



(I)GCSE Subjects for September 2019

A Guide for Pupils and Parents

CHARTERHOUSE

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The Curriculum

REMOVE OPTIONS 2019

In the Remove and Fifth Form the compulsory examined core of the curriculum is comprised of **English Language, English Literature and Mathematics.**

It is anticipated that the significant majority of Carthusians will study all three Sciences (**Biology, Chemistry and Physics**) to IGCSE level. However, to increase flexibility for the small number of pupils for whom this may not be appropriate, it will be possible to opt for two out of the three sciences to allow the study of another option subject at IGCSE. It should be noted that not studying a science at IGCSE level will preclude the study of that Science in the Specialists. Also, if it is likely the pupil will study any one of the Sciences at Specialist level, then the complementary nature of the sciences at IGCSE mean it would be desirable to study all three Sciences at IGCSE.

Any pupil wishing to study only two sciences should expect to be asked to have a conversation with a member of the academic management to check that their options are appropriate, given their profile.

Either four or five additional subjects are chosen from the list below; at least one of these choices must be French, German or Spanish.

Art, Classical Greek, Computer Science, Design and Technology, Geography, History, Latin, French, German, Spanish, Music and Religion, Philosophy and Ethics.

Public examinations in all subjects are taken at either GCSE or IGCSE at the end of the Fifth Form. Departments choose the best course for their subject and the two qualifications are viewed as equivalent for the purposes of university entrance. The Remove option arrangements are planned according to demand and, although it is usually possible to accommodate all requested subject combinations, we do occasionally need to revisit a boy's options where it has simply not been possible to construct the timetable to provide his particular choices.

Boys are divisioned separately by level of attainment in Mathematics and, where possible or desirable, in languages, Sciences and English; all other subjects are typically mixed ability groups, depending on a pupil's combination of options.

Some information about the available (I)GCSE courses in all subjects is given below. Further information is available from the Head of Department of the subject concerned or from the subject teacher. Boys will be asked to make their subject choices **by Wednesday 1st May.**

The Core Subjects

English Language

(Edexcel IGCSE – Specification A, EA1)

All Carthusians complete an English Language IGCSE designed to develop their oral and written responses to material that is taken from a variety of sources. The course hones their ability to respond to the ways in which writers construct ideas and achieve their effects. Pupils are taught how to convey meaning in written language, matching style to audience and purpose.

Two pieces of written coursework are submitted, comprising 40% of the overall grade: one assesses their analysis of either poetry or prose from the board’s anthology; the other requires a piece of imaginative writing. The examination, worth 60%, tests pupils’ understanding of non-fiction passage and their evaluation of writers’ use of linguistic devices. It also includes a persuasive or informative writing task which rewards accurate, well-structured and engaging written communication.

A separate grade (Pass, Merit or Distinction) is awarded for spoken English, assessed through an internally-assessed individual presentation.

Literature in English

(CIE IGCSE - 0992)

The course in English Literature allows for a wide-range of texts and genres to be studied across the two years, developing pupil’s ability to analyse language and form coherent written arguments. By the end of the course, it is expected that pupils will have an appreciation of the rich history of literature in English.

The qualification is assessed by a mixture of open and closed book exams at the end of the course. Paper 1 (50%, closed book) involves the study of a novel and a selection of poetry. Paper 3 (25%, open book) is examined on a drama text, which for Carthusians will be a play by Shakespeare. Paper 4 is an unseen exam (25%), which allows for the study of a variety of literature throughout the course in preparation.

The course is ideal preparation for English Literature A Level and other essay-based subjects in the Specialist

Mathematics

(Edexcel IGCSE – 4MA0)

The Edexcel IGCSE in Mathematics (Specification A) qualification enables pupils to:

- develop their knowledge and understanding of mathematical concepts and techniques
- acquire a foundation of mathematical skills for further study in the subject or related areas
- enjoy using and applying mathematical techniques and concepts, and become confident to use mathematics to solve problems
- appreciate the importance of mathematics in society, employment and study.

The course covers four main areas of Mathematics: Number, Algebra, Geometry and Statistics as well as introducing Calculus.

The course is examined by two written papers both requiring a calculator and there is no coursework. All pupils take the Higher Tier papers of this qualification.

Science

Our expectation is that pupils will study all three Sciences at IGCSE.

However, it is possible for pupils who do not intend to continue with Sciences post-IGCSE to study two of the three Sciences to IGCSE, and so allow another option subject to be studied.

All of the science courses act as suitable preparation for further studies in the relevant subject, whatever the future course of study.

Biology

(Edexcel IGCSE – 4BIO)

The course aims to stimulate a love for Biology, whether pupils wish to study it to Specialist level or not. The syllabus is broad, ranging from DNA and molecular biology, to human physiology, ecosystems and biotechnology. Many aspects are highly relevant to the human condition including the topics of diet & nutrition; reproductive biology; lungs (including smoking / vaping); heart physiology (sport, fitness & exercise); vaccinations and immunity; nervous system (linking to memory and drugs); human impacts on the environment; modern agriculture; and the use of stem cells and genetic engineering. It also provides the factual basis for understanding of the ethical and other issues arising from the current explosive growth of biotechnologies. There is no formal coursework, but there is a significant focus on experimentation and the scientific method throughout the course. Charterhouse takes a practical led approach with pupils learning through frequent experimental work. The data led empirical approach, coupled with logical analysis, supports a wide range of Specialist subjects and career choices, whether in the bioscience field or not.

Chemistry

(Edexcel IGCSE – 4CH1)

The course aims to introduce pupils to the unifying patterns and themes of chemistry, to appreciate the investigative and practical nature of the subject and to develop a logical approach to problem solving in a wider context. The emphasis of the course lies in a rigorous treatment of elementary chemistry and fundamental practical skills. The assessment of practical and investigative skills within the written papers, rather than by a practical coursework component or modular practical assessments, allows the department to deliver a wide range of practical teaching appropriate to the attainment of the pupils.

Physics

(Edexcel IGCSE – 4PH0)

From the formation of a galaxy to the bouncing of a ball, Physics helps us to understand the universe in which we live. Throughout the course pupils will gain an understanding of the physical principles behind such things as mechanics, optics, electricity and magnetism, waves, nuclear physics and astrophysics.

Physics is both satisfyingly rigorous in its treatment of the theory behind the workings of nature and in its treatment of the practical skills required to become a methodical and rounded scientist. In addition to developing mathematical and problem solving skills, we aim to emphasise the role of Physics in terms of its social, economic and environmental importance. The world would be a very different place without wireless communication, the electric generator and much more!

The Option Subjects

Art

(AQA GCSE – 4202)

This is a forward thinking course which promotes self-expression, problem solving and creativity underpinned by a knowledge of traditional as well as new and emerging media. Pupils produce practical and critical / contextual work across a wide range of disciplines, including drawing, painting, mixed-media, sculpture, installation, printmaking, ceramics, lens-based media, film, animation, video and photography.

During the first year, pupils are taught to explore new ideas and techniques and to build a portfolio, with sketchbooks and final outcomes showing an increasingly personal direction in creative output. Visits to London as well as local exhibitions inform and inspire their work with pupils studying a wide range of artists, designers and architects from around the globe. In the second year, pupils continue to develop their portfolio; in January, they receive an externally set task which they have unlimited time to prepare, building on the skills they have learnt in their portfolio unit; pupils then produce a final piece of work in their chosen media, undertaken over ten hours.

The course culminates with a final exhibition in Studio which is an opportunity for pupils to showcase the wide range of artwork they have developed over two years.

Classical Greek

(OCR GCSE – J292)

This course requires pupils to demonstrate their linguistic competence in two units by translation of unprepared passages of Greek into English and by comprehension exercises. A further two units of study provide opportunities for pupils to encounter some of the great works of classical literature, both prose and verse, in the original language; set texts are studied in detail, and in the examination, passages are given for translation and comment on context, background and literary content. All exam papers are marked externally and there is no coursework. It is not possible to start the study of Greek in the Remove.

Computer Science

(CIE IGCSE – 0984)

Pupils taking the IGCSE in Computer Science will develop their understanding of the main principles of problem solving using computers. They can apply their understanding to develop computer-based solutions to problems using algorithms. Pupils will be taught to code using Python, a popular high-level programming language, but the fundamental techniques will provide pupils the skillset to learn other languages. The skills learnt can also be used in other areas of study and in everyday life.

Learners will develop a range of technical skills, as well as being able to effectively test and evaluate computing solutions. This course will help learners appreciate current and emerging computing technologies, the benefits of their use and recognise the ethical issues and potential risks when using computers. The course is assessed by two examinations that are marked externally; there is no coursework.

This is a course requiring pupils to think mathematically and logically; it will particularly be suited to pupils who have a good understanding and high level of competence in Maths and Physics, and enjoy problem solving.

Design and Technology: Resistant Materials

(CIE IGCSE – 0445)

Over the two years of study, pupils are introduced to a range of design techniques, workshop practice and an education about how designers affect our world today. Pupils work on coursework that expects them to respond to real-world design briefs and, in the second year, they spend their time designing and developing a product of their choosing. Creativity and originality are central to this course and experimentation with a wide range of both materials and techniques is encouraged.

Pupils' final ideas are created in the department's well-equipped workshop using CAD/CAM technology, as well as traditional manufacturing techniques. Packaging, labelling, advertising and instructions are also encouraged to be part of the complete design proposal as this helps to create products that can be evaluated for commercial appeal. The course aspires to mirror contemporary design practice and allow pupils to design and make quality products.

Museum trips and lectures given by well-known product designers are an important aspect of the study of this course. 50% of the final assessment is coursework-based with a two-part external examination paper making up the remaining 50%.

Geography

(Edexcel IGCSE – 4GE0)

The IGCSE Geography course provides an opportunity for pupils to gain an understanding of the world in all its guises; it is a broad-based subject which develops a number of intellectual skills, including literacy, numeracy, diagrammatic representation, oral presentation skills and the application of ICT. The course encourages the use of fieldwork to underpin knowledge and understanding.

The IGCSE is assessed through two external examinations; there is no coursework. In Section A (The Natural Environment and People), pupils complete two of the following three topics: River Environments, Coastal Environments and Hazardous Environments. In Section B (People and their Environments), they again complete two of the following three topics: Economic Activity & Energy, Ecosystems & Rural Environments and Urban Environments. In Section C (Practical Geographical Enquiry), pupils are tested on the development of practical geographical enquiry skills related to fieldwork (most of which will take place on a residential field trip in North Yorkshire) on each selected topic from Sections A and B. In Section D (Global Issues), pupils study one topic chosen from: Fragile Environments, Globalisation & Migration and Development & Human Welfare.

IGCSE Geography is not a prerequisite for Specialist study in Geography.

History

(CIE IGCSE – 0470)

The IGCSE History course covers International Relations from 1919 to 2000, complementing the course in the Fourths that traces the development of conflict in the twentieth century. It begins with a study of the attempts at peace-making after the First World War, followed by the collapse of peace in the 1930s. The Cold War is traced from its origins to the collapse of the Soviet Union and its satellite states, and the question of why events in the Gulf c.1970-2000 matter is analysed. In addition, the history of a single country (Germany 1918-45) is studied in more depth: one piece of coursework on Nazi Germany is also undertaken, amounting to 27% of the final grade. Emphasis is placed on a variety of skills, especially the ability to analyse documentary material and communicate relevant information effectively.

IGCSE History is not a prerequisite for Specialist study in History.

Latin

(OCR GCSE – J282)

Pupils are required to demonstrate their linguistic competence in two units by translation of unprepared passages of Latin into English and by comprehension exercises. A further two units of study provide opportunities for pupils to encounter some of the great works of classical literature, both prose and verse, in the original language; set texts are studied in detail, and in the examination passages are given for translation and comment on context, background and literary content. All exam papers are marked externally and there is no coursework. It is not possible to start study of Latin in the Remove.

Modern Languages

French

(CIE IGCSE – 7156)

German

(CIE IGCSE – 7159)

Spanish

(CIE IGCSE – 7160)

Boys who study foreign languages at Charterhouse will be taught to express themselves confidently and accurately. Considerable emphasis is placed upon the regular acquisition and practical use of new vocabulary. A broad range of topical listening and reading material is covered in hash, in conjunction with thorough grammatical explanations and exercises. To study any of these languages as a Remove, the language must have been studied in the Fourth Form.

Music

(CIE IGCSE – 0410)

Music IGCSE allows pupils to develop skills in listening, performing and composing. Music from the Western tradition (Baroque, Classical, Romantic and Twentieth Century) is studied alongside music from around the world (African and Arabic music, and music from Latin America, India, China, Japan and Indonesia). Students are encouraged to enhance their understanding, appreciation and enjoyment of a wide variety of musical cultures.

By way of coursework, students also develop their practical musical skills. Performances are given on an instrument of their choice, both individually and in a group of other musicians. Through a carefully guided course, students are taught the basics of composition, culminating in the composition of two pieces in their own style.

Religious Studies

(Edexcel IGCSE – 4RS0/01)

The IGCSE Religious Studies courses allows for the investigation of fundamental philosophical, ethical, and religious questions. In Part 1 of the course (62%) questions are asked, for example, as to how the meaning and purpose of our lives can be understood; what arguments there are for and against a God; why is there suffering and evil if there is a God; and whether individuals really do have free will – and, if not, whether that means people can be held morally responsible. In addressing these questions exploration is made of non-religious responses as well as religious ones. In Part 2 (38%) the key aspects of Christianity are addressed by: asking what types of authority there are; considering the life of Jesus and the extent to which he should be a role model; exploring how Christians should be expected to live their lives; and also looking at aspects of worship.

Emphasis is placed on the development of a variety of skills, including analysis, evaluation of evidence and objective presentation of different viewpoints, as well as a capacity for coherent and informed thought about these issues which do so much to mould contemporary society.

This specification does not require coursework.

The specification is accessible to pupils of any religious tradition or none.

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