

Y10: Subject Curriculum Outline

Year 10 Subjects	Term One	Term Two	Term Three	Term Four	Term Five	Term Six
Mathematics: (Higher)	Equations & inequalities - Factorise and solve quadratic equations using factorisation, completing the square, and the quadratic formula - Solve a range of simultaneous equations using substitution or elimination - Solve and represent linear inequalities in one or two variables - Use correct notation, including set notation and inequality symbols Multiplicative reasoning - Express multiplicative relationships using ratios, fractions, and equations - Solve proportion problems, including best value and rates of pay - Use and interpret multipliers for repeated proportional change - Understand and convert compound measures (speed, density, pressure) - Solve problems involving direct and inverse proportion using equations and graphs	Collecting, representing & summarising data - Understand sampling and data collection methods, including their advantages and disadvantages - Draw, interpret, and compare a range of charts: bar charts, pie charts, stem and leaf diagrams, box plots, frequency polygons, cumulative frequency graphs, stepped frequency polygons, histograms, and choropleth maps - Use capture-recapture to estimate population size - Calculate averages from raw and grouped data; understand when to use mean, median, and mode - Use cumulative frequency and box plots to find and compare measures like quartiles, deciles, and percentiles - Compare distributions using appropriate graphical and numerical methods for problems in context	Time series graphs & trends - Draw and interpret population pyramids - Find the mean and standard deviation of data in frequency tables and when given values. - Draw time series graphs - Calculate moving averages, describe trends and seasonal variations Probability - Understand the formulae, notation and language associated with probability - Understand the probability rules and use them to solve problems Bivariate data & correlation - Draw scatter diagrams, calculate the double point mean and draw a line of best fit - Understand correlation - Know when to use interpolation and understand extrapolation - Draw regression lines using the equations and interpret the line in context of the question - Calculate Spearman's rank correlation coefficient and interpret the value in context - Understand the difference between Spearman's rank correlation coefficient and product moment correlation coefficient - Interpret the product moment correlation coefficient - Calculate and describe skewness	Population & financial statistics - Calculate the geometric mean and the weighted mean and know when to use them. - Calculate birth rates and death rates - Use index numbers to calculate the price change over time - Calculate crude rates Normal & binomial distributions - Calculate the probability using the binomial distribution - Know when to use the binomial distribution - Understand the normal distribution and calculate percentages from it - Draw and use control charts - Calculate standardised scores	Trigonometry - Identify, sketch, & transform graphs of $y = \sin x$, $\cos x$, $\tan x$, and use to solve equations - Know and use exact trig values - Apply $\text{Area} = ab \sin C$, sine rule, cosine rule, and trigonometric ratios to solve 2D / 3D problems, including bearings & right-angled triangles - Solve geometric problems involving coordinates, cuboids, diagonals & angles in 3D Quadratics - Sketch and interpret graphs of quadratic, linear & simple cubic functions, identifying key features - Use graphs to solve or estimate solutions to quadratic equations and simultaneous equations - Expand multiple linear expressions - Solve and represent linear and quadratic inequalities graphically - Solve real-life problems using graphs - Use iteration for simple converging sequences Revision for Statistics Exam	Revision for Statistics Exam Circle theorems - Identify and draw parts of a circle (e.g. sector, tangent, chord, segment) - Recall and apply circle theorems, including angles in a semicircle, at the centre, in the same segment, and in cyclic quadrilaterals - Use the alternate segment theorem and properties of tangents and chords - Find and justify missing angles using circle theorems and triangle properties in circle diagrams Circle Geometry - Use constructions and loci to draw graphs involving circles and perpendiculars - Recognise and construct the graph of a circle with equation $x^2 + y^2 = r^2$ centred at the origin - Find the equation of a tangent to a circle by using gradients and a given point Revision for End of Year PPE

Mathematics: (Foundation)	Perimeter, area and volume - Read scales and understand the use of units in measurement - Convert between metric units - Estimate measures, areas, volumes, and surface areas using rounding - Calculate perimeter, area, and surface area of 2D and 3D shapes - Use formulae for area and volume of standard and compound shapes - Identify common 3D shapes and sketch nets of cuboids and prisms - Convert between volume and capacity (e.g. 1ml = 1cm³) Graphs - Use input/output diagrams and plot coordinates in all four quadrants - Draw and interpret real-life graphs (e.g. conversion, distance–time, velocity–time) - Calculate speed, distance, time, and interpret gradients as rates of change - Identify midpoints and points from geometric information - Interpret linear and non-linear graphs, including with negative values	Transformations - Identify congruent and similar shapes; understand that transformations can preserve size or shape - Describe and perform rotations, translations (using vectors), reflections, and enlargements (with centre and scale factor) - Use and interpret transformations on and off coordinate grids, including combined transformations - Identify symmetry, lines of reflection, centres of enlargement, and scale factors Ratio & Proportion - Understand, simplify, and interpret ratios in context, including sharing quantities and comparing ratios - Solve ratio and proportion problems (e.g. scaling, mixtures, best buys, currency, recipes) using unitary methods - Express ratios as fractions, linear functions, or in forms like 1 : m or m : 1, including for lengths, areas, and volumes - Recognise and use direct and inverse proportion, including from graphs and equations	Pythagoras & Trigonometry - Use and apply Pythagoras' Theorem in 2D, including on coordinate grids and in surd form - Identify right-angled triangles using side lengths - Calculate missing sides or hypotenuse in right-angled triangles, using a range of units - Use and recall sine, cosine, and tangent to find angles and lengths in 2D triangles - Solve problems involving angles of elevation and depression - Round answers appropriately and know exact trig values for key angles (0°, 30°, 45°, 60°, 90°) Probability - Describe and express probability using the 0–1 scale, words, fractions, decimals, and percentages - Use theoretical models and relative frequency to calculate or estimate probabilities - List outcomes systematically and use sample space, frequency, two-way, and probability tables - Add probabilities, use 1 – p, and find missing values - Identify mutually exclusive events and understand total probability equals 1 - Use Venn diagrams and tree diagrams to solve problems - Compare experimental and theoretical probabilities across different sample sizes - Understand conditional probability and independence	Multiplicative reasoning - Interpret scales and convert between metric and imperial units - Use compound measures - Calculate speed, distance, and time - Solve percentage problems including profit/loss, compound interest and reverse percentages - Use ratio and proportion in real-life contexts - Interpret and solve direct and inverse proportion problems Construction, loci & bearings - Measure and construct angles, lines, shapes, and bearings accurately - Draw 2D shapes and nets; sketch and interpret 3D solids using plans, elevations, and isometric grids - Identify faces, edges, vertices, symmetry, and congruent shapes - Perform standard constructions and solve loci problems - Use and interpret scale drawings in context, including with bearings	Quadratics equations & graphs - Define a 'quadratic' expression - Multiply together two algebraic expressions with brackets - Square a linear expression, e.g. (x + 1)² - Factorise quadratic expressions of the form $x^2 + bx + c$ - Factorise a quadratic expression using the difference of two squares - Solve quadratic equations by factorising - Solve quadratic equations that require rearranging - Find the roots of a quadratic function algebraically. - Generate points and plot graphs of simple quadratic functions, then more general quadratic functions - Identify the line of symmetry of a quadratic graph - Find approximate solutions to quadratic equations using a graph - Interpret graphs of quadratic functions from real-life problems - Identify and interpret roots, intercepts and turning points of quadratic graphs	Circles, cylinders cones & spheres - Identify and name parts of a circle (e.g. radius, tangent, chord, segment) - Use and apply formulae for circumference and area of a circle, including in terms of π - Calculate arc lengths, sector areas, and areas/perimeters of parts of circles and composite shapes - Find surface area and volume of cylinders, spheres, cones, pyramids, and composite solids - Round answers appropriately and use π accurately (as 3.14 or on a calculator) - Find missing dimensions given area, circumference, or volume Revision for End of Year PPE

Science: Double Award (See below for Triple Science Curriculum)	Chemical Changes Core Knowledge: - Understanding metal reactivity, displacement reactions, and how metals are extracted based on their reactivity using carbon or electrolysis. - Defining acids, bases, and alkalis; identifying neutralisation reactions and understanding the pH scale and indicators. - Describing methods of preparing soluble salts (e.g. from metals, bases, and carbonates) and understanding the principles of titration and ionic equations.	Quantitative Chemistry Core Knowledge: - Understanding and using relative atomic mass, formula mass, moles, and the mole equation to calculate masses of substances involved in chemical reactions. - Applying the law of conservation of mass and calculating limiting reactants, percentage yield, and atom economy of reactions. - Using formulas to calculate concentration, volume, and amount of solute in solutions, including conversions between units like g/dm³ and mol/dm³.	Electricity in the home Core Knowledge - Learn the difference between direct current (dc) from cells/batteries, which flows in one direction, and alternating current (ac) from mains electricity, which repeatedly reverses direction at a frequency of 50 Hz and voltage of 230 V in the UK. - Understand the function of the three wires in a three-core cable (live, neutral, earth) and the safety role of fuses, which melt to disconnect the live wire during a short circuit. - Study how the National Grid efficiently transfers electrical energy across the country using step-up transformers to increase potential difference for transmission (reducing current and wasted energy) and step-down transformers to decrease it for safe domestic use.	Radioactivity Core Knowledge - Describe the structure of the atom, including the nucleus (containing protons and neutrons) and electrons, and explain how an unstable nucleus can emit radiation (alpha, beta, or gamma) to become more stable. - Compare the properties of alpha, beta, and gamma radiation, including their penetration, ionising ability, and uses, and evaluate the dangers and precautions related to exposure to radioactive materials. - Interpret data on half-life to explain how the radioactivity of a sample decreases over time, and apply this to real-world contexts such as radioactive dating and medical diagnosis or treatment.	Organic Chemistry Core Knowledge - Learn that crude oil is a mixture of hydrocarbons formed from ancient biomass. It is separated by fractional distillation into alkanes, which are saturated hydrocarbons with the general formula C_nH_{2n+2}. Their properties (e.g., boiling point, viscosity, flammability) depend on molecular size. - Understanding that cracking is used to break down long-chain alkanes into smaller, more useful molecules, including alkenes (which are unsaturated hydrocarbons). Alkenes are more reactive and used to make polymers. Bromine water can test for alkenes by turning colourless. - Understand how hydrocarbons and cracking products are used as fuels and as raw materials for the petrochemical industry, and how this links to modern life and the demand for small hydrocarbons.	Chemical Analysis Core Knowledge - Understand what is meant by a pure substance in chemistry (only one element or compound) and how formulations are mixtures designed for a specific purpose, such as paints or medicines. - Paper chromatography is used to separate mixtures and identify substances based on their movement through a solvent. Students learn how to calculate R_f values and interpret chromatograms. - Cover the required practicals like tests for hydrogen (squeaky pop test), oxygen (relights glowing splint), carbon dioxide (limewater turns cloudy), and chlorine (bleaches litmus). Students also study flame tests and precipitation reactions to identify metal ions and halides (HT only).
	Cell Division Core Knowledge - Learn that the nucleus of a cell contains chromosomes, which are made of DNA and carry genes, and that in normal body cells, chromosomes are typically found in pairs. - Understand that stem cells are undifferentiated cells that can develop into specialised cells, and will differentiate between adult stem cells (limited differentiation potential, fewer ethical concerns) and embryonic stem cells (can differentiate into	Infection and Response Core Knowledge - Learn about pathogens (bacteria, viruses, fungi, and protists), how they spread, and how they cause disease. The body's first line of defence, including the skin and immune system (white blood cells and antibodies), is also studied. - Focusing on vaccination, antibiotics and painkillers, and the development and testing of new drugs, including double-blind trials and placebos.	Electrolysis Core Knowledge - Describe the process of electrolysis as the breaking down of ionic compounds using an electric current, and explain the movement of positive and negative ions towards the respective electrodes (cathode and anode). - Compare and predict the products formed from the electrolysis of molten and aqueous ionic compounds, including rules for determining whether hydrogen or a metal is	Homeostasis and Response Core Knowledge Learn that homeostasis is the regulation of internal conditions (like temperature, water levels, and blood glucose) to maintain optimal conditions for enzyme function and	Motion Core Knowledge	Ecology Core Knowledge Understand how organisms adapt to their environments and compete for limited resources. Learn about interdependence within ecosystems, including food chains/webs, abiotic

	any cell type, more ethical concerns). - Know that plant meristems are areas of rapid cell division used for cloning plants, offering advantages like preserving rare species but a disadvantage of no genetic variation. Energy Transfer by Heating Core Knowledge - Describe how thermal energy is transferred through materials and how thermal conductivity, material thickness, and temperature difference affect this process. - Understand and apply the concept of specific heat capacity to calculate thermal energy changes in materials. - Explain how infrared radiation affects temperature, including the greenhouse effect.	Focussing on case studies such as measles, HIV, malaria, salmonella, and gonorrhoea, with knowledge of how to prevent and treat these illnesses.	produced at the cathode and whether oxygen or a halogen is produced at the anode. Investigate the electrolysis of aqueous solutions in the Required Practical, using inert electrodes, and apply this knowledge to explain how metals like aluminium are extracted from their ores using electrolysis.	cellular processes. This includes understanding receptors, coordination centres (like the brain and pancreas), and effectors. - Cover that the nervous system enables fast responses to stimuli via electrical impulses carried by neurones. Reflex arcs (which include sensory, relay, and motor neurones) allow automatic responses to protect the body without conscious thought. - Explain how hormonal control systems (like insulin regulation and the menstrual cycle) operate more slowly. Students study the role of hormones in fertility and contraception, as well as how scientists use hormones in treatments like fertility drugs.	- Learn the definitions of speed (a scalar quantity with magnitude only) and velocity (a vector quantity with both magnitude and direction), understanding that velocity changes if direction changes, even at constant speed. - Understand that acceleration is the change in velocity per second, is a vector quantity, and that negative acceleration is deceleration, often calculated from the gradient of a velocity-time graph. Learn how to calculate the distance travelled by an object from a velocity-time graph by finding the area under the line, and how to determine instantaneous speed from a distance-time graph for an accelerating object by drawing a tangent and finding its gradient.	and biotic factors, and the importance of stable communities. - Study the importance of biodiversity and how human activities like deforestation, pollution, and global warming affect ecosystems. - Examine the cycling of materials through the carbon and water cycles, the structure and function of decomposers, and the efficiency of biomass transfer. Learn how food production is influenced by biological factors, and how biotechnology can support food security. Earth's Atmosphere Core Knowledge - How our early Earth's air was different: It had lots of carbon dioxide and not much oxygen, unlike today. - Why the air changed: Over time, carbon dioxide decreased because oceans soaked it up and plants used it to grow. - How humans are changing the air now: Burning fuels and cutting down trees release gases that warm the planet and cause climate change, leading to things like rising sea levels.
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English	Modern Novel: Never Let Me Go Language Paper 1		Poetry: Conflict Language Paper 2		Shakespeare: Macbeth Language Paper 1 and 2 Revision	
	Students will be reminded of the conventions of dystopian fiction and be introduced to the bildungsroman genre. They will study a range of themes and concepts connected to ‘Never Let Me Go’. These include: nostalgia, friendship, humanity, ethics, otherness, belonging and mortality. They will explore a nonlinear narrative, track character development and analyse a range of significant ‘moments’ from the novel. Students will also learn how to approach unseen fictional extracts. Revision of language will be interwoven throughout this unit. Language Paper 1 walkthroughs, model answers and timed practice will be provided.		Students will study the OCR conflict collection of poetry. They will revisit poetic form and conventions covered in Year 9. They will study a range of themes related to conflict poetry. These include: war, identity, violence, discrimination, difficult emotions, culture, desire for change, humanity and morality. Students will study poems from a range of different perspectives and contexts while learning to approach unseen poems.		Students will study Shakespeare’s ‘Macbeth’ and build on their knowledge of Shakespeare acquired at KS3. They will study a range of themes and concepts related to ‘Macbeth’. These include: kingship, loyalty, guilt, the supernatural, character development, atmosphere and tragedy. Students will study the entire play and analyse significant moments in order to explore deeper meanings and methods used by Shakespeare.	
History	GCSE Medicine: Industrial Period Explore medical developments between c.1700–c.1900, focusing on changes in understanding of disease and improvements in treatment and public health.	GCSE Medicine: Modern Period Investigate the major medical advances from c.1900 to the present, including technological, scientific, and social changes.	GCSE Medicine on the Western Front Focus on medicine in the context of WWI, with a depth study of treatment, injuries, and medical provision on the Western Front.	The American West: Early Tensions and Development (c.1835–c.1862) Understand the early history of the American West, focusing on initial migration, conflict, and settlement.	The American West: Expansion, Conflict and Control (c.1862–c.1895) Study the expansion of settlement and the destruction of the Indigenous People’s way of life, alongside the development of law and order.	Early Elizabethan England: Problems and Religion Begin study of the final Paper 2 depth study, focusing on Elizabeth I’s early reign and religious settlement.
	Core knowledge (Edexcel Paper 1, Q3–5): - Germ theory and the role of Pasteur and Koch - Advances in surgery: anaesthetics and antiseptics - Public health reforms and the work of individuals like John Snow - The role of government and attitudes to health - Changes in hospitals and nursing	Core knowledge (Edexcel Paper 1, Q3–5): - Developments in diagnosis and treatment: X-rays, blood transfusions, antibiotics - The impact of the NHS - Advances in surgery and high-tech medicine - Lifestyle and modern disease - Government campaigns and public health	Core knowledge (Edexcel Paper 1, Q1–2): - Nature of trench warfare and battlefield conditions - Common injuries and treatments - RAMC and FANY - Chain of evacuation - Source skills: inference and usefulness	Core knowledge (Edexcel Paper 2, Am West): - Indigenous People’s way of life and beliefs - Reasons for migration west (push/pull factors) - The Oregon Trail, Gold Rush, Mormons - Government policy and tension with Native Americans - Law and order in early settlements	Core knowledge (Edexcel Paper 2 – Am West): - Homestead Act and development of farming - The cattle industry and the open range - Railroads and increasing migration - Conflict and military campaigns against Plains Indians - Destruction of the Indigenous People’s way of life - Developments in law and order - Review and full section assessment	Core knowledge (Edexcel Paper 2 – Elizabeth): - Elizabeth’s background and character - Early problems: legitimacy, marriage, gender - Different religious groups in Elizabethan England - The Religious Settlement and its enforcement - Opposition to religious changes

Geography	Tectonic Hazards Understand the processes shaping the Earth's surface, the impacts of tectonic hazards on people and environments, and how these risks can be managed to ensure resilience and sustainability. Core knowledge: - Plate tectonic theory - Plate margins - Causes of tectonic hazards - Primary and secondary effects - Immediate and long term responses - Case studies: Chile and Nepal - Living with tectonic hazards	Weather hazards Part 2 Investigate the impact of extreme weather in the UK Core knowledge: - Types and frequency of extreme weather in the UK - Evidence of increasing extreme weather - Case study: Somerset Levels Floods - Management	Ecosystems Understanding the interrelationships between organisms and their environments, the functioning of ecosystems, and the challenges they face. Core knowledge: - Components of an ecosystem - Global biomes - Rainforests case study: Amazon or Malaysia - Rainforest management	Cold environments part 2 Understand their unique ecosystems, challenges, and the importance of sustainable management Core knowledge: - Case study: Svalbard - Challenges - Conservation	Rivers Physical processes, ecosystems, and human interactions that shape and are influenced by river systems. Core knowledge: - Introduction to physical geography - The water cycle - Drainage basins - River processes - River features and landforms - Management strategies River case study: Banbury	Resources Understanding of the distribution, use, and management of natural resources, and the challenges of sustainability in meeting human needs. Core knowledge: - Significance of natural resources - Global inequalities in resource distribution - Resource management in the UK - Global challenges of resource management
	Weather hazards Part 1 Understand atmospheric processes and extreme weather events globally. Core knowledge - Atmospheric circulation - Formation of Hurricanes (cyclones and typhoons) - Impact of hurricanes - Case studies: Hurricane Katrina, Typhoon Haiyan	Climate change Understanding causes, impacts, and solutions of climate change Core knowledge: - Evidence for climate change - Natural causes of climate change - Greenhouse vs Enhanced Greenhouse effect Mitigation and adaptation strategies	Cold environments Part 1 Understand their unique ecosystems, challenges, and the importance of sustainable management Core knowledge: - Case study: Svalbard Opportunities	Coasts Understanding dynamic processes, distinctive landforms, and the need for sustainable management. Core knowledge:		

Ethics and Philosophy	Relationships and families: This theme unit explores the role of the family. Core Knowledge: - To explore the concept of marriage - To examine the importance of the role of the family - To look at the issues surrounding the topic of divorce - To learn the religious teachings that apply to this topic for both Christianity and Buddhism	Christian Belief: The first unit on the religion paper. We examine what Christian believe and how this shapes their faith. Core Knowledge: - An understanding of the nature of God - A working knowledge of the trinity - Different beliefs about creation - A working knowledge of the crucifixion and then resurrection of Jesus - The promise of salvation and an afterlife	Crime and Punishment: The second theme unit. This explores the concept of crime and punishment. Core Knowledge: - The reasons people break the law - The types of crimes committed - The punishments used in the UK and beyond - The aims behind punishment - An understanding or corporal and capital punishment - Looking at the issue of forgiveness	Buddhist Belief: The second religious unit. We examine what Buddhists believe and how this affects their everyday life. Core Knowledge: - The life of the Buddha - The Dharma - the concept of dependant arising - The 4 noble truths - The 3 marks of existence - different types of Buddhism including, mahayana, Theravada and Pure land. - What an Arhat and Bodhisattva do.	Religion, human rights and Social Justice: The third theme unit we study. This explores human rights and responsibilities. Core knowledge: - What is social justice - What are human rights and responsibilities - the differences between prejudice and discrimination - Look at the exploitation of the poor poverty and charity work	
	Identity and Relationships - Talking about ourselves, our family and friends. Core Knowledge - Phonics and Reading Aloud skills. - Reviewing possessive adjectives with family members. - Discussing the different types of families. - Using the verbs 'to have' and 'to be' to describe personality and physical appearances. - Using a wider variety of adjectives and practising adjective agreements.	Free time activities - Talking about our hobbies and interests. Core Knowledge - Phonics and Reading Aloud skills. - Discussing popular sports in the Francophone/Hispanic world. - Reviewing present tense regular and irregular verbs. - Using the present continuous tense to describe photo tasks. - Talking about music, TV and film preferences.	Travel and Tourism - Talking about our holidays in a variety of tenses. Core Knowledge - Phonics and Reading Aloud skills. - Talking about holiday activities and preferences. - Using the future tenses to talk about holiday plans. - Using the conditional tense to talk about ideal holidays. - Using more than one past tense to describe a holiday. - Using the imperfect tense to describe a location. - Speaking exam skills – role-play, read aloud and photocard practice.	Media and Technology - Talking about changes in technology and social media. Core Knowledge - Phonics and Reading Aloud practice. - Using past and present tenses to talk about the world with and without technology. - Using key verbs in 3 tenses to talk about how we use technology. - Talking about the good and bad aspects of social media.	Where I live - Talking about our home and town in detail. Core Knowledge - Phonics and Reading Aloud practice. - Revising present tense and adjectives to describe your house and what activities you do at home. - Talking about your town and the weather. - Using complex structures to compare the good and bad points of your town. - Using the conditional tense to describe your	The Environment - Talking about making a positive impact on the planet. Core Knowledge - Phonics and Reading Aloud practice. - Talking about your local environment and what you can do to help. - Using negative structures to say what you must/must not do. - Saying what you did recently to help the environment. - Talking about global environmental issues.

	- Using reflexive verbs to describe our relationships. - Discussing the qualities of a good friend. Answering key topic questions for speaking and writing.	- Using the past tense to say what you have done recently. - Using comparatives and superlatives to add variety to our speaking/writing. Answering key topic questions for speaking and writing.	Answering key topic questions for speaking and writing.	Using a variety of structures to talk about the future of technology.	ideal town or how to improve your town. Answering key topic questions for speaking and writing.	Saying what we could and should do to save the planet.
BTEC Sport: (Core PE see below)	Component 1 Learning Outcome A Explore types and provision of sport and physical activity for different types of participant Core Knowledge - Types and providers of sport and physical activities - Types and needs of sport and physical activity participants - Barriers to participation in sport and physical activity for different types of participant	Component 1 Learning Outcome B Examine equipment and technology required for participants to use when taking part in sport and physical activity Core Knowledge - Different types of sports clothing and equipment required for participation in sport and physical activity - Different types of technology and their benefits to improve sport and physical activity participation and performance - The limitations of using technology in sport and physical activity	Component 1 Learning Outcome C Be able to prepare participants to take part in sport and physical activity. Core Knowledge - Planning a warm-up - Adapting a warm-up for different categories of participants and different types of physical activities Delivering a warm-up to prepare participants for physical activity	Component 1 PSA Set by Pearson - released September Core Knowledge - 3 tasks to complete including written and practical tasks Tasks completed in supervised sessions	Component 1 and 2 Component 1 PSA Component 2 Learning Outcome A Core Knowledge - Components of physical fitness Components of skill-related fitness	Component 2 Learning Outcome A Understand how different components of fitness are used in different physical activities Core Knowledge - Components of physical fitness Components of skill-related fitness

Art	Theme: Project 1 - Pathways. First coursework project. This looks at pathways in 3 different ways: The first way is focused on surfaces of different pathways (wood, cobbles, yellow lines, puddles, cracked, drain covers etc. Create drawings and experimental mixed media work. Artist Links: Derek Lerner, Ruben Marroquin, Mark Bradford, Joanne Greenbaum, Marianne Schovsbo, Viktoriya Filipchenko, Ian Murphy. Core Knowledge: Observational work focusing on exploring the various lines, tones, textures, shapes and patterns found within different pathways surfaces in different drawing styles and exploring mixed media and techniques. Compare and contrast of artists work. Media and techniques; Pencil, graphite sticks, ink, wax resist, collage, cut and layering.	Theme: Project 1 - Pathways. Second approach. Focus on artists that paint different pathways within a landscape or cityscape. Reproduction and analysis of a relevant artist's work. Development of a final landscape / cityscape study. Artist Link: Impressionist Artists - Claude Monet, Erin Hanson, Leonid Afremov. Post Impressionist Artists - Vincent Van Gogh, Paul Cezanne. Expressionist - Wassily Kandinsky. Artists which create cityscapes and landscapes with vibrant colours bold marks and colours. Core Knowledge: Colour theory and mark making, exploring primary, secondary, tertiary colours, and chromatic greys on various surfaces. Understanding of composition and layers within a landscapes & perspective. Media exploration and refinement. Artist analysis. Media and techniques; Acrylic Painting (using different tools; brushes, card, sponge, palette knife, oil pastel and collage.	Theme: Project 1 - Pathways. Third approach focused on objects on and beside pathways. Detailed observational drawings and creation of a composition for a reduction lino print based on an object that could be beside a pathway, natural or manmade, urban or rural. Artist Link: Nancy Stanlee, Dharmada Knuepfer, Jon Martin, Van Gogh, Liz Rodgers, John Randall Bratby, Catherine Carey, Tessa Charles, Michelle Hughes, Jake Richards, Joanna Martin. Core Knowledge: Quick experimental drawing exercises. Detailed drawing considering, proportion, accuracy, application of tone to create 3D form. Understanding how to design a composition for a reduction lino print process. Printing lino designs. Media and Techniques; Lino blocks, lino cutting tools, printing equipment, printing inks, coloured papers.	Theme: Project 2 - Individual theme chosen by each student from a past exam paper. Start the sketchbook to show starting ideas through brainstorm, visual collage and writing a brief. Focus on observation drawing and media exploration. Artist Link: These artists will be tailored to each student, depending on their chosen starting point. A minimum of two artists must be researched and analysed, with clear connections demonstrated through the student's experimental work and supporting annotations. Core Knowledge: Observational drawing from life or relevant imagery linked to the chosen theme, with a focus on appropriate selected visual elements. Analysis of artists work. Exploration of different drawing techniques including; blind drawing, detailed drawings and monoprinting. Exploration of media to enhance monoprints. Media and techniques; Pencil, Biro, Graphite stick, pen and ink, monoprint inks, pencil crayon, chalk pastels.	Theme: Project 2 - Individual theme chosen by each student from a past exam paper. Focus on media exploration on drawn imagery. Artist Link: The influence of selected artists should be evident in the students' selected exploration of media and techniques. Additional artists may be introduced as needed to support the refinement of ideas and to inform creative developments. Core Knowledge: Media experimentation in a range of different media, This should reflect the pupils intentions whilst showing a link and influence of the chosen artists encouraging students to experiment with similar techniques to develop and refine their ideas. Media and techniques; All media - student choice.	Theme: Project 2 - Continuation of individual projects- leading to a developed piece produced during the two day (10 hour) yr 10 PPE Artist Link: In preparation for their mock exam, students may select additional artists to further support and develop their ideas. These artists should be critically analysed and annotated, clearly explaining their relevance and the rationale behind their selection. Core Knowledge: Ongoing carousel of observational studies using a variety of media, supported by artist analysis and media experimentation in preparation for the mock exam. Students will produce thumbnail sketches to explore compositional ideas, supported by annotations and visual work that justify their creative decisions. Media and techniques; All media
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Dance	Class dance Students learn how to work as a team to choreograph and perform a dance with a clear stimulus. They also learn about the expectations in dance as well as the purpose of warm up and cool down. Core knowledge • Warm up and cool down (stamina building and technique) • Performance skills • Choreographic skills • Rehearsal process	Introduction to BTEC Dance Students explore professional dance repertoire and focus on their analytic skills Core knowledge • Analytical skills Understanding choreographic intention and purpose through the works features	Component 1 - Exploring the performing arts This internally assessed component focuses on developing learners' understanding of professional performance work and the processes involved in creating it. Core knowledge • Investigation of Professional Work • Understanding stylistic qualities, creative intentions, and the purposes behind professional performances. • Understanding Roles and Responsibilities and the world of work in the performing arts • Practical Exploration • Applying relevant skills and techniques, enhancing their practical understanding of how professionals develop and refine performance pieces.	Component 3 mock Learners collaborate in groups to create and perform a workshop piece in response to a given brief and stimulus. Core knowledge • Choreography • Performance • Analysis of professional works/choreographers • Selecting and developing skills in response to a brief • Applying skills and techniques in a workshop performance • Evaluating the development process and outcome in response to a brief
Drama	Set text: Around the World in 80 Days by Jules Verne and content for multiple choice questions on Professional roles in theatre, stage configuration and theatre spaces. Core Knowledge: • Knowledge and understanding of drama and theatre • Study of one set play from a choice of nine - applying performing, designing and directing skills to it	Devising Theatre. Group work on devising original drama, alongside working notebook coursework. Core Knowledge: • Process of creating devised (original) drama • Performance of devised drama (students may contribute as performer or designer) • Analysis and evaluation of own work through coursework	Theatre Review - analysis of live theatre preparation for written exam. Core Knowledge: • Knowledge of Drama and Theatre • Analysis and evaluation of the work of live theatre makers Final Drafts of written coursework from Devising Theatre. Core Knowledge: • Analysis and evaluation of own work through coursework • Application of feedback	

Music	<u>Double Lessons</u> Aos 3 : Film Music Explore how film music has developed through time. Core Knowledge: • Create short compositions exploring melodic construction, harmonisation, primary chords, textures and writing to a brief. • Create a ‘Spy’ composition of a longer length which looks at the development of musical ideas. • Developing elements vocabulary. <u>Single Lessons</u> AoS 1 : Form and Structure. Identify the key forms and structures used in the Baroque, Classical and Romantic periods. Core Knowledge: • Develop understanding of Baroque, Classical and Romantic period musical features. • Identify and compose in Binary and Ternary Form. • Develop basic harmonic understanding - chord use, cadences, modulations to related keys.	AoS 4 : Popular Music / Set Work 2 : Africa (Toto) Explore the history of Popular music Explore how to compose for voice. Analyse the piece ‘Africa’ Core Knowledge: • Create a pop song, showing understanding of how instrumentation, technology and pop chord progressions are used. • Understand how the elements of music are used in ‘Africa’. Develop understanding of correlating vocabulary. Set Work 1 : Badinerie (AoS1) Analyse the piece ‘Badinerie’ by J.S.Bach. Core Knowledge: • Understand how the elements of music are used in ‘Badinerie’. Develop understanding of correlating vocabulary.		Aos 2 : Music for Ensemble Context and musical features of Musical Theatre Jazz, Blues and Chamber music. Core Knowledge: • Can compose and demonstrate an understanding of textural devices, accompaniment styles and writing for voice. Free Composition Complete free composition Core Knowledge • Draw on compositional techniques used in AoS 1-4. • Can organise and develop ideas showing creativity and sophistication. • Demonstrate solid use and understanding of the elements of music.	
	Attack the Block: The introductory film studies unit where students develop foundational understanding of film form through close study of the set text. Core Knowledge: • The key elements of film form (cinematography, sound, mise-en-scène, editing, performance). • Understanding how these elements are used in <i>Attack the Block</i>. • Exploration of genre hybridity: sci-fi, urban, and horror conventions. • Ability to analyse how a film ‘looks’ and conveys meaning.	District 9: The second unit in film studies, building on film form by focusing on narrative structure and its contextual foundations. Core Knowledge: • Understanding how narrative structures shape audience perception. • The role of context in influencing meaning, especially apartheid and xenophobia.	The Farewell: The final Year 1 film, focusing on foreign language cinema and exploring representation through cultural and generational perspectives. Core Knowledge: • Application of film form to non-English language cinema. • Representation of youth	PPE Revision: The final term of Year 1 focused on preparing students for their end-of-year exam through structured revision and exam technique practice. Core Knowledge: • Understanding the structure and demands of PPE-style exam questions. • Effective revision	Coursework: The final Year 1 term introduces students to the coursework task, focusing on screenplay formatting and independent project preparation. Core Knowledge: • Understanding screenplay conventions and coursework requirements • Developing independent

	Encouraging of independent viewing to deepen conceptual understanding.		- The narrative impact of the mockumentary style. - How real-life events inform the fictional events in <i>District 9</i>. - Developing analytical links between aesthetics, narrative, and ideology.	versus age and family dynamics. - The concept of the “outsider” in narrative and characterisation. - Cultural context and its impact on audience interpretation. - Understanding how language and setting shape meaning in film.	strategies for film form, narrative, and context. - The importance of question analysis and planning due to stepped question format. - Revisiting key scenes from all studied films to consolidate learning. - Using independent study tools (e.g. Chromebooks) to support targeted revision.	working habits for extended creative projects Analysing genre conventions, with a focus on teenage film as stimulus
Computer Science	Data - Numbers & Characters Programming - input/output - iteration - selection Core knowledge: - Binary - Data representation - Numbers binary, hex & denary Characters	Problem solving Programming - problem decomposition - string handling Core knowledge: - Decomposition and abstraction - Algorithms - Truth tables - Develop code - Programming constructs	Computers -hardware Programming - file handling - functions/procedures Core knowledge: - System architecture - Secondary storage - Embedded systems	Computer software Programming - libraries - validation - turtle Core knowledge: - Purpose and function of operating systems	Computer software Programming - error handling - challenges Core knowledge - Utility software robust software	Networks Programming project Core knowledge: - Why network? - LAN vs WAN - Characteristics of wired and wireless networks - Protocols 4 Layer model - Topologies

Science Triple Award Curriculum

Science Discipline	Term One	Term Two	Term Three	Term Four	Term Five	Term Six
Physics	Energy Transfer by Heating Core Knowledge - Describe how thermal energy is transferred through materials and how thermal conductivity, material thickness, and temperature difference affect this process. - Understand and apply the concept of specific heat capacity to calculate thermal energy changes in materials. - Explain how infrared radiation affects temperature, including the greenhouse effect.	Electricity in the home Core Knowledge - Learn the difference between direct current (dc) from cells/batteries, which flows in one direction, and alternating current (ac) from mains electricity, which repeatedly reverses direction at a frequency of 50 Hz and voltage of 230 V in the UK. - Understand the function of the three wires in a three-core cable (live, neutral, earth) and the safety role of fuses, which melt to disconnect the live wire during a short circuit. - Study how the National Grid efficiently transfers electrical energy across the country using step-up transformers to increase potential difference for transmission (reducing current and wasted energy) and step-down transformers to decrease it for safe domestic use.	Radioactivity Core Knowledge - Describe the structure of the atom, including the nucleus (containing protons and neutrons) and electrons, and explain how an unstable nucleus can emit radiation (alpha, beta, or gamma) to become more stable. - Compare the properties of alpha, beta, and gamma radiation, including their penetration, ionising ability, and uses, and evaluate the dangers and precautions related to exposure to radioactive materials. - Interpret data on half-life to explain how the radioactivity of a sample decreases over time, and apply this to real-world contexts such as radioactive dating and medical diagnosis or treatment.	Radioactivity (Triple-specific) Core Knowledge - Describe that background radiation is always present in the environment, and identify the natural and man-made sources of background radiation. - Describe the process of nuclear fission, and explain how a chain reaction occurs in a nuclear reactor, and analyse how it is controlled using control rods and moderators to ensure the reaction remains steady and safe. - Describe nuclear fusion as the joining of two light nuclei, and explain why nuclear fusion requires very high temperatures and pressures, and understand why it is difficult to replicate and sustain fusion on Earth.	Motion Core Knowledge - Learn the definitions of speed (a scalar quantity with magnitude only) and velocity (a vector quantity with both magnitude and direction), understanding that velocity changes if direction changes, even at constant speed. - Understand that acceleration is the change in velocity per second, is a vector quantity, and that negative acceleration is deceleration, often calculated from the gradient of a velocity-time graph. - Learn how to calculate the distance travelled by an object from a velocity-time graph by finding the area under the line, and how to determine instantaneous speed from a distance-time graph for an accelerating object by drawing a tangent and finding its gradient.	Forces and Motion Core Knowledge - Learn that the weight of an object is the force due to gravity acting on its mass, is directly proportional to mass, and can be measured with a spring balance, while also understanding how terminal velocity is reached when drag balances weight. - Explain Newton's Second Law of Motion, and will learn how to calculate resultant force by resolving forces. - Understand that stopping distance is the sum of thinking distance and braking distance, and will learn about momentum as the product of mass and velocity ($p=mv$), along with the principle of conservation of momentum in closed systems.

Biology	Cell Division	Infection and Response	Infection and Response (Triple-specific)	Homeostasis and Response	Homeostasis and response (Triple-specific)	Ecology
	Core Knowledge	Core Knowledge	Core Knowledge	Core Knowledge	Core Knowledge	Core Knowledge
	- Learn that the nucleus of a cell contains chromosomes, which are made of DNA and carry genes, and that in normal body cells, chromosomes are typically found in pairs. - Understand that stem cells are undifferentiated cells that can develop into specialised cells, and will differentiate between adult stem cells (limited differentiation potential, fewer ethical concerns) and embryonic stem cells (can differentiate into any cell type, more ethical concerns). - Know that plant meristems are areas of rapid cell division used for cloning plants, offering advantages like preserving rare species but a disadvantage of no genetic variation.	- Learn about pathogens (bacteria, viruses, fungi, and protists), how they spread, and how they cause disease. The body's first line of defence, including the skin and immune system (white blood cells and antibodies), is also studied. - Focusing on vaccination, antibiotics and painkillers, and the development and testing of new drugs, including double-blind trials and placebos. - Focussing on case studies such as measles, HIV, malaria, salmonella, and gonorrhoea, with knowledge of how to prevent and treat these illnesses.	- Describe how plant diseases can be caused by a variety of pathogens, and explain how they can be detected using symptoms, laboratory testing, and identification kits. They will understand the importance of plant diseases in global food security and agriculture. - Explain how physical and chemical plant defence responses (e.g. cellulose cell walls, antimicrobial chemicals, production of poisons) protect against infection. They will also study mechanical defences like thorns, hairs, mimicry, and leaf movements. - Evaluate methods of controlling plant disease and apply their knowledge of disease transmission, symptoms, and prevention strategies to real-world agricultural scenarios	- Learn that homeostasis is the regulation of internal conditions (like temperature, water levels, and blood glucose) to maintain optimal conditions for enzyme function and cellular processes. This includes understanding receptors, coordination centres (like the brain and pancreas), and effectors. - Cover that the nervous system enables fast responses to stimuli via electrical impulses carried by neurones. Reflex arcs (which include sensory, relay, and motor neurones) allow automatic responses to protect the body without conscious thought. - Explain how hormonal control systems (like insulin regulation and the menstrual cycle) operate more slowly. Students study the role of hormones in fertility and contraception, as well as how scientists use hormones in treatments like fertility drugs.	- Identify and describe the main parts of the brain (cerebral cortex, cerebellum, and medulla), their functions, and evaluate methods used to study the brain (e.g. MRI scans, electrical stimulation). They will also understand the difficulties involved in investigating and treating brain disorders (HT only). - Explain the structure and function of the eye, including accommodation and common vision defects such as myopia and hyperopia, along with their correction using lenses or surgery (HT only). - Describe the roles of adrenaline and thyroxine in the endocrine system, including how negative feedback controls the level of thyroxine (HT only).	- Understand how organisms adapt to their environments and compete for limited resources. Learn about interdependence within ecosystems, including food chains/webs, abiotic and biotic factors, and the importance of stable communities. - Study the importance of biodiversity and how human activities like deforestation, pollution, and global warming affect ecosystems. - Examine the cycling of materials through the carbon and water cycles, the structure and function of decomposers, and the efficiency of biomass transfer. Learn how food production is influenced by biological factors, and how biotechnology can support food security.

Chemistry	Quantitative Chemistry	Chemical Changes	Electrolysis	Crude Oil and Hydrocarbons	Organic Reactions and Polymers (triple-specific)	Chemical Analysis
	Core Knowledge: - Understanding and using relative atomic mass, formula mass, moles, and the mole equation to calculate masses of substances involved in chemical reactions. - Applying the law of conservation of mass and calculating limiting reactants, percentage yield, and atom economy of reactions. - Using formulas to calculate concentration, volume, and amount of solute in solutions, including conversions between units like g/dm³ and mol/dm³.	Core Knowledge: - Understanding metal reactivity, displacement reactions, and how metals are extracted based on their reactivity using carbon or electrolysis. - Defining acids, bases, and alkalis; identifying neutralisation reactions and understanding the pH scale and indicators. - Describing methods of preparing soluble salts (e.g. from metals, bases, and carbonates) and understanding the principles of titration and ionic equations.	Core Knowledge - Describe the process of electrolysis as the breaking down of ionic compounds using an electric current, and explain the movement of positive and negative ions towards the respective electrodes (cathode and anode). - Compare and predict the products formed from the electrolysis of molten and aqueous ionic compounds, including rules for determining whether hydrogen or a metal is produced at the cathode and whether oxygen or a halogen is produced at the anode. - Investigate the electrolysis of aqueous solutions in the Required Practical, using inert electrodes, and apply this knowledge to explain how metals like aluminium are extracted from their ores using electrolysis.	Core Knowledge - Learn that crude oil is a mixture of hydrocarbons formed from ancient biomass. It is separated by fractional distillation into alkanes, which are saturated hydrocarbons with the general formula C_nH_{2n+2}. Their properties (e.g., boiling point, viscosity, flammability) depend on molecular size. - Understanding that cracking is used to break down long-chain alkanes into smaller, more useful molecules, including alkenes (which are unsaturated hydrocarbons). Alkenes are more reactive and used to make polymers. Bromine water can test for alkenes by turning colourless. - Understand how hydrocarbons and cracking products are used as fuels and as raw materials for the petrochemical industry, and how this links to modern life and the demand for small hydrocarbons.	Core Knowledge - Explain the reactions of alkenes, including how they undergo addition reactions with hydrogen, water (steam), and halogens due to their C=C double bond. They will also recognise alkenes from names and formulae and understand that these reactions are characteristic of their functional group. - Describe and explain the properties, reactions, and uses of alcohols and carboxylic acids, including combustion, oxidation, and reactions with sodium and acids. They will understand how these compounds relate to their functional groups (–OH for alcohols and –COOH for carboxylic acids). - Compare and contrast types of polymerisation, including addition and condensation polymerisation (HT only), and understand the structure and formation of naturally occurring polymers such as DNA and proteins from amino acids.	Core Knowledge - Understand what is meant by a pure substance in chemistry (only one element or compound) and how formulations are mixtures designed for a specific purpose, such as paints or medicines. - Paper chromatography is used to separate mixtures and identify substances based on their movement through a solvent. Students learn how to calculate R_f values and interpret chromatograms. - Cover the required practicals like tests for hydrogen (squeaky pop test), oxygen (relights glowing splint), carbon dioxide (limewater turns cloudy), and chlorine (bleaches litmus). Students also study flame tests and precipitation reactions to identify metal ions and halides (HT only).

Year 10: Design Technology Curriculum

NB: Students select their chosen specialism at the end of Y8 and will study these for the entire year				
Timbers	3DD 'Layers' - Cultures Inspiration (Students produces an independent outcome) Introduction to 3DD course Structure of Projects Key skills teaching – Materials & their properties – Hardwood, Softwood, Manufactured boards, Sheet metals, Polymers Vacuum Forming Wood Forming Marquetry Etching, Pyrography, Painting, Surface Decoration, Wood finishes Research – Cultural inspiration – Historic & Contemporary 2D drawing – Orthographic Elevations of layered product CAD development of product layers – Techsoft design tools Lasercutting / etching of final piece prior to assembly	3DD – 'Storage' - Designer Inspiration (Students produces an independent outcome) - Looking into the work of others - Designers Key skills teaching – Wood joints – Lap, Finger, Dowel, Halving, Rebate, Mitre joints Wood Adhesives, Slotted bases, Router profiles, Drawer runners, KD fittings 3D Drawing – Isometric and 2pt Perspective design ideas - Card & Foam prototyping of chosen design - Marking out by hand – rulers, squares, mitre squares, sliding bevels, marking gauges - Advanced manufacture of the final independent piece	3DD – Component 1: Portfolio Introduction to Component 1: Portfolio (60%) - Choosing Component 1 theme - Initial research into the theme and linked artists or designers - Initial design ideas - Detailed design development - Card / foam 3D prototyping Core Knowledge - Analysis of Task - Moodboard - Designer / Artist / Culture Inspiration page - Existing product analysis - Initial design sketches - Isometric / 2pt perspective detailed designs 3D solid modelling - Planning for examination	3DD – Component 1: Portfolio - Mock examination - PPE - Development through experimentation of Materials, Techniques and Processes Core Knowledge Range of techniques used for experimentation of timbers products to improve both functional or aesthetic properties.

Graphic Design	<u>Practice Non Exam Assessment</u> - Analyse a chosen context - Product analysis - Design brief and specification - Design drawings - Design labelling <u>Theory</u> - Papers & Boards - Forces and stresses	<u>Practice Non Exam Assessment</u> - Development of manufacture techniques <u>Theory</u> - Printing processes - Scales of production - Components - Social and environmental factors - Finishing processes - Paper and boards test	<u>Practice Non Exam Assessment</u> - Developing a final design - Begin manufacture <u>Theory</u> - Drawing techniques - Oblique, Isometric, 1 and 2 point perspective, third angle orthographic, exploded views and nets - Metals - Polymers - Timbers	<u>Practice Non Exam Assessment</u> - Manufacture of design <u>Theory</u> - Smart and modern materials - Composites - Technical Textiles - Mechanical devices - New and emerging technologies	<u>Practice Non Exam Assessment</u> - Manufacture of design <u>Theory</u> - DT maths - Electronics - CORE test paper	<u>Non Exam assessment begins:</u> - Analysis of chosen context - Product analysis - Questionnaire analysis - Individual primary research - Design brief and specification - Design drawings
	<u>Practice Non Exam Assessment</u> - Analyse a chosen context - Product analysis - Design brief and specification - Design drawings - Design labelling <u>Theory</u> - Fibres - Fabric construction - Treatment finishes	<u>Practice Non Exam Assessment</u> - Development of manufacture techniques <u>Theory</u> - Stock forms - Seams - reducing fullness in fabric - Finishing raw edges (hems) - Scales of production - TEXTILES test paper	<u>Practice Non Exam Assessment</u> - Developing a final design - Begin manufacture <u>Theory</u> - Drawing techniques - Oblique, Isometric, 1 and 2 point perspective, third angle orthographic, exploded views and nets - Metals - Polymers - Timbers	<u>Practice Non Exam Assessment</u> - Manufacture of design <u>Theory</u> - Smart, modern and composite materials - Product life cycle analysis - Paper & Boards - Technical Textiles - Mechanical devices - New and emerging technologies	<u>Practice Non Exam Assessment</u> - Manufacture of design <u>Theory</u> - DT maths - Electronics - CORE test paper	<u>Non Exam assessment begins:</u> - Analysis of chosen context - Product analysis - Questionnaire analysis - Individual primary research - Design brief and specification - Design drawings
	Food, nutrition and health Macronutrients Protein Fats Carbohydrates Micronutrients Vitamins	Functional and chemical properties of food Protein - protein denaturation - protein coagulation - gluten formation - foam formation	Food spoilage and contamination Microorganisms and enzymes The signs of food spoilage - enzymic action - mould growth	Food choice Factors affecting food choice Food choice related to religion, culture, ethical and moral beliefs and medical conditions.	Food provenance Environmental impact and sustainability of food Food Sources: where and how ingredients are grown, reared and caught.	Pastry making NEA 1 Practice NEA 2 Practical Mock exam PPE - written paper mock

	Minerals Water Diet, nutrition and health	Carbohydrates - gelatinisation - dextrinisation - caramelisation Fats and oils - shortening - aeration - plasticity - emulsification.	yeast action Microorganisms in food production Bacterial contamination Buying and storing food	Food labelling and marketing influences How information about food available to the consumer, including labelling and marketing, influences food choice. British and international cuisines Sensory evaluation - sensory testing methods - how taste receptors and olfactory systems work	Environmental issues associated with food.	
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Core PE Curriculum: Y10 and Y11

Year 10/11 Subjects	Highly Competitive Group	Competitive Group	Active Skills and Games Group	Active Skills and Games Group	Active Skills and Games Group
Core PE	Core Knowledge Performance Excellence Execute advanced sport-specific skills with precision, consistency, and under pressure in competitive scenarios. Elite Tactical Understanding Apply complex strategies and adapt game plans in response to opponents. Physical Conditioning and Preparation Understand and implement structured training methods Leadership, Analysis, and Communication Lead warm-ups, team discussions, and give tactical feedback Professional Standards and Mindset Show resilience, discipline, and commitment to high performance; set ambitious goals and take responsibility for continuous improvement.	Core Knowledge High-Level Skill Application Perform advanced technical skills with accuracy, control, and decision-making under game pressure across multiple sports. Tactical Awareness and Game Intelligence Apply and adapt in-depth tactical strategies (e.g. formations, set plays, transitional play) based on game context and opponent behaviour. Physical Fitness and Conditioning Understand and apply components of fitness relevant to performance (e.g. agility, strength, aerobic capacity); engage in sport-specific conditioning. Leadership and Team Roles Take on leadership roles such as captain, coach, or official; organise and influence team structure, motivation, and performance. Evaluation and Performance Analysis Use feedback, video analysis, and performance data to assess strengths and weaknesses; set and work towards SMART performance goals.	Core Knowledge Lifelong Physical Activity Understand the importance of regular physical activity for physical, mental, and social health beyond school. Enjoyment Through Variety Engage in a range of accessible and enjoyable activities (e.g. fitness classes, walking, social sports, yoga, dance) to discover personal interests. Basic Fitness and Wellbeing Principles Learn how to maintain fitness through accessible exercise (e.g. FITT principle, heart rate zones, stretching techniques). Safe Participation and Self-Management Follow safety guidelines, warm-up and cool down independently, and manage personal effort and activity level responsibly. Personal Goal Setting and Motivation Set realistic, personal fitness or wellbeing goals; reflect on progress to stay motivated and active in daily life.	Core Knowledge Health and Wellbeing Awareness Understand how regular physical activity supports physical, mental, and emotional health across life stages. Enjoyment and Participation Engage positively in a variety of inclusive, low-pressure activities (e.g. walking, fitness circuits, recreational games, dance). Basic Fitness Understanding Learn simple fitness concepts (e.g. warming up, stretching, hydration, aerobic vs anaerobic activity) for safe participation. Confidence and Independence Develop confidence to take part in physical activity independently outside of school (e.g. gym sessions, park runs, home workouts). Personal Responsibility and Goal Setting Set achievable activity goals based on individual needs and preferences; reflect on progress and make healthy lifestyle choices.	Core Knowledge Lifelong Physical Activity Understand how recreational activity supports long-term health, wellbeing, and quality of life. Participation Over Performance Value enjoyment, social interaction, and personal effort rather than competition or elite skill. Variety and Inclusivity Take part in a broad range of accessible and enjoyable activities (e.g. team games, walking, yoga, fitness classes, net games). Health and Safety Awareness Know how to warm up, cool down, and participate safely and responsibly in all forms of physical activity. Personal Motivation and Routine Develop confidence, set personal goals, and build habits that encourage continued activity beyond school.