



Queen Mary's Grammar School

Quas dederis solas semper habebis opes

GCSE options 2019



Queen Mary's Grammar School,
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Walsall,
www.qmgs.walsall.sch.uk

Pathways to making a decision about future careers

Year 9

- Pupils make options decisions for GCSEs

Year 10

- GCSE courses commence

Year 11

- GCSE courses finish and final examinations take place
- Pupils make options decisions for A Level

Entry requirements

- Pupils must achieve 54 points in their best 8 GCSEs, including level 6s in English (language or literature) and Mathematics. At least 3 must be at level 7 or higher, in the subjects wished to be taken at A Level.

6th form

- Pupils study for A Levels in their chosen subjects
- The current policy is that students chose 3 main A levels, along with an additional academic qualification (e.g. EPQ, Further Maths)

University

- Access to the top universities is highly competitive and will depend upon GCSE grades and A Level grades, as well as wider personal and social skills and involvement in wider activities.

Careers

- The vast majority of our pupils go on to university, however some may decide at age 18 to pursue career options.
- We offer wide-ranging support to help pupils to make these crucial decisions.



Making decisions about GCSE options

Throughout Year 9 you have been following a common curriculum which has provided a broad and balanced education and, at the same time, prepared you for the GCSE courses which for most subjects begin in Year 10. Aptitudes and interests vary from pupil to pupil and when you enter Year 10 in September your curriculum will be more selective, so that you may develop your particular skills, interests and understanding to the full.

The two-year course starting in Year 10 will lead to examinations in the General Certificate of Secondary Education. Pupils starting Year 10 in September 2019 will be working towards the GCSE examinations to be held in May and June 2021.

All boys will follow a common core curriculum including GCSE courses in English Language and English Literature, Mathematics, Biology, Chemistry, Physics, a Modern Foreign Language and Religion, Philosophy and Ethics. Pupils will also study two further GCSE subjects from the enclosed list of options.

All examinations demand hard, persistent work, both in school and at home and this is as much a test of your character and determination as of your academic ability. The academic work of Years 10 and 11 is balanced by a programme of non-examination courses which includes PHSEE and Physical Education/Games. There is also the opportunity for you to take part in activities which widen your personal interests and provide for the expression of individual personalities. The varied activities include sporting and cultural activities and the wide range of school clubs and societies.

Our aim over the five years of compulsory secondary education is to develop academic ability and personal qualities of responsibility, independence and integrity to the full and to provide a sound basis for entry to the Sixth Form and further education before university or employment at the age of 18.

The next few weeks will involve you and your parents in decisions affecting the choice of subjects you will be taking in Years 10 and 11. Heads of Departments have included details of the courses available in this booklet: please read it carefully. Discussions with your parents and staff are important. Please talk to all staff and ask for help when you need it.

Mr RJ Langton

Headmaster

GCSE Options: Frequently Asked Questions

Q. What changes were made nationally to GCSEs from 2015?

A. September 2015 saw the beginning of the first phase of a national change in government policy towards GCSEs. English and Mathematics were the first subjects to change, with new specifications being taught and a new grading system (9-1) replacing the traditional A*-G structure. The implications of these changes are yet to be fully realised, but a large amount of work has already gone on behind the scenes at QMGS in order to prepare students for the new qualifications. The second wave of subjects came in from September 2016. They were: Biology, Chemistry, Physics, Geography, History, French, German, Spanish, Computing, Art, Music and RS. The remainder (DT, Business and Mandarin) were reformed in September 2017. All new courses are linear in nature, with exams at the end of Year 11.

Q. What is the English Baccalaureate?

A. From 2010, the government announced that an EBacc certificate would be awarded to all pupils who gain A*-C grades in each of English, Mathematics, two Science subjects, a Modern Foreign Language and a Humanity, defined as being either History or Geography. The significance of the EBacc has increased since 2010, with it now being a crucial part of school accountability tables. Information can be found on the DfE's website:

<https://www.gov.uk/government/publications/english-baccalaureate-ebacc/english-baccalaureate-ebacc>

Whilst we are not making EBacc compulsory for the cohort starting GCSEs in September 2019, it is right that parents and pupils are aware of the current educational landscape regarding the subjects that contribute towards that school performance measure.

Q. What has happened to controlled assessment?

A. As part of the reforms to GCSEs, controlled assessments have been phased out, but there still may be non-examined (coursework) elements to new courses.

Q. Looking forward, what are the requirements for studying a subject at A Level?

A. Choices for post-16 education are a long way off, but it is certainly worth beginning to think about this. The admissions policy for the sixth form states that pupils should usually gain a level 7 in those subjects they wish to study at A Level.

Q. My son has a particular career in mind. How important are these options decisions?

A. While these decisions are important, there is no need to worry too much at this stage. We have designed the curriculum to ensure that all our pupils will maintain a balanced combination of lessons. It is almost impossible to limit career options at this early stage. For example even if your son is determined to become an accountant, there is no requirement for him to study Business at GCSE. A far more important requirement is to strive to get an 8/9 in English Language and Mathematics.

Q. What happens if sets are over-subscribed?

A. This can happen and there are no easy solutions to this. We cannot simply create more sets as we do not have the staff or teaching rooms to do this. It is for this reason that each pupil is asked to include a reserve subject on their options form. There is little point in worrying unduly about

this. The vast majority of pupils will get their first choice options and where set sizes preclude the first choice; your son will be able to take their reserve choice.

Q. What if only small numbers of pupils opt for a particular subject or the curriculum provision changes?

A. The school reserves the right to remove a subject from the curriculum if the set size is not viable or if there has been a change in staffing. In this instance, we will endeavour to give the student their reserve option.

Q. My son is keen on a career in medicine/dentistry/pharmacy. What options should he choose?

A. All pupils are required to take Biology, Chemistry and Physics as part of the core curriculum. Therefore the most important thing is to gain 8/9 grades in these subjects. Places to study these subjects at university are incredibly competitive and the stark truth is that only pupils with outstanding GCSE results stand any realistic chance of being successful in their applications. Your son should aim to achieve at least 7 grades * and above at GCSE and then continue to get straight A*/A grades at A Level.

Q. What is the FSMQ Additional Mathematics course? Can my son opt to do these?

A. This is not an option choice. Both courses have been offered to our most able mathematicians in Key Stage 4. This is a bridge between GCSE work and the more challenging A Level work that your son will face in the sixth form should he choose to study Mathematics. Final decisions have not been made on the exact entries for these qualifications (due to the increased difficulty of the Mathematics GCSE).

Q. I still have questions, whom can I contact?

A. You are welcome to contact Mr Lax (Deputy Head) or me at school should you have any questions that are not answered by the information in this booklet. At the Parents' Evening on 14th February parents of the Year 9 students are invited in to listen to/ask questions of key curriculum and pastoral staff on the expectations at GCSE level. Mr Lax will be available throughout the parents' evening for further discussion about options choices.

Please contact Mr Lax at m-lax@qmgs.walsall.sch.uk

Richard Langton

Headmaster



GCSE Options Choices 2019-2021

Name:	
Form:	
Parental signature:	

The core curriculum

All pupils will follow the core curriculum of Mathematics, English Language, English Literature, Biology, Chemistry, Physics and RPE (Religion, Philosophy and Ethics).

Non-examined core curriculum

Your son will also follow courses in PSHEE, PE and Games. These subjects will not lead to a final qualification.

GCSE options

Please note that the options courses offered are dependent upon the availability of specialist staff. The school reserves the right not to run courses that fail to recruit viable numbers.

Please indicate below your son's choice of modern foreign language by placing a tick in the grid below. This will be the language that he has been studying in Year 9.

Modern Foreign Language

French		Spanish	
Mandarin Chinese			

Other GCSE options

Please select two subjects from the options below in order of preference by entering '1' and '2' in the grid. As sometimes it is not possible to accommodate all pupils' first choices, you must also indicate a reserve choice by entering '3' against that subject. Remember that you are **strongly advised to choose either History or Geography** as one of your options to ensure that you have the opportunity to qualify for the *English Baccalaureate*. You can choose both of these subjects if you so wish.

Art		History	
Business		Geography	
Computer Science		Music	
Design & Technology			

The Core Curriculum:

Mathematics

English Language

English Literature

Biology

Chemistry

Physics

Religion, Philosophy and Ethics



GCSE Mathematics

Examination board:	AQA
Examinations:	<p>Mathematics 8300 Higher This course will be followed by all pupils in Years 10 and 11.</p> <p>3 papers in total, maximum of 80 marks available. Each paper carries equal weighting. Paper 1 is non-calculator</p>
Non examined assessment:	N/A

Course content:

The weighting of the topic areas has been prescribed by Ofqual and is common to all exam boards. The table below shows the approximate weightings of the topic areas for the overall tier of assessment, not for each individual question paper.

Subject topics

Number	15%
Algebra	30%
Ratio, proportion and rates of change	20%
Geometry and measures	20%
Probability	15% (combined)
Statistics	

The GCSE in mathematics is a continuation of the study of mathematics from lower school. As seen above covering many of the topics already familiar to pupils; however studying these topics are studied at a much more demanding level.

GCSE mathematics requires knowledge pupils to be able to: recall facts and apply skills, reason and interpret in a logical and mathematically accurate way, solve problems within a mathematical or other context; these questions will require application of skills from several topics all within the same question.



FMSQ Higher - Additional Mathematics (legacy specification for accelerated groups)

Examination board:	OCR (course code 6993)
Examinations:	<i>Year 11:</i> A single two hour paper accounting for 100% of the marks available
Non examined assessment:	There is no controlled assessment in Mathematics

Course content:Algebra:

- Manipulation of algebraic expressions
- Inequalities
- Recurrence Relations
- The factor theorem
- Solutions of equations

Enumeration

- Binomial expansion
- Permutations
- Combinations

Coordinate Geometry:

- The straight line
- The co-ordinate geometry of circles
- 2 Dimensional Inequalities
- Applications to linear programming

Trigonometry:

- Ratio of any angles and their graphs
- Trigonometry identities
- Solving equations

Calculus:

- Differentiation
- Integration
- Applications to kinematics
- Numerical methods

Exponentials and Logarithms

- Properties of exponentials and Logarithms
- Reduction to Linear Form
- Equations involving exponentials

The Level 3 FSMQ: Additional Mathematics provides the foundations on which a large number of learners continue the subject beyond GCSE. It also supports the study of AS and A Level Mathematics, and Further Mathematics. The Level 3 FSMQ: Additional Mathematics prepares learners for further study and employment in a wide range of disciplines involving the use of mathematics, including STEM disciplines. Only our very best mathematicians in the year group sit this examination, as a result the material is only taught in the top set of the year; this give them the best preparation for the study of Further Mathematics at A-Level.



GCSE English Language

Examination board:	WJEC EDUQAS
Examinations:	<i>Year 11:</i> Exam Component 1: 20 th Century Literature Reading and Creative Prose Writing (40% of the overall GCSE / 1 hour 45 minutes written paper) Exam Component 2: 19 th and 21 st Century Non-Fiction Reading and Transactional / Persuasive Writing (60% of the overall GCSE / 2-hour paper)
Internal assessment:	Component 3: Spoken Language This is an internally assessed component, externally moderated, and leading to a separate endorsement. It does not contribute to the final GCSE English Language grade.

Course content:**Exam Component 1: 20th Century Literature Reading and Creative Prose Writing**

In Section A (20%) – Reading. This section will test through structured questions the reading of an unseen extract from one 20th century literary prose text (about 60-100 lines).

In Section B (20%) – Writing. This section will test creative prose writing through one 40-mark task. Candidates will be offered a choice of four titles giving opportunities for writing to describe and narrate, and imaginative and creative use of language. This response should be a narrative / recount

Exam Component 2: 19th and 21st Century Non-Fiction Reading Study and Transactional / Persuasive Writing

In Section A (30%) – Reading. This section will test through structured questions the reading of two high-quality unseen non-fiction texts (about 900-1200 words in total), one from the 19th century, the other from the 21st century. Non-fiction texts may include, but will not be limited to: letters, extracts from autobiographies or biographies, diaries, reports, articles and digital and multi-modal texts of various kinds from newspapers and magazines, and the internet.

In Section B (30%) – Writing. This section will test transactional, persuasive and/or discursive writing through two equally weighted compulsory tasks (20 marks each). Across the two tasks candidates will be offered opportunities to write for a range of audiences and purposes, adapting style to form and to real-life contexts in, for example, letters, articles, reviews, speeches, etc.

Component 3: Spoken Language

Candidates will be required to complete one formal presentation or speech. They will also be assessed on their responses to questions and feedback following the presentation or speech. Standard English should be a feature of all parts of the candidates' work in this component.



GCSE English Literature

Examination board:	WJEC EDUQAS
Examinations:	<p><i>Year 11:</i></p> <p>Exam Component 1: Shakespeare and Poetry (40% of the overall GCSE / 2-hour written paper)</p> <p>Exam Component 2: Post 1914 Prose/Drama, 19th Century Prose and Unseen Poetry (60% of the overall GCSE / 2 hours and 30 minutes written paper)</p>
Non examined assessment:	None

Course content:

Exam Component 1: Shakespeare and Poetry

In Section A (20%) – Shakespeare: ‘Macbeth’. This assessment will test, through one extract-based question and one essay question on the text as a whole, knowledge and understanding of a Shakespeare text. Learners will be expected to comment on Shakespeare’s use of language, structure and form and show an understanding of key themes, characters and ideas within the text. This section will also test learners' spelling, punctuation and grammar. Learners are not permitted to take copies of the set text into the examination.

In Section B (20%) – Poetry 1789 to the present day. This assessment will test knowledge and understanding of poetry from 1789 to the present day. Learners will be assessed on two poems from the WJEC Eduqas Poetry Anthology. In the first question, learners will be asked to write about a specified poem. In the second question, learners will be asked to write about a second poem chosen from the WJEC Eduqas Poetry Anthology, and compare it to the first. Learners will be expected to consider the context of each poem, its content and key ideas, and the poets’ use of language, structure and form. Learners must study all of the poems in the WJEC Eduqas Poetry Anthology in preparation for this assessment. The anthology covers a range of poetry and is designed to introduce learners to the rich heritage of poetry across centuries as well as illustrating how poets explore similar themes in different ways. Learners are not permitted to take a copy of the anthology into the examination.

Exam Component 2: Post-1914 Prose/Drama, 19th Century Prose and Unseen Poetry

In Section A – Post 1914 Prose/Drama, ‘Lord of the Flies’. This assessment will test, through an extract-based response, knowledge and understanding of the post-1914 prose/drama text. Learners will be expected to comment on the writer's use of language, structure and form and show an understanding of key themes, characters and ideas within the text. This assessment will also test learner's spelling, punctuation and grammar. Learners are not permitted to take copies of the set text into the examination.



In Section B (20%) – 19th Century Prose, ‘Dr Jekyll and Mr Hyde’. This assessment will test, through an extract-based response, knowledge and understanding of the 19th century prose novel. Learners will be expected to comment upon the context of the prose text, the language, structure and form of the text and key themes, characters and ideas within the text. Learners are not permitted to take copies of the set texts into the examination.

In Section C (20%) – Unseen Poetry. This assessment will ask learners to consider two unseen poems from the 20th and/or 21st centuries. In the first question, learners will be asked to write about a previously unseen poem. In the second question, learners will be asked to write about a second previously unseen poem, and compare it to the first. Learners will be expected to consider the content and key ideas of each poem, and the poets’ use of language, structure and form.



GCSE Biology

Examination board:	AQA (course code 8461)
Examinations:	<p><i>Year 11:</i> Paper 1 Topics 1-4: Cell biology; Organisation; Infection and response and Bioenergetics.</p> <p>How it's assessed?</p> <p>Written exam: 1 hour 45 minutes 100 marks 50% of GCSE</p> <p>Multiple choice, structured, closed short answer and open response.</p> <p>Paper 2 Topics 5-7: Homeostasis and response; Inheritance, variation and evolution and Ecology.</p> <p>How it's assessed?</p> <p>Written exam: 1 hour 45 minutes 100 marks 50% of GCSE</p> <p>Multiple choice, structured, closed short answer and open response.</p>
Non examined assessment:	There is no directly assessed practical work in Biology. However, questions in the written exams will draw on the knowledge and understanding students have gained by carrying out the practical in lessons. These questions will count for at least 15% of the overall marks for the qualification.

Course content:

1. Cell biology – Year 9
2. Organisation – Year 10
3. Infection and response – Year 10
4. Bioenergetics – Year 10
5. Homeostasis and response – Year 11
6. Inheritance, variation and evolution – Year 11
7. Ecology – Year 11

More detailed information on the course content as well as the assessment procedures is available on the AQA website: www.aqa.org.uk.



GCSE Chemistry

Examination board:	AQA
Examinations:	<i>Year 11:</i> Paper 1 (50% of the total GCSE mark) - 105 minutes Paper 2 (50% of the total GCSE mark) - 105 minutes Multiple choice, structured, closed short answer and open response questions
Non examined assessment:	None

Course content:

1. Atomic structure and the periodic table
2. Bonding, structure, and the properties of matter
3. Quantitative chemistry
4. Chemical changes
5. Energy changes
6. The rate and extent of chemical change
7. Organic chemistry
8. Chemical analysis
9. Chemistry of the atmosphere
10. Using resources



GCSE Physics

Examination board: AQA	
Examinations: <i>All at the end of Year 11:</i> Paper 1 <ul style="list-style-type: none"> • Energy • Electricity • Particle model of matter • Atomic structure How it's assessed <ul style="list-style-type: none"> • Written exam: 1 hour 45 minutes • Foundation and Higher Tier • 100 marks • 50% of GCSE Questions <ul style="list-style-type: none"> • Multiple choice, structured, closed short answer and open response. 	Paper 2 <ul style="list-style-type: none"> • Forces • Waves • Magnetism and electromagnetism • Space physics How it's assessed <ul style="list-style-type: none"> • Written exam: 1 hour 45 minutes • Higher Tier • 100 marks • 50% of GCSE Questions <ul style="list-style-type: none"> • Multiple choice, structured, closed short answer and open response.
Non examined assessment: <i>Frequent set experiments but no formal assessment</i>	

Subject content

1. **Forces** – gravity, resultant forces, elasticity, levers, pressure, acceleration, Newton's Laws, stopping distances and momentum.
2. **Energy** – conservation, thermal transfer, kinetic, potential, work, power, efficiency and the National Grid.
3. **Waves** – transverse, longitudinal, frequency, the wave equation, sound, ultrasound, seismic waves, electromagnetic spectrum, light, lenses and black body radiation.
4. **Electricity** – current, potential difference, resistance, series and parallel circuits, mains electricity, power, the National Grid and static.
5. **Magnetism and electromagnetism** – making magnets, electromagnets, the motor effect, loudspeakers, induced potential, generators and transformers.
6. **Particle model of matter** – density, changes of state, temperature, specific heat capacity, specific latent heat and pressure in gases.
7. **Atomic structure** – atoms, isotopes, alpha scattering, nuclear radiation, decay equations, half-life, contamination, uses of radiation, nuclear fission and nuclear fusion.
8. **Space physics** – the Solar system, life cycle of a star, satellites and orbits, red shift and Big Bang theories.



GCSE Religion, Philosophy & Ethics (RPE)

Examination board:	AQA 8062 www.qmgsrpe.co.uk
Examinations:	<i>All examinations take place after two years of study at the end of Year 11. There are two components:</i> <i>1. Religion - 1 paper, 1hr 45 mins.</i> <i>2. Philosophy and Ethics - 1 paper, 1hr 45 mins.</i>
Non examined assessment:	There is no controlled assessment

Religion, Philosophy and Ethics (RPE) is an intellectually stimulating course that aims to provide answers to a number of questions about meaning, origin, purpose, truth and the fundamental nature of reality. Unlike the staid courses of religious education offered in many schools, RPE is designed for bright and able children and it covers not only **statutory Religious Education**, but also some elements of **statutory PSHE/ Citizenship** and "Fundamental British Values": in particular we explore religious extremism, radicalism, social cohesion, political engagement and processes, FGM, so-called "honour-based" violence and a wealth of other topics that address cultural, social and ethnic diversity in modern Britain. Lessons are a lively mix of debate, critical thinking, academic writing and reading in a judgment free and brave space.

The first component ("Religion") tackles religious worldviews. Currently, we study Christianity, Islam and Sikhism and this is likely to continue to be the case in 2018/19. The course focuses on theories of truth and reality, the ethical response of humanity to questions of existence, especially the existence of God, and religious practices. We are keen to address issues of social cohesion arising from an understanding of religious teachings, ethics and scriptural or doctrinal ideas found in faiths and worldviews relevant to our community.

The second component ("Philosophy & Ethics") consists of the study of the following themes, and encompasses religious, humanist and secular worldviews:

- ❑ **Sexual Ethics** and human relationships;
- ❑ **Medical Ethics**, including abortion, euthanasia and animal experimentation;
- ❑ **Environmental Ethics**: why should we look after the planet?
- ❑ **Philosophical Metaphysics**, including arguments for the existence of God, revelation and psychology;
- ❑ **War and Conflict**: violence, terrorism (including religious terrorism, holy war, jihad, pacifism) and war, including Just War Theory and nuclear weapons;
- ❑ **Crime and Punishment**: the nature and causes of crime and the varieties of punishments available, sanctity of life, the death penalty and options for political dissent;
- ❑ **Human Rights and Social Justice**: issues of equality, discrimination, racial and social prejudice, wealth and poverty (charity, poverty, exploitation).



The Options:

Art

Business

Computer Science

Design & Technology

French

Geography

History

Mandarin Chinese

Music

Spanish



GCSE Art and Design

Examination board:	OCR
Examinations:	10hr practical examination. Paper released January 1st 2x 5hr sessions usually March/April 40% of overall mark
Non examined assessment:	Coursework portfolio derived from centre-determined starting point. Focus on exploration, research, acquisition of techniques, skills and outcomes. Single project with defined structure. Flexible presentation options. Candidates selection of work for quality not quantity. 60% of overall mark.

Course content:

The GCSE in Art and Design requires candidates to complete two mandatory units.

The GCSE in Art and Design is organised so that candidates have several different specification titles available for study;

- Art, Craft and Design
- Fine Art
- Graphic Communication
- Photography

Candidates choose one title from the options available and produce two components.

GCSE Components

The components contained within each GCSE in Art and Design are listed below. For each GCSE, candidates will be required to achieve two components *1: Art and Design Portfolio* and *2: Art and Design OCR-set Task*. Each unit must contain work that is appropriate to the chosen endorsement or combined appropriately for the unendorsed option.

OCR GCSE in Art and Design

- 1: Art and Design Portfolio
- 2: Art and Design OCR-set Task



GCSE Business

Examination board:	Edexcel (course code 1BS0)
Examinations:	There are 2 external examinations at the end of Year 11 covering the two themes taught. One examination will cover 'Investigating small business' and the other will cover 'Building a business'.

Course content:

Theme 1 - Investigating small business (Taught in Year 10)

Theme 1 comprises five topic areas.

- Topic 1.1 Enterprise and entrepreneurship – students are introduced to the dynamic nature of business in relation to how and why business ideas come about. They also explore the impact of risk and reward on business activity and the role of entrepreneurship.
- Topic 1.2 Spotting a business opportunity – students will explore how new and small businesses identify opportunities through understanding customer needs and conducting market research.
- Topic 1.3 Putting a business idea into practice – this topic focuses on making a business idea happen through identifying aims and objectives and concentrating on the financial aspects.
- Topic 1.4 Making the business effective – students will explore a range of factors that impact on the success of the business, including location, the marketing mix and the business plan.
- Topic 1.5 Understanding external influences on business – students are introduced to a range of factors, many of which are outside of the immediate control of the business, such as stakeholders, technology and the economy.

Theme 2 - Building a business (Taught in Year 11)

Theme 2 comprises five topic areas.

- Topic 2.1 Growing the business – students are introduced to methods of growth and how and why business aims and objectives change as businesses evolve. The impact of globalisation and the ethical and environmental questions facing businesses are explored.
- Topic 2.2 Making marketing decisions – students will explore how each element of the marketing mix is managed and used to inform and make business decisions in a competitive marketplace.
- Topic 2.3 Making operational decisions – this topic focuses on meeting customer needs through the design, supply, quality and sales decisions a business makes.
- Topic 2.4 Making financial decisions – students will explore the tools a business has to support financial decision making, including ratio analysis and the use and limitation of a range of financial information.
- Topic 2.5 Making human resource decisions – growing a business means that decisions relating to organisational structure, recruitment, training and motivation need to be made to influence business activity.



GCSE Computer Science

Examination board:	OCR (course code J276)
Examinations:	<p><i>Computer Systems:</i> (90 minutes, 80 marks, 50% of the total GCSE)</p> <p><i>Computational Thinking, Algorithms and Programming:</i> (90 minutes, 80 marks, 50% of the total GCSE)</p>
Non examined assessment: <i>Year 10 Summer Term:</i>	<i>Programming Project: (20 hours, compulsory part of the course, internally assessed, time allocated monitored by the examination board.)</i>

Course content:

The course gives learners a real, in-depth understanding of how computer technology works. Learners will no doubt be familiar with the use of computers and other related technology from their other subjects and elsewhere. However, the course will give them an insight into what goes on 'behind the scenes', including computer programming, which many learners find absorbing.

Focus on cyber security - It looks at phishing, malware, firewalls and people as the 'weak point' in secure systems.

Encourages mental versatility - Students use their new-found programming skills on an independent coding project by solving a real-world problem of their choice. The primary language used at QMGS is Python.

Unit J276/01: Computer systems

- *Systems architecture*
- *Memory & Storage*
- *Network topologies, protocols & layers, Wired & wireless networks*
- *System software & System security*
- *Ethical, legal, cultural & environmental concerns*

Unit J276/02: Computational thinking, algorithms and programming

- *Algorithms & Programming techniques*
- *Computational logic*
- *Translators & facilities of languages*
- *Data representation*

Unit J276/03: Programming project (compulsory 20 hour task)

- *Programming techniques*
- *Analysis, Design, Development, Testing, Evaluation & conclusion*

The non-exam assessment tasks are provided by OCR. Learners will produce a report that details the iterative development for the project. While this is not marked by the exam board, it is a vital part of the course to build computational thinking and programming skills for the written examination and to gain a rounded understanding of the subject.



GCSE Design and Technology

Examination board:	AQA (Course code 8552)
Examinations:	<p>Year 11: Written paper 2 hours. 100 marks available. 50% of the marks available for the course.</p> <p>All questions in the examination are compulsory. 15% of marks available in the examination will be awarded for the application of Mathematics.</p> <p>Section 1: Core technical principles (20 marks)</p> <p>Section 2: Specialist technical principles in the chosen material area (30 marks)</p> <p>Section 3: Design and making principles (50 marks)</p>
Non-examined Assessment:	<p>NEA: Design and Making Practice</p> <p>Approximately 30-35 hours work.</p> <p>100 marks are available</p> <p>50% of the marks available for the course.</p> <p>Consists of a single design and make activity that comes from study one of the contextual challenges released annually by the examination board on 1st June.</p> <p>NEA will start on 1st June in Year 10 and the deadline will be at Easter in Year 11</p>

Course content:

GCSE Design and Technology will prepare students to participate confidently and successfully in an increasingly technological world. Students will gain awareness and learn from wider influences on Design and Technology including historical, social, cultural, environmental and economic factors. Students will get the opportunity to work creatively when designing and making and apply technical and practical expertise.

The GCSE allows students to study core technical and designing and making principles, including a broad range of design processes, materials techniques and equipment. They will also have the opportunity to study specialist technical principles in greater depth.

The course encourages students to be inspired, moved and challenged by following a broad, coherent, satisfying and worthwhile course of study and gain an insight into related sectors, such as manufacturing and engineering.



Course Structure:

Year 10: September to the end of May:

Students will study all of the following material areas:

- Papers and boards
- Timber
- Metals and alloys
- Polymers
- Textiles
- Electronics and mechanical systems

Students will then study at least one material area to develop specialist knowledge in terms of applications and working properties.

1st June in Year 10 to Easter in Year 11:

Non-examined Assessment (NEA)

The NEA will consist of a design and make task worth 100 marks.

Assessment criteria:

- Investigating
- Designing
- Making
- Analysing and Evaluating

In the spirit of the iterative design process, the above should be awarded holistically where they take place and not in a linear manner. The work will be marked by teachers and moderated by AQA.

Candidates should undertake a single design and make activity which is selected a choice of three contextual challenges set annually by the examination board and released on 1st June in year 10. Students then have until Easter in year 11 to complete the iterative design challenge. It is a requirement that all students write their own design brief following a period of analysis of one of the issued contexts.

Students should submit a 3-dimensional outcome (prototype) and a concise design folder and/or appropriate ICT evidence. The design folder should consist of approximately 20 pages. An ePortfolio is the preferred method at the school. It is expected that candidates should spend approximately 30-35 hours on the NEA.

It is essential that all students follow an iterative design process and that the ePortfolio is used as a diary of all work completed. Students must work independently and it is hoped that the process involves much cross-over between doing and thinking and designing and making. Every project is different and every student will work in a different way. Creativity and innovation will be rewarded.

Twitter

Keep up to date with the Design and Technology department at the school:
@QMGSDT



GCSE French

Examination board:	AQA (course code 8658)
Examinations:	Year 11: SUMMER Paper 1-Listening 25% - 45 minutes Paper 2-Speaking 25% - 10-12 minutes (+ 12 mins' prep) Paper 3-Reading 25% - 1 hour Paper 4-Writing 25% - 1 hour 15 minutes
Non examined assessment:	

Course content:Theme 1: Identity and culture

Topic 1: Me, my family and friends

- Relationships with family and friends
- Marriage/partnership

Topic 2: Technology in everyday life

- Social media
- Mobile technology

Topic 3: Free-time activities

- Music
- Cinema and TV
- Food and eating out
- Sport

Topic 4: Customs and festivals in French-speaking countries/communities

Theme 2: Local, national, international and global areas of interest

Topic 1: Home, town, neighbourhood and region

Topic 2: Social issues

- Charity/voluntary work
- Healthy/unhealthy living

Topic 3: Global issues

- The environment
- Poverty/homelessness

Topic 4: Travel and tourism

Theme 3: Current and future education and employment

Topic 1: My studies

Topic 2: Life at school/college

Topic 3: Education post-16

Topic 4: Jobs, career choices and ambitions



GCSE Geography

Examination board:	AQA, GCSE Geography (8035)
Examinations:	<p><i>Year 10:</i> End of year internal examination based on content taught in Year 10</p> <p><i>Year 11:</i> Unit 1 <i>Living with the Physical Environment</i> (35% of the total GCSE mark) – 1 hour 30 mins Unit 2 <i>Challenges in the Human Environment</i> (35% of the total GCSE mark) – 1 hour 30 mins Unit 3 <i>Geographical Applications</i> (30% of the total IGCSE mark) – 1 hour 15 mins</p>
Non examined assessment:	None

Studying geography gives you the opportunity to travel the world via the classroom, learning about both the physical and human environment. You'll understand how geography impacts your life every day and discover the key opportunities and challenges facing the world.

Course content:

Unit 1 - Living with the Physical Environment

Candidates answer questions on these three topics:

- The Challenge of Natural Hazards (Tectonic Hazards; Weather Hazards; Climate Change)
- The Living World (Ecosystems; Tropical Rainforests; Cold Environments)
- Physical Landscapes in the UK (River Landscapes; Glacial Landscapes)

Unit 2 - Challenges in the Human Environment

Candidates answer questions on these three topics:

- Urban Issues and Challenges
- The Changing Economic World
- The Challenge of Resource Management (Resource Management; Energy)

Unit 3 - Geographical Applications

- Section A - Issue Evaluation
 - Compulsory structured questions based on resources in a pre-released booklet
- Section B - Fieldwork
 - Two separate pieces of fieldwork will be completed and questions asked upon different aspect of the process in the examination.
 - Geographical Skills will also be tested in this paper.



GCSE History

Examination Board:

AQA History 8145

Examinations: *Sat at the end of Year 11*

Paper 1: Understanding the Modern World

- Written exam: 1 hour 45 minutes
- 84 marks (including 4 marks for spelling, punctuation and grammar)
- 50% of GCSE

Paper 2: Shaping the nation

- Written exam: 1 hour 45 minutes
- 84 marks (including 4 marks for spelling, punctuation and grammar)
- 50% of GCSE

Paper 1 - Understanding the Modern World

Topic 1. Germany, 1890–1945: Democracy and dictatorship

This period study focuses on the development of Germany during a turbulent half century of change. It was a period of democracy and dictatorship – the development and collapse of democracy and the rise and fall of Nazism. Students will study the political, economic, social and cultural aspects of these two developments and the role ideas played in influencing change. They will also look at the role of key individuals and groups in shaping change and the impact the developments had on them.

Part one: Germany and the growth of democracy; Part two: Germany and the Depression; Part three: The experiences of Germans under the Nazis

Topic 2. Conflict and tension between East and West, 1945–1972

This wider world depth study enables students to understand the complex and diverse interests of different states and individuals and the ideologies they represented. It considers revolutionary movements during this time. It focuses on the causes and events of the Cold War and seeks to show how and why conflict occurred and why it proved difficult to resolve the tensions which arose during the Cold War. This study also considers the role of key individuals and groups in shaping change and how they were affected by and influenced international relations.

Part one: The origins of the Cold War; Part two: The development of the Cold War ; Part three: Transformation of the Cold War

Paper 2 - Shaping the nation

Topic 1 - Health and the people: c1000 to the present day

This thematic study will enable students to gain an understanding of how medicine and public health developed in Britain over a long period of time. It considers the causes, scale, nature and consequences of short and long term developments, their impact on British society and how they were related to the key features and characteristics of the periods during which they took place. Although the focus of this study is the development of medicine and public health in Britain, it will draw on wider world developments that impacted on the core themes. Students will have the opportunity to see how some ideas and events in the wider world affected Britain and will promote the idea that key themes did not develop in isolation, but these ideas and events should be referenced in terms of their effects on the core theme for Britain and British people.

Part one: Medicine stands still; Part two: The beginnings of change; Part three: A revolution in medicine; Part four: Modern medicine

Topic 2 - Elizabethan England, c1568–1603

This option allows students to study in depth a specified period, the last 35 years of Elizabeth I's reign. The study will focus on major events of Elizabeth I's reign considered from economic, religious, political, social and cultural standpoints, and arising contemporary and historical controversies.

Part one: Elizabeth's court and Parliament; Part two: Life in Elizabethan times; Part three: Troubles at home and abroad



GCSE Mandarin: Edexcel GCSE (9-1) Chinese

Examination board:	Edexcel (1CN0) <ul style="list-style-type: none"> • <i>First teaching from September 2017</i> • <i>First certification from June 2019</i> • <i>No controlled assessments</i>
Examinations in Year 11:	<p>Paper 1: Listening and understanding in Chinese (*Paper code: 1CN0/1H)</p> <ul style="list-style-type: none"> • <i>Higher tier: 45 minutes, including 5 minutes' reading time;</i> • <i>50 marks</i> • <i>25% of the total qualification</i> <p>Assessment overview (<i>Higher tier</i>)</p> <ul style="list-style-type: none"> • Students are assessed on their understanding of standard spoken Chinese by one or more speakers in a range of public and social settings. • Students will respond to multiple-response and short-answer open-response questions based on a recording featuring male and female Chinese speakers. • There is no requirement for students to produce written responses in Chinese. • All questions are set in English. The instructions to students are in English. <p>Paper 2: Speaking in Chinese (*Paper code: 1CN0/2H)</p> <ul style="list-style-type: none"> • <i>Internally conducted and externally assessed</i> • <i>Higher tier: 10-12 minutes plus 12 minutes' preparation time</i> • <i>70 marks (10 marks + 24 marks + 36 marks)</i> • <i>25% of the total qualification</i> <p>Assessment overview (<i>Higher tier</i>)</p> <ul style="list-style-type: none"> • Students are assessed on their ability to communicate and interact effectively through speaking in Chinese for different purposes and in different settings. • There are three tasks which must be conducted in the following order: <ol style="list-style-type: none"> 1. Task 1 - a role play based on one topic that is allocated by Pearson (2'00"-2'30") 2. Task 2 - questions based on a picture stimulus based on one topic that is allocated by Pearson (3'00"-3'30") 3. Task 3 - conversation based on two themes. The first theme is based on the topic chosen by the student in advance of the assessment. The second theme is allocated by exam board. (5'00"-6'00") • The assessment will be available in Mandarin and Cantonese. • The assessments are conducted by teachers in one session within a prescribed assessment window, the recordings are then submitted to Pearson for external marking. <p>Paper 3: Reading and understanding in Chinese (*Paper code: 1CN0/3H)</p> <ul style="list-style-type: none"> • <i>Higher tier: 1 hour 5 minutes</i> • <i>50 marks</i> • <i>25% of the total qualification</i> <p>Assessment overview (<i>Higher tier</i>)</p> <ul style="list-style-type: none"> • Students are assessed on their understanding of written Chinese across a range of different types of texts, including advertisements, emails, letters, articles and literary texts. • Students are required to respond to multiple-response and short-answer questions based on these texts.



- Students must answer all questions in each section: Section A is set in English. The instructions to students are in English. Section B includes a translation passage from Chinese into English with instructions in English.
- The assessment is available in traditional and simplified characters.

Paper 4: Writing in Chinese (*Paper code: 1CN0/4H)

- **Higher tier: 1 hour 25 minutes**
- **60 marks**
- **25% of the total qualification**

Assessment overview (Higher tier)

- Students are assessed on their ability to communicate effectively through writing in Chinese for different purposes and audiences.
- Students are required to produce responses of varying lengths and types to express ideas and opinions in Chinese. The instructions to students are in English.
- Character counts are specified for each question. Students must answer all questions.
- There are **two open-response questions and one translation into Chinese.**
- Students can complete the assessment using either traditional **or** simplified characters.

Course content:

Theme 1: Identity and culture

- **Who am I:** relationships; when I was younger; what my friends and family are like; what makes a good friend; interests; socialising with friends and family; role models
- **Daily life:** customs and everyday life; food and drink; shopping; social media and technology (advantages and disadvantages)
- **Cultural life:** celebrations and festivals; reading; music; sport; film and television

Theme 2: Local area, holiday and travel

- **Holidays:** preferences; experiences; destinations
- **Travel and tourist transactions:** travel and accommodation; asking for help and dealing with problems; directions; eating out; shopping
- **Town, region and country:** weather; places to see; things to do

Theme 3: School

- **What school is like:** school types; school day; subjects; rules and pressures; celebrating success
- **School activities:** school trips; events and exchanges

Theme 4: Future aspirations, study and work

- **Using languages beyond the classroom:** forming relationships; travel; employment
- **Ambitions:** further study; volunteering; training
- **Work:** jobs; careers and professions

Theme 5: International and global dimension

- **Bringing the world together:** sports events; music events; campaigns and good causes
- **Environmental issues:** being 'green'; access to natural resources.



GCSE Music

Exam Board:	Edexcel (course code 1MU0)
Examinations:	Year 11. Unit 3. 40% of the total GCSE <u>Listening & Appraising exam.</u> 1 hr 45 written paper in 2 sections Section A: 6 questions based on short audio extracts from the 8 set works listed below. One short melody/rhythm completion exercise. One question on an unfamiliar piece (skeleton score provided) with questions on its musical elements, musical contexts and musical language. Section B Extended response comparison between one of the set works and one unfamiliar piece
Non examined assessment:	<u>Unit 1 - Performing (minimum standard AB grade 4)</u> 30% of total GCSE Pupils perform 1 solo piece and 1 ensemble piece (both free choice). Both are recorded, internally assessed and then sent to the board for moderation. <u>Unit 2 - Composing</u> 30% of total GCSE 2 compositions with a combined duration of at least 3 minutes 1 piece on a brief set by the exam board & 1 free choice

Course Content:

<u>Unit 1:</u>	<u>Unit 2:</u>	<u>Unit 3:</u>
<ul style="list-style-type: none"> • Solo performance practice • Ensemble practice 	<ul style="list-style-type: none"> • How to use Sibelius software • Composing techniques 	An in depth study of 8 set works, covering the history of music from the 18 th Century to present day.

Unit 3 set works:**Instrumental Music 1700–1820**

- J S Bach: 3rd Movement from Brandenburg Concerto no. 5 in D major
- L van Beethoven: 1st Movement from Piano Sonata no. 8 in C minor 'Pathétique'

Vocal Music

- H Purcell: Music for a While
- Queen: Killer Queen (from the album 'Sheer Heart Attack')

Music for Stage and Screen

- S Schwartz: Defying Gravity (from the album of the cast recording of Wicked)
- J Williams: Main title/rebel blockade runner (from the soundtrack to Star Wars Episode IV: A New Hope)

Fusions

- Afro Celt Sound System: Release (from the album 'Volume 2: Release')
- Esperanza Spalding: Samba Em Preludio (from the album 'Esperanza')



GCSE Spanish

Examination board:	AQA (course code 8698)
Examinations:	Year 11: SUMMER Paper 1- Listening 25% - 45 minutes Paper 2- Speaking 25% - 10-12 minutes (+ 12 mins' prep) Paper 3- Reading 25% - 1 hour Paper 4- Writing 25% - 1 hour 15 minutes
Non examined assessment:	

Course content:Theme 1: Identity and culture

Topic 1: Me, my family and friends

- Relationships with family and friends
- Marriage/partnership

Topic 2: Technology in everyday life

- Social media
- Mobile technology

Topic 3: Free-time activities

- Music
- Cinema and TV
- Food and eating out
- Sport

Topic 4: Customs and festivals in Spanish-speaking countries/communities

Theme 2; Local, national, international and global areas of interest

Topic 1: Home, town, neighbourhood and region

Topic 2: Social issues

- Charity/voluntary work
- Healthy/unhealthy living

Topic 3: Global issues

- The environment
- Poverty/homelessness

Topic 4: Travel and tourism

Theme 3: Current and future education and employment

Topic 1: My studies

Topic 2: Life at school/college

Topic 3: Education post-16

Topic 4: Jobs, career choices and ambitions

