

Year 13 and Year 12 - A Level and Vocational Qualifications

Internal Assessment 1: Monday April 12th - Friday 23rd April

Subject/Qualification	Topics to revise
Maths A level	<p>Paper 1 Pure Maths: Proof, Trapezium Rule, Partial Fractions, Integration, Exponentials and Logarithms, Sequences, Functions, Indices, Differentiation including quotient rule.</p> <p>Paper 2 Applied - Statistics and Mechanics: Vectors, Friction, Motion on an inclined plane, Constant acceleration equations, Projectiles, Non-constant Acceleration, Correlation and regression including Hypothesis testing, Probability (including Conditional probability, Independent/ exclusive events, Venn diagrams, Discrete distributions), Measures of location and spread, Representation of data.</p>
Further Maths A level	<p>Core Pure: Volumes of revolution, Matrices, Hyperbolic Functions, Differential equations, Complex numbers including de Moivre's theorem, Further Calculus.</p> <p>Further Mechanics: Momentum and impulse including vectors, Work, energy and power, Elastic collisions in two dimensions including with a fixed surface and smooth spheres, Elastic strings and springs.</p>
Further Maths AS level (Year 12)	<p>Core Pure Paper: Matrices to solve a system of equations, Complex Numbers and Argand Diagrams (including loci and regions), Series, Linear Transformations (including invariance), Proof by Induction, Roots of Polynomials.</p>
Maths Studies (Year 12)	<p>Paper 1: Types of data, Sampling, Exchange rates (information included in preliminary material), Cumulative frequency, Histograms, Long Fermi Estimation (based on information in preliminary material), Tax, National Insurance and Net Pay (based on tables for tax and national insurance given in preliminary material).</p>
English Language A level	<p>Paper 2B: Question 3 - practise AO1, AO3 and AO4 skills</p> <p>Paper 2B: Question 4 - practise AO2 and AO5 skills</p>
English Literature A level	<p>Literature Paper 1, Section A: Othello</p> <p>Literature Paper 2, Section B: The Handmaid's Tale & Feminine Gospels</p>
Biology A level	<p>Unit 1 (3.1); Unit 2 Transport across membranes (3.2.3); Unit 3 Digestion and absorption (3.3.3), Mass transport in animals (3.3.4.1); Unit 4 DNA, genes & protein synthesis (3.4.1 & 3.4.2); Unit 5 Nutrient cycles (3.5.4); Unit 6 Response to stimuli (3.6.1) & Nervous coordination (3.6.2); Unit 7 Inheritance (3.7.1) & Populations (3.7.2)</p> <p>Any required practicals that form part of these specific topics.</p>
Chemistry A level	<p>Organic chemistry: Intro 3.3.1, alcohols 3.3.5, carboxylic acids and derivatives 3.3.9, halogenoalkanes 3.3.3, aromatic chemistry 3.3.10, aldehydes and ketones 3.3.8, NMR 3.3.15, addn polymerisation 3.3.4.3, Enzymes 3.3.13.3</p> <p>Physical Chemistry: Rate equations 3.1.9, chemical equilibria, Le chatelier's principle and Kc 3.1.6, energetics (experimental) 3.1.4</p>
Physics A level	<p>Paper 1 (Modelling Physics) +some extra content as below.</p> <p>Topics include: Foundations of Physics, Motion, Forces in Action, Work, Energy and Power,</p>



	Materials, Laws of Motion and Momentum, Circular Motion, Oscillations, Gravitational Fields, Stars, Cosmology, Electric Fields.
PE A level	Paper 1 Section A: Anatomy and Physiology (year 12 content) Section B: Skill Acquisition (year 12 content) Section C: Sport and Society (year 12 content)
Dance A level	C1: Choreography + programme note C2: Section A - Rooster short answers, Rambert essay. Section B - Sutra essay.
French A level	Paper 1 & Paper 3 (speaking) Units: 2 - technology, 3 - volunteering, 4 - patrimoine, 6 - cinema, 7 - multicultural society, 8 - marginalised society, 12 - politics and immigration IRP
Spanish A level	Paper 1 & Paper 3 (speaking) Units: Unit 1 Los valores, Unit 4 La influencia de los ídolos, Unit 5 La identidad regional, Unit 7 La inmigración, Unit 8 El racismo, Unit 10 Movimientos sociales, Unit 11 Monarquías y dictaduras IRP
History A level	Unit 1: Creating a welfare state, 1918-1979 Unit 2: Politics and presidency, 1955-1992
Politics A level	Unit 1: Democracy and participation Unit 2: Executive branch
Geography A level	Unit 5: The Water Cycle and Water Insecurity (5.2, 5.3, 5.4, 5.7) Unit 6: The Carbon Cycle and Energy Insecurity (6.1, 6.2, 6.7, 6.8) Unit 4A: Regenerating Places (Local and Contrasting Place, EQ2) Unit 8B: Migration, Identity and Sovereignty (8B.1, 8B.2, 8B.4, 8B.5)
PRE A level	DCT: Death and the Afterlife, Religious Pluralism Philosophy: Religious Language, Arguments for the existence of God Ethics: Sexual Ethics, Conscience
Computer Science A level	Component 1 - Computer Systems: 1.1: The characteristics of contemporary processors, input, output and storage devices, 1.2: Software and software development Component 2 - Algorithms and programming: 2.2 Problem solving and programming, 2.3: Algorithms - Analysis and design of algorithms for a given situation. Big O notation for time and space complexity. Algorithms for the main data structures, (stacks, queues, trees, linked lists, depth-first (post-order) and breadth-first traversal of trees).
Fine Art A level	Component 01: Personal investigation portfolio
Photography A level	Component 01: Personal investigation portfolio
Textiles A level	Component 01: Personal investigation portfolio



Music A level	Component 03: Appraising 1. Listening skills & dictation 2. Film Music and Stravinsky – 2 hours 10 minutes
Music Tech A level	Component 4 Part A (producing and analysing in a DAW): MIDI knowledge, MIDI editing and sequencing, Piano Roll Editing, Creative Effects, Binary in MIDI, Synthesis, Editing Audio, Waveforms. Component 3 (listening and analysing): 2000s – Electronic Dance – MIDI and synthesis, 1960s Rock production, 1930s-1950s music recording and corrective techniques, Mid-1990s music production, Wider Impact of Distortion, 1950s – Present Day.
Drama A level	Section A - A Servant to Two Masters - Performer's perspective Section B - Our Country's Good - Directing/performing/designing
Product Design A level	Materials (Timber, Metal & Polymers): Properties, Manufacturing methods, finishing and application (Units 1.1, 1.2, 1.3 & 1.4) Materials (Smart, Modern, Card & Board): Properties, Manufacturing methods, finishing and application (Units 1.1, 1.2, 1.3 & 1.4) Scales of Production, Digital design & Manufacture and Accuracy in design & Manufacture (Units 1.6, 1.7 & 2.7) Health and safety & Legislation in products and the workplace (Units 1.9) Design for manufacture. Maintenance, Repair and Disposal & Responsible Design (Units 1.11 & 2.8)
Media A level	Paper 1 - Media Messages Newspapers - Print & Online - <i>Guardian & Daily Mail</i> Big Issue Music Videos
Economics A level	Microeconomics: How markets work (1.2), Government Intervention (1.4), Market Structures (3.4), Government Intervention (3.6) Macroeconomics: Measures of economic performance (2.1), National Income (2.4), Macroeconomic objectives and policies (2.6), Poverty and Inequality (4.2), The Role of the State in the Macroeconomy (4.5)
Business Studies A level	Theme 1: Marketing and People: 1.3 Marketing Mix and strategy; 1.4 Managing people; 1.5 Entrepreneurs and Leaders Theme 2: Managing Business Activities: 2.1 Raising finance Theme 3: Business Decisions and Strategy: 3.1 Business objectives and strategy; 3.2 Business Growth; 3.3 decision making techniques; 3.6 Managing Change
Financial Studies LIBF (Year 12)	Unit 2: Topics 1- 9
Psychology A level	Schizophrenia: Biological and psychological explanations and therapies. The interactionist approach. Aggression: Neural and hormonal mechanisms, The ethological and evolutionary explanation, Social psychological explanations: Frustration-aggression hypothesis, Social Learning theory, De-individuation, Institutional aggression in the context of prisons.



	Research methods: Experimental methods, designs and types. Sampling. Ethical issues. Correlations. Observation. Self-report techniques and design. Types of data. Measures of central tendency and dispersion. Presentation of quantitative data. Mathematical content. Statistical testing. Reliability, Validity.
Sociology A level	Crime and Deviance: Topics 2 and 3 Theory and Methods: Topic 1 Families and Households: Topics 3, 4 and 5