

## REMOVE AND FIFTH FORM

$$
2 \mathrm{OI} 9-2 \mathrm{O} 2 \mathrm{I}
$$




Two years ago, the Office of Qualifications and Examinations Regulation (Ofqual) introduced changes to the way in which national GCSE examinations are graded. When results are published, candidates will now receive numerical grades on a scale from 1 (the lowest grade) to 9 (the highest grade). This change in the grading system will include all national GCSE qualifications by 2020 and virtually all the IGCSE courses on which boys entering the Remove will start in September.

Heads of Subject at Harrow are responsible for deciding whether to enter boys for national or international qualifications and for selecting the examination boards for their subjects. We believe that it is important for boys to follow the best syllabuses and to take the most suitable examinations available to them, as identified by the teaching departments at Harrow, and that the Heads of Subject should have discretion in their choice of examination type and board.

As a result, boys entering the Remove next year will take a variety of qualifications, receiving the new numerical grades in August 2021 in all their timetabled subjects. The entries for the individual subjects in this booklet include information about the qualifications and examination boards chosen by the teaching departments.

In summary, here are the principles underlying the new numerical grading system.

- The new grade 7 will be approximately the same as the current A grade, with broadly the same proportion of candidates receiving grade 7 and above as currently achieve grade A and above.
- Across all subjects nationally, close to $20 \%$ of candidates awarded grade 7 or above will receive grade 9 .

The grade 8 boundary will be equally spaced between the grade 7 and grade 9 boundaries.

- Broadly the same proportion of candidates will receive grade 4 and above as currently achieve grade C and above.
- The boundaries at grades 5 and 6 will be based on the difference in marks between grades 4 and 7: grade 5 will be set at one third of the difference in marks and grade 6 at two thirds of the difference in marks.
- The government's definition of a "good pass" at GCSE is set at grade 5. This grade will be awarded to approximately the top third of candidates gaining the equivalent of a grade $C$ and the bottom third of a grade $B$.
$\begin{array}{ll}\text { A J Chirnside } & \text { M E P Gray } \\ \text { Director of Studies } & \text { Academic and Universities Director }\end{array}$


# Boys should consider their subject choices carefully, taking advice from their House Master, tutor, parents and beaks." 

## GCSE AND IGCSE SUBJECTS OFFERED AT HARROW

The subjects we intend to offer in September 2019 are listed below. All boys study English and Mathematics and should select a total of SEVEN more subjects, one from each of the groups below. Boys must choose a modern foreign language from group 7 and select a minimum of two sciences.

We will endeavour to timetable all choices; very occasionally, timetable clashes may mean that a certain combination of subjects is not possible. In such cases, boys and parents will be notified at the earliest opportunity so that a suitable alternative
can be chosen. Unforeseen changes in circumstance may occasionally mean that the precise list of subjects offered is subject to change. Again, such changes will always be notified to boys and parents at the earliest opportunity. If a boy wishes to study a combination that does not appear to be available below, then he should contact Dr Gray, the Academic and Universities Director, who will seek to accommodate his preferences whenever possible. Boys' final choices will be collated under the supervision of House Masters and tutors.

| Group 1 | Group 2 | Group 3 | Group 4 | Group 5 | Group 6 | Group 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Ancient History | Biology | Astronomy | Chemistry | Art | Art | French |
| Art |  <br> Technology | Biology | Geography | Chemistry | Computer Science | German |
| Biology | French | Geography | Latin | Computer Science | Design \& Technology | Italian |
| Drama | Classical Greek | Music | Physics | Design \& Technology | Geography | Japanese |
| Physics | History | Physics | Spanish | Geography | History | Mandarin |
|  <br> Philosophy | Latin |  |  | History | Latin | Russian |
|  |  |  | PE | Music | Spanish |  |
|  |  |  |  |  <br> Philosophy |  |  |

## ANCIENT HISTORY

## OCR GCSE, Syllabus J198

## COURSE CONTENT

Not to know what happened before you were born is to be a child forever. Cicero

Ancient History involves the study of four fascinating topics from Greek and Roman antiquity. There are two examination papers ( 1 hour 45 minutes each) that cover two topics each: a 'period' study and a related 'depth' study, each of which is firmly rooted in the analysis of primary source material in translation. The period studies cover the Greeks' relationship with the Persian Empire and the foundation of Rome from early kingship to the Republic. The related depth studies offer topics such as Athens in the Age of Pericles and Alexander the Great, as well as Hannibal and the Second Punic War or Cleopatra: Rome and Egypt. There is no longer any coursework to write in Ancient History. In short, this is a subject that develops skills of source analysis and promotes the understanding of the differences between cultures, both ancient ones and our own.

## WHY CHOOSE ANCIENT HISTORY?

Ancient History requires you to be flexible, open minded and willing to engage directly with the works of writers from the ancient world in order to develop understanding Having said this, the subject matter itself is what makes Ancient History exciting. From Alexander's extraordinary military achievements, which pushed the boundaries of the known world, to the study of the foundations of Western democracy, there is much that boys will find appealing. Many boys who do Ancient History will go on to study Ancient History in the Sixth Form and quite a number enjoy the subject so much that they go on to read it at university. Ancient History improves the writing and thinking skills of boys who study it and opens their minds to how cultures develop and differ from one another.

## CANDIDATE REQUIREMENTS

If boys enjoy doing the Shell Latin course and covering the background topics on offer, they will enjoy this subject. If they enjoy History, English, Geography or Art, this subject will appeal to them too. There are no prerequisites except a willingness to engage with the cultures of Greece and Rome.

## COMPLEMENTARY COURSES

Ancient History goes well with any subject but there are perhaps most connections with History and English Literature. Study tours abroad (to Rome, Pompeii, mainland Greece, Crete etc.) are recommended. Boys should also attend Classical Society meetings, where they can listen to other boys studying classical subjects in the School talking about topics that interest them, or they could even choose to lecture on a topic themselves.


## ASTRONOMY

## Edexcel GCSE, Syllabus 2ASO1

## COURSE CONTENT

The course will enable boys to understand our position in the universe, the movements of planets and stars, the cycles in the night and daytime sky, and the way in which we use technology to observe and interact with space. In the Remove year, the emphasis is on studying the Earth-Moon system, the sun and the solar system. In the Fifth Form, we look into the processes involved in the creation of stars and galaxies, cosmological theories and observational techniques. Astro-imaging is a new field of study at Harrow, thanks to our state-of-theart observatory.

WHY CHOOSE ASTRONOMY?
This is a subject that many boys find fascinating Candidates will be required to undertake observations of their own but will have access to the department's state-of-the-art telescopes, CCD cameras and astronomical imaging software. Some lessons take place outside normal lesson time, including evening observation sessions in the Rayleigh Observatory. The interest boys often have in Astronomy can quickly lead to their developing a real passion for it and this can be a major stimulus to them pursuing related subjects such as Physics and Mathematics to higher levels, including at university. Harrow has twice in the last ten years been awarded the Good Schools' Guide Award for Best GCSE Astronomy Results in an English School and Harrovians frequently win the coveted RAS Presidential Certificate for the highest scores nationally at GCSE

## COMPLEMENTARY COURSES

Astronomy complements Mathematics and the sciences, particularly Physics, but the variety of skills taught makes it a good fit with all other GCSE courses offered at Harrow. Boys choosing Astronomy should possess a high level of mathematical competence.

> We look into the processes involved in the creation of stars and galaxies, cosmological theories and observational techniques."



## BIOLOGY

## Edexcel IGCSE, Syllabus 4BI1

## COURSE CONTENT

Boys start the course at the beginning of the Shell year. It covers a broad range of topic areas including biochemistry, cell biology, human physiology, plant physiology, genetics and inheritance, ecology and the environment, and the use of biological resources (food production, selective breeding, genetic engineering and cloning). Where possible, topics are explored through practical investigation. The course is assessed through two written examinations taken at the end of the Fifth Form. There is no coursework.

## WHY STUDY BIOLOGY?

Biology is a very dynamic subject that dominates science coverage in the news. It addresses key concepts that everybody should understand, such as how the human body works and how life evolved. Furthermore, in order to make judgements about the merits and ethics of technologies such as genetic engineering and cloning, one must comprehend the science that underpins them. IGCSE Biology, along with Chemistry and Physics, provides a solid foundation for studying Biology at A level and beyond. There are numerous biology-related degrees offered by the top universities; popular courses include Medicine, Biological Sciences, Marine Biology, Biomedical Sciences and Zoology. A Biology degree can lead to careers in a wide range of sectors such as the pharmaceutical industry, medicine, conservation, agriculture, forensics, environmental management and academia.

## CANDIDATE REQUIREMENTS

Since many biological phenomena can be experienced directly, typically through observation, the subject is more accessible than some other scientific disciplines. It also develops and tests a broader range of skills; the ability to write clear, precise prose is particularly important.

## COMPLEMENTARY COURSES

Biology combines well with the other science subjects, Physics and Chemistry. There is also overlap with Geography and Mathematics. There are a number of biology-related societies at Harrow including the Biology Society, Medical Society, Natural History Society and Dissection Society. In addition, the Conservation and Farm activities cater for boys with an interest in ecology and wildlife.

## CHEMISTRY

## Edexcel IGCSE, Syllabus 4CH1

## COURSE CONTENT

Chemistry IGCSE will give boys a firm grasp of the basics of chemical science. The IGCSE course starts in the Shell year and the next two years build on this. Boys begin the Remove year by learning about why different materials behave as they do. Armed with this understanding, boys will study metals, modern polymer materials and other important substances. They study the influential area of organic chemistry - the basis of our fuels and medicines - and learn to calculate and maximise yields in chemical reactions to address environmental impact. The Fifth Form looks at how substances are analysed to determine their identity, the concept of energy in chemistry and the industrial production of some important chemicals for the modern world.

## WHY STUDY CHEMISTRY?

Practical laboratory skills help to develop a rigorous understanding of the theoretical concepts, while many exciting reactions are demonstrated to ensure the subject really comes alive. Boys will finish the course with a better understanding of the material world in which we live, and an enhanced ability to investigate, to reason logically and work collaboratively on practical tasks. Chemistry IGCSE is excellent preparation for A level study. The problem-solving and numerical aspects prepare students for a range of degree courses beyond those directly related to Chemistry, such as Natural Sciences, Biochemistry, Materials Science, Medicine, Veterinary Science and Engineering.

## CANDIDATE REQUIREMENTS

The subject suits anyone who wants to understand why the world around us has the properties it does. It wil appeal to those with a natural curiosity. Boys will be most successful if they can think logically, recall factual material and apply mathematics to solve problems.

## COMPLEMENTARY COURSES

Studying Chemistry at IGCSE level fits in very well with the other two sciences and Mathematics. Chemguide is a reliable free online resource (http://www.chemguide. co.uk/igcse/index.html). The Chemistry department encourages boys to get involved in external competitions run by the Royal Society of Chemistry, such as Schools' Analyst and Top of the Bench. Towards the end of the Fifth Form, boys might be looking at problems from the Cambridge Chemistry Challenge (www.C3L6.org) and the RSC Chemistry Olympiad (http://www.rsc.org/campaigning-outreach/ outreach/educators/uk-chemistry-olympiad/)


$-2+4$


## CLASSICAL GREEK

## OCR GCSE, Syllabus J292

## COURSE CONTENT

Classical Greek is a difficult language that requires a good eye for close detail, strong problem-solving skills and excellent powers of retention and recall. While it is a prestigious subject to take to GCSE, it is important that boys are aware of the challenge it presents. If the challenge of Latin is understanding the rules that govern sentences and clauses, the additional challenge of Greek is correct identification of individual words. The syllabus is structured identically to Latin (see the Latin entry for further details), with the prescribed verse literature always involving the reading of extracts from Homer's Iliad and Odyssey. The prescribed prose literature is usually taken from the 'Father of History' Herodotus, whose works include everything from accounts of the battle of the 300 to advice on how to catch a crocodile. Boys studying Greek can expect to be taught in fairly small groups (anywhere from five to 12 boys) and to look widely at aspects of Greek culture, history and mythology.

## WHY CHOOSE CLASSICAL GREEK?

Few subjects offer such a steep intellectual challenge as Greek and this in itself makes the subject an exciting one to study. Classical Greek provides the etymological roots for much technical vocabulary in English, particularly medical and general scientific terminology. Greek authors invented most genres of literature. Seeing how history, poetry, drama and philosophy started is exciting, and authors such as Homer, Thucydides, Plato and Sophocles have heavily influenced writers from later epochs. Classical Greek, combined with Latin, makes pupils eligible for a Classics degree. See notes under the Latin entry for further details.

## CANDIDATE REQUIREMENTS

It is expected that boys will have studied Classical Greek before and almost always this will mean that they studied it in the Shell year. We would expect boys to have done well in the Shell course. If they find the language a struggle in the Shell year, then this is probably not a good option for them for GCSE, as the course gets noticeably harder.

## COMPLEMENTARY COURSES

Classical Greek combines well with all subjects. Strong scientists often find the logical element of a classical language makes it a desirable option. Otherwise, Greek combines well with Ancient History, Latin, History and Theology \& Philosophy. Study tours abroad (to Rome, Pompeii, mainland Greece, Crete etc.) are offered by the department and recommended.



## COMPUTER SCIENCE

## CIE IGCSE, Syllabus 0478

## COURSE CONTENT

The course covers the fundamental principles and practices of computation and algorithmic thinking, and their application in the design and development of computing systems. Developing computational thinking involves learning to program by writing code in a variety of modern languages. The practical work enables boys to develop their interest in computing and to gain confidence in algorithmic thinking and programming. They develop their understanding of the main principles of problem solving using computers, and apply their understanding to develop softwarebased solutions to problems using algorithms and a high-level programming language. They also develop a range of technical skills, as well as the ability to test effectively and to evaluate computing solutions. Boys also build their own systems using compatible hardware including custom gaming platforms and the raspberry pi, and they have an opportunity to undertake their own software development project at the end of the Remove year.

## WHY CHOOSE COMPUTER SCIENCE?

The course is challenging but rewarding, creative and fun, allowing boys to develop their own programs and applications and to solve technical and mathematical problems with code. It is unique among all subjects at this level in that it allows boys to solve problems from any scientific discipline using the same logic and mathematical reasoning.

## CANDIDATE REQUIREMENTS

The course suits any boy with a fascination for and interest in computing, engineering and the sciences, and a zest for problem solving. A high level of mathematical competence is essential for pursuing Computer Science. As a rough guide, the subject is best suited to boys in Mathematics divisions 1-4.

## COMPLEMENTARY COURSES

Related subjects include Mathematics and the sciences. The Lower Sixth Elective course in programming follows on well from this IGCSE, and all boys taking Physics A level take an internal course focused on scientific computing in the Summer term Boys should also join the Computer Science Society, which builds and customises machines and apps

> Developing computational thinking involves learning to program by writing code. The practical work enables boys to develop their interest in computing and to gain confidence in algorithmic thinking and programming. "

## DESIGN \& TECHNOLOGY

## CIE IGCSE, Syllabus 0979

## COURSE CONTENT

The CIE IGCSE looks to embolden autonomous and creative problem solvers who will further their understanding and knowledge of design and engineering. In the Remove year, boys will study four core subject areas that prepare them for two examinations, worth $25 \%$ each, and a coursework project worth $50 \%$, all of which will be completed in the Fifth Form. The course focuses mainly on Product Design, Electronics, Structures and Mechanisms. The IGCSE allows boys to study, design, make and control products, systems and mechanisms that they see and use in everyday life. It also enables them to build their own projects using industrial techniques such as CAD-CAM and 3D printing.

## WHY CHOOSE DESIGN \& TECHNOLOGY?

Design \& Technology enables boys to identify, consider and solve problems through creative thinking, planning and design. Pupils gain technical and design awareness, and develop skills such as initiative, resourcefulness, enquiry and ingenuity. Throughout the course, boys will become proficient users of 3D printing and computeraided manufacturing equipment, while learning to programme software and control systems when designing innovative products. Design \& Technology provides an ideal basis for further study and prepares learners for their future in a rapidly changing technological society. With the core subject areas of Electronics, Structures, Mechanisms and Product Design, it can often provide an excellent foundation for budding engineers and product designers.

## CANDIDATE REQUIREMENTS

Design \& Technology suits thoughtful and creative individuals who are eager to explore, reflect, engage and control the technological world around us.

## COMPLEMENTARY COURSES

Design \& Technology combines well with Physics and Mathematics. It also shares many creative strategies with Art.

## DRAMA

## AQA GCSE, Syllabus 8261

Theatre is a place where we go to hear stories that help us make sense of things. Philip Ridley, Playwright.

## COURSE CONTENT

GCSE Drama is a dynamic, challenging course, offering boys insight into a wide range of dramatic genres and forms, as well as helping them to develop skills in analysis, creativity, empathy and teamwork.

Harrow's thriving dramatic tradition, and all well-resourced Ryan Theatre and Drama Studios give boys the opportunity to develop their work to a high level. The School's location also enables pupils to see innovative, high-quality performances in and around London. Recent destinations include the National Theatre, the Young Vic and Shakespeare's Globe

## What will the course comprise?

- Studying and staging extracts from a range of play texts
- Regular theatre trips and analysis of productions seen
$\square$ Devising an original piece of theatre and documenting the process


## How is it assessed?

- Through practical work - as a performer or designer (30\%)
- By demonstration of collaborative and creative skills through reflective writing (30\%)
- Through writing about plays studied and seen in a formal examination (40\%)


## WHY CHOOSE DRAMA?

Boys often choose GCSE Drama if they have enjoyed their experiences of drama - as a performer, technician, writer, comic or audience member - and want to pursue their interest further. They also typically enjoy active, group-focused lessons and want to create their own practical work, as well as learn about what other people have created.

Drama pupils typically see themselves pursuing A levels, university courses or careers that will require interpersonal, group-work or presentation skills. A good grade in Drama will show boys to be strong, confident and empathetic communicators, able to work dynamically and creatively with others. The course is much valued by universities and employers as a result.

## CANDIDATE REQUIREMENTS

There is no requirement to have previously studied or gained a large amount of experience in drama in order to take the course - candidates simply require enthusiasm, commitment and creativity.

## COMPLEMENTARY COURSES

GCSE Drama combines well with any other combination of subjects and is often chosen by boys wanting to balance their choices with a practical, creative subject. The key skills it develops - creativity, communication and teamwork - are as important for scientists as for artists.


## ENGLISH

## English CIE IGCSE, Syllabus 0990 and English

 Literature CIE IGCSE, Syllabus 0992
## COURSE CONTENT

Boys will earn two IGCSE qualifications over two years: English and English Literature. The English IGCSE teaches boys to write for a range of purposes and in a variety of forms; there are opportunities for creative writing as well as more practical writing (summary, analysis, persuasion). Boys will sit two papers (one with a reading focus, one with a writing focus) and there is no coursework component.

The English Literature IGCSE requires boys to read widely across the genres and they will be examined on three set texts: a novel, a play by Shakespeare and a collection of poems. They will also be examined on their reading and literary analysis skills through an 'unseen' paper that will ask them to write about a poem or a prose passage that they have not encountered before. Boys will sit three papers at the end of the course and there is no coursework component.

## WHY STUDY ENGLISH AND ENGLISH LITERATURE?

English is an exciting subject at this level as it allows boys to be creative, to express their own ideas, to debate and discuss them, and to read a great deal. Discussion forms a significant part of English lessons and boys learn to express their views confidently to their peers and to argue their position in debate. Boys need high marks in English to strengthen their academic profile for university and it is one of the subjects that admissions tutors, as well as future employers, may look at on a candidate's CV. The communication, reading and writing skills that are required to be a success in almost any field of work are taught in English and, regardless of whether boys pursue the subject at A level, their success in this subject will enable them to do well in the subjects they choose to pursue.

## CANDIDATE REQUIREMENTS

The English and English Literature IGCSEs suit all pupils who have a sound grasp of the English language.

## COMPLEMENTARY COURSES

Boys' study of English will complement their work in nearly every other GCSE subject, particularly subjects that require essays or that have a written component in the examination. In addition, English will complement boys' cultural pursuits outside the form room, whether this be art, drama or music. Many of the skills developed in English are required in those areas as well.

## GEOGRAPHY

## AQA GCSE, Syllabus 8035

## COURSE CONTENT

GCSE Geography presents a highly relevant programme of study that focuses on the global issues faced by cultures and communities in the modern world. Geography is studied in a balanced framework of physical and human themes, and investigates the link between them. Topics of study include the challenge of natural hazards, climate change, tropical rainforests, hot deserts, river and coastal landscapes in the UK, poverty, deprivation, global shifts in economic power and the challenge of sustainable resource use. Candidates will be encouraged to understand their role in society by considering different viewpoints, values and attitudes, and to think critically about the world in which they live. There is no coursework element but candidates will undertake two geographical inquiries that will take place in contrasting environments and show an understanding of both physical and human geography. Candidates are assessed by written papers at the end of the course. These consist of short, structured responses, as well as opportunities for extended writing.

## WHY CHOOSE GEOGRAPHY?

A great deal of emphasis is placed on topicality and the subject demands the use of up-to-date case studies in exploring the core concepts and themes. Lesson content is chosen to reflect current thinking and interests in geography in the 21st century. Boys will acquire and develop a range of transferable skills, such as numeracy, data interpretation, research skills, critical analysis, report writing and IT. These will support academic enquiry and their career aspirations throughout the rest of their lives. Geography graduates have one of the highest rates of graduate employment. The development of a comprehensive academic skill set is fundamental to this. Business, law and the financial sector also value the broad subject knowledge with which Geography graduates are equipped. For example, a geographer working as a financial risk analyst in a bank would benefit from having an understanding of borders, peace and security issues, distribution of resources, and factors affecting economic growth in various parts of the world. Geographers enter a very wide range of career areas. It is a subject that sets boys up with a firm base for lifelong learning and career development.

## CANDIDATE REQUIREMENTS

Geography supports and suits every boy, being particularly well matched with those who are looking to engage actively with, think critically about and independently reflect on the taught material. There are no prerequisites


## COMPLEMENTARY COURSES

Geography positively complements other humanities subjects, as well as those that are grounded in science and mathematics. The contemporary nature of Geography and the dynamic composition of the GCSE make it a subject that offers opportunities for independent learning and extension beyond the confines of the taught curriculum. Geographers, bcasue of their broad knowledge base and acute understanding of current affairs, participate effectively in the Geopolitics Society, as well as the Electives that are offered by the department. Fieldwork allows boys to extend their learning out of the form room, initiating early exposure to and subsequent development of independent research and report-writing skills that are fundamental to the successful completion of projectbased work in the Sixth Form.


## HISTORY

CIE IGCSE, Syllabus 0977

## COURSE CONTENT

History is the study of the past. The IGCSE syllabus provides an opportunity to study many of the key political, social and economic developments of the 20th century. Topics include international relations between the First and Second World Wars, leading to the collapse of peace in 1939; the German Weimar Republic and the rise of the Nazis; the Third Reich; the origins of the Cold War; the Cuban Missile Crisis; the Korean and Vietnam Wars; Soviet control of Eastern Europe, followed by Gorbachev and the end of the USSR; and events in Iran and Iraq c.1970-2000. Along the way, boys will encounter some well-known historical figures: notorious dictators like Adolf Hitler, Josef Stalin and Saddam Hussein; British prime ministers such as Neville Chamberlain, Winston Churchill and Clement Attlee; and American presidents
including Franklin D Roosevelt, John F Kennedy and Ronald Reagan. Boys will also meet some people who may be less familiar: Marinus van der Lubbe, the demented Dutchman who allegedly burned down the German Parliament; Haile Selassie, the Rastafarian Emperor of Ethiopia who tried to save his country from annihilation by fascist Italy; Martin Niemöller, the German submarine commander turned theologian who spoke out against Hitler's antisemitism; or Imre Nagy, the brave communist politician who stood up to Soviet aggression in Hungary, to name just a few.

## WHY CHOOSE HISTORY?

This course is exciting partly because the events that it covers are so dramatic: in 1923, hyperinflation wiped out the value of the German mark and made people use banknotes as toilet paper rather than currency; the Wall Street Crash of 1929 threw the Western world into catastrophic economic meltdown; and in 1962 the Cuban Missile Crisis brought us to the brink of a nuclear holocaust and the very extinction of human life as we know it. For some people, History is all the more fascinating because it is true; far from being stories in some exciting work of fiction, these events all actually happened. On a practical level, History sharpens boys' powers of analysis, interpretation and communication, all of which are key skills upon which boys will be able to draw further up the School and later in life. In career terms, the transferable skills that are learnt in History can be deployed in a very wide range of occupations. There are historians in banking, business, the law, journalism, politics, the Church and a hundred other occupations. Several members of the current cabinet have History degrees, as do the Archbishop of Canterbury and the heir to the throne. Although it is not necessary to have taken IGCSE History in order to do the A level, it is certainly helpful to have done so.

## CANDIDATE REQUIREMENTS

The paramount requirement for studying IGCSE History is an interest in the past. It is a subject that suits those who enjoy analysing evidence, participating in discussion and debate, and formulating and presenting an argument. In addition, an interest in reading and some aptitude for writing are helpful.

## COMPLEMENTARY COURSES

History overlaps with and supports many other subjects, either at GCSE or beyond, including English, Classics, Theology \& Philosophy, History of Art, Politics and Economics. Boys opting for IGCSE History will find that there is a very wide range of extra-curricular and super-curricular activities to support and enhance their studies: talks by eminent historians to the various historical and political societies (the Trevelyan Society for history, the Alexander Society for military history and the Palmerston Society for politics); educational visits in the UK and further afield; exhibitions in the Old Speech Room Gallery; and, of course, many plays, concerts and other cultural events with historical ramifications.

## LATIN

## OCR GCSE, Syllabus J282

## COURSE CONTENT

GCSE Latin involves the study of the Latin language to a higher level than that covered in the Shell year. Boys will need to master, among other things, indirect speech, participles, purpose and result clauses. Vocabulary learning is essential, although boys will find that they have already covered many of the words on the GCSE list. The language is tested via one examination paper comprising translation and comprehension of passages with themes taken from mythology and history. The language element makes up 50\% of the GCSE. The other $50 \%$ consists of the study and exploration of prose and verse literature in the original. This is generally the most exciting part of the course: reading Roman authors gives boys the chance to look through the keyhole at the lives and beliefs of a fascinating ancient culture. The prose literature will cover a range of short extracts from classical authors linked together by a unifying and often universal theme (family life and relationships, conflict and conquest, virtue and vice being recent examples). The verse will be taken from Virgil's famous epic the Aeneid, and will cover the memorable story of the doomed relationship between the Trojan prince Aeneas and the Carthaginian queen Dido. The GCSE course at Harrow also involves (not
compulsory, but useful) participation in the Oxenham Latin Reading Competition: hearing the literature read aloud really brings it to life. We also offer essay prizes in the Fifth Form and encourage GCSE pupils to consider the study tours to classical lands, which we run each summer.

## WHY CHOOSE LATIN?

The study of Latin trains the mind. Pupils are tackling a language that is complex and logical in structure, and considering sophisticated arguments and ideas in the original words of Roman authors. Latin does not lead in one direction only. It enhances boys' all-round intellectual ability. Boys who study Latin will become better problem solvers, literary critics, historians, philosophers and linguists. Like Classical Greek, Latin remains a gold-standard GCSE, highly valued by admissions tutors at universities and future employers. As an A level, Latin fits well alongside humanities and modern languages, and, in some cases, as a prestigious contrasting subject for a scientist or mathematician. When combined with another classical subject (Classical Greek or Ancient History) A level Latin can lead to the study of Classics at university. With a smaller pool of applicants nationally, Classics is an attractive course at Oxbridge and top Russell Group universities for those with a genuine passion for the subject. In terms of careers, most Classics graduates do not become Classics teachers. There is no limit to what boys can do with a Classics degree. They are choosing to sell themselves

as graduates with strong analytical and problemsolving ability and a precise mastery of language. These transferable skills will always be reckoned marks of distinction. Classicists frequently enter the financial sector, the law (particularly the Bar) and the civil service (particularly the Foreign Office).

## CANDIDATE REQUIREMENTS

The subject will suit boys with ability and interest in languages and literature. If they enjoy puzzles and the challenge of problem solving, Latin will suit them also. If they are interested in history, Latin provides a rich alternative perspective on the past, as well as insights into the origins of European culture.

## COMPLEMENTARY COURSES

Latin combines well with all subjects. Strong scientists often find that the logical element of a classical language makes it a desirable option. Otherwise, Latin combines well with other classical subjects (Classical Greek, Ancient History), History and Theology \& Philosophy. Study tours abroad (to Rome, Pompeii,

mainland Greece, Crete and many other destinations) are recommended. Boys should also attempt to attend meetings of the Classical Society, where they can listen to other boys studying classical subjects in the School talking about topics that interest them, or they could even choose to lecture on a topic themselves.

## MATHEMATICS

## Edexcel IGCSE, Syllabus 4MA1

## COURSE CONTENT

Mathematics involves the solving of problems within a logical framework. The course consists of the standard branches of Mathematics (number, algebra, shape and space, and statistics), but also begins the study of calculus and functions, which are large parts of the A level course. We aim to enrich and stretch at all levels as well as make sure that there is suitable consolidation time before examinations. Boys in the top division take an accelerated course and have the opportunity, in addition to the IGCSE, to take the free-standing Additional Mathematics qualification in the Fifth Form. Boys in the second division also study the Additional Mathematics course so that the study of Further Mathematics in the Sixth Form is an option for all good mathematicians.

## WHY STUDY MATHEMATICS?

The study of Mathematics can take a variety of different forms at university, from the purest form of the subject, dealing with abstract algebra, through to scientific research, computing and the social sciences. It is also the language of finance and Financial Mathematics is a very popular course at university that can lead to many lucrative careers. Mathematics at Harrow provides a solid foundation in many areas of the subject from calculus, trigonometry, matrices and complex numbers to mechanics and statistics. If boys like solving problems and enjoy getting the correct answer, Mathematics is a good choice.

## CANDIDATE REQUIREMENTS

Mathematics at GCSE or IGCSE is essential for nearly all university courses and future employment.

## COMPLEMENTARY COURSES

Mathematics encapsulates the language and research methods for all sciences, computing, finance and increasingly - through statistics and other newer branches of the subject - all areas of life. There are many very good and popular mathematics books available by authors such as Alex Bellos and Simon Singh, both of whom have given talks to the Mathematical Society.

Reading Roman authors gives boys the chance to look through the keyhole at the lives and beliefs of a fascinating ancient culture."


# Banking, accountancy, law and management are just some of the sectors that list language qualifications as desirable assets in potential recruits. 

## MODERN LANGUAGES

CIE IGCSE<br>French: CIE 7156<br>German: CIE 7159<br>Italian: CIE 7164<br>Mandarin: CIE 0547<br>Spanish: CIE 7160

French, German, Italian, Mandarin and Spanish follow the new CIE IGCSE syllabuses, which we have deemed to be the most rigorous in terms of testing the four skills of listening, reading, speaking and writing. This qualification also provides excellent preparation for those wishing to pursue languages in the Sixth Form, where the CIE Pre-U qualification is taught. Russian and Japanese will follow the new Edexcel GCSE syllabuses.

## WHY STUDY A MODERN LANGUAGE?

All language syllabuses at Harrow allow a lot of flexibility, meaning that beaks are free to select and adjust material to make it as interesting, relevant and fun as possible. The topic areas emphasise practical communication and are grounded in everyday life, so the qualifications provide a thorough foundation for those who wish to travel abroad or to study the subject beyond (I)GCSE. High-level language qualifications represent a valuable skillset in the UK, where most people leaving school do so with one language (I)GCSE at best. Banking, law, accountancy and management are just some of the sectors that list language qualifications at the top of their desired assets in potential recruits. Many other subjects are also complemented by studying a language to Pre-U, with many non-language degrees offering the option of a year studying abroad to those with appropriate language qualifications.

## CANDIDATE REQUIREMENTS AND COMPLEMENTARY COURSES

All these language courses allow boys to fulfil Harrow's requirement for the study of at least one language to (I)GCSE. They are also excellent choices as second or third languages. Boys wishing to opt for these languages must have started the subjects in the Shell year. If boys think that languages might feature in any way in their Sixth Form or university plans, then we strongly recommend continuing with at least two languages to (I)GCSE.

## COURSE CONTENT

CIE examinations all follow a similar format, with each of the four skills of listening, reading, writing and speaking being tested separately and allocated $25 \%$ of the total marks.

## Listening

45 marks, $25 \%$, externally assessed. Candidates listen to a number of recordings of varying length and difficulty and answer questions testing comprehension.

## Reading

45 marks, $25 \%$, externally assessed. Candidates read a number of texts of varying length and difficulty and answer questions testing comprehension.

## Speaking

100 marks, $25 \%$, internally assessed and externally moderated. Candidates complete two role-plays, make a presentation and answer follow-up questions, and undertake a general, topic-based conversation.

## Writing

50 marks, $25 \%$, externally assessed. Candidates respond in the target language to three tasks, all based on the defined topic areas: a vocabulary task, a directed writing task and an extended writing task.

## JAPANESE

Edexcel GCSE, Syllabus 1JAO

## COURSE CONTENT

All four skill areas of listening, speaking, reading and writing are formally tested and externally marked. Each skill area represents $25 \%$ of the overall final grade awarded. The content for the Japanese GCSE papers is based around the following five topics:

1. Identity and culture
2. Local area, holiday and travel
3. School
4. Future aspirations, study and work
5. International and global dimensions

Boys' verbal and written expression, vocabulary and grammatical structures are based on these topic areas The Listening paper is 45 minutes in duration and both the questions and answers are in English, responding to aural material that is spoken by native Japanese. The Speaking paper is 10-12 minutes in duration and consists of three tasks:

1. Role-play on a topic allocated by Edexcel
2. Questions based on a prescribed picture stimulus
3. Conversation on two themes, one chosen and known by the pupil and one unknown and selected by Edexcel

The Reading paper is 65 minutes in duration and boys must give multiple-choice responses and short written answers to passages of varying lengths. There is also a short translation from Japanese to English. The Writing paper is 1 hour and 25 minutes in duration and is divided into three sections: one short answer, one longer answer and one translation from Japanese into English. The written paper must demonstrate the candidate's proficiency in all three scripts used in the Japanese language: Hiragana, Katakana and 200 of the Kanji (Chinese characters).

WHY STUDY JAPANESE?
Japan is the world's third largest economy and is the lingua franca in the Far East in trade and commerce. Many British schools do not offer this useful language. It is a subject that sets one apart from one's peers.

## RUSSIAN

## Edexcel GCSE, Syllabus 1RUO

## COURSE CONTENT

The overall course content is based around five main topic areas: identity and culture; local area, holiday and travel; school; future aspirations, study and work; international and global dimensions. Grammatical structures are studied within these contexts and topic-related vocabulary is built up over the course. The course aims to develop boys' ability to communicate with Russian native speakers in both speech and writing, and to increase their awareness of the culture of Russian-speaking communities and countries.
Each of the language skills (speaking, listening, reading and writing) is formally tested at the end of

## 路





## MUSIC

## Edexcel GCSE, Syllabus 1MUO1

## COURSE CONTENT

This subject is suitable for any boy who enjoys making music and can play an instrument or sing to a reasonable standard. As part of the course, boys will learn to compose their own music and will learn about many styles of classical and popular music. Boys are assessed by coursework compositions and performances and by a final listening examination The syllabus is based around four areas of study: instrumental music (including pieces by Bach and Beethoven); vocal music (including songs by Purcell and Queen); music for stage and screen (including music from Wicked and Star Wars IV); and fusion pieces influenced by African, Latin American and British folk styles. GCSE Music provides a solid foundation for the subject at A level.

## WHY CHOOSE MUSIC?

Boys enjoy this subject and it enhances and enriches their other musical experiences in whichever musical fields they excel. There are growing numbers of Harrovians going on to study Music or Music Technology at A level and beyond. At both GCSE and A level, Music is highly respected by admissions tutors at top universities.

## CANDIDATE REQUIREMENTS

Any boy who enjoys performing and composing music will relish this course. At Harrow, we would expect boys to have achieved at least Grade 5 on their first instrument by the time they sit the GCSE papers. Many boys are well beyond this standard, thus making a grade 9 in the GCSE easily achievable. Some theory knowledge is desirable; most boys have usually achieved Grade 5 Theory before commencing the course. There are no prerequisites but any boy who is in doubt as to his suitability should speak to his Shell Music division master or instrumental teacher.

## $\int$ <br> At both GCSE and A level, Music is highly respected by admissions tutors at top universities."




## PHYSICAL EDUCATION

Edexcel GCSE, Syllabus 2PEO1

## COURSE CONTENT

This GCSE in Physical Education will equip boys with the knowledge, understanding, skills and values they need to be able to develop and maintain their performance in physical activities. Boys will also gain an understanding of how physical activities benefit health, fitness and wellbeing.

The course aims to enable boys to:

- develop theoretical knowledge and understanding of the factors that underpin physical activity and sport, and to use this knowledge and understanding to improve performance
- understand how the physiological and psychological state affects performance in physical activity and sport
- perform effectively in different physical activities by developing skills and techniques, and by selecting and using tactics, strategies and compositional ideas
- develop their ability to analyse and evaluate to improve performance in physical activity and sport
- understand the contribution that physical activity and sport make to health, fitness and wellbeing
- understand the key socio-cultural influences that can affect people's involvement in physical activity and sport


## WHY CHOOSE PHYSICAL EDUCATION?

Sports Science and Physical Education have a huge impact on the world of sport at elite as well as at grassroots level. This GCSE course has a blend of the practical and the theoretical, and allows boys to demonstrate their sporting skill as well as to develop their knowledge of anatomy, physiology and the science behind sport. There are courses in Sports Science, Physical Education and Sport at good universities all over the world.

## CANDIDATE REQUIREMENTS

Boys should have a passion for sport and the sciences.

## COMPLEMENTARY COURSES

Physical Education combines well with Biology, Chemistry and Physics.

The course has a blend of practical and theory, and allows boys to demonstrate their sporting skill as well as to develop their knowledge of human anatomy and physiology."

## PHYSICS

## Edexcel IGCSE, Syllabus 4PH1

## COURSE CONTENT

Topics covered range from the traditional, such as mechanics and electricity, to the more cutting edge, such as astrophysics and particle physics. This course follows a traditional linear approach to instilling the fundamental principles of the subject and will provide boys with excellent preparation for A level. Physical principles and laws are made accessible to boys by applying them to everyday relevant situations and by practical demonstrations and class experiments. Boys have a plethora of practical experience but there is no coursework element.

## WHY STUDY PHYSICS?

The course is challenging but stimulating and fun. Physics is unique among all academic disciplines at this level in that it extends boys' conceptual understanding and problem-solving skills in equal measure

## CANDIDATE REQUIREMENTS

The subject suits any boy with an enquiring mind and an interest in the world around them. Mathematics to a high level of competence is essential for pursuing Physics

## COMPLEMENTARY COURSES

Related subjects include Mathematics and Chemistry



## THEOLOGY \& PHILOSOPHY

AQA GCSE, Religious Studies Specification A, Syllabus 8062

## COURSE CONTENT

GCSE Religious Studies provides an opportunity to study beliefs, teachings and practices in addition to philosophy and applied ethics from Christian, Islamic and secular viewpoints. Topics covered include relationships and families, euthanasia, abortion, arguments for the existence of God and revelation, peace and conflict, crime and punishment, and human rights and social justice. In addition, there is a study of religious texts, founders of religions, rules for living, worship and places of worship.

## WHY CHOOSE THEOLOGY AND PHILOSOPHY?

In addition to receiving an excellent introduction to key philosophical and moral issues, pupils will develop valuable analytical and evaluative skills, which will be of tremendous use in other academic areas. Theology \& Philosophy is a broad subject enabling access to many degree courses and preventing access to none, with good links with humanities subjects such as English, History and Law. In terms of careers, there is a plethora of options from law to medicine to marketing.

## CANDIDATE REQUIREMENTS

The subject will suit any boy with a willingness to learn and an enquiring mind. It challenges boys' own ideas and helps them to see the ideas of others in a fresh light. It is academically stimulating and helps to develop analytical skills.

## COMPLEMENTARY COURSES

Theology \& Philosophy combines well with a range of other subjects at GCSE. Anyone considering studying the subject would benefit from reading The God Delusion by Richard Dawkins, The Dawkins Delusion by Alister McGrath, The Puzzle of Christianity, Bible Matters and Ethics Matters by Peter Vardy, as well as regularly checking the Comment and Opinion sections of the Daily Telegraph, The Times or The Guardian for relevant ethical and philosophical discussions.

66
Theology \& Philosophy is a broad subject, enabling access
to many degree courses and
preventing access to none."

## FREQUENTLY ASKED QUESTIONS

## WHAT'S THE DIFFERENCE BETWEEN A GCSE AND AN IGCSE?

An IGCSE is an International General Certificate of Secondary Education, as opposed to a General Certificate of Secondary Education. IGCSEs are often offered by the same examination boards as GCSEs, but we find them in certain subjects to be slightly more rigorous in content and structure, hence better preparation for Sixth Form studies.

## WHY ARE SOME SUBJECTS COMPULSORY?

We consider certain subjects to be core subjects in the curriculum. This is in line with the National Curriculum and good practice at other independent schools. Compulsory subjects at (I)GCSE at Harrow include English, Mathematics and at least two sciences, along with at least one modern foreign language. All boys then choose, in consultation with their tutor, House Master and relevant Heads of Subject, other optional subjects to ensure a rounded and balanced curriculum.

## CAN BOYS TAKE A GCSE OR IGCSE EARLY?

We tend to discourage boys from taking examinations early. Instead, we stretch and extend boys beyond the syllabus and then do our best to ensure they are ready to sit their (I)GCSE examinations when they are more mature, at the end of the Fifth Form. Some boys who are native speakers in a language might, however, take the examination in this language early.

## IF I DON'T TAKE A SUBJECT AT GCSE/IGCSE, CAN I STILL TAKE IT AT A LEVEL?

Almost without exception, it is a great advantage to study a subject at (I)GCSE if you also want to study it in the Sixth Form. If you wish to study a language for Pre-U, then you must select it now for (I)GCSE. There are some subjects that you may be allowed to take in the Sixth Form even if you have not studied them at (I)GCSE, but you will need to seek advice from the Head of Subject.




HARROW SCHOOL
5 High Street
Harrow on the Hill
Middlesex
HA1 3HP
+44 (0)20 88728000
harrow@harrowschool.org.uk
Harrowschool.org.uk

