HARROW SCHOOL

## REMOVE AND FIFTH FORM

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2017-2019
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The Office of Qualifications and Examinations Regulation (Ofqual) has changed the way in which national GCS examinations are graded. When results are published in English Language, English Literature and Mathematics in scale from 1 (thdidates will receive numerical 9 rackes This change in the include all national GCSE qualifications and many of the IGCSE courses on which boys entering the Remove will start in September. Some of the examination boards will offer a choice between conventional and numerical grading
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 shoul have discretion in their choice of examination type and board.
As a result of the phased introduction of the new grading system and that freedom of choice for departments, boys entering the Remove next year will take a variety of qualifications, receiving in some the more familiar letter grades and in others the new numerical grades in August include information about the qualifications and examination boards chosen by the teaching departments. Where we are able to choose between conventional and numerical grading between September 2017 and the examinations themselves in 2019, we will reserve judgement on the best option for the boys, waiting to see how the new grading system evolves.

Ofqual have undertaken to consider with the examination Ofqual have undertaken to considy whe the mation after the first year of the new system.
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 o candidates receiving grade
- Across all subjects, close to $20 \%$ of candidates awarded grade 7 or above will receive grade 9 in the first year of the new system.
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 $C$ nd 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 thir of the difference in marks and grade at two thirds of the difference in marks.
- The Government's definition of a "good pass" will be set at grade 5 for these reformed GCSEs. Grade 5 will be awarded to appoxint of a grade B.

A J Chirnside
Director of Studies
$N$ Page
Academic and Universities Director

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 2017 are listed a total of SEVEN further subjects from the list below. Boys may select any combination of the subjects listed but MUST select a minimum of two sciences and at least one modern language. 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

| Ancient History | Computer Science | History |
| :--- | :--- | :--- |
| Art | Design and <br> Technology | Italian |
| Astronomy | Drama | Japanese |
| Biology | French | Latin |
| Chemistry | Geography | Mandarin |
| Classical Greek | German | Music |
|  |  |  |

be notified of this at the earliest opportunity, so that a suitable alternative selection can be made. Unforeseen changes in circumstance may occasionally mean that the precise list of
subjects offered can change. Again, such changes will always be notified to boys and parents at the earliest opportunity. Boys' final choices will be collated under the supervision of House Masters and Tutors.

German

Physical Education
Physics
Russian
Spanish

## Theology and

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 opics from Greek and Roman antiquity. There are two examination papers (1 hour 5 minutes each) which cover two topics each: a "eriod study and a related depth" rimary source material in translation The period studies over the Greeks' relationshio 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 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 evelops skills of source analysis and promotes the cient 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 understanaing. 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

f boys enjoy doing the Shell Latin course and covering he 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 prerequistes, except a wingness to engage with the ultures of Greece and Rom

## 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 hould also attend Classical Society meetings, where they School talking about topics that interest them or they could even choose to lecture on a topic themselves.




## ART

AQA GCSE, Syllabus 4202
COURSE CONTENT
The GCSE course comprises Unit 1 Coursework, worth $60 \%$, and Unit 2 Externally Set Task, worth $40 \%$. Studying Art affords boys the opportunity to learn traditional skills including drawing, painting, sculpting and printmaking, alongside various aspects of digital and nalogue photography. These can form a mainstay of projects, including final pieces. There are also many Mac programmes including Photoshop. iMovie and Fina Cut Express. All work is underpinned by boys having a fundamental grasp of the work of a range of artists.
In the Remove, boys will be introduced to a range of skills and techniques in various media. Drawing is a constant throughout the GCSE course. The Remove is viewed as the foundation year, a time when our artists begin to grow in confidence and handle materials with some degree of uthority. Boys usually complete one sustained project during the Remove year. This is thematically based. A sustained project normaly comprises comprehensive sketchoook wor no draw in, pa ited stuares, maquettes and photographs, and one final piec
or outcome
the Fifth Form, boys will work on a second sustained project (usually set during the Remove summer term) themes', from which boys will need to choose one. The chosen theme is developed over a period of six weeks and hen taken through into a ten-hour final piece. This could be one work or a series.

WHY CHOOSE ART?
Harrow boasts one of the finest Art Schools in the country. With an exemplary record of boys gaining entry o Oxford and The Slade (UCL) to study Fine Art, and work that is exciting, original engaging and ambitious. Art is taught in five light-filled studios with universitystandard facilities. Boys have access to a wide range of materials and the studios are open seven days a week committed to giving boys a first-rate visual education through skilful teaching, mentoring and coaching. The GCSE course is viewed as the beginning of a journey that will equip boys with the ability to appreciate th importance of art at Harrow and beyond. Work is
celebrated through ever-changing exhibitions in both he Shepherd Churchill Hall and the Pasmore Gallery Studying Art instils a sense of personal ownership and pride; like other areas of Harrow endeavour, it also has healthily competitive element through, for example, the hotly contested House Art competition. Boys are given their own working space in the Fifth Form, an aspect of being in the department they enjoy immensely. The History of Art, and complement any combination of arts. science or humanities subjects. he department has an exe

CANDIDATE REQUIREMENTS
Art creates balance. It can also improve aspects of cognition. Studying Art can assist with problem solving, the ability to empathise and our perception of the world. Art isn't just the preserve of those with innate or natural drawing ability, and we woul actively encourage boys that are enthusiastic, curious, intellectually engaged, ambitious and competitive to opt for the subject. There are no than the willingness, as Sir President of Desion a Amole Inc said to try'

COMPLEMENTARY COURSES, SUGGESTED READING AND OTHER RESOURCES Art, by its very nature, will complement any range sciences. Boys often fing that science both inf and complements Art and develops a way of thinking for them that may otherwise remain dormant. Those wishing to study Architecture should view Art as a necessity at GCSE and A level Those with ambitions to study Liberal Arts at an American university should also be encouraged to take an arts subject. Boys can use GCSE Fine Art for the Skill section of the Duke of Edinburgh's Award Scheme. Boys studying Art may wish to joi Photography Club, Pasmore Society and Architecture Society

## TOP TEN READ

- Story of Art - Ernst Gombrich - On Paintring - Leon Battistala Albert - On Photography - Susan Sontag - A life of Picasso (three volumes) - Alife of Picasso

On the Spiritual in Art - Wassily Kandinsky - Interviews with Francis Bacon - David Sylvester - Lives of the Artists: Volume One and Lives of
the Artists: Volume Two - Giorgio Vasari - Shock of the New - Robert Hughes - Matisse On Art - Henri Matisse

## JOURNALS

- Frieze
- Art Monthly

GALLERIES AND MUSEUMS - Tate Gallery www.tate.orq.uk - Royal Academy www.royalacademy.org.uk - Victoria and Albert Museum www.vam.ac uk - White Cube http://whitecube.com - Serpentine Gallery www.serpentinegalleries.org

## ASTRONOMY

Edexcel GCSE, Syllabus 2ASO1
COURSE CONTENT
The course will enable students 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 observ
and interact with space In the Remove year the and interact with space. In the Remove year, 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-the-art 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 new telescopes, CCD cameras and astronomical imaging software. Some lessons take place outside normal lesson time, including some evening observational sessions in the Rayleigh Observatory. The interest boys often have
in this subject can quickly lead to their developing a in this subject 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 been awarded the Good Schools' Guide Award for Best GCSE Astronomy Results in an English School in the last five years.

## 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.

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


## BIOLOGY

Edexcel IGCSE, Syllabus 4BI
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 th (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 science that underpins them. IGCSE Biology, along with Chemistry and Physics, provides a solid with Chemistry and Physics, provides a solid foundation for studying Biology at A level and
beyond. There are numerous Biology-related degrees beyond. There are numerous Biology-related degree
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 discipines. It also develops and tests a broader range of skills; the ability to write clear ecise 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 fart activies cot for boys with an interest in ecology and wildlife.

## CHEMISTRY

Edexcel IGCSE, Syllabus 4CHO
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. Th Remove year begins by learning about why different materials behave as they do. Armed with this polymer materials, nano-structures and other important substances. Boys will also learn how calculate how much material can be made in a chemical reaction. They also study the important area of organic chemistry, which gives us our fuels and medicines. The Fifth Form looks at how substances are analysed to determine their identity, the concept of energy in chemistry and the industrial production some important chemicals for the modern world.

## WHY STUDY CHEMISTRY?

Chemistry lessons use a lot of practical work to back up all of the theory. Boys will see many exciting demonstrations of experiments that are too dangerous to be done by a whole class. They will finish the course with an understanding of the material world in which they live, able to reason logically and work on practic preparation for A -level study which in turn opens many doors into university courses such as Chemistry, Biochemistry, Materials Science, Medicine, Engineering and Veterinary Science. A degree in any science can lead to a vast range of careers including research, management, financial services and law.

## CANDIDATE REQUIREMENTS

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

COMPLEMENTARY COURSES, SUGGESTED READIN AND OTHER RESOURCES
Studying Chemistry at IGCSE level fits in very well with the other two sciences and Mathematics. 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 the Chemistry Olympiad Round 1 (www.rsc.org/ Education/events-and-competitions/Olympiad/201 Olympiad.asp) is worth exploring and the website www.chemquide.co.uk/igcse/index.html. is also worth $a$ visit.


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 chalenge 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 lliad 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 crocodile. Boys studying Greek can expect to be taught in fairly small groups (anywhere from 5 to 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 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 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 this is most likely 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. Latin, History and Theology and 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 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 software-based 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.

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 mathematica problems with code. It is unique among all subjects a this level in that it allows boys to solve problems from any scientific discipine using the same logic and are now the most sought-after and highly paid graduates, with almost $100 \%$ in a professional or managerial role in their late 20s. The first step is here at IGCSE.

## 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. Reasonable competence in Mathematics is essential for pursuing Computer Science.

## COMPLEMENTARY COURSES

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

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

DESIGN AND TECHNOLOGY
CIE IGCSE, Syllabus 0445
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 exams,
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 AND TECHNOLOGY? Design and 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 computer-aided manufacturing
equipment, whilst learning to programme sof equipment, whilst learning to programme software and Design and Technology provides an ideal basis for further study and prepares learners for their future within 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 and Technology suits thoughtful and creative individuals who are eager to explore, reflect, engage and control the technological world around us.

## COMPLEMENTARY COURSES

Design and Technology combines well with Physics Design and Technology combines wathy creative
and Mathematics. It also shares mand strategies with Art.

## SUGGESTED READING

- Sketching: Drawing techniques for product designers - Koos Eissen and Roselien Steur
- Universal Principles of Design - William Lidwell,
Kritina Holden and Jill Butler Kritina Holden and Jill Butler
Designing the 21st Century - edited by Charlotte and Peter Fiell
Objects of Desire - Adrian Forty


## 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 develop skills in analysis, creativity, empathy and teamwork. Standards are extremely high and boys often achieve top marks in the practical components. Harrow's thriving dramatic tradition and well-resourced Ryan Theatre mean boys have the opportunity to develop enables pupils to see innovative, high-quality performances in and around London.

## What will the course comprise?

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


## 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 an actor, technician, writer or audience member - and want to pursue their interest further. They also typically enjoy active, group-focused lessons, and want to create their ow practical work, as well as learning about what othe people have created
Drama pupils typically see themselves pursuing A levels, university courses or careers which will require interpersonal, group-work or presentational skills, and
want to balance their GCSE choices with a practical creative subject. A good grade in Drama will show boys creative subject. 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 just 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, scientists as for artists.


ENGLISH
CIE IGCSE, Syllabus 0500 and English Literature CIE IGCSE, Syllabus 0486
COURSE CONTENT
Pupils will earn two IGCSE qualifications over two years: English and English Literature. The English GCSE teaches boys to write for a range of purposes and na writing as well as more practical witis for (summary, analysis, persuasion). Boys will sit two exams (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 boys 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 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 and to read a great deal.
scussion 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 person's CV. The communication skills that are required to be a success in almost any field of work are taught in Engish and, regardless of whether boys pursue the enable them to do well in the subjects they choos to pursue.

## CANDIDATE REQUIREMENTS

The English and English Literature IGCSEs suit The English and English Literature IGCSEs 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 componen in the exam. In addition, English will complement 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 CONTEN
GCSE Geography presents a highly relevant programme of study that focuses on the global issues faced by cultures and communities in the modern 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. Candaates will be encouraged to understand their role in society by considering different viewpoints, values and attitudes, and to think critically about the world if candidates will There is no coursework element but that will take place in contrasting environments and show an understanding of both physical and human geography. Candidates are assessed by written paper at the end of the course. These consist of short, 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 will acquire and develop a range of transferable skills, such as numeracy, data interpretation, research skills, critical analysis, report writing and ICT. 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 nowledge with which Geography graduates are equipped. For example, a geographer working as a inancial risk analyst in a bank would benefit from having an understanding of borders, peace and security issues, distribution of resources, and factors world Geographers enter a very wide range of ca 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 to those who are looking to engage actively with, think critically about and on the taugh 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, as a understanding of current affairs, participate effective within the Geopolitics Society, as well as the Electives that are offered within 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 reportwriting skills that are fundamental to the successfu completion of project-based work in the Sixth Form

## HISTORY

## IE IGCSE, Syllabus 0470

COURSE CONTENT
history is the study of the past. The IGCSE syllabus provides an opportunity to study many of the key olitical, social and economic developments of th 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. rigins 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, you will encounter some well-known historical figures: notorious dictators like Adolf Hitler, Josef Stalin and Saddam Hussein; British Prime Ministers Clement Attlee: and American Presidents including Franklin D Roosevelt, John F Kennedy and Ronald

Reagan. However, you 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 ttaly; Martin Niemolier, the spoke out against Hitler's anti-Semitism; 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 Ott 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 Castrophic economic mettaown, while in 1962 the an Missile Crisis brought us to the brink of a lear holocaust and the very extinction of human life as 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 pappened. On a practical level, History sharpens boys 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 do A level, it is certainly helpful to have done so.

CANDIDATE REQUIREMENTS
The paramount requirement for studying IGCSE History is that you are interested in the past. It is a subject that suits those who enjoy analysing evidence, pald presentin incussion and of secondary importance, 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 and Philosophy, History of Art IGCSE History, you will find that there is a very wide range of extra-curricular and super-curricular activities that may support and enhance your studies: talks by eminent historians to our 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 he UK and further afield; exhibions inthe Old speech 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, indire speech, participles, purpose and result clauses. Vocabulary learning is essential, although boys wi 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 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 betwe the Trojan prince, Aeneas, and the Carthaginian queen, Dido. The GCSE course at Harrow also involv (not compulsory, but useful) participation in 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 are 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 better problem solvers, |literary critics, historians, philosophers and linguists. Latin (and Classical Greek) 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. A-level Latin, when combined with another classical subject (Classical Greek or Ancient History), can lead to the study of Classics at university. With a smaller pool of applicants nationally, Classics is an attractive route into 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 do with a Classics degree They are choosing to sell

themselves as graduates with strong analytical and problem-solving ability and a precise mastery of language. These transferable skills will always be reckoned marks of distinction. Classicists frequently and the civil service (particularly the Foreign Office).

CANDIDATE REQUIREMENTS
The subject will suit boys with ability and interest in anguages 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 and
Philosophy. Study tours abroad (to Rome, Pompeii,
mainland Greece, Crete, etc.) 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 opics that interest them, or they could even choose to lecture on a topic themselves.

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

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 an space and statistics), but also begins the study of Calculus and functions, which are large pars of 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 Maths qualification Add Maths in the Fifth Form. They may also have the opportunity to study for a qualification in Statistics. Boys in the second division also study the Add Maths course so that the study of Further Maths in the Sixth Form is an option for 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 science It is also the language of finance and Financial 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, SUGGESTED READING AND OTHER RESOURCES
Mathematics encapsulates the language and research methods for all sciences, computing, finance and branches of the subject - all areas of life. There are many very good and popular Mathematics books available at the moment, by authors such as Alex Bellos and Simon Singh, both of whom have given talks to the Mathematical Society.


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
French: CIE 0520
German: CIE 0525
Italian: CIE 0535
panish: CIE 0530
French, German, Italian, Mandarin and Spanish will follow the new CIE IGCSE syliabuses, which we have deemed to be the most rigorous in terms of testing he four skills of listening, reading, speaking and writing. This qualification also provides excellent reparation form, where the CIE Pre $U$ qualification is the Sixth Form, where the CIE Pre-U qualification is 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 djust material to make it as interesting, relevant and un as possible. The topic areas emphasise practical mmunication and are grounded in everyday life, so the qualifications provide a thorough foundation for hose 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 the majority of people leaving school do so with one language (I)GCSE at best. Banking, law, ccountancy and management are just some of the sectors tha list mange quaic ans ane top etors are also complemented by studying a anguage to Pre-U, with many non-language det offering the option of a year studying abroad to those with appropriate language qualifications.

## CANDIDATE REQUIREMENTS AND

COMPLEMENTARY COURSES
ny of these language courses allows boys to fulfil Harrow's requirements for the study of at least one
as second or third languas Boys wishing to ot for as second or third languages. Boys wishing to opt for these languages must have started the subjects in the way in their sixth-form or university plans, then we strongly recommend continuing with at least two languages to (I)GCSE

## Course Conten

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 mark.

## 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

路
100 marks, $25 \%$, internally assessed and externaly 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 IJAO

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 fina grade awarded
The content for the Japanese GCSE papers is based around he following five topics:
Identity and culture
2. Local area, holiday and trave
3. School
4. Future aspirations, study and work
5. International and global dimensions

Pupils' verbal and written expression, vocabulary and grammatical structures are based in 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 pupils 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 divided into three sections: one short answer, one longer answer and one translation from Japanese to 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. It is a subiect that sets one from on's peers.


Each of the language skills (speaking, listening, reading and writing) is formally tested at the end of the two-year course via externally assessed examinations. All the examinations, oral and written, focus on the topics listed above. The speaking test requires boys to exercise based tas one topic drawn from the above list; to respond to a series of questions based on a picture stimulus relating to one of the topics; to engage in two conversations, of which one is based on a topic chosen by the boy in advance of the assessment and the second one is allocated by the examination board. The speaking test is conducted by the boy's language Beak and the recording is submitted to the examination board for external marking. The listening test requires boys to respond to multiple-response and short-answer open-response questions based on a recording reading test, boys are assessed on their understanding of written Russian across a range of different types of texts, including advertisements, emails, letters, articles and literary texts, by answering multiple-response and short-answer questions. In the writing test, boys are assessed on their ability to communicate effectively through writing in Russian for different purposes and audiences. They are required to produce responses of varying lengths and types, expressing their ideas and the Cambridge Pre-U, an examination that has recently replaced A levels in languages at Harrow, and those pursuing Russian in the Sixth Form from grades 7-9 GCSE will find the transition relatively straightforward. During their preparation for the GCSE examination, the boys are given an opportunity to participate in a trip to Moscow and St Petersburg, which, in addition to sightseeing and other cultural activities, involves a day spent at a Russian school. They can also join the Slavonic Cultural Society in order to enrich their studies of Russian with a wide range of cultural and language activities, such as theatre, ballet and cinema outings, traditional meals. Boys who decide to study the language beyond GCSE level are also offered support in organising work experience in Russia in the Sixth Form

WHY CHOOSE RUSSIAN?
Russian is a useful language in today's global economy; it is the eighth-most-spoken language in the world by number of native speakers and the fifth by total number of speakers. Unlike other European languages, Russian is only offered by a relatively small number of schools, affording it something of a unique status. As such, the ability to speak the language can significantly help those who have mastered it to gain entry to the best UK universities where, should the boys decide to with either another foreign language or subjects such as History Politics or Economics. For those following this path, Russian can be a great asset in an increasingly competitive job market, as more and more European businesses are expanding their operations eastwards.

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 music in a number of different styles, both
classical and popular. Boys are assessed by mean coursework composition and performance, and by a final listening examination. The syllabus is based around four areas of study: instrumental music (including music by Bach and Beethoven); vocal music (including music by Purcell and Queen); music for stage and screen (including music from Wicked and Star Wars $/ \mathrm{V}$; and fusions. 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 field they excel. Historically, Music GCSE results are $100 \% \mathrm{~A}^{*} / \mathrm{A}$, with 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 res.
top universities.

## CANDIDATE REQUIREMENTS

Any boy who enjoys performing or composing music will enjoy 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 an A* 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.

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 understanding of how fitness and well fitness and wellbeing.
The course aims to enable boys to develop theoretica knowledge and understanding of the factors that underpin physical activity and sport, and to use this underpin physical activity and sport, and to
knowledge and understanding to improve performance; to understand how the physiological and psychological state affects performance in physical activity and sport; to perform effectively in different physical activities by developing skills and techniques, and by selecting and using tactics, strategies and compositional ideas; to develop their ability to analyse and evaluate to improve performance in physical activity and sport; to understand the contribution that physical activity and sport make to health, fitness and 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 devel their knowledge of anatomy and 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.

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The GCSE course has a blend of practical and theory, and allows boys to demonstrate their sporting skill as well as to develop their knowledge of 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, inear 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
prent 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 amongst all academic disciplines
this level, in that it extends boys' conceptual understanding and problem solving in equal measure. Research shows consistently that Physics graduates on average achieve the highest paid jobs by the time they are in their early 30 s. The road starts here at IGCSE.

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 Maths and Chemistry.


THEOLOGY AND
PHILOSOPHY
OCR GCSE, Religious Studies, Syllabus J625 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 arguments for the existence of God; life after death; the problem of evil and suffering; religion and science, euthanasia; abortion; animal rights; human relationships; punishment; and war and peace. In 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, pupiss will develop
valuable analytical and evaluative skills, which will be of tremendous use in other academic areas. Theology and Philosophy is a broad subject enabling access to many degree courses and preventing access to none, with good links with any humanities subject, 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 analytical skills.

COMPLEMENTARY COURSES, SUGGESTED READING AND OTHER RESOURCES
Theology and 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 De/usion by Alister McGrath, The Puzzle of Christianity,
Bible Matters and Ethics Matters by Peter Vardy, as Bible Matters and Ethics Matters by Peter Vardy, as
well as regularly checking the Comment and Opinion well as regularly checking the Commen and Guardian
sections of The Telegraph, The Times or The Gual for relevant ethical and philosophical discussions. 65

Theology and 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 Genera Certificate of Secondary Education. IGCSEs are often offered by the same exam 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. IGCSEs tend to have less coursework and are equally respected by have less coursework and are equally respected by are comparable to GCSE. In fact, when some departments changed to IGCSE in the past decade their results improved

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, Maths 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 primed and ready to sit their (I)GCSE exam when they are more mature, at the end of the Fifth Form. Some boys who are native speakers in a language might 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) 2088728000
harrow@harrowschool.org.uk
Harrowschool.org.uk

