC and FANY. The system of transport: stretcher bearers, horse and motor ambulances. The stages of treatment areas: aid post and field ambulance, dressing station, casualty clearing station, base hospital. The underground hospital at Arras.
- -The significance of the Western Front for experiments in surgery and medicine: new techniques in the treatment of wounds and infection, the Thomas splint, the use of mobile x-ray units, the creation of a blood bank for the Battle of Cambrai.
- -The historical context of medicine in the early twentieth century: the understanding of infection and moves towards aseptic surgery; the development of x-rays; blood transfusions and developments in the storage of blood.
- -Knowledge of national sources relevant to the period and issue, e.g. army records, national newspapers, government reports, medical articles. Knowledge of local sources relevant to the period and issue, e.g. personal accounts, photographs, hospital records, army statistics. Recognition of the strengths and weaknesses of different types of source for specific enquiries. Framing of questions relevant

the pursuit of a specific enquiry and selection of appropriate sources for specific investigations.

Half term 3

Students will learn to understand the:

- UK Landscapes location of major upland/lowland areas and river systems. Complete two Rivers and Coasts
- Rivers: •
- Long profile and changing cross-profile ·
- Fluvial processes erosion, transportation, deposition.
- Fluvial landform creation -
- Human and physical influences on flooding. •
- Use of hydrographs ·
- Management of flood risk- costs and benefits, ·
- Example of a river management scheme.

Half term 4

Students will learn to understand:

- Coasts: •
- Wave types and characteristics ·

Geography

Coastal processes – weathering, mass movement, erosion, transportation, deposition · Coastal landforms resulting from different rock types, structures and physical processes. Management strategies used to protect coastlines · Example of UK coastline Half Term 3 - Religion and Life Students will study religious teachings, and religious, philosophical and ethical arguments, relating to the issues that follow, and their impact and influence in the modern world. They should be aware of contrasting perspectives in contemporary British society on all of these issues in order to judge the value of these for everyday life today and the value of these views to different people. They must be able to explain contrasting beliefs on the following three issues with reference to the main religious tradition in Britain (Christianity) and Islam: Abortion, Euthanasia and Animal experimentation. These are controversial issues in today's world and students will be involved in discussion and debate around these both inside and outside school. RE Half Term 4 - Islam Students should be aware that Islam is one of the diverse religious traditions and beliefs in Great Britain today and that the main religious tradition in Great Britain is Christianity. Students should study the beliefs, teachings and practices of Islam and their basis in Islamic sources of wisdom and authority. They should be able to refer to scripture and other writings where appropriate. Some texts are prescribed for study in the content set out below and questions may be set on them. Students may refer to any relevant text in their answers. Students should study the influence of the beliefs, teachings and practices studied on individuals, communities and societies. Common and divergent views within Islam in the way beliefs and teachings are understood and expressed should be included throughout. Students may refer to a range of different Muslim perspectives in their answers, including those from Sunni and Shi'a Islam. Spring term Students will study various influential religious people and their impact on the world around us. They will develop skills of evaluation and **Ethics** empathy whilst looking at the impact that these people had on their local community and worldwide. It is vital that all young people have a basic knowledge of how religion has changed the world for the better in so many cases and how personal belief can influence a person to do good. Students will study the foundations of how the government works Getting elected Does every vote count? Citizenship Who shall I vote for? Getting into power Forming a government

How are laws made? Balancing the budget Student will also study the justice system What is the Law? Criminal vs Civil law Who puts the law into practice **Criminal Courts** Defending violent criminals Half term 3: School Students will discuss their school and state their opinions on aspects of school life Students will discuss: • What they think of school subjects and why? A typical school day • Their unform and what they think of it School rules and what they think of them How the school system in French-speaking countries is different to the UK A school trip What they plan to do when they leave school Grammar: • Opinions, including comparisons **French** • Extending sentences with time phrases and sequencers • Il faut / Il est indedit de with school rules Regular and irregular present tense verbs (1st and 3rd person) • Present tense reflexive verbs to discuss family relations • Near future tense with ALLER to discuss future plans • Common regular and irregular verbs in the perfect tense to discuss what they have done Half term 4: Global dimension Students will develop their reading and listening strategies understanding written and spoken texts discussing.... • What's important to them and why? Problems facing the world Protecting the environment Ethical shopping Volunteering

	Big events (i.e. sporting and music events)
	 Grammar: Modal verbs pouvoir and devoir The conditional tense Using the passive Using indirect object pronouns Giving arguments for and against
Spanish	Half term 3 + 4: Family and Relationships Students are learning to discuss Family and relationships and describing people and their hobbies. Using social networks, reading preferences and making arrangements to go out.
	They are revising: Present Preterite Future tenses. They will be comparing 'then and now' using the imperfect tense. They are also learning the present continuous.
	Students are learning about Systems Software.
Computer Science	 To be able to understand the various roles of an operating system To understand what utility software is and be able to discuss the tasks different utility software might undertake
	Students are learning about computer networks, connections and protocols. • To understand what a network is
	 To be able to identify different topologies and the advantages and disadvantages of each To be able to explain the difference between wired and wireless networks and how the various protocols and layers enable the transfer of information
	Text based Programming
	Students will be learning to program in a text-based language Python learning the skills: • Sequence • Selection
	Iteration

IMedia (new spec)	Unit R094: Visual identity and digital graphics
	Students will begin development of their Unit R094: Visual identity and digital graphics coursework. This will include the following elements:
	Students are learning to understand the purpose, elements and design of visual identify. This will include: Purpose of visual identity Components of images Visual identify Visual design styles Student will learn about graphic design and conventions: Concepts of graphic design Layout conventions Students will look at the properties of digital graphics and the use of assets: Technical properties of images and graphics. Licences and permissions to use and source assets. Student will plan visual identify: Use production and planning documents to generate ideas.
IT- Eduqas	Student will study the following areas of unit 1: • Moral and ethical issues that affect computer users • Legal issues to protect computer users. • Cultural and personal environmental impact • How does digital footprint impact you. Student will study and learn about digital graphics and their creation. • Vectors and bitmap images • How to plan images using planning tools • How to sources and edit assets for images • How to create images using photoshop • How to export images from Photoshop
Art	Inspired by artist research about Cezanne, Sarah Graham and Joel Penkman, pupils will be producing acrylic and watercolour paintings of food and confectionary. They will be taking their own close up photographs of confectionary and will use these images to create large paintings outside of their sketch books. To refine painting skills students will revisit brushwork techniques and will focus on refining colour

	blending skills and painting techniques. Pupils will also develop their understanding of composition as they plan and make a large final outcome.
Photography	Pupils will explore working with pattern and colour and still life photography inspired by the work of Daniel Gordon. Pupils will be taught Photoshop skills that will lead to making a Photoshop collage Daniel Gordon.
Graphic communication	Spring 1 & 2
	Pupils will develop and refine their CAD skills when using photoshop, illustrator and 2D design. Pupils will continue to develop their use of mixed media (pencil, paint, card and paper) to showcase their design work. Pupils will continue to practise parts of each assessment criteria in Spring 1 through small project work. Pupils will respond to a brief and will build a repertoire of work.
	In Spring 2, pupils will start on their official Unit 1 GCSE portfolio and focus on the A01 and A02 assessment criteria. The pupils will respond to starting point, brief, scenario or stimulus. Pupils will then build a repertoire of work demonstrating their skills.
	 A01 requires pupils to develop sophisticated ideas 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 will show designer influence throughout their work. A02 requires pupils to refine their work using perceptive selection of media, materials, techniques and processes. They will show
	excellent evidence of the exploration of work as it develops.
	Spring 1
	Students will develop their knowledge and understanding of dairy foods and non-dairy alternatives. The learning topics covered are below:
	 Introduction to dairy foods and non-dairy alternatives. Nutrition related to dairy – Focussing specifically on micronutrients A, D, E & K, and calcium and fluoride.
	Water- and fat-soluble vitamins.
Food	 Denaturation and preservation of water-soluble micronutrients caused by cooking methods / storage techniques. Functional and chemical properties - to cover antioxidants A & E and their role in the prevention of disease and preservation of
	 food quality (oxidation). Food safety - will look at all food poisoning bacteria, consider the use of microorganisms in food production i.e. mould and
	bacteria in cheese/yoghurt and will discuss bacterial contamination when preparing, buying, cooking and storing foods.
	 Discussion of the preservation of food quality via antioxidants (Vitamins A & E).
	Lactose intolerance – symptoms, treatment, alternatives. Rickets and osteoporosis will be discussed. B. H. H. L.
	Religious diets in relation to dairy (e.g., Buddhism)

- Primary and secondary processing of dairy foods. Milk, cheese, yoghurt and butter making will be taught and the associated loss of vitamins. The effect of heating and drying on the sensory characteristics of milk will be discussed.
- Fortified and organic foods

NEA focus – developing their preparation, cooking and presentation skills. All dishes cooked to contain dairy. The list of dishes that students will be cooking is below:

- Quiche
- Crème Brulee
- Chicken kebabs, tzatziki and pitta breads
- Potato dauphinoise
- Homemade butter and cheese scones made with buttermilk.
- NEA 2 Assessment criteria

Spring 2

Students will develop their knowledge and understanding of topics surrounding butter, spreads, sugars and syrup. The learning topics covered are below:

- Introduction to the food commodity Types of butter, spread, sugars and syrups.
- Nutrition related to the macronutrient Fat. Dietary reference values will be discussed.
- Differences between types of fats and their chemical structure: solid/liquid animal, solid/liquid plant, monounsaturated, saturated and polysaturated fats and their impact on health. Amounts of fat needed at varying life stages. Excess and deficiency discussed.
- Recap carbohydrate knowledge learnt in Autumn 2 (sources and functions of carbohydrates, monosaccharides, disaccharides and polysaccharides).
- Functional and chemical properties to cover shortening, aeration, plasticity, emulsification.
- Food safety will consider theory related to how these products are low risk due to low water activity.
- Will consider health conditions e.g., obesity, high blood pressure, cholesterol and diabetes. Will discuss BMR and PAL.
- Food processing and productions Will consider cholesterol lowering spreads and their impact on health. Primary and secondary processing of milk to make butter (re-cap) and sugar production. Will discuss how vitamins A and D are added to fats and low fat spreads.
- What the world eats and why?

NEA focus – developing their preparation, cooking and presentation skills. All dishes cooked to contain either butter, spreads, sugar or syrup. Students will cook every week this half term. The NEA focus this half term is NEA 2 Assessment criteria.

Engineering	Students will develop knowledge, skills and understanding in: Health and safety legislation Engineering drawings (developing technical Engineering drawing techniques, reading and interpreting Engineering drawings). Drawing conventions Standards of measurements Equations Energy, forces and motion Develop skills of workshop routine and the correct selection of tools, machinery and materials. British standards How to complete an NEA (non- exam assessment) in Engineering. The brief this term focuses on Hydraulic Excavators. Students to analyse the brief, create CAD and hand-drafted drawings, research materials and tools, show evidence of machinery testing, create a production plan and complete an evaluation.
PE	Students are learning to tackle complex and demanding physical activities. They will get involved in a range of activities that develops personal fitness and promotes an active, healthy lifestyle. Students 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 them 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.
BTEC SPORT	During this term students will continue to study Component 1 – Preparing participants to take part in sport and physical activity. Students develop their knowledge and understand of the following areas: Exploring types and provision of sport Examining equipment and technology required. Preparing participants to take part in physical activity. This is in preparation for their Pearson Set Assignments. During the second half term students start to study Component 2 – Taking part and improving performance. Students develop their knowledge and understand of the following areas: How different components of fitness are used Be able to participate in sport and understand rule and regulation Demonstrate ways to improve participants performance

	Unit 2 Marketing
	Student will learn about how marketing is used in a business to increase sales and profit.
	The Role of marketing
	Market Research
	Market Segmentation
Business	The marketing mix
Studies	Price
	• Place
	Product
	Promotion
	Interpretation of market data.
	Marketing project
	• Marketing project
Finance	Term 2 – Unit 1 – Finance and the individual
	Pupils will study
	1. The personal life cycle & inheritance
	2. Taxation, national insurance and HMRC
	Pupils will practice and complete a 10 hour case study NEA for Unit 1
	Theme: How individuals deal with life events
	Learners are exploring how life events are expected or unexpected that occur in an individual's life. This will include:
	Applying the theory learnt to real life scenarios to develop an understanding of expected and unexpected life events.
	 Studying a range of case studies
	Examples of expected life events:
	Giving birth and parenthood
Health and	• Job
Social Care	• School
	Relationships
	Examples of unexpected life events:
	• Illness
	Accidents
	• Divorce
	Bereavement
	Redundancy

Learners are exploring how individuals can adapt or be supported through changes caused by life events. This includes:

- Developing a deeper understanding of how a person can cope with life events using both formal and informal support.
- Consider how well individuals can adapt to the changes caused by life events and cope with it by seeking support from various sources.

Sources of support:

Formal – support that is received from a professional for example a GP, Counsellor or a Psychiatrist Informal support – Physical and emotional support received from family and friends.

Learners will be preparing and undertaking their first **Pearson Set Assessment** in this term.

Learning outcome B: Understand how factors impact on children's overall development

Learners will explore the different factors that can affect a child's growth and development from birth to five years old. Different factors will have an impact on different aspects of growth and development. Learners will consider the positive and negative impact of these factors on child development.

B1 Physical factors

- · Factors in pregnancy
- Disabilities/additional needs
- Health status
- Benefits of healthy balanced diet
- Amount of exercise.

B2 Environmental factors

- Housing
- Home environment

B3 Social factors

- Effects of discrimination
- Effects of relationships with primary carers
- Effects of siblings
- Effects of relationships with extended family and friends
- Low income
- High income

Child Development

	Access to services
	Learners will be preparing and undertaking their first Pearson Set Assessment in this term.
Drama	Students will study devising theatre, physical theatre and practitioners Students will focus on: Participate in characterisation workshops Learn how to work in response to a given stimulus Chickenshed Theatre Company Understand and explore the genre and styles of Steven Berkoff Frantic Assembly
Film	Half Term 3: Component 1 – Key Developments in US Film Students will move on to their second set text – Schumacher's 1987 The Lost Boys. Students will apply subject terminology to analyse the film's form by analysing the cinematography, mise-en-scene, editing and sound. Students will also study the film's context, which includes: Social and Cultural context (how aspects of society, beliefs and values, are reflected in the film) Historical context (when the film was made and its relevance) Technological context (technologies that impacted the film's production) Institutional context (film funding and the main stages of production and distribution) With component 1, students will also explore context to a greater depth by analysing how the depiction of characters, narratives and genres change over time due to changes in social/cultural, technological, and institutional context. For example, how the presentation of vampires has developed from 1930 to the present day, and why those changes have occurred.
	Half Term 4: Component 1 – Key Developments in US Film Students now progress to the exploration of a contemporary independent film – Reitman's 2007 Juno. Students will apply subject terminology to analyse the film's form by analysing cinematography, mise-en-scene, editing and sound. Again, they will need to explore the film's context, especially the social and cultural context of this film as it deals with the themes of family, adult/teen communication, teen pregnancy, and adoption. In addition, students will also explore specialist writing on films by exploring how the film was critically received – the views of critics, awards and nominations, and the significance of these.
Music	During the first half of this term, pupils will be assessed on Component 1 through a non-exam internal assessment. They will be assessed on the following criteria: Demonstrate an understanding of styles of music. Apply understanding of the use of techniques to create music They will do this in the following ways:

- Compile a portfolio of evidence that demonstrates your understanding of **four** different styles of music. You can select a maximum of two styles from popular music
- Compile a portfolio of short musical extracts to demonstrate your exploration of musical techniques using three of the following techniques.
 - •A live performance (video)
 - An audio recording (multitrack)
 - Music for film/media/computer games)
 - •An original song or composition
 - •A DAW project (remix/arrangement

For the second half of the term, they will start to study Component 2:

• Plan and create two musical outcomes that will develop your musical skills