



Queen Mary's Grammar School

Year 11 Mock Examination Revision List 2024

Maths	<p>There will be two mock exams in Maths. Paper 1 is a calculator paper and paper 2 is a non-calculator paper. You will be assessed on chapters 1-17 of the textbook, plus the first half of chapter 19, which you did last year. The concepts covered are listed below. You may be assessed on any of them.</p> <ul style="list-style-type: none">• Simplifying expressions• Rules of indices (including negative and fractional powers)• Expanding up to 3 brackets• Factorising expressions, including quadratics• Algebraic fractions – adding, subtracting, multiplying, dividing and solving equations• Angles between parallel lines and in triangles, quadrilaterals and polygons• Congruent triangles• Similar shapes, including areas and volumes• Averages, Interquartile range and box plots• Histograms• Comparing data• Fractions and percentages• Decimal calculations, including recurring decimals• Rearranging formulae• Functions – including composite and inverse• Algebraic identities• Areas of 2D shapes• Transformations of shapes – translations, rotations, reflections, enlargements (including negative and fractional scale factors)• Probability – Venn and tree diagrams• Estimation• Upper and lower bounds, error intervals, limits of accuracy• Solving linear equations• Solving quadratic equations by factorising, completing the square or the quadratic formula• Simultaneous equations (including quadratics)• Area of a circle• Arcs and sectors• Circle theorems• Approximate solutions to equations by trial and improvement or iteration• Linear and quadratic inequalities• Constructions and loci• Pythagoras' theorem in 2D• Trigonometry – SOHCAHTOA, sine rule, cosine rule, area of a triangle, exact values for 30,4,5,60• Ratio and proportion• Factors and multiples• Surds – simplifying and rationalising the denominator• Equation of a straight line• Parallel and perpendicular lines• Properties of quadratic functions• Kinematic graphs• 3D solids – prisms, cones, pyramids and spheres• Cumulative frequency graphs, box plots, scatter graphs, correlation
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	<ul style="list-style-type: none"> • Standard form • Linear sequences and Fibonacci sequences (covered in Years 7-9)
English Language	<p><u>Component 2: 19th and 21st Century non-fiction- Reading and transactional writing</u></p> <ul style="list-style-type: none"> • Reading and writing non-fiction • Two unseen extracts, including one from the 19th century • Original non-fiction for different audiences and purposes (transactional writing): speech/review/article/report/leaflet/formal and informal letters • Read and write in these areas of knowledge • Use the notes provided by staff/Kerboodle platform/GCP booklet • Know forms and conventions of each genre mentioned above • Know the timings of each section and question requirements • Familiarise yourself with mark schemes/examiners' reports • Be mindful of SPAG weaknesses and practise to improve
English Literature	<p><u>Component 1 Shakespeare- Macbeth</u></p> <ul style="list-style-type: none"> • One question with two parts • Extract-based question on set text (20 mins) and a whole-text question (40 mins) • 5 marks for SPAG • Language/structural analysis are prioritised for extract question • Knowledge of themes/characters and language/structure for whole text question • Learn key terms such as aside, soliloquy, imagery, iambic pentameter etc • Know about play script conventions • Learn banks of quotes on characters and themes • Re-read the text; know it inside-out • One hour duration <p><u>Component 2: Post-1914 prose/drama and 19th Century prose</u></p> <ul style="list-style-type: none"> • One question on Leave Taking, based on an extract and whole text • 45 mins, with 5 marks for SPAG • Note: first time this is on the exam paper! • Knowledge of language/structure/characters/themes, applied to extract and whole text • Use the extract for ready source of quotable material, but learn quotes • Question on Jekyll and Hyde, based on an extract and whole text • Learn banks of quotes on character and themes for J and H • Contextual references required here • Re-read the texts; know them inside-out
Biology	<ul style="list-style-type: none"> • Unit 1 Cell biology • Unit 2 Organisation • Unit 3 Infection and response • Unit 4 Bioenergetics • Unit 5 Homeostasis and response
Chemistry	<p>The exam is 1 paper of 90 mins. The topics covered are Chapters 1 to 8 of the textbook and Sections 4.1 to 4.6 of the specification:</p> <ul style="list-style-type: none"> • Atomic structure and the periodic table • Bonding, structure, and the properties of matter • Quantitative chemistry (Year 10 and 11 content) • Chemical changes • Energy changes • The rate and extent of chemical change
Physics	<p>There will be 1 exam which will be 90 minutes long. The exam will cover Units 1 to 3, which includes Chapters 1 to 11 in the textbook, covering:</p> <ul style="list-style-type: none"> • Energy • Electricity

	<ul style="list-style-type: none"> • Particle Model of Matter • Atomic Structure • Forces
Religion, Philosophy and Ethics	<ul style="list-style-type: none"> • Worship • The Sacraments: Baptism • Salah: the daily prayers • The nature of God • God as omnipotent, loving and just • Arguments against the existence of God • The Oneness of God and the Supremacy of God's Will • Different ideas about the Divine • Sin and Salvation • Special revelation and enlightenment • General Revelation • The value of revelation and enlightenment • Muhammad and the Imamate • The status and roles of women • The First Cause Argument • The Design Argument • The Argument from Miracles • Christian teachings about human sexuality • Sexual relationships before and outside marriage • Human sexuality • The Incarnation and Jesus, the Son of God • Resurrection and life after death • The Afterlife and Judgment • Heaven and Hell • The Role of Christ in Salvation • Key Beliefs of Sunni Islam and Shia Islam • Angels • Life after Death • Prophethood and Adam • Jihad • The festival of Ashura • Death and the Afterlife • The Crucifixion • The Resurrection and Ascension • Giving money to the poor • The Five Pillars, the Ten Obligatory Acts and the Shahadah • Crime and punishment • Introduction to Crime and Punishment • Three aims of punishment • Lawbreakers and different types of crime • Christian attitudes to the treatment of criminals • Christian attitudes to forgiveness • Forgiveness • Christian attitudes to the death penalty • The Death penalty • Social justice and human rights • Social Justice • Ibrahim • Hajj: Pilgrimage • Religious teachings about the nature and purpose of families in the 21st century • The nature and purpose of families

	<ul style="list-style-type: none"> • The Oneness of God and the Trinity • Christian teachings about marriage • Marriage
Art	<p><i>In preparation for the mock art exam, the following need to be complete and handed in at the start of the exam;</i></p> <ul style="list-style-type: none"> • Initial observations board with initial ideas for chosen theme. • Completed first artist board with clear title, detailed annotations, images of the artist's work, an artist copy and your own artist response. • Second artist title, detailed annotations, images of the artist's work and artist copy ready to be mounted onto your board. <p><i>During the mock exam, you will be expected to complete your second artist response. Planning and preparation for this needs to be organized ready for the start of the exam.</i></p>
Business	<p><i>You will sit one examination which will cover Theme 1</i></p> <ul style="list-style-type: none"> • Topics 1.1 – 1.5 [You are advised to make use of your topic checklists to identify key areas for revision] • The examination paper will be 1 hour and 30 minutes. • The paper is divided into three sections: Section A: 35 marks Section B: 30 marks Section C: 25 marks. • The paper will consist of calculations, multiple-choice, short-answer and extended-writing questions. • Questions in Sections B and C will be based on business contexts given in the paper. • Calculators may be used in the examination.
Computer Science	<p>Two papers which will cover both the theoretical component and the practical component.</p> <p>Both papers will be each 1 hour in length.</p> <p>Paper 1</p> <ul style="list-style-type: none"> • SLR1.1 - Systems Architecture • SLR1.2 - Memory and Storage / Data Representation • SLR1.3 - Computer Networks, Connections and Protocols • SLR1.4 - Network Security • SLR1.5 - Systems Software <p>Paper 2</p> <ul style="list-style-type: none"> • SLR2.1 - Algorithms • SLR2.2 - Programming Fundamentals
-	<p><u>DT@QMGS: 11DT Mock Exam Revision November 2024</u></p> <p>Time allowed: 2 hours</p> <p>Materials You must have: Normal writing and drawing equipment A scientific calculator A protractor</p> <p>Instructions Use black ink or black ball-point pen. Use pencil only for drawing. Answer all questions. You must write your answers in the spaces provided. Do all rough work in this book. Cross through any work that you do not want to be marked.</p> <p>Information The marks for questions are shown in brackets. Time Management: You should aim to spend ONE minute for each mark available.</p>

The maximum mark for this paper is **100**.
There are 20 marks for Section A, 30 for Section B and 50 marks for Section C.
15% of the marks will be awarded for the application of Maths in a D&T context
The first 10 questions are multiple choice

Revision Topics

Alloys and pure metals
Fair trade
Market pull and technology push
Material properties
Mechanisms: Levers and linkages
Composite materials
Thermoforming polymers
Natural and synthetic textiles/threads
Energy sources – Renewable and non-renewable
Natural timber – types, properties and uses
Food packaging/containers – Aluminium and foil lined board
Open loop control systems – input, process and output
Metals – types, uses and properties
Polymers – types, uses and properties
Stock form of materials
Surface treatment of woods, metals and polymers
Dip coating of metals
Vinyl decals – PVC stickers
Environmental issues associated with material extraction, use and disposal
Creativity and innovation in designing
Design fixation
Ergonomics and anthropometrics
Nesting and tessellation
Cost effective use of materials (Lean manufacture to avoid waste)
Health and Safety in a workshop
Health and safety when using tools and equipment
Orthographic projection
Tolerance
Quality assurance and Quality Control
Market research – primary and secondary
Target market research – Surveys, questionnaires
Focus Groups
Maths – Area, volume etc.....
Maths – Year 9 level maths needed for calculations in a DT context

Sources of Revision

Text Book: "D&T – All Material Categories and Systems"
Website: www.technologystudent.com
Text Book: Chapter 5 pages 350-356 "The Written Paper"
Text Book: "Core Technical Principles" pages 2-69...you must read and know all of this content
Text Book: "Specialist Technical Principles" – We will be studying POLYMERS. Look at the polymers content on pages 70-225. (You could also look at some wood/timber and metals content)
Product Analysis: Study materials, components and manufacturing methods used in products in the home
Focus eLearning
Twitter: @QMGSdT

Revision Books

The DT department have a limited supply of revision guides for the AQA D&T course. These retail at £10.99 in the shops. They are available to schools at £5. See PRH if you are interested.

	<p>Revision Cards</p> <p>The DT department also has a limited supply of revision cards for the AQA D&T course. They are available at £4.50. See PRH if interested.</p> <p>PRH September 2024</p>
French	<p>There will be a reading (1 hour), a listening (50 minutes) and a writing (1h15minutes).</p> <p>Reading paper: will consist of reading comprehension tasks and a translation into English. Listening paper: will consist of listening comprehension tasks. Writing paper: will consist of a 90 word task, 150 word task and translation into French.</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> • Modules 1-12 Foundation pages of textbook • Main emphasis on Modules 1-4 for the Higher pages of textbook, but much vocab cuts across several topics. <p>GRAMMAR – see Pages 176-200 of textbook</p> <p>VERBS: These types of verb (ER/IR/RE/reflexives/irregulars/impersonal) in the following tenses:</p> <ol style="list-style-type: none"> 1. present 2. immediate future 3. perfect 4. imperfect 5. future 6. conditional 7. pluperfect <ul style="list-style-type: none"> • Use and meaning of Infinitives – Two-verb constructions/Commands <p>En + present participle Faire + infinitive Adjectives – position/comparatives/superlatives/possessives/démonstratives Adverbs Articles – definite/indefinite/partitive Pronouns – reflexive/subject/direct object/indirect object/demonstrative/emphatic Questions Negative words Prepositions Conjunctions/time phrases/opinions – all in Key phrases booklets</p> <p>Online revision sites:</p> <p>You can practise the grammar points on www.languagesonline.org.uk</p> <p>You can use www.quizlet.com to learn vocabulary. This set contains all key words you need to know by the end of the year: https://quizlet.com/326544592/french-gcse-aqa-flash-cards/</p> <p>For reading, listening and translation practice you can use bbc bitesize and seneca.</p>
Geography	<ul style="list-style-type: none"> • UK Physical Landscapes (Rivers and Glaciers) • Changing Economic World (Nigeria and the UK economy) • Challenge of Natural Hazards (Tectonics & Weather hazards, Climate Change)
History	<p>Full paper Cold War: Conflict and tension between East and West, 1945–1972</p> <ul style="list-style-type: none"> • Part one: The origins of the Cold War • Part two: The development of the Cold War • Part three: Transformation of the Cold War

	<p>Elizabeth paper: Full paper but no Historical Environment. Only questions 1,2,3</p> <p>Part one: Elizabeth's court and Parliament</p> <ul style="list-style-type: none"> • Elizabeth I and her court • The difficulties of a female ruler <p>Part two: Life in Elizabethan times</p> <ul style="list-style-type: none"> • A 'Golden Age' • The poor • English sailors <p>Part three: Troubles at home and abroad</p> <ul style="list-style-type: none"> • Religious matters: • Mary Queen of Scots • Conflict with Spain
<p>Mandarin Chinese</p>	<p><i>The Chinese Mock exam covers the topics listed below. You will take the Reading, Listening and Writing Papers during the MOCK Exam.</i></p> <p>Resources for revision:</p> <ul style="list-style-type: none"> • <i>Grammar and Vocabulary booklet handbook (printed version)</i> • <i>Quizlet AQA GCSE Vocabulary</i> • <i>Past papers on Teams</i> • <i>printed booklets for GCSE textbook chapters</i> <p>For reading and listening papers, students need to revise all themes and subtopics listed below.</p> <p>Theme 1: Identity and culture covers four topics with related sub-topics shown:</p> <ul style="list-style-type: none"> • Topic 1: Me, my family and friends • Topic 2: Technology in everyday life - Mobile technology and internet • Topic 3: Free-time activities- Music /Cinema and TV /Food and eating out /Sport • Topic 4: festivals in Chinese-speaking countries/communities such as Chinese New Year and Mid-Autumn Festival <p>Theme 2: Local, national, international and global areas of interest covers the following three topics with related sub-topics shown:</p> <ul style="list-style-type: none"> • Topic 1: Home, town, neighbourhood and region • Topic 2: Travel and tourism <p>Theme 3: Current and future study and employment covers the following four topics:</p> <ul style="list-style-type: none"> • Topic 1: My studies-school subjects / your school • Topic 3: Jobs and career choices <p>For writing paper, students must be prepared to write the following themes and subtopics.</p> <p>Theme 1 – Identity and culture</p> <ul style="list-style-type: none"> • Topic 2: Technology in everyday life - Mobile technology and internet • Topic 3: Free-time activities <p>Theme 2 – Local, national, international and global areas of interest</p> <ul style="list-style-type: none"> • Topic 1: Home, town, neighbourhood and region • Topic 4: Travel and tourism <p>Theme 3 – Current and future study and employment</p> <ul style="list-style-type: none"> • Topic 1: My studies and life in school
<p>Music</p>	<ul style="list-style-type: none"> • Bach's Brandenburg Concerto no. 5 • Beethoven's 1st Movement Piano Sonata in C Minor • Purcell's Music For A While • Queen's 'Killer Queen'

	<ul style="list-style-type: none"> • Defying Gravity from Wicked • Star Wars main title theme from episode IV • Release by Afro Celt Sound System • Samba Em Preludio by Esperanza Spalding
Spanish	<p>There will be a reading (1 hour), a listening (50 minutes) and a writing (1h15minutes).</p> <p>Reading paper: will consist of reading comprehension tasks and a translation into English. Listening paper: will consist of listening comprehension tasks. Writing paper: will consist of a 90 word task, 150 word task and translation into Spanish.</p> <p>Vocabulary</p> <ul style="list-style-type: none"> • Modules 1-12 Foundation pages of textbook • Main emphasis on Modules 1-5 of the Higher pages of textbook but much vocabulary cuts across several topics <p>GRAMMAR – see Pages 176-197 of textbook</p> <p>VERBS</p> <ul style="list-style-type: none"> • These types of verb (AR/ER/IR/reflexives/stem-changing/impersonal/irregulars) in the following tenses: <ol style="list-style-type: none"> 1. present 2. immediate future 3. preterite 4. imperfect 5. perfect 6. future 7. conditional 8. pluperfect 9. present/imperfect continuous • Use and meaning of Infinitives – Two-verb constructions/Commands <p>OTHER</p> <p>Adjectives – position/comparatives/superlatives/possessives/demonstratives Adverbs Articles – definite/indefinite Pronouns – reflexive/subject/direct object/indirect object/demonstrative Questions Negative words Prepositions Conjunctions/time phrases/opinions – all in Key phrases booklets</p> <p>Online revision sites:</p> <p>You can practise the grammar points on www.languagesonline.org.uk</p> <p>You can use www.quizlet.com to learn vocabulary. This set contains all key words you need to know by the end of the year: https://quizlet.com/gb/345669405/gcse-spanish-vocabulary-for-aqa-flash-cards/</p> <p>For reading, listening and translation practice you can use bbc bitesize and seneca.</p>