Mock Examinations 2021

Notification of Assessed Content

Subject	List of Key Topics/Content
English Language	**<u>Paper 1 – 1 ¾ hours</u>** **Section A: Fiction Reading** One 20th Century text and 5 questions, based on: AO1: Information retrieval, reading for meaning. AO2: Language analysis. AO4: Critical evaluation. *This information has already been shared with students, but we have not pre-released what text is being used for this section.* **Section B: Fiction (Story) Writing** One task, a choice of 4 titles, based on: AO5 – Style and structure. AO6 – Technical skills of grammar and punctuation. *This information has already been shared with students, but we have not pre-released what titles are being used for this section.* **<u>Paper 2 – 2 hours</u>** **Section A: Non-Fiction Reading** Two texts – one 19th Century text and one 21st Century text - and 6 questions, based on: AO1: Information retrieval, reading for meaning. AO2: Language analysis. AO3: Comparison. AO4: Critical evaluation. *This information has already been shared with students, but we have not pre-released what texts are being used for this section.* **Section B: Non-Fiction (Transactional) Writing** Two tasks, no choices, based on: AO5 – Style and structure. AO6 – Technical skills of grammar and punctuation. *This information has already been shared with students, but we have not pre-released what questions are being used for this section.*
English Literature	We are not doing a full formal mock yet, though we are assessing in MAPs as per the specification / ARR. <u>Knowledge and Skills</u> AO1: Knowledge of plot, characters and themes. AO2: Language analysis. AO3: Social context. AO4: Technical skills of grammar and punctuation. **<u>Paper 1</u>** **Macbeth – one hour** Part a) Extract - character or theme question. Individually set by class teachers.

	Done in May 2021. Year 10. Part b) Thematic – character or theme question. Done in Nov 2021. Year 11. *This information has already been shared with students, but we have not pre-released the question.* **<u>Paper 1</u>** **An Inspector Calls – one hour** Springboard - character or theme question. Done in Nov 2021. Year 11. *This information has already been shared with students, but we have not pre-released the question.* **<u>Paper 2</u>** **A Christmas Carol – one hour** Springboard - character or theme question. Done Oct 2021. Year 11. *This information has already been shared with students, but we have not pre-released the question.* **<u>Paper 2</u>** **Unseen Poetry – one hour** Part a) Single poem question. Watching a Dancer. Done in June 2021. Year 10. Part b). Comparison of second poem. Busker. Done in June 2021. Year 10.	
Maths (Higher)	**Paper 1** • Probability • Proportion • Factors and Multiples • Plans and elevations • Transformations • Ratio • Perimeter and Area • Estimation • Index Laws • Fractions • Simultaneous Equations • Median and Quartiles • Percentages • Algebraic Proof • Trigonometry • Volume • Product Rule • Quadratic Equations • Surds • Quadratic Graphs • Functions	**Paper 2** • Inequalities • Straight line graphs • Fractions • Data Collection • Volume • Trigonometry • Error Intervals • Ratio • Standard Form • Circumference • Area • Probability • Cumulative Frequency • Sector • Algebric Fractions • Rates of Change • Area under a curve • Change the subject of the formula • Multiples • Two way tables • Circle theorems • Vectors

<table>
<tr>
<td>Maths
(Foundation)</td>
<td>Paper 1
Time
Fractions, Decimals and Percentages
Order of Operations
Prime numbers
Calculations
Money
Line Graphs
Speed, Distance, Time
Collect like terms
Solving equations
Angles in parallel lines
Converting length
Square and cube numbers
Expanding brackets
Factorising expressions
Probability
Area
Ratio
Two-way tables
Proportion
Factors and Multiples
Plans and elevations
Transformations
Perimeter and Area</td>
<td>Paper 2
Fractions, decimals, percentages
Negative numbers
Factors
Mass
Money
Algebraic expressions
Pictograms
Substitution
Timetables
Calculations
Ratio
Area
Probability
Proportion
Loci
Scale drawings
Inequalities
Straight line graphs
Data Collection
Volume
Trigonometry
Error Intervals
Ratio
Standard Form
Sequences
Vectors</td>
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<tr>
<td>Science Trilogy</td>
<td colspan="2"><u>Paper 1 content only (3x1hr,15min)</u>
FOUNDATION BIOLOGY:
Cell Structure
Transport in cells (Diffusion, Osmosis & Active Transport)
Enzymes & Digestion
Communicable Disease
Human Defence Systems
Antibiotics and Painkillers
Discovery and development of drugs
Plant Organ Systems
Transpiration
Aerobic and Anaerobic Respiration
FOUNDATION CHEMISTRY:
Atoms, elements and compounds
The development of the model of the atom
Development of the periodic table
Metals and non-metals
Neutralisation of acids and salt production (R.P.)
Energy transfer during exothermic and endothermic reactions (R.P.)
Chemical bonds, ionic, covalent and metallic
Using electrolysis to extract metals (aluminium)
Mass changes when a reactant or product is a gas
FOUNDATION PHYSICS:
Electricity-Resistance in a wire Required Practical (RP)</td>
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	• Radioactivity and half life • Energy Resources and Power • Behaviour of gases and gas pressure • Specific latent heat • Wiring a plug and safety when using domestic electricity • Radioactive isotopes and the three types of radiation **HIGHER BIOLOGY:** • Cell Structure • Microscopy - Calculating Magnification • Transport in cells (Diffusion, Osmosis & Active Transport) • Osmosis (RP) • Health Issues • Effect of lifestyle on non-communicable disease • Aerobic and Anaerobic Respiration • Communicable Disease • Discovery and development of drugs • Vaccinations • Photosynthesis • Investigating the effect of limiting factors on rate of photosynthesis. (RP) **HIGHER CHEMISTRY:** • Atoms, elements and compounds • The development of the model of the atom • The periodic table • Group 1 metals and their reactivity • Chemical bonds, ionic, covalent and metallic • Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations, limiting reactants • Mass changes when a reactant or product is a gas • Neutralisation of acids and salt production (R.P.) • The pH scale and neutralisation • Using electrolysis to extract metals (aluminium) • Concentration of solutions • Energy transfer during exothermic and endothermic reactions (R.P.) **HIGHER PHYSICS:** • Wiring a plug and safety when using domestic electricity • Radioactive isotopes and the three types of radiation • Electricity-Resistance in a wire Required Practical (RP) • Energy Resources and Power • Particle theory-behaviour of substances as they cool • Specific latent heat and specific heat capacity (RP) • Radioactive decay and radioactive resources • Elastic Potential and Energy Stores
Biology (Separate Science)	**<u>Paper 1 content only (1x1hr,45min)</u>** HIGHER BIOLOGY: • Cell Structure – Prokaryotic and Eukaryotic Cells • Cell Division – Mitosis • Transport in cells (Diffusion, Osmosis & Active Transport) • Exchange surfaces • Enzymes • Food Tests (RP) • Health Issues

	• Monoclonal Antibodies • Drug Development • Plant disease (Detection and Identification) • Plant defences responses • Photosynthesis • Investigating the effect of limiting factors on rate of photosynthesis. (RP)
Chemistry (Separate Science)	**Paper 1 content only (1x1hr,45min)** • The development of the model of the atom • Development of the periodic table • Group 7 • Chemical bonds, ionic, covalent and metallic • How bonding and structure are related to the properties of substances • Metals & The reactivity series • Oxidation and reduction in terms of electrons • Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations, limiting reactants & reacting masses • Conservation of mass and balanced chemical equations • Atom economy • Use of amount of substance in relation to volumes of gases • Titrations (R.P.) • The process of electrolysis • Electrolysis of aqueous solutions (R.P.) • Exothermic and endothermic reactions (R.P.) • Reaction profiles • Chemical cells and fuel cells
Physics (Separate Science)	**Paper 1 content only (1x1hr,45min)** HIGHER PHYSICS: • Wiring a plug and safety when using domestic electricity • Radioactive isotopes and the three types of radiation • Electricity-Resistance in a wire Required Practical (RP) • Energy resources and power • Particle theory-behaviour of substances as they cool • Specific latent heat and specific heat capacity (RP) • Radioactive decay and radioactive resources • Elastic potential energy and energy stores • Fission and fusion • Gravitational potential energy • Behaviour of gases and pressure

History	**Exam 1** - Conflict and Tension 1918-1939 • Peace-making after WW1 (Treaty of Versailles) • Peacekeeping after WW1 (League of Nations) • The origins and outbreak of WW2 USA opportunities and inequalities 1920-73 • American People and the Boom • Americans' experiences of the Depression and the New Deal • Post- War America (Civil Rights Movement) **Exam 2** - Health of the British people c1000-today • Changes to ideas about CAUSES of disease since c.1000 • Changes TREATMENTS of disease since c.1000 • Changes to SURGERY and ideas about ANATOMY since.1000 • Changes to ideas about PUBLIC HEALTH since c.1000 • FACTORS that have had an impact on the development of the Health of the British people.
Geography	**Exam 1** – Living with the Physical Landscape (Tectonic hazards, weather hazards, climate change, ecosystems, tropical rainforests, hot deserts, coasts, and rivers) **Exam 2** – Challenges in the Human Environment (Urban growth, Rio de Janeiro, Liverpool, resource management and water resources) **Exam 3** – Geographical Applications and Skills (Fieldwork and Issue Evaluation)
French	**Paper 1 – Listening** (H - 45mins/F - 35 m) Questions will cover core knowledge from any topic in the three themes (found below): Theme 1 - me, my family and friends; free time and hobbies; technology; festivals and culture. Theme 2 - house and town; the environment; social issues; healthy lifestyles; holidays. Theme 3 - school; life at school; education post 16; jobs and careers; future plans. **Paper 3 – Reading** (H - 1hr/F - 45mins) Questions will cover core knowledge from any topic in the three themes (found below): Theme 1 - me, my family and friends; free time and hobbies; technology; festivals and culture. Theme 2 - house and town; the environment; social issues; healthy lifestyles; holidays. Theme 3 - school; life at school; education post 16; jobs and careers; future plans. **Paper 4 – Writing** (H – 1hr 20/F - 1hr 5) The questions will allow students to demonstrate their core knowledge from all three themes when writing at length (found below). The topic will be chosen by the examination board (AQA). Theme 1 - me, my family and friends; free time and hobbies; technology; festivals and culture. Theme 2 - house and town; the environment; social issues; healthy lifestyles; holidays. Theme 3 - school; life at school; education post 16; jobs and careers; future plans.
Art	No mock exam. Exam removed for 2022 candidates.
Drama	**Component 1** – Understanding Drama Exam paper - 1 hour 45 minutes • Section A – Theatre roles and responsibilities, staging • Section B – Study of a set play. (Blood Brothers) • Use of lighting & arrangement of a stage for a line/scene • Analysis of an extract/characterisation • Responses as an actor or technician

	• Vocal and physical skills • Section C – Live Theatre Review & why it was memorable. Focus on portrayal of emotions, characterisation, staging, space, set, lighting etc from the view point of an audience member
Music	Appraising exam – 1 hour 15 minutes • AoS1 Musical Forms & Devices Bach *Badinerie* analysis including bars & beats, keys, techniques • AoS2 Music for Ensemble • AoS3 Film Music • AoS4 Popular Music Toto *Africa* analysis • Key signatures, Musical characteristics • Structure, Texture, Tonality, Extended writing • Intervals, Instrumentation & Techniques, Dictation • Harmonic & Rhythmic devices • Types of live ensembles • Chords, Time Signatures
Computer Science	**Paper 1** – COMP01 – 1 hour 30 minutes: • Systems Architecture – CPU Characteristics, Components & von Neumann architecture, Embedded Systems ; • Memory & Storage – storage characteristics and choices, images, characters, units, hexadecimal, binary shifting, compression; • Computer Networks, Connections and Protocols – network types, network hardware, describing a network, cloud storage; • Network Security - threats and prevention; • Systems Software – defragmentation, operating system functions; • Ethical, legal, cultural and environmental impacts of digital technology - scenario application, laws, licensing **Paper 2** – COMP02 – 1 hour 30 minutes: • Algorithms – Structure Diagrams, Identifying common errors, Refining and creating an algorithm, writing an algorithm, abstraction and its application, searching algorithms; • Programming Fundamentals - variables, inputs, outputs assignments, sequence, selection, iteration, arithmetic and Boolean operators, arrays, SQL; • Producing Robust Programs - defensive program design, testing; • Boolean Logic - logic diagrams; • Programming languages and Integrated Development Environments – high & low level languages, IDEs
IT	<u>R012- 1 hour 45 minutes paper</u> <u>LO1: Project life cycle</u> • Phases of the project life cycle- focus on the evaluation phase • Planning tools: flow charts, tasks list (definition, advantages and disadvantages) • Constraints of a project • User requirements • Success criteria • Advantages and disadvantages of using the project management software

	LO3: Collecting data • Data types • Advantages and disadvantages of using interviews to collect data. • The cloud LO4: Computer threats Examples of malware attacks: ransomware and rootkit • DPA • Mitigation methods: encryption, anti-virus software, authentication. LO6: Presenting information • Demographics of a target audience. • Databases also known as an automated system- understand the following: o Data validation o Queries -what they are used for? o Reports- what they are used for? o Input forms with macro buttons- what they are used for? o Switchboard- what they are used for?
Business	**Theme 1:** • Business rewards • Market share • Added value • Digital payments / communication • Business planning • Short term sources of finance • Types of ownership • Marketing mix • Reasons why new ideas come about • Market - Mapping / Segmentation / Research • Competition • Stakeholders • Importance of cash • Use of social media • Breakeven • Exchange rates – value of the pound • E-commerce Formulas - • Net cash flow • Total cost – fixed and variable • Percentage change • Selling price • Profit **Theme 2:** • Business growth (inorganic/organic) • Types of business ownership – Public limited company • Sources of finance

	• Changes in aims and objectives • Business and globalisation • Ethics and the environment • Marketing mix • Job batch and flow production Formulas - • Gross profit • Percentage change
Design Technology	**Section A** • Properties of Materials: Sheer, torsion, tensile strength, malleable etc • Smart Materials • Modern Materials Revision • Composite Materials • Electronics Basics: Input, Process, Output, Polarity, Positive/Negative. • Mechanical Systems: Levers, linkages etc. • Health & Safety in the workplace: Policies, injury reduction etc **Section B** • Additive techniques (manufacturing): Soldering, 3D printing, printing, Off-set Lithography • Manufacturing techniques: Efficiency, Environmental • Scales of production • Life cycle assessment Characteristics and properties of materials: • Materials - Paper & board. Wood metal & polymers **Section C** • Scale models and testing techniques • Drawing methods: freehand, exploded • Design strategies: Systems approach, iterative, user centred • Designers/Design Companies (Choose one company from the list) • Orthographic projection • Standard components
Food Prep & Nutrition	**Section A** – Multiple choice • Selection of topics from across the specification **Section B** • Reasons why food is cooked • Factors that influence food choice • Effects of cooking on food • Suitability of meals for specific requirements • Functions of water in the body • Micronutrients • Denaturation • Coagulation • Sensory tasting in controlled conditions • Enzymic browning • Nutritional information • Food waste

Creative iMedia	**R081** • Content, purpose and uses of the 5 pre-production documents: • Visualisation diagrams, scripts, mood boards, story boards and mind maps. • File formats • Health and Safety • Site Reccies • Work plans • Primary and Secondary sources • Target audience	
PE	**<u>Paper 1</u>** - Muscular system (structure and function, short/long term effects of exercise). - Injury prevention (hazards, risks, warm up/cool downs). - Skeletal system (structure/function) - Cardiovascular system (structure, function and short term effects of exercise) - Respiration system (structure and function) - Planes - Levers - Axis - Fitness testing - Methods of training - Components of fitness Synoptic - Feedback	**<u>Paper 2</u>** - Ethics and behaviour in sport - Feedback - Benefits of exercise. - Mental preparation techniques - Factors effecting participation - Balanced diet and nutrients - Sponsorship, media and commercialisation in sport - Skill classification and skilful movement - SMART/goal setting - Data collection methods Synoptic - Physical benefits of exercise