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INTRODUCTION

The GCSE years (Years 10 & 11), are a vital part of a pupil’s academic career – laying the foundation for academic success in the Sixth Form and beyond.

During his first three years at the Grammar School, your son has followed a broadly based general curriculum, allowing him to achieve a sound grounding and an appreciation of the major academic subjects. However, time pressures and the substantial content of examination syllabuses means pupils cannot pursue all possible subjects to external examination standards and so now is the time that he must select his favourite subjects to take to GCSE.

To best prepare him for these exams, and his academic future, for Years 10 and 11, your son will be placed in a tutor group, which will not be related to academic choices. The mixture of personalities within the tutor group provides an opportunity for pupils to develop powers of leadership and initiative. Throughout the upper part of the school, we have found this system to work very well, and note that it has developed personal friendships and the enjoyment of extra-curricular activities across the year group. Teaching sets are independent of tutor groups and may be ability based or of mixed ability as is felt more appropriate for the particular subject.

GCSE reforms explained

As you may be aware, a profound reform of the examination system has been taking place. Rather than the ‘traditional’ grades (A*, A, B, C etc.) the GCSEs your son takes will be graded on a scale of 1-9, where 9 is the very best.

The new grading system looks more complicated than it is: grades 7-9 will equate to A-A* in old money; grade 6 will be B; grades 5 and 4 will be C; grade 3 will be D; no one at this school will get 2 or 1!

A small number of subjects will still be graded with the ‘traditional’ grades (A*, A, B, C etc.). These subjects follow the International GCSE courses (IGCSE) where the grading system has not been reformed.

If you want to know more about this, OFQAL, the government regulator has some useful information here: https://www.gov.uk/government/news/setting-standards-for-new-gcse-in-2017. Do not be concerned about these reforms, universities and employers will understand the new grading and your son will be well advised at every stage of the process.

In this booklet, we have laid out the curriculum that your son will follow; along with contact details should you require more information.

DJ Byrne
Headmaster
THE OPTION SCHEME

All pupils take English, English Literature and Mathematics as compulsory subjects, and a further six subjects from:

Art & Design  Biology  Chemistry  Classical Civilisation
Computing    French    Geography    German
D&T          History   Latin        Music
Drama        Religious Studies  Spanish    Physics
Greek

Please note: To ensure that all pupils have a broad and balanced GCSE curriculum, they should do at least one Modern Foreign Language and two Sciences. We would also recommend that he takes a Humanity (Classical Civilisation, History, Geography or Religious Studies).

Particularly able pupils may choose to take an additional GCSE (Latin or Music) which would be studied on Thursday afternoons (in CCF time) and one lunchtime. It would also be possible to take French on Thursday afternoons, providing that either German or Spanish have been chosen in the main curriculum.

Every effort will be made to enable each pupil to take the exact combination of subjects he may desire. However, we reserve the right to suggest an alternative combination of subjects if numbers make a particular arrangement of subjects untenable. We hope that pupils will make wise choices in light of their ability, their career intentions and the need for a balanced curriculum, but there may be some cases where the School must make the final decision on educational grounds. A pupil may show a leaning towards one particular group of subjects, but we are certain that it is very important for him to pursue as wide a general education as possible, at least to the end of Year 11. For this reason, we have avoided the idea of a pupil having to choose between Sciences and Arts at this stage. The real choice of this nature will come only when a pupil moves on to A Level work, and it may well be that even then he should continue with a mixed group of subjects.

It is important to realise that although we would permit a pupil to pursue, say, three Languages, those concentrating on subjects of a similar discipline must still maintain a balanced curriculum by including at least one subject from another discipline. Thus a good balance is usually at least one language, two or three Sciences (Physics, Biology or Chemistry) and one or two subjects from the Humanities. It is intended that most pupils should choose a combination of subjects, which will not only provide a grounding for an ultimately more specialised or vocational course but will also continue the breadth of education already started. The importance of the Humanities, Creative Arts and Languages in developing an all-round, articulate, well-informed person must not be underestimated. The study of Computer Science alongside other science subjects should not be discouraged as this is felt to be different enough to still be part of a broad and balanced curriculum.

It is, however, essential to appreciate what doors can be closed when a pupil makes his selection of subjects. A potential A Level linguist should certainly consider studying two Languages to GCSE, but all pupils should recognise that studying languages at GCSE and perhaps also, later on, at A Level, keeps the door open to many University courses, often combining a Language with other subjects such as Law and Business. For a prospective modern or ancient linguist, Latin is an invaluable asset.

Those pupils anticipating a future in medicine or biological subjects should study all three Sciences (Physics, Chemistry and Biology). Prospective engineers need to study Physics.
For any pupil whom is finding a Grammar School course very demanding, two factors should influence his choice of subject. The first is his ability to gain a good GCSE grade (9-6/A*-B) in the subject; the second is the relevance of the subject as an entry requirement for future study.

What if a subject is dropped and is later found to be necessary as an entry requirement? The object of this booklet is to help to ensure that this does not happen, and a sensible selection of subjects should enable most pupils to keep their options open until they make their A Level choice. It might be possible for subjects such as History, Geography, Religious Studies and Music to be recommenced for study to A Level without having been taken at GCSE. This knowledge can sometimes ease a decision between two subjects of similar discipline.
ENGLISH

Head of Department: Mr R Hunter

Exam Board: AQA English Language (8700) and English Literature (8702)

English is in fact two subjects: English Language and English Literature.

All pupils study English in Years 10 and 11. They follow a course to GCSE in both subjects and they will receive numbers on the scale from 9-1. The majority of candidates will obtain numbers in the range 9-5.

English Language consists of two external examinations worth 50% each of the total GCSE marks. These examinations will assess skills in Creative Reading and Writing and in Writers’ Viewpoints and Perspectives. There will also be a separately awarded Spoken Language presentation.

English Literature consists of two external examinations worth 40% and 60% of the GCSE marks. The examinations will include the study of a Shakespeare play, a 19th century novel, a modern text and a group of poems.
MATHEMATICS

Head of Department:  Mrs RL Cooch

Exam Board: Edexcel International GCSE (Specification A). 4MA1

All pupils will follow the Edexcel IGCSE course in Mathematics and be entered for the examination at the end of Year 11.

The assessment consists of two externally marked examination papers, each of two hours’ duration. Both papers require a calculator and each counts for 50%.

The IGCSE features a range of problems that help the pupils develop their reasoning and problem-solving skills. It has no coursework requirement.

Although there are two Tiers of entry (Foundation and Higher), all pupils at LGS will be entered for the Higher Tier. Each paper will assess targeted grades 9-4. In any given Year, we expect around 65% of our pupils to achieve grades 8 or 9.

The ablest pupils will be given the opportunity to take an extra Maths qualification – OCR’s FSMQ Additional Maths. Selection for this is the prerogative of the Maths Department and will be based on setting in Year 10. Assessment for this consists of a single 120-minute-long paper in the summer of Year 11. Pupils taking this exam will be expected to take it alongside the IGCSE in the summer of Year 11.
ART AND DESIGN

Head of Department: Miss EE Johnson

Exam Board: OCR J170 Art and Design or J171 Fine Art

The study of GCSE Art emphasises the importance of creative expression whilst providing the opportunity for an incredibly rewarding and satisfying learning experience. It offers an intelligent understanding of the visual world, functions as a form of communication and gives pupils a creative balance to complement their other areas of study.

The new GCSE course launched in September 2016. This new qualification rewards individuals’ strengths and best work, and as such, there is now a clear desire for quality over quantity.

Our GCSE course has been designed to offer complete flexibility and entails three components:

**Component 1: ‘Texture Project’**
The first component is designed to develop confidence with drawing, digital exploration and 2D materials. This allows the transition from Years 9 to 10 to occur gradually and provides the opportunity for experimenting and risk-tasking. Exploration will include observational work, pastel skills, 3D casting, printmaking, acrylic painting, surface detail, research, annotation skills, and a large scale outcome. This will be supported in a workshop led by local artist ‘Jo Sheppard’ who encourages experimentation with paint and unusual surfaces. During this project the four GCSE assessment objectives are introduced:

- Develop - making useful, relevant links with artists
- Explore - showing skill in a range of materials
- Record - draw, take photographs and make personal annotations
- Respond - present ideas visually and produce and conclude all prep work in an outcome

For the most able, this work could contribute to their GCSE. However, for those who require just a little more time to make progress, this is no problem because this project does not have to contribute to the GCSE. The exam board does not specify a certain volume of work, their only stipulation is that the work addresses the four assessment objectives listed above and consistently demonstrates the pupils’ best standard of work.

**Component 2: ‘Coursework Portfolio’ - 60% of GCSE**
For most, the assessed work will begin in the Spring Term of Year 10 after pupils have had sufficient time to develop mature and independent skills. The pupils will choose one theme which reflects their strengths and interests, and they will produce an extended project to demonstrate their achievements across all four assessment objectives; for this they have unlimited time. They can specialise in 2D or 3D processes, and can also work digitally. This work will be ambitious, providing the perfect platform to showcase work of personal meaning and interest. Popular themes have been Reflections, Decay, Colour, Music and Cars. All work must be annotated with subject specialist language where pupils must emphasise evaluation.
skills to show how their work and ideas both review and refine. This project will be supported by gallery visits to London.

**Component 3: ‘OCR Set Task’- 40% of GCSE**

Most understand that the study of this subject entails a 10-hour task, and whilst this is true, it must be understood in the correct context. Task papers containing a variety of titles will be issued in January of Year 11. Pupils will select one title which they develop throughout the third and final project. They have the entire Spring Term of Year 11 to explore new ideas and produce and plan their response. The 10-hour assessment is used to complete their response; the pupils are entirely in control of their work during this time and have access to all preparatory work. This project is marked and forms the other 40% of the qualification.

No written exam is set; this GCSE is 100% practical and concludes before study leave begins in Year 11.

**Courses and Pathways**

Those specialising in 2D will be entered for GCSE Fine Art and those specialising in 3D will be entered for GCSE Art and Design. We advise both parents and pupils to contact the departmental staff if the workload is a concern; this should not be the case as there are many clubs and enrichment sessions available for support. All work produced during the GCSE course will be celebrated in the annual Art and Design Exhibition.

This subject is recommended to all pupils requiring Art portfolios for their future pathways, including courses in Architecture, Fine Art, Art Foundation, Graphic Communication, Automotive Design and many more which can be discussed with departmental staff.
BIOLOGY

Head of Department: Mrs MC Herring

Exam Board: AQA Biology (8461)

Biology literally means the science of living things and it is the science that relates most easily to you and to the environment in which you live. Biology is a rapidly changing and exciting science; just think about how often Biology features in the news with headline reports into cloning, genetic engineering, medical breakthroughs and the environment. It is perhaps no surprise that for so many years Biology has been a popular option choice with the majority of pupils in Year 9 selecting it.

The new GCSE course, introduced in 2016, aims to stimulate an interest in the study of living organisms and to promote an awareness of the significance of biological principles in personal, social, economic, environmental and technological contexts.

The course covers a wide range of topics including cells, disease, human biology, plant biology, evolution, ecology, DNA, genetics and inheritance to name a few. The teaching includes a wide variety of practical work, such as extracting DNA, investigating digestion and the kidney, enzyme experiments and studying animal and plant habitats, to enhance learning and help pupils develop their investigative and experimental skills.

Assessment is by two written examination papers taken in June of Year 11. Each paper is 1-hour and 45 minutes long and made up of a mixture of multiple choice, structured, closed short answers and open response questions.

More information about the course is available from the AQA website: [http://filestore.aqa.org.uk/resources/biology/specifications/AQA-8461-SP-2016.PDF](http://filestore.aqa.org.uk/resources/biology/specifications/AQA-8461-SP-2016.PDF)

GCSE Biology, as well as being an enjoyable and interesting GCSE for pupils with no plan to take Sciences further, provides the best foundation for any pupil wishing to study the subject to A Level and is essential for those considering a career in Medicine, Dentistry or Veterinary Science. Most importantly perhaps, it will allow the pupil to obtain a deeper understanding of themselves and a better appreciation of the other life forms that interact with us on this wonderful planet!
CHEMISTRY

Exam Board: AQA GCSE Chemistry (Code 8462)

Ever wondered what was in that sandwich you ate for lunch? Or what is in your bottle of water as well as the water? Or what is in anything come to that? Chemistry will give you the opportunity to find out. By understanding about the properties of substances and how atoms can be joined together to make different things. Chemists have produced a huge range of materials from all the different sorts of metals and plastics used to make a car or a mobile phone, to the detergent in your shower gel, fibres and colours in your clothes, painkillers and anticancer medicines. These modern products have an extraordinary impact on the way we live, but we tend to take them for granted and we forget that they would not exist without the chemical knowledge used to make them. In the UK, chemistry-related industries make £10 billion profit on a £10 billion turnover, and are big export earners for the country with a wide range of career opportunities.

The GCSE course is designed both for pupils not studying the subject further and for those continuing to A Level. It involves a lot of practical work, pupils acquire knowledge and understanding of chemical patterns, and principles which they learn to apply to familiar and unfamiliar situations. The course follows on naturally from Year 9 and the secret of success is keeping up-to-date, making the ideas easier to understand and remember. Pupils develop an appreciation of the scientific, social, economic, environmental and technological contributions of Chemistry and the range of topics covered is wide.

The course looks at how we get metals from rocks, and obtain fuels and make polymers from crude oil. A simple model of atomic structure is developed to explain how atoms are bonded together, and the properties of substances are accounted for by looking at their structures. Chemical formulae and equations are used to link and predict the quantities of reactants and products in chemical reactions. Consideration is given to the energy changes involved in chemical reactions, how reactions can be made to go faster and how yields of products can be increased. Practical work also includes reactions of acids and analysis of substances using flame tests and precipitation reactions.

Assessment is by two written papers taken at the end of Year 11, both 1-hour and 45 minutes long and worth 100 marks each. These papers include assessment of practical skills, so there is no separate coursework/controlled assessment component to worry about during the year.

A Chemistry qualification at GCSE is essential for anyone considering further study in a whole range of scientific, medical and engineering fields, and leads on to a huge number of occupations from Art restorer to Zoologist. It is the central science, overlapping with both Physics and Biology.
CLASSICS
(Latin, Classical Greek, Classical Civilisation)

Head of Department: Mrs A Henderson

Exam Board: OCR

Latin and Classical Greek are the only GCSEs which include study of literature in a foreign language. We feel that it is rewarding and enjoyable for pupils to develop critical skills and to experience Latin/Classical Greek as it was written by great authors of the past. These skills are transferable to literature in any language.

In the Summer Term of Year 10, we normally take a study trip to York, Bath, Cirencester or the British Museum; any other visits you may make to Classical sites with your family are valuable too! We also take trips together with Loughborough High School to Classical events – including plays in translation and trips abroad (these contribute to your understanding of and knowledge about the course).

Studies of graduates have shown that people who have studied Classics were less likely to be unemployed in the first six months after leaving university than those from any other subject. This is because Classics develops transferable skills: graduates went into ‘almost any jobs from the City to Law to Art and Design’. A GCSE in these subjects can be used as support for Arts/Law courses and Science/Medicine courses in Higher Education, but a good grade will be valued whatever subject you study eventually.

Below is detailed the subject specific information for Latin, Classical Greek and Classical Civilisation.

LATIN
Exam Board: OCR (J282)

Combining literature, history, and language in one, Latin, like other Classical subjects, offers a unique interdisciplinary ‘educational package’. Not only does more in-depth learning of Latin improve spelling and language confidence, its ability to finely tune analytical skills and to challenge the brightest makes it one of the most respected subjects around. Latin with its cultural heritage is still very accessible to all pupils as they are reading stories about inspirational heroes or historical figures of the past. This subject (together with Greek) offers the extraordinary opportunity to be charmed in the present day by the texts written two thousand years ago: the original words of (in)famous Caesar and a series of beautiful lines from Vergil presenting us with the epic story of Aeneas, a Trojan prince.

Although bright pupils with enthusiasm for Latin will never be turned away, the course is designed to naturally follow from the material that pupils have learnt before. Having been finished book III of the Cambridge Latin Course and having been learnt almost all of the prescribed GCSE vocabulary and grammar necessary for exam success, pupils will be well equipped to continue the course at GCSE level. The natural progression will be maintained by combining Cambridge Latin Course Books IV and V with the textbook Latin to GCSE, which will further pupils’ knowledge of the grammar and their ability to translate from both Latin to English and vice versa. As in year 9, any opportunity for ‘story time’ will be welcomed in order to inspire the pupils to understand the
breath of the subject (e.g. tales of Roman republic, expansion of Rome in Italy, Hannibal, Caesar and various Roman emperors), which will be followed by studying prose and verse literature texts in Latin written more than two thousand years ago.

**Paper 1: Language (50%)** Unprepared translation and comprehension on a story drawn from mythology/domestic life/history.

During Year 10 we also begin to read some Latin literature and introduce the recognition and appreciation of literary devices. In Year 11, in order to prepare for the exam, we read the set books in class, create a translation and discuss the points which the writer wants to make; you can therefore be very well prepared to answer examination questions involving translation, comprehension and interpretation of the passages from the set books.

**Paper 2: Prose Literature (25%)** We shall study passages from various prose authors, including Tacitus and Pliny.

**Paper 3: Verse Literature (25%)** We shall study part of Virgil’s epic story of the Trojan War hero, Aeneas, who travelled with the survivors of the war to find a new home in Italy.

Pupils who choose Latin should normally follow the GCSE option system. However, for academically able pupils who wish to take 10 GCSEs, Latin is also available in CCF time (three periods per week on Thursday afternoon) plus a lunchtime period. Pupils considering this option should consult their Latin teacher and enter Latin as an extra option on their option form.

Latin GCSE is well respected by universities and employers, who appreciate the intellectual qualities required in studying the language. It has traditionally been associated with Law and Medicine. Latin can be continued at GCE Advanced Level and University Levels. In the past, it was traditionally studied with Classical Greek, but nowadays it can be studied alone or in many combinations with Arts subjects, such as English, Modern Foreign Languages, History, Philosophy, etc. and also with Science subjects and Maths.

**CLASSICAL GREEK**

**Exam Board:** OCR (J292)

Classical Greek is a favourite subject of the brightest pupils in the school. Pupils enjoy learning the alphabet (which is useful for Mathematics or, indeed, in visiting modern-day Greece) and the fact that they are taught in a small group of enthusiastic peers. They also quickly learn to appreciate that the ‘Greek genius’ that has brought to us mathematical theories, philosophy, ideas of democracy, and public speaking can only be truly appreciated through reading the actual words in the original language. The pupils will have the opportunity not only to develop their enjoyment of languages in general through getting more acquainted with Greek but also to study the selection of exciting original set texts, like Herodotus’ History and Homer’s Odyssey.

The course will, like Latin, involve developing pupils’ language skills and ability to deal with the Greek texts. The stories from the textbook Greek to GCSE offer pupils, through interesting tales from Greece, an insight into the ideals and ideas, which are in the core of the study of Classics (e.g. Alexander the Great, philosophy of Socrates).
Paper 1: Language (50%) Unprepared translation and comprehension on a story drawn from mythology/domestic life/history.

During Year 10, we also begin to read some Greek literature and introduce the recognition and appreciation of literary devices. In Year 11 in order to prepare for the exam, we read the set books in class, create a translation and discuss the points which the writer wants to make; you can therefore be very well prepared to answer examination questions involving translation, comprehension and interpretation of the passages from the set books.

Paper 2: Prose Literature (25%) We shall study passages from the author Herodotus ‘The Father of History’.

Paper 3: Verse Literature (25%) We shall study part of Homer’s epic story of the Trojan War or part of one of Euripides’ plays.

Classical Greek GCSE is well respected by universities and employers, who appreciate the intellectual qualities required in studying the language. It has traditionally been associated with the Law and Medicine. Classical Greek can be continued at GCE Advanced Level and University Levels. In the past it was traditionally studied with Latin, but nowadays it can be studied alone or in many combinations with Arts subjects, such as English, Modern Foreign Languages, History, Philosophy, etc. and also with Science subjects and Maths. A GCSE in this subject can be used as support for Arts/Law courses and also Science/Medicine courses in Higher Education, but a good grade will be valued whatever subject you study eventually.

CLASSICAL CIVILISATION OCR (J199)

The students who enjoy discovering the ancient world, where myths are part of everyday life and when brave and honourable heroes were championed by Olympian gods, will be perfect candidates to take this subject to GCSE. This GCSE provides an opportunity to explore both ancient Greece, with an emphasis on Athens and Sparta, and Rome thematically, creating a wide-ranging course of study. The course enables students to respond to and engage with a wealth of literature and visual/material culture equipping them with readily transferable analytical skills. In reading the English translations of relevant works of ancient authors, like Homer, Euripides Virgil and Ovid, students will develop a greater appreciation of their own language and its usage. In conclusion, one of the best things about Classical Civilisation is the wide range of exciting topics there are to study. If you enjoy subjects such as History, English, Philosophy, Art, Politics and Archaeology, then Classical Civilisation lets you do a bit of everything whilst studying two of the most important civilisations of the Western world.

This subject provides a self-contained two-year course to GCSE and does not require any previous study of a classical subject or knowledge of Classical Greek or Latin languages. If you like watching programmes or reading about the ancient world and are interested in History, English or Archaeology, this is the course for you. The GCSE is structure in two components: Myth and Religion or Women in the Ancient World and War and Warfare.

Paper 1 (50%): ‘Myth and Religion’: Thematic Study

Students will explore religion and mythology in the ancient Greek and Roman world. Learners will study myths regarding the role of the gods and heroes in the founding of Athens and Rome and the importance of Heracles/Hercules to both the Greek and Roman world. Myth as a symbol of power will also be explored, as will ever popular myths about the underworld. Students will also look at the role of religion in the everyday lives of ancient Greeks and Romans, through the study of temples, sacrifice, festivals, death and beliefs in the afterlife giving them a broad overview of religion in the ancient world. This topic provides opportunity for
the study of a wide variety of material remains, including remarkable temples and works of art as well as literature and visual/material culture.

OR

**Paper 1 (50%): ‘Women in the Ancient World’: Thematic Study**

Students will explore the lives and representations of women in the societies of Athens and Republican Rome, although wider material, such as that from Sparta or Pompeii, is also included. Students will analyse the role of women and their experiences from birth to death, focusing on their duties within the household. The public role of women is also explored, including their involvement in the religious life of the city and in the world of politics. Students will investigate women who are portrayed as living a respectable, ideal life of virtue, and those who created more scandal, exploring the experiences of ‘improper’ women. This enables discussion of how these women are represented and what this reveals about ancient ideas about gender. There are a wealth of famous women in myth and legend. From Helen to Cleopatra, we will enjoy learning about these figures in more depth and exploring how the ancient world thought about these figures, about whom stories are still written.

**Paper 2 (50%): ‘War and Warfare’: Culture and Literature**

The second component of the GCSE Classical Civilisations explores war and warfare in Greece and Rome, with particular focus on Athenian, Spartan and Roman armed forces and the impact of war and warfare in the wider society. This part is divided into two sections: Culture and Literature.

The Culture section enables the student to learn about the military systems in each society through the analysis of literary, visual and material primary sources. They will also study four of the most famous battles of the ancient world: the battle of Thermopylae, the battle of Salamis, the battle of Actium and the campaigns of Trajan against the Dacians. In the Literature section the students will read the work of four ancient writers: Homer, Tyrtaeus, Horace and Virgil, which provide an insight into how war and warfare was viewed and experienced in their time. While Homer and Virgil refer to fighting in their mythological past, the poems of Tyrtaeus and Horace provide a contemporary view to war. All present a picture of the importance of war and warfare to their societies and enables the students to explore ideas of human heroism and dignity through conflict.

You are encouraged to read and research widely, both in books and on the internet and also on archaeological sites and in museums. We normally take a study trip to the British Museum in the Summer Term of Year 10. We also take trips together with Loughborough High School to Classical events - plays in translation, trips abroad; these may also contribute to your understanding of and knowledge about the course.

Classical Civilisation has the advantage of offering a very broad, humanities-based course which can within limits be tailored to the interest of different individuals. It offers great variety and interest, and introduces you to authors and ideas which are the basis of much modern Western European culture; social and political history and literature form the core of the course, but it extends to involve religion, art, architecture and philosophy. Classical Civilisation can be continued at GCE Advanced Level and at university Level.
COMPUTING AND INFORMATION TECHNOLOGY

Head of Department: Mr D Copeman

Exam Board: AQA Specification: Computer Science: (8520)

The most important aspect of Computer Science is problem solving which is an essential skill for life. Along with developing universally useful skills, you will also always be in demand as there is a huge Computer Science skills shortage. The other benefit to this shortage is the average pay for Computer Science graduates which has been some of the highest for any profession for the past few years. This area of study will open doors in almost every type of industry. Due to how embedded computers are becoming in our everyday lives this number growing every year. The opportunities for Computer Scientists in the future are enormous and it will also help you understand the technological world in which you will be living.

The GCSE Computing syllabus gives an insight into what goes on “behind the scenes” in the computing devices you use every day, whether that is a desktop computer, tablet or smartphone. The ability to program devices to make them do what we want to rather than just the use of software is fundamental to the course and to the study of computing in general. The course is made up of two theory examinations, and a programming project called the Non-Examined Assessment. The study of computing is a great way to develop not just practical programming ability with computers, but also to develop critical and analytical thinking skills as well as problem-solving ability.

Programming and NEA
Pupils will begin to learn the programming language Python from their first week. They will learn to program in a number of different scenarios in preparation for both the problem-solving paper and the Non-Examined Project work that is released by the exam board at the beginning of Year 11. This project is a chance to show that programming skill has been acquired.

Paper 1 – Computational Thinking and Problem-Solving.
This exam worth 40% of the GCSE is a written exam that is based on practically based scenarios there will be a mixture of question types from multiple choice to longer answer style questions. The theory content of this paper is based on Algorithms, Programming, Data and Computer Systems.

Paper 2 – Traditional Written Exam
This exam worth 40% of the GCSE is a written exam in the traditional sense based on the theory topics below:

- Computing hardware including the operation of the CPU
- Binary logic
- Memory and storage
- Software types, categories and uses
- Representation of data in computer systems
- Databases and relations
- Networking and the internet
- Ethical and legal aspects
- Cyber security
DESIGN AND TECHNOLOGY

Head of Department: Mr TA Moseley

Exam Board: Pearson Edexcel Level 1/Level 2 GCSE (9-1) Design and Technology

Introduction:

Design and Technology continues to heavily influence the world around us and will hereby remain an exciting and engaging subject. It draws together skills from a broad range of disciplines including Physics, Mathematics, History and Art, and consequently requires pupils to develop their knowledge and abilities in numerous areas.

Whilst there are no prior learning or other requirements for this qualification, it is expected for pupils to have studied the subject at Year 9 given the fundamental skills and knowledge developed during this year. If pupils have not studied the subject before, they may feel at a disadvantage, as the GCSE builds upon what they have been introduced to in earlier years.

Aims and Objectives:

As part of the course, the pupils will learn a wealth of skills and will experience various opportunities. As described by the exam board, some of the primary aims and objectives of this qualification are to enable pupils to:

- Demonstrate their understanding that all design and technological activity takes place in contexts that influence the outcomes of design practice.
- Develop realistic design proposals as a result of the exploration of design opportunities and users' needs, wants and values.
- Use imagination, experimentation and combine ideas when designing.
- Develop the skills to critique and refine their own ideas while designing and making.
- Communicate their design ideas and decisions using different media and techniques, as appropriate for different audiences at key points in their designing.
- Develop decision-making skills, including the planning and organisation of time and resources when managing their own project work.
- Develop a broad knowledge of materials, components and technologies and practical skills to develop high quality, imaginative and functional prototypes.
- Be ambitious and open to explore and take design risks in order to stretch the development of design proposals, avoiding clichéd or stereotypical responses.
- Consider the costs, commercial viability and marketing of products.

Assessment overview:

The GCSE is assessed through the following two components:

Component 1 (Paper code: 1DT0/1F)
Written examination: 1 hour and 45 minutes
50% of the qualification

The paper consists of two sections. Section A (worth 40 marks) is assessed on the core content of the qualification which concerns a variety of topic areas including electronics, polymers, mechanisms, textiles and new and emerging technologies. Section B (worth 60 marks) is assessed specifically on the material category of timbers.
This paper includes calculations, short-open and open-response questions, as well as extended-writing questions. Pupils receive weekly theory lessons in both Years 10 and 11 to equip them with the skills and knowledge required to complete this assessment, which is completed at the end of Year 11. There are regular assessments during the course of both years to gauge learner progression.

Component 2:
Non-examined assessment
50% of the qualification

The assessment requires pupils to work through a design process where they will produce a design, make and evaluate project. This requires the pupils to complete a portfolio which will contain approximately 30 sides of A3 paper and accompanying prototype that the pupils have manufactured. The assessment is completed at the school and is internally assessed and externally moderated.

There are four parts to the assessment:

- **Investigate**
  This includes investigation of needs and research, and a product specification
- **Design**
  This includes producing different design ideas, review of initial ideas, development of design ideas into a chosen design, communication of design ideas and review of the chosen design
- **Make**
  This includes manufacture, and quality and accuracy
- **Evaluate**
  This includes testing and evaluation.

During Year 10, pupils will complete a project of similar nature where they will respond to a specific context. Although this is not the one that will be submitted, it provides pupils with an essential opportunity to develop their skills before beginning the actual assessment at the end of Year 11 in response to a context provided by the exam board. This project will require pupils to determine their own project direction in consultation with a specific user or client, and will continue for the duration of Year 11 before its final submission during the Spring Term.

Facilities:

The Department is very well equipped to help the pupils realise their ideas. We have specific wood and metal workshops, which have a wealth of tools and equipment. These include centre lathes and a milling machine. We also have various computer controlled devices including a CNC microrouter and laser cutter. The Dept. also features a 3D printer, which the pupils are encouraged to use as part of their prototype outcomes.

Alongside the workshops, we have two computer suites which feature the modelling software, Solidworks. This is heavily used in industry and this educational addition enables pupils to develop their skills in this area.

Further information:

Due to the nature of the subject and the iterative nature of the project work, the course is very demanding in terms of time and pupils should be expected to spend some of their free time within the Department, particularly in Year 11. There are many opportunities for them to do so during
the course of the school week as the Department is very keen to support the pupils in fulfilling their potential.

It is also important to note that an additional cost of £15 per project is also added to Schools Fees towards material costs.
GCSE Option Choices

DRAMA

Head of Department: Mrs SE Bruton

“Logic will get you from A to B. Imagination will take you everywhere. The true sign of intelligence is not knowledge but imagination.”

-- Albert Einstein

Exam Board: Edexcel

Some people downplay the importance of the creative arts within the academic world and the ‘real’ world of work. However, knowledge stands alone. It is applied knowledge which we call intelligence. This is the intelligence, based on imagination which leads to great scientific discoveries, new products, innovations, exciting journalism and theatre.

Those who participate in the dramatic process develop an emotional intelligence that should not be undervalued, and they develop transferable skills which are of immense value in every single area of their lives. Communication, leadership, group work, problem-solving and presentation skills are fundamental in most current careers.

Why do we offer Drama at LGS?
Not only does Drama develop a balanced intellect, it is part of an excellent platform for training in life. Taken in collaboration with a range of other subjects, Drama actively inspires you to grow into outgoing and confident adults. The course develops your ability to work within a group and, above all, it hones those techniques that allow a chosen few to present themselves confidently to an audience. The course is demanding and academically rigorous, allowing the pupils to develop skills that have huge benefits to them as individuals in all aspects of their studies and life beyond.

What is GCSE Drama?
It is an essentially practical course which aims to introduce pupils to all aspects of Drama and the Theatre, as performers, directors, designers and critics. It focuses on practical work that reflects 21st century theatre practice and developing skills that support progression to further study of Drama and indeed a wide range of other subjects. The course aims to develop your interest in Drama and Theatre as participants and informed members of an audience. You will also develop knowledge and understanding of major influences in theatre. Ultimately, the GCSE Drama course offers a range of opportunities to develop Drama and Theatre skills creatively and imaginatively, integrating both theory and practice, as well as developing communication, group work and independent learning skills.
Key subject aims
The Edexcel GCSE in Drama encourages pupils to:

- Develop a personal interest in Drama and be inspired, moved and changed by studying a broad, coherent, satisfying and worthwhile course of study
- Work imaginatively and creatively in collaborative contexts, generating, developing and communicating ideas
- Consider and explore the impact of social, historical and cultural influences on drama texts and activities
- Reflect on and evaluate their own work and the work of others
- Develop a basis for their future role as active citizens in employment and society in general, as well as for the possible further study of Drama
- Actively engage in the process of study to develop as effective and independent learners and as critical and reflective thinkers with enquiring minds

What will I do on the course?
Component One: Devising [Coursework: 40%]
Pupils will create and develop a devised piece from a stimulus. They can respond as either designer or performer, pupils will learn that it is through practical engagement that understanding might be enriched. Stimuli, chosen by the teacher, will allow pupils to deepen their understanding of the chosen theme and come to appreciate how the dramatic medium and strategies can be used to create drama form and communicate meaning. Assessment is also via portfolio.

Component Two: Performance from Text [Coursework: 20%]
This component is concerned with the exploration of one complete and substantial play, which is decided by your teachers based on your work over the two years. The purpose is to enable you to develop knowledge and understanding of the ways in which performers and designers use the medium of drama to communicate their ideas to an audience. You will be assessed on the performance of or design for, two key extracts from a text. This work is performed to an audience including a visiting examiner and can be group, solo and/or partner based for assessment.

Component 3: Drama Performance [Written examination: 40%]

Section A consists of one question broken into five parts, short and extended responses. We study 1984, a play version of Orwell’s futuristic novel concerned with the Ministry of Truth, Big Brother and Room 101. This Component also requires you to see a variety of different theatre productions for Section B, enabling pupils to produce a live theatre evaluation from a performance of your choice. Pupils answer two questions, which require analysis and evaluation of the performance seen; pupils are allowed to bring in notes up to a maximum of 500 words.
GEOGRAPHY

Head of Department: Mr MD Butcher

Examination Board: Cambridge IGCSE (0976)

Pupils studying Geography for IGCSE will follow the Cambridge IGCSE Specification. This specification highlights the critical importance of Geography in understanding the world and for stimulating an interest in places, whilst providing a very solid foundation for the study of Geography at AS and A Level.

The content focuses on current issues, such as climate change, globalisation, economic progress, urban regeneration and management of world resources, whilst also providing an insight into the processes that shape our planet.

A main focus of the course is to develop an understanding of physical and human processes and factors that produce diverse and dynamic landscapes as they change over time, often due to the work of man. This includes the interdependence of physical environments and the interaction between people and the environment, as well as an understanding of the need for sustainable management of both physical and human environments. Pupils will learn to appreciate the differences and similarities between people, places and cultures leading to an improved understanding of societies and economies.

Teaching will make use of varied resources, including maps and visual media, as well as more complex technologies such as GIS (Geographical Information Systems) and remote sensing, to obtain, present and analyse information. Routine lessons and fieldwork will develop essential transferrable skills: literacy, graphicacy and numeracy, problem-solving, decision making, synthesising ideas, identifying issues and communicating findings. Throughout the course, a strong emphasis is placed upon the development of cartographical and ICT skills, the promotion of independent learning and teamwork.

The course is linear and there is no controlled assessment, but pupils will be involved in fieldwork, the collection of primary data and report writing based on first-hand data collection. Fieldwork visits are a fundamental element of the course as they are a means of contextualising pupils’ learning and contributing to their cognitive development, thus enabling pupils to understand the relationships between geographical factors. Physical and human fieldwork is conducted in the local area and the opportunity to visit Iceland is invaluable in helping to promote the development of a wide range of geographical skills.
Syllabus Content

There are three curriculum themes which contain a number of topics:

**Theme 1: Population and Settlement:**
Population dynamics;
Urban settlements.

**Theme 2: The Natural Environment:**
2.1 Earthquakes and volcanoes
2.2 Rivers
2.3 Coasts
2.4 Weather
2.5 Climate and natural vegetation

**Theme 3: Economic development:**
Iceland: Land of Fire and Ice
3.1 Development
3.2 Food production
3.3 Industry
3.4 Tourism
3.5 Energy
3.6 Water
3.7 Environmental risks of economic development

**Assessment**
The course is assessed using the 9-1 grading structure. Three written examinations are taken at the conclusion of the course in Year 11:

**Paper 1 - Geographical Themes:** The paper tests the pupils' knowledge of the elements contained within the three themes studied, including reference to case study examples. Candidates answer three questions in total, one question selected from a choice of two within each of the three themes. Questions are structured with gradients of difficulty and are resource-based, involving problem-solving and free response writing. Each question is worth 25 marks and the total for the paper is 75 marks (weighted to 100). The paper accounts for 45% of the total marks and is 1-hour 45 minutes in duration.

**Paper 2 – Geographical Skills:** The paper tests the candidates' skills of application, interpretation and analysis of geographical information. The first section assesses cartographic skills, through the interpretation of a 1:50000 or 1:25000 topographical map. The second section comprises of five short 8-mark questions which assess candidates' ability to complete and interpret data response material in graphical, diagrammatic, photographic and written form. Questions do not require specific information of place. The total for the paper is 60 marks; it accounts for 27.5% of the total marks and is 1-hour 30 minutes in duration.

**Paper 4 - Alternative to Coursework:** Candidates answer two compulsory questions, completing a series of written tasks based on a topic within any of the three themes. The questions involve an appreciation of a range of techniques used in fieldwork studies. Questions test the methodology of questionnaires, observation, counts, measurement techniques, and may involve developing hypotheses appropriate to specific topics. The processing, presentation and analysis of data will be tested. To prepare the pupils thoroughly for this paper, we conduct a fieldwork day and series of practical tasks that will provide them with a secure grasp of the route to geographical enquiry. The total for the paper is 60 marks. The paper accounts for 27.5% of the total marks and is 1-hour 30 minutes in duration.
A more detailed outline of the specification can be found on the Cambridge International Examinations (CIE) website: Cambridge IGCSE Geography (0976)

The interdisciplinary nature of the subject and the range of topics studied in IGCSE Geography ensure that there are strong cross-curricular links with other subjects, notably the Sciences. As a key facilitating subject Geography is almost unique in the range of key transferrable skills that pupils gain from studying it. This all helps to ensure that Geography pupils are extremely well prepared for a variety of careers, ranging from Medicine to Law, Accountancy, Business and Engineering. Furthermore, we hope that through studying the subject, pupils will be inspired to become global citizens by evaluating their place in the world and exploring their own values and responsibilities to other people and to the environment.

Geography is a popular subject and it typically attracts a large cohort of pupils. With commitment and hard work, pupils can expect to achieve a very good grade. Our recent results are very encouraging: 85% A*-B and 53% A*-A.

Looking forward to the Sixth Form, the IGCSE specification provides an excellent platform for a range of subjects and it integrates very effectively with the Cambridge AS and A Level (0976) course.
HISTORY

Head of Department:  Mr CW Blackman

Exam Board:  Edexcel IGCSE

Pupils study the Edexcel IGCSE syllabus that focusses on the world-changing events of the 20th century. This gives pupils the opportunity to gain an insight into the events which have helped to form the world in which we live. LGS History results are excellent. In 2018 55% of pupils gained A* with a further 28% at A grade.

Pupils will cover four exciting topics over the two years:

- The First World War
- Hitler’s Germany
- Stalin’s Russia
- The Middle East 1917-2012

In addition to teaching about the past, IGCSE History now deals with the acquiring of historical skills and the handling of information and its use. It is no longer simply the learning of large amounts of factual information and its regurgitation; candidates are taught to analyse a great variety of historical evidence in order to make reasoned judgements and answer a range of questions presented to them.

IGCSE History pupils develop the ability to read quickly and effectively, think deeply about a subject, develop cogent arguments and communicate clearly. Historians are well prepared for employment, with particularly good writing skills, that transfer easily into a variety of career paths. An IGCSE in History opens the door to a range of jobs in the Media, Business, Politics and Law.

To dispel the myth that IGCSE History is a constant stream of long essays, I would like to reassure you that in the two exams there are a variety of question styles. Pupils build up marks through a series of short written answers and the longest response would be far less than an A4 page of writing. The key to success at IGCSE History is deploying knowledge efficiently and succinctly.
Topics covered:

The First World War

We start off Year 10 by looking at the First World War. As well as looking at the reasons for the war breaking out, trenches and new weaponry, we study some of the major battles such as Passchendaele, Gallipoli and Amiens as well as considering the naval aspects of the war.

Stalin’s Russia 1924-1953

Stalin, the self-styled ‘Man of Steel’, transformed Russia from a backwards nation that had been badly beaten in the First World War into a superpower with nuclear technology by the time he died in 1953. We look at how Stalin ruthlessly grabbed power in the 1920s by exiling and killing rivals, how he brutally crushed any opposition to his rule in the Great Terror of the 1930s and how his leadership and industrial policies led to the Russian defeat of the Nazis in the Second World War. Stalin killed 20 million of his own people during his rule yet Russians openly wept when he died in 1953. This period of Russian history is utterly captivating and must be studied!

Hitler’s Germany

To complement the study of Stalin’s Russia, we look at the other major European dictator of the 1930s, Adolf Hitler. Pupils study the incredible story of his rise from unemployed artist to German leader in the space of 10 years. We also study the horrors of Nazi rule including the use of death camps and a secret police. Nazi policies towards the Jews and the Holocaust are looked at as well as studying the Second World War and the impact of Allied bombing on Germany. Again, this is captivating and indispensable history.
The Middle East 1917-2005

The final topic covered is a study of the long-running crisis in the Middle East. We feel this topic is a great opportunity for pupils to gain a real understanding of why there is ongoing tension between Israel and the Arab world. The course traces the roots of the conflict from the end of the First World War, through to the creation of Israel and the Suez Crisis of 1956. We then move on to the Arab-Israeli conflicts of 1967 and 1973, superpower involvement in the Middle East and the attempts to find a lasting peace, 1979-95. Once again, this is a superb course that the pupils will find fascinating and will give them an acute understanding of a major contemporary political issue.

If you have any questions regarding the course, please contact Mr Blackman or any other member of the History Department.
GCSE Option Choices

MODERN LANGUAGES
(French, German & Spanish)

Head of Department: Mr MM Jackson

Exam Board: AQA French (8658), German (8668), Spanish (8698)

This new qualification (from September 2016) is linear. Linear means that pupils will sit all their exams at the end of the course.

Pupils study all of the following themes on which the exams are based:

- Theme 1: Identity and culture
- Theme 2: Local, national, international and global areas of interest
- Theme 3: Current and future study and employment

Exams
GCSE French/ German/ Spanish all have a Foundation Tier (grades 1–5) and a Higher Tier (grades 4–9). **Pupils must take all four-question papers at the same Tier.** All question papers must be taken in the same series.

Listening
Written exam: 35 minutes (Foundation Tier), 45 minutes (Higher Tier) 25% of GCSE.

Questions
Foundation Tier and Higher Tier
- Section A – questions in English, to be answered in English or non-verbally
- Section B – questions in French/ German/ Spanish, to be answered in French/ German/ Spanish or non-verbally.

Speaking
Non-exam assessment
7–9 minutes (Foundation Tier) + preparation time.
10–12 minutes (Higher Tier) + preparation time. 25% of GCSE.

Questions
Foundation Tier and Higher Tier
The format is the same at Foundation Tier and Higher Tier, but with different stimulus questions for the Photo card and different stimulus materials for the Role-play. The timings are different too:
- Role-play – 15 marks (2 minutes at Foundation Tier; 2 minutes at Higher Tier)
- Photo card – 15 marks (2 minutes at Foundation Tier; 3 minutes at Higher Tier)
- General conversation – 30 marks (3–5 minutes at Foundation Tier; 5–7 minutes at Higher Tier).

Reading
Written exam: 45 minutes (Foundation Tier), 1 hour (Higher Tier) 25% of GCSE
Questions

Foundation Tier and Higher Tier
- Section A – questions in English, to be answered in English or non-verbally
- Section B – questions in target language, to be answered in French/German/ Spanish or non-verbally
- Section C – translation from French/German/Spanish into English (a minimum of 35 words for Foundation Tier and 50 words for Higher Tier)

Writing
Written exam: 1 hour (Foundation Tier), 1 hour 15 minutes (Higher Tier)
25% of GCSE

Questions

Foundation Tier
- Question 1 – message (pupil produces four sentences in response to a photo) – 8 marks
- Question 2 – short passage (pupil writes a piece of continuous text in response to four brief bullet points, approximately 40 words in total) – 16 marks
- Question 3 – translation from English into French/German/ Spanish (minimum 35 words) – 10 marks
- Question 4 – structured writing task (pupil responds to four compulsory detailed bullet points, producing approximately 90 words in total) – there is a choice from two questions – 16 marks

Higher Tier
- Question 1 – structured writing task (pupil responds to four compulsory detailed bullet points, producing approximately 90 words in total) – there is a choice from two questions – 16 marks
- Question 2 – open-ended writing task (pupil responds to two compulsory detailed bullet points, producing approximately 150 words in total) – there is a choice from two questions – 32 marks
- Question 3 – translation from English into French/German/Spanish (minimum 50 words) – 12 marks
MUSIC

Director of Music: Mr R West
Head of Academic Music: Ms N Bouckley

Exam Board: CIE (0978)

Music IGCSE is a lively and fascinating course, where pupils learn to listen to, perform and compose music, encouraging aesthetic and emotional development, self-discipline and, importantly, creativity. As a result, pupils enhance their appreciation and enjoyment of music, an achievement that forms an ideal foundation for future study and enhances lifelong musical enjoyment.

It provides an excellent knowledge base for pupils intending to study Music at AS/A Level and beyond, but it is equally fascinating as a course in its own right, giving pupils a greater depth of understanding to the music that they encounter in everyday life.

The course develops the skills of composing, performing and listening over three components:

**Listening (40%)**
A written paper based on a number of recorded extracts. Questions cover periods of music history, aspects of world music and study of a classical set work.

**Performing (30%)**
Pupils prepare two performances (one as a solo; one as a member of a group) and record both performances in March of Year 11.

**Composing (30%)**
Pupils select two compositions from their work over the course and produce scores and a recording of each composition at the end of the course.

If you enjoy Music and want to discover more about the subject, IGCSE Music would be a great choice for you. Although performing is a significant part of the course it is not vital that you can perform at a high level. However, we would expect you to be having lessons on an instrument or voice for the duration of the course to support your performing. It is hoped that pupils studying for IGCSE Music will make full use of the Music School’s facilities to develop their musical skills through the extensive programme of choirs, ensembles, lectures and workshops.
RELIGIOUS STUDIES

Head of Department: The Revd DR Owen

Exam Board: Edexcel

What the academic subject is all about
Religious Studies is not about making a person ‘religious’, it is about enabling one to think for oneself. It is about people, their lives and the issues they will face when they leave school and go into the multi-ethnic, multi-faith society which is the UK.

Religious Studies involves learning about philosophical issues, people’s beliefs, the nature of the society we live in and the ‘big questions’ in life which generate debate. It enables one to gain an understanding of what causes prejudice, hatred and violence in our world. It also affords pupils the opportunity to explore philosophical, religious and moral beliefs in a safe and questioning environment.

We offer the Edexcel Religious Studies B option which consists of three areas of study from which pupils study two, which are then assessed through two externally set examination papers. Pupils are required to select a different religion for each area of study that they follow. We have chosen to study Christianity and Islam.

Paper 1: Area of Study 1 - Religion and Ethics - Christianity (Paper code: 1RB0/1A – 1G)
Written examination: 1-hour and 45 minutes, 50% of the qualification, 118 marks
Content overview: Pupils must study all four content sections based upon Christianity.

- Belief in God
- Marriage and the Family
- Living the Religious Life
- Matters of Life and Death

Assessment overview
- The assessment consists of four questions.
- The paper may include short open response and extended writing questions.
- The paper will assess spelling, punctuation and grammar (SPaG) and the use of specialist terminology, and will contribute a maximum of 5% of marks towards the overall weighting for this paper.

Paper 2: Area of Study 2 - Religion, Peace and Conflict – Islam (Paper code: 1RB0/2A – 2G)
Written examination: 1-hour and 45 minutes, 50% of the qualification, 118 marks
Content overview: Pupils must study all four content sections based upon Islam.

- Belief in God
- Crime and Punishment
- Living the Religious Life
- Peace and Conflict

Assessment Overview
- The assessment consists of four questions
- The paper may include short open, open response and extended writing questions
The paper will assess spelling, punctuation and grammar (SPaG) and use of specialist terminology and will contribute a maximum of 5% of marks towards the overall weighting for this paper.

**Full Value**
Universities all accept Religious Studies as a supporting subject of full academic value, welcoming the evidence that an applicant is able to approach issues in a clear and open-minded manner, analyse conflicting arguments, understand deeply held moral and religious convictions and express their own personal conclusions in a thoughtful and lucid manner. Prospective employers appreciate the emphasis on critical thinking, especially in careers which require an understanding of others, and the ability to relate to people of different backgrounds.

**Diverse ambitions**
At LGS in recent years, the subject has been enjoyed by pupils with ambitions as diverse as medicine; because of the emphasis on ethics, the armed forces, the law; because of the need to think critically, journalism, teaching, and the natural sciences. It is also a popular subject at A Level, and some go on to university to read subjects directly related to it in the form of Philosophy, Theology, Religious Studies, Politics and Economics.
**PHYSICS**

**Head of Department:** Mr GJ Kerr

**Exam Board:** AQA (8463) **Course:** GCSE Physics

GCSE study in Physics provides the foundation for understanding the material world. Scientific understanding is changing our lives and is vital to the world’s future prosperity. All pupils should learn essential aspects of the knowledge, methods, processes and uses of science. They should gain appreciation of how the complex and diverse phenomena of the natural world can be described in terms of a small number of key ideas that relate to the sciences and that are both inter-linked and of universal application.

This new specification contains a broad range of Physics topics that are designed to engage and stimulate pupils’ interest, whilst providing the knowledge and understanding required for progression to A Level. The specification emphasises scientific knowledge, the application of science and the scientific process.

**Subject content**

1. Energy
2. Electricity
3. Particle model of matter
4. Atomic structure
5. Forces
6. Waves
7. Magnetism and electromagnetism
8. Space physics

In the GCSE course, there will be no module exams, thus ensuring the maximum amount of time for teaching Physics and greater scope for practical work. At the end of Year 11 there will be two 1 hour 45 minute examinations each contributing 50% towards the final mark. There is further information regarding this qualification available on the AQA website at [www.aqa.org.uk/subjects/science/gcse/physics-8463](http://www.aqa.org.uk/subjects/science/gcse/physics-8463)

GCSE Physics is a highly regarded qualification which is designed to develop analytical and investigative skills. It is an essential foundation for any pupil wishing to study the subject to AS or A Level, and is vital for those considering a career in the physical sciences or engineering. The subject offers a crucial insight into how the universe works and even how it came into being.
GAMES

Director of Sport and Physical Education: Mr MSE Broadley

Games in the "Middle School" continues with the main objectives undertaken in the previous three years of acquiring a range of physical skills and experiences related to games and sport, and to develop knowledge and understanding of human performance through participation in a range of physical activities.

The general aim of the Games syllabus is to attempt to develop and enhance the following qualities in each pupil:

- Self-confidence
- Co-operation
- Co-ordination
- Alertness
- Determination
- Agility
- Strength
- Potential
- Health
- Respect
- Enjoyment
- Teamwork

In order to attempt to achieve these aims, we organise a comprehensive timetable including a treble period of Games each week:

(a) The Games afternoons are organised around the School’s main sports of Rugby, Hockey, Cross-Country, Cricket, Athletics and Tennis. For pupils not involved in these there are other options.

(b) There is also a wide range of extra-curricular activities offered at lunchtimes and evenings, such as Sports team practices, Cross-Country, Badminton, Swimming, Squash, Fencing, Weight Training, Circuit Training, Basketball, Golf, Martial Arts, Boxercise, Cricket Nets, etc. These activities are organised and led by qualified LGS staff or outside Coaches. Pupils who attend these activities can build upon their Thomas Burton Award cards - an initiative to record and reward those contributing to extra-curricular activity.
PERSONAL, SOCIAL, HEALTH AND ECONOMIC EDUCATION

Head of Department: Dr C Livingstone

All pupils in the Middle School take part in a course of Personal, Social, Health and Economic Education which has four main aims:

1. To prepare pupils for the experiences and responsibilities of life beyond the school gates.

2. To enable pupils to make informed choices in matters of personal and social relationships.

3. To develop the skills of receptiveness, sensitivity, co-operation and self-awareness in making these choices.

4. To make pupils aware of resources, both in school and in the general community, to assist them.

PSHE sessions are weekly, covering such issues as Alcohol Awareness, Money Management, Entrepreneurship, Careers, Mental Health, and Sexual Relationships. Citizenship studies include Politics and International Relations, and Emergency First Aid. The intention is not only to provide information relevant to decision making, for instance information about units of alcohol, or how interest rates affect bank loans, but also to develop an awareness of the range of options relevant to each decision. Through group work, individual reflection and class discussion pupils develop the skills of assertiveness and critical thinking key to enabling them to recognise how they are influenced by their peers, or the media, and nevertheless to make their own decisions.
EXTRA-CURRICULAR

Head of Extra-Curricular: Dr AD Waters

Extra-curricular activities are an integral part of the educational experience provided by the school. The wide range of activities on offer aims to develop intellectual curiosity beyond the confines of the academic syllabus, to stimulate creativity and cultural awareness and to provide a physical challenge. The Thomas Burton Award runs from September in Year 10 through December of Year 11. We continue with the emphasis of Hands, Head and Heart but rather than looking at breadth as in the lower school, pupils are encouraged to really develop their passions. As well as developing resilience and the first introduction of leadership, all pupils will also do a mini-project to help them develop their skills as independent learners for further study post-16. This will become increasingly important, as evidence of all-round development becomes needed in leaving references and university application forms.

From Year 10 upwards, Thursday afternoons are timetabled for ‘Enrichment’. With the exception of those pupils wishing to take an extra GCSE in Latin, Music and French, all pupils in Year 10 enrol into CCF. Most pupils decide to stay into Year 11, however, if they wish to leave there are other opportunities such as a Sports Leadership course and STEM projects.
THE COMBINED CADET FORCE - CCF

Contingent Commander: Major D Murphy

Overview
Our aim is to develop personal responsibility, leadership and self-discipline. Becoming a cadet can be a life-changing experience. It will give you the opportunity to take part in a huge range of exciting and adventurous military-themed activities. Whether that is flying a plane, completing an army obstacle course, or learning to sail, there is something for everyone. The CCF is an educational partnership between the School and the Ministry of Defence, and we operate Royal Navy, Army, and Royal Air Force sections. Alongside the three military sections, we also offer Corps of Drums as a Thursday enrichment option or as a lunchtime club.

Whichever section you join, you will quickly build important qualities such as teamwork, confidence and self-discipline, as well as later having the opportunity to take on leadership roles. CCF offers you a chance to get to know a wide range of people from across the Foundation, and work together to take on new challenges.

Sections
Each of the four sections naturally has its own flavour. The Royal Navy Section will sail as much as possible during the warmer months and during those periods cadets will return to school later in the afternoon, typically between 17:00 and 18:00 – please bear this in mind when applying. The Army Section training is focused on basic infantry fieldcraft tactics, team building, and rifle skills, and Army cadets typically form the bulk of the prestigious Patrols Platoon and the school shooting team. The RAF Section endeavours to get its cadets off the ground at least once a year (more for those attending camps), most commonly in gliders or light aircraft, and some cadets can earn their solo flying wings and even a private pilot’s licence via a Flying Scholarship. On the ground, training covers leadership, principles of flight, and developing knowledge of the RAF.

The fourth option is the Corps of Drums. You do not need to be a musician to join, just willing to learn a new skill! The Corps of Drums forms the centrepiece of our Remembrance Parade and our Annual Review. You will learn how to play the snare drum, fife, or bugle while marching, with occasional opportunities to take part in other activities such as archery and air rifle shooting. Field Days are usually spent with visiting instructors (in 2018 this was a bandmaster of the RAF Band). Unlike the military sections, there is no joining fee or subscription for the Corps of Drums. Alternatively, you may join one of the military sections and also be a member of the Corps of Drums by attending a weekly lunchtime practice.

As part of the options process, you will be asked to bid for your preferred section - while we do our best to accommodate your first choice, availability of staff and resources may mean that you will have to join your second-choice section. Please be aware that the number of places in the Royal Naval Section in particular is strictly limited and you should assume that your second choice will be the most likely outcome.

Basic Training
On joining one of the three military sections, you will be assigned to a unit of around a dozen cadets, who will be your team for much of the first year. To begin with, you will be shown how to wear your uniform correctly, and be taught how to march as part of a team. This fundamental skill has several functions – prime amongst these is developing the responsiveness and self-discipline required to undertake future activities safely, whether out on the water, on the shooting range, or in the air. More immediately, it enables you to appear with pride and confidence in public as members of the Contingent on Remembrance Sunday in November,
and the spectacular Annual Review in the Spring. Basic training across all three sections is wide-ranging and includes First Aid, map and compass skills, teambuilding tasks, and safe use of the cadet rifles. You will also follow a training syllabus specific to your section, with the intention of passing your basic training tests by the end of your first year.

**Further training and leadership roles**

After the first year of basic training, you will develop specialised skills within your Sections, such as joining the Air Squadron Trophy team, or going on exercise with Patrols Platoon. The most committed and promising cadets can expect to take on leadership roles as Non-Commissioned Officers. This typically involves planning, delivering, and reviewing weekly learning activities for junior cadets – we expect our NCO's to be able to take ownership of much of the Contingent’s training. Our aim is for emerging leaders to develop the practical skills and personal confidence that will make you a success in the workplace after school. The most senior cadets will regularly chair meetings, plan training programmes, discuss performance and risk management, and give presentations – very much the kind of skills you may see in a management meeting in most careers in the ‘real world’. They will also develop the vital soft skills of being a thoughtful and inspiring role model to others. Many employers are ex-cadets themselves, and instantly recognise the value of having been a Non-Commissioned Officer in the CCF.

**Ethos**

The old adage ‘the more you put in, the more you get out’ is extremely apt in the CCF. All cadets make a commitment for at least one academic year, including Remembrance Sunday and Annual Review. Beyond the normal Thursday afternoon training sessions and the two Field Days per year, the best place to put your skills into practice is to attend a weeklong Summer Camp. This is the highlight of the year for those who attend – interesting, exhausting, and great fun! Additionally, the MOD runs superb leadership courses, which boost the skills of our Non-Commissioned Officers and allow them to apply for further promotion. Other courses during weekends and holidays range from powerboating to parachuting, canoeing to climbing, and signals to sailing. A number of cadets incorporate their CCF training into the BTEC Diploma in Public Services or an Institute of Leadership and Management qualification.

We are not a military recruiting organisation, although we can provide advice should you be interested in a career in defence in the future. Equally, while the feel of a Thursday afternoon will be different from an academic lesson, the normal LGS standards of dress, behaviour, and commitment apply, just as they would in any other school activity.

**Costs**

The Ministry of Defence's financial contribution runs to several thousands of pounds annually to enable the Contingent to offer a wide range of activities to its cadets, however this does not cover all of our costs (for instance, the service requirement for a contribution towards rations and transport) and therefore there is in an initial joining fee of £100 and subsequent annual subscriptions of £40 (there is currently no charge for the Corps of Drums option). Cadets also need to buy their own boots, but all other clothing and equipment is supplied and is only paid for if not signed back in at the end of your cadet career (damaged, ill-fitting or worn items are swapped free of charge). Additional camps and courses sometimes involve a further cost, depending on the activity, but are always very good value. No cadet should miss the opportunity to take part because of financial difficulty, nor feel that other interests automatically exclude them - the Contingent Commander will be glad to discuss any such matters if necessary.

The CCF is a fantastic opportunity for you to try something that you would not normally think of doing. By approaching it with energy and enthusiasm, you can expect to learn important life skills and have a great time in the process!
THE DUKE OF EDINBURGH AWARD SCHEME

Award Officer: Mr PT Moffett

Since 1979 the School has been an Independent Operating Authority of the Duke of Edinburgh's Award. Nearly 200 pupils take part in the Award, including some who have left school but continue to work for their Gold Awards. Up to the end of 2007 pupils had gained more than 1,500 Awards, including 250 Golds.

Pupils join at Bronze level towards the end of Year 9 and can start on their activities at the beginning of Year 10. Most complete their Bronze Award within 12 months and many then carry on to Silver and Gold. It is important to note that the Award is not a timetabled activity; everything has to be done in the participants' own time.

A meeting to introduce the Award to all Year 9 pupils is held at the start of the Summer Term. An outline of the scheme, an introductory letter and joining forms will be available then. Pupils requiring further information can obtain it from Mr Moffett, the School's Award Officer.

VOLUNTARY SERVICE UNIT

VSU Coordinator: Dr NM Ebden

Year 11 have the option of joining the Voluntary Service Unit (VSU), on a Thursday afternoon. This involves working in pairs at a placement in a charity shop in Loughborough Town Centre or visiting a local residential home in small groups, or possibly even visiting an elderly person in their home.

The VSU has a long-standing tradition of hosting a variety of events over the academic year. These include an October Field Day, volunteering with local groups, (most recently Leonard Cheshire Disability or Charnwood Forest), the Christmas Hamper Appeal, (where pupils help to collect donations, fill the hampers and then deliver them to elderly members of the local community), raising funds via the Easter Egg Raffle and at the end of the year the VSU play host to a number of elderly guests on our Summer outing to a local place of interest.

There is a great sense of involvement and participation in the VSU and the rewards are limitless. Everyone involved enjoys being part of a worthwhile team that benefits the local community and provides individuals with a real sense of purpose. Pupils have the opportunity to register on the V50 Award scheme, where the number of hours of voluntary work are logged and is nationally accredited. This is particularly useful for those who are considering a possible future career in Medicine or working in the service industry.
STAGE CREW

Head of Department: Mrs SE Bruton

The Stage Crew meets on Thursday afternoons. This is a group of pupils from Years 11 and 12 who manage and run the Drama Studio. It is their job to dismantle or build the stage, build the set and run the many Drama events that go on in the Studio. Under the guidance of Mr Viccars, a qualified Theatre designer and technician, you will take a director’s idea for a set, build a model for it, build the real set from the model, use different techniques for paint finishes and learn how to make props. You will also run the backstage areas while a performance is running, learning how to properly cue the performance through the intercom system.

The number of places on Stage Crew is extremely limited. We need responsible pupils for this, as you will often be using power tools, or working at height, and you will have access to the various Drama areas in the school, where no other pupils are allowed to go. As an actor, you only see the one production you are in. As Stage Crew, you are involved in all of them. As we say, “Actors come and go; the Stage Crew goes on forever”.

CAREERS

Head of Department: Mr RJ Lightfoot

With option choices needing to be made shortly, the Careers Department aims to highlight the importance of giving serious consideration to their subject choices. Whilst recognising that some pupils may already have long-term career goals and aspirations we would strongly encourage them to make their decisions based upon genuine interest and a realistic assessment of their ability.

During the next two years, the aim is for progressive growth in occupational and self-awareness. In order to help accomplish this we offer a diverse programme of support and activities that include the following:

- Psychometric profiling in Year 10 conducted by ISCO (the Independent Schools Careers Organisation).
- A post-profiling interview with a qualified careers professional in Year 11.
- An ongoing programme of taught careers sessions designed to support independent research.
- A biannual careers convention (to which parents are welcome).
- A week of work experience at the end of Year 11.
- Access to a range of careers experience courses in Year 12.
- Additional support for HE applications where needed.
- Targeted support (in school) for pupils interested in careers in the armed services by Service Liaison Officers.
- Access to a broad range of IT resources and materials that are held on the school computer network.
- Access to careers materials in the Library.
## GCSE Option Choices

### GCSE RESULTS 2018

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