



Queen Mary's Grammar School

Year 11 Mock Examination Revision List 2022

| | |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maths | <p>There will be two mock exams in Maths. Paper 1 is a non-calculator paper and paper 2 is a 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 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> • Standard form • Linear sequences and Fibonacci sequences (covered in Years 7-9) |
| English Language | <p><u>Component 2</u></p> <ul style="list-style-type: none"> • Reading and writing non-fiction • Unseen extracts from 19th and 21st Centuries • Two transactional writing tasks: speech/review/article/report/leaflet/informal and formal letters • Read and write in these areas of knowledge • Use the knowledge organisers provided by staff: synthesis, comparison, evaluation etc. • 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 Section A: Macbeth</u></p> <ul style="list-style-type: none"> • Extract plus essay question on whole text • <u>Language/structural analysis</u> and knowledge of themes/characters for shorter task • Essay requires whole play awareness, language/structural analysis and knowledge of themes/characters; more open discussion whilst rooting this in evidence from the text. • Know about play script conventions • Learn banks of quotes on character and themes • No need for contextual references on either task • SPAG marks on essay task • Re-read the text; know it inside-out • One hour in total <p><u>Component 2: Section B: Jekyll and Hyde</u></p> <ul style="list-style-type: none"> • Extract based question with links to wider text • Knowledge of language/structure/characters/themes applied to extract and whole text • Know about novelistic conventions • Use the extract for ready source of quotable material • Learn banks of quotes on character and themes • Contextual references required here • SPAG assessed • Re-read the text; know it 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 | <ul style="list-style-type: none"> • Atomic structure and the periodic table • Bonding, structure, and the properties of matter • Quantitative chemistry • 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 • Particle Model of Matter • Atomic Structure • Forces |

**Religion,
Philosophy
and Ethics**

- 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
- 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 | <ul style="list-style-type: none"> • SLR1.1 - Systems Architecture • SLR1.2 - Memory and Storage • SLR1.3 - Computer Networks, Connections and Protocols • SLR1.5 - Systems Software • SLR2.1 - Algorithms • SLR2.2 - Programming Fundamentals |
| Design and Technology | <p>Materials You must have:</p> <ul style="list-style-type: none"> • Normal writing and drawing equipment • A scientific calculator • A protractor <p>Instructions</p> <ul style="list-style-type: none"> • 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>Information</p> <ul style="list-style-type: none"> • The marks for questions are shown in brackets. • Time Management: You should aim to spend ONE minute for each mark available. • 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 <p>Revision Topics</p> <ul style="list-style-type: none"> • Textiles • Compliant materials • Conductive textiles • Micro-encapsulation when making textiles • Properties of materials • Types of paper • Properties and uses of the different types of paper • Inputs, outputs and process components of an electronic circuit • Open loop control systems |

- Closed loop control systems
- Types of metals – Ferrous and non-ferrous
- Types of metals – Alloys and pure
- Manufactured wooden boards – Types, properties and applications
- Renewable and non-renewable resources
- Environmental issues: Green house gases, pollution
- Modern materials – Types, properties and uses
- Plastic bottles – PET for drinks bottles and HDPE for detergent bottles
- Properties of polymers used for packaging
- Packaging – Why is packaging needed?
- Types of motion – Rotary, linear, reciprocation and oscillation
- Mechanisms – Levers, linkages, gears, pulleys, cam and follower etc
- Wasting techniques
- Laser cutter
- Turning on a wood or metal lathe
- Forces in structure – tension, compression, bending, shear, torsion, static and dynamic
- Reinforcing materials – How and why? Give examples
- Production aids – templates, stencils, formers and moulds
- Stock forms of materials
- Materials selection – What issues do you consider when choosing materials? Availability? Culture? Social? Ethical?
- Product life cycle.
- End of life disposal of a product
- Consider every stage of the life of a product. Pollution. Green house gases. Carbon footprint.
- Analysis of the packaging of products
- IKEA flat pack furniture v. already assembled furniture. Functionality? Ease of use? Ease of repair and maintenance?
- The work of the FSC?
- Source of materials and the effect on the environment
- Redistribution manufacturing techniques (also known as DEFORMING or REFORMING)
- Injection moulding
- Steam bending or vacuum bag bending of veneer over a mould
- Lamination
- Casting
- Health and safety. Risk assessment. PPE
- Isometric drawing
- Exploded view
- Dimensioning to BSI regulations
- Freehand sketching: Advantages and disadvantages
- CAD designing (eg Fusion 360): Advantages and disadvantages
- Datum points
- Vacuum forming
- 3D printing
- Centre lathe (metal lathe)
- Quality control check on machines and products
- Quality assurance checks on machines and products
- Evaluation – The importance to a designer/engineer

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

| | |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> • Product Analysis: Study materials, components and manufacturing methods used in products in the home • Focus eLearning • Twitter: @QMGSdT <p>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> <p>Revision Cards 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> |
| French | <p>Vocabulary base</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> <ul style="list-style-type: none"> • VERBS: These types of verb (ER/IR/RE/reflexives/irregulars/impersonal) in the following tenses: <ol style="list-style-type: none"> 1. present 2. immediate future 3. perfect 4. imperfect 5. future 6. conditional 7. pluperfect • Use and meaning of Infinitives – Two-verb constructions/Commands <p>En + present participle Faire + infinitive</p> <ul style="list-style-type: none"> • OTHER <p>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> |
| Geography | <ul style="list-style-type: none"> • UK Physical Landscapes • Changing Economic World • Challenge of Natural Hazards • Rivers fieldwork |
| 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: up to our current studies. No Historical Environment, no war with Spain.</p> <ul style="list-style-type: none"> • Elizabeth & her court: background, patronage, Parliament, government, • Difficulties of being a female ruler: succession, Parliament, Essex • Religious matters: English Catholicism- threats, actions & responses. Puritans, Religious settlement • Mary Queen of Scots • Golden Age: prosperity, poverty, theatre • English Sailors |

| | |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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"> • Grammar and Vocabulary booklet handbook (printed version) • Quizlet AQA GCSE Vocabulary • Past papers on Teams • printed booklets for GCSE textbook chapters <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' • Defying Gravity from Wicked • Star Wars main title theme from episode IV • Release by Afro Celt Sound System • Samba Em Preludio by Esperanza Spalding |
| <p>Spanish</p> | <p>Vocabulary base</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

OTHER

Adjectives – position/comparatives/superlatives/possessives/demonstratives

Adverbs

Articles – definite/indefinite

Pronouns – reflexive/subject/direct object/indirect object/demonstrative/disjunctive

Questions

Negative words

Prepositions

Conjunctions/time phrases/opinions – all in Key phrases booklets