WINCHESTER
COLLEGE

SIXTH FORM ENTRANCE 2021

Information on Courses and Examinations

Winchester terminology used in this document:

VI Book 2 = Lower Sixth = Curriculum Year 12
VI Book 1 = Upper Sixth = Curriculum Year 13

Don = teacher

ENTRY TO THE SIXTH FORM AT WINCHESTER COLLEGE

Application to Winchester College for admission to the Sixth Form (known as VI Book) is a two-stage process. Following completion of the registration form, selected candidates will be asked to come to Winchester for examinations and interviews on Monday 9 and Tuesday 10 November 2020.

Candidates from outside the EEA who are not European citizens may need a Visitor's Visa. Those who are offered places in the Sixth Form at Winchester College will require a Study Visa. The College must have copies of passports in order to process visa applications.

The full boarding fee for 2020-21 will be £41,709 p.a. Fees are revised every September. Means-tested bursaries are available for those in need of financial assistance. Parents of shortlisted candidates, who indicated on their registration form that they will need financial support, will automatically be sent a bursary application form at the same time as their son is invited to interview. This should be completed and returned with the required supporting documents to the Bursar by 30 October 2020. Further information about bursaries can be found on the School's website and from the Bursar. E-mail: bursaries@wincoll.ac.uk, telephone: 01962 621210

Academic or Music Scholarships may be awarded, if there are candidates of suitable quality. These do not provide remission of fees, but Music Scholarships may give free instrumental/vocal tuition. Further details about Music Awards may be found on the School website: https://www.winchestercollege.org/admissions/music-and-sports-scholarships

A candidate for an award or a place should expect to obtain at least six A-grades or grade 7 at GCSE (or equivalent exam): this is the same requirement for promotion into VI Book as for existing pupils. A*, or grades 9 or 8, are recommended for subjects which the candidate wishes to study in the Sixth Form. Candidates will also be asked to demonstrate a breadth of interests in such areas as art, music, sport or drama.

If you have any questions, please contact The Registrar, Mr Andrew Shedden, admissions@wincoll.ac.uk. Completed registration forms should be sent to:

Mr Andrew Shedden
Registrar
Winchester College
College Street
WINCHESTER SO23 9NA
Telephone: 01962 621247 e-mail: admissions@wincoll.ac.uk

The closing date for applications is **Monday 5 October 2020**.

All applicants must be under 17 years of age on 31 August 2021.

NOTES ON SIXTH FORM ENTRANCE PAPERS

All selected candidates will be required to take the following:

1. The General Paper: an essay.

2. Candidates wishing to study Maths at A Level will be required to sit a Maths paper.

The General Paper in its entirety will be no more than 1 hour. The time allowed for Maths is 1½ hours but the School reserves the right to alter the length of an examination where it deems it appropriate.

3. Subject and other interviews.

SIXTH FORM ENTRANCE: MUSIC

If you are selected to come to Winchester to sit the entrance examinations and if you play an instrument or sing, members of the Music staff may be able to support your candidature for a place or an award.

1. If you wish members of the Music staff to support your candidature, you will need to be around Grade 8 level or above on at least one instrument (or as a singer) in order to qualify for an audition. Candidates should present performances of their choice; the complete programme should not exceed twenty minutes.

2. Music Scholarships and Exhibitions (including Choral and Organ awards) are available for Sixth Form entrants. For further details, please contact the Master of Music, David Thomas (dst@wincoll.ac.uk).

Sixth Form Curriculum

Pupils currently in our sixth form ordinarily study three subjects (Cambridge Pre-U Principal Subjects). Those who are considered suitable to do so may be able to take either Mathematics (Accelerated) at the end of Year 12 or Mathematics/Further Mathematics (combined) and may take an additional optional subject to make four Pre-U classes in total. Those who choose both Latin and Greek may take four subjects. From September 2020, all Year 12 pupils will be taking linear A-levels instead of Cambridge Pre-U Principal Subjects.

Details of the courses offered for 2020-21 follow. These are unlikely to change greatly for 2021-2022, but the School reserves the right to make alterations.

SIXTH FORM COURSES

The School reserves the right to alter its curriculum at any time and without notice. Some combinations of subjects may not be possible and some subjects may only be offered if there is sufficient demand.

Art

The Sixth Form Entrance assessment in Fine Art and in Art and Design will be by portfolio of the candidate's recent work, including sketch books, and interview.

The programme of study we follow is the Edexcel A-level certificate in Art and Design (Fine Art 9FAO). The course is relevant to those pupils who intend to enter higher education courses in Art, Design and Architecture. It is also suitable for those who are planning careers for which a background in art and design would be useful or for those who simply wish to pursue their interest in art and culture. The nature of the course fosters creativity to give a rounded and balanced educational experience, encouraging visual literacy. There are opportunities to work with an artist in residence, for gallery visits, talks by artists, artists' workshops, student-led shows and trips abroad.

Art School offers a wide range of disciplines to study drawing, painting, multi-media, photography, printmaking, ceramics and sculpture. Initially, pupils are encouraged to experiment with a range of different media and skills, focusing on an appropriate specialism as the course develops. The course encourages an independent and personal approach and is comprised of two components which are marked internally and moderated externally.

•Component 1: Personal study. This comprises a portfolio of supporting studies, personal practical works and a personal written study, completed during the first four terms of the course.

•Component 2: An externally set assignment developed in the final two terms of the course, culminating in a fifteen-hour period of sustained focus under examination conditions.

The course is followed in timetabled hours and involves studio time on Wednesday evenings. It allows students to develop their intellectual, imaginative, problem–solving, creative and intuitive skills. It requires investigative, analytical, experimental, practical, technical and critical judgement, and expressive techniques. It encourages students to reflect on their own work and on the work of other artists and designers.

Classics

Greek and Latin

The A-level examinations in Greek and Latin are identical in structure, so our courses are very similar. In both years of VI Book each set is taught by two dons, one for language and one for literature. We start by reading a variety of ancient literature, both prose and verse, chosen to give a foundation for studying the set texts. Through this reading the boys develop their skills in literary analysis, understand the cultural and historical contexts in which the authors were writing, and appreciate the influence of the classical world on later European culture. They develop the linguistic facility and clarity of thought required for this through continuous work on language, based on translation both from and into Latin and Greek. Towards the end of VI Book 2, work starts on the set texts, half prose and half verse, prescribed for the final examination. That is taken at the end of VI Book 1 and comprises four papers: two on the set texts and two on language. There is no coursework.

Greek and Latin may be studied together, something recommended if a boy is considering studying Classics at university, or singly in combination with other subjects. They are regarded by universities as rigorous academic subjects, and support applications for both humanities and science courses. Several boys each year go on to read Classics (on its own, or in combination with other subjects), the majority at Oxbridge.

Design & Technology

The majority of boys taking Design & Technology in VI Book go on to study Engineering, Industrial Design, Architecture, or another design-related subject at University. Design & Technology neatly complements both science and arts subjects and enables pupils to develop transferable skills relevant to careers involving technology, creativity and entrepreneurship.

Boys enjoy tremendous freedom to experiment with, and utilise, a range of cutting-edge design tools, materials, manufacturing processes and technologies, not limited to their project work. The course enables pupils to pursue topics of personal interest, and encourages pupils to tackle important real-world issues involving technical, human and social parameters, working closely with clients and/or relevant stakeholders.

The Design & Technology: Product Design (Edexcel) A-level consists of a written examination covering contemporary industrial and commercial processes, knowledge of materials, an understanding of systems and control (involving applied maths and physics) and the application of technical problem-solving techniques (50%). The remainder of the assessment takes the form of an independent Design and Make Project (50%). The first two terms of the course are devoted to the strengthening of theory and exploring the principles of Design & Technology through a short practical project. Boys will begin their major Design and Make Project in Cloister Time of the VI Book 2 and this is then complemented by regular theory lessons in the lead up to the written examination in the summer of the final year.

The project requires pupils to identify a design need, before undertaking investigative research, experimentation, problem-solving, prototyping and design communication, in order to bring their concept to fruition. All research and design ideation is recorded in an A3 portfolio.

Economics

In the Economics course, we study both microeconomics – the study of markets and government interventions to correct market failure – and macroeconomics – looking at whole economy issues, such as growth, unemployment and inflation and considering the policy options available to governments to improve the standard of living. There is an international slant to the course, looking at how the economy trades and engages with the rest of the world and the economic development of low-income countries. Pupils learn to apply economic theory to the UK economy and to global economic problems, including climate change; there is a strong emphasis on relating economics to the real world. The course is contemporary, fresh and encourages pupils to have an economic perspective on their place in the world.

Economics appeals to pupils who are keen to learn more about how the world works. Those who are strong in History, Science or Mathematics usually do well in the subject. The course requires the ability to write concisely and with insight: a good grade in IGCSE English is a good indicator of suitability for the subject. Equally, a poor pass in GCSE Mathematics may be an indication that a boy will find the theoretical side of the subject difficult.

Economics, while making an important contribution to general education, is also relevant for a wide range of university courses such as Law, Business Studies, History, Politics, Geography, Engineering and International Affairs.

English

English in VI Book is taught across two years to the OCR English Literature A-level specification. The course introduces students to a wide range of writing from the Renaissance to the contemporary and classes will be taught throughout by paired teachers.

In the first term of VI Book 2, students will study Shakespeare's Measure for Measure, an exam set text, as well as a complementary Renaissance play of their don's choosing. In Common Time, they move on to their first piece of coursework, writing a critical account of, or re-creative response to, a dramatic or poetic text of their don's choosing, while they study their poetry set text with their other teacher. In Cloister Time, they read a pre-20th century novel of their don's choosing while completing their Gillespie Essay Prize submissions, and study their drama set text with their other don.

In VI Book 1, the focus shifts in Short Half to the Women in Literature unit, where students will read either Jane Austen's Sense and Sensibility or Virginia Woolf's Mrs. Dalloway alongside another novel of their don's choosing by a woman writer. With their other don, they will complete a 2000-word comparative essay on a post-1900 novel and either a play or poetry collection. The teaching of the Women in Literature unit is completed by both dons after Christmas, with revision beginning after the February Leave Out.

At the same time as it is resolutely focussed throughout the two years on the exam curriculum, VI Book English teaching at Winchester goes emphatically beyond the bounds of teaching to the exam. The choice afforded to dons allows them to communicate their knowledge of and enthusiasm for their favourite literary texts.

Furthermore, the introduction of weekly Fellows' Library sessions with the Head of Department gives students unprecedented access to some of the rarest and most valuable books in the school's Fellows' Library. In these sessions, students will encounter English literature as something rich and strange, as they read and hold copies of medieval dream poems, Shakespeare's first folio and Jane Austen manuscripts, amongst many other treasures. These sessions take place throughout Short Half and Common Time in VI Book 2, culminating in the Gillespie Prize, a 2000 word essay submitted in Cloister Time that is written on one or more of the writers they have encountered in the Fellows' Library.

The range and extension of English teaching is further supplemented throughout the course by the Empson Society, which provides talks by guest speakers such as academics and poets, and Spirit Lamp, which caters for creativity and collaboration. The department also runs frequent symposia, theatre trips and reading groups.

Geography

OCR Geography A-Level grapples with the key global issues faced today.

The course is split into three papers and an independent investigation:

Paper 1 (22%)	Physical Systems	• Earth's life support systems – the carbon and water cycles. • Glaciated landscapes
Paper 2 (22%)	Human Interactions	• Changing spaces; making places • Global migration • Power and borders
Paper 3 (36%)	Geographical Debates	Two of the following options will be chosen: • Climate Change • Disease Dilemmas • Exploring Oceans • Future of Food • Hazardous Earth
Paper 4 (20%)	Independent Investigation	The independent investigation may relate to any aspect of the specification. It is a written report with a recommended length of between 3000 and 4000 words.

Rigorous theoretical analysis gives pupils an intellectual understanding of each topic. Contemporary examples are then explored to discover how the theory relates to the real world. In this way, candidates develop a confident grasp of the global issues studied, appreciating their causes, impacts and potential solutions.

Essay writing is an important part of the course assessment. Pupils are given every opportunity to develop their essay writing throughout the course. Other skills that will be developed include; independent research, numeracy, graphicacy and ICT.

Geography is highly regarded by Russell Group universities and it complements a variety of other subjects, both arts and sciences; as a result, it can pave the way to a wide range of courses at university. A high proportion of our candidates choose to study Geography at university and go on to follow a large variety of careers.

History

In VI Book historians are taught in one of three sets - medieval, early modern and modern - and study papers in British and non-British history, a thematic study over a period of more than 100 years and write a coursework essay of 4,000 words on a subject of their choosing. Anyone who likes to read widely, is reasonably fluent on paper and has an interest in people and the past is a potential student of History at A-level. The material covered by each set is provided in outline below, although remains subject to change.

The medieval set will cover British history from 871-1016, charting the wars between Alfred the Great and the Vikings and the unification of England under Alfred's successors. The non-British paper will explore the creation of the Mongol Empire under Genghis Khan and its subsequent development from 1167-1405, including its impact in Persia, India and China. The thematic paper investigates the role of heresy and the Inquisition in the medieval life of Europe from 1100 to 1400.

The early modern set will study the causes, events and consequences of the English Civil War from 1603-1646, the Protectorate of Oliver Cromwell and the restoration of the British monarchy in 1660. The non-British paper will explore the causes and impact of European exploration in the Americas, Africa and Asia in the 15th and 16th centuries, while the thematic paper will look at the causes, nature and impact of rebellion and disorder under the Tudors from 1485 to 1603.

The modern set will study British history from 1783-1846 – from Pitt the Younger to Sir Robert Peel – and combine this with a non-British paper on international relations from 1890-1941, including the origins and course of the First World War, and its consequences in Europe and the Far East. The thematic study explores developments in the Middle East from 1908-2011, the origins of the Arab-Israeli conflict and its development up to the present day.

History combines well with most subjects in VI Book and provides a good grounding for a degree in most non-scientific subjects. Pupils who are considering studying the subject at university may like to consider choosing a modern or classical language alongside History, but it is not uncommon to choose History alongside Maths and a Science. More generally, History encourages independent study and critical thought, and helps to develop literary skills which, valuable in themselves, are also highly appreciated in many careers.

Art History

Art History is an academically rigorous essay-based discipline that demands we first look at works of art and architecture, then try to understand them. We study social, political and religious context: we examine the history behind works of art, as well as learning the technical language to describe them. Lessons are visual and academically testing. We are often out of the classroom using the resources of Treasury, the Fellows' Library and the buildings of Winchester College.

The Edexcel A-level course ranges across art that is ancient and modern, figurative and non-figurative, Western and non-Western. The list of artists you will study is a wide one, amongst them Jackson Pollock, Michelangelo, da Vinci, Monet, Renoir and van Gogh.

Paper 1 is firstly an unseen paper: you will be tested on your ability to analyse painting, sculpture and architecture from 500 BCE to 2,000 ACE.

The two themes we study for the second half of Paper 1 are War and Identity. In our study of them, we will examine a wide range of works, the buildings of Christopher Wren to the anti-war paintings of Paul Nash.

Paper 2 is composed of historical topics: the Renaissance 1420-1520; and Britain and France, 1848-1898. Thus the 'heroic age' of Florentine, Roman and Venetian art from 1420-1520 precedes study of the Impressionists, Post-Impressionists and Pre-Raphaelites. Architecture of the period ranges from the Eiffel Tower and the Crystal Palace to the Sistine Chapel and St. Peter's.

There are study visits to museums and galleries in the UK each term. Every year there is a trip abroad. Recent destinations have included Florence, Rome, Venice, Barcelona, Paris, Amsterdam and New York. The Kenneth Clark Society organises a variety of events such as lectures and visits to exhibitions.

The subject is inherently interdisciplinary. It complements other humanities, languages and sciences. It is particularly appropriate for those wishing to read Architecture. Former pupils have studied the subject at Cambridge, UCL, the Courtauld Institute, Edinburgh and many other leading universities. Their subsequent careers range from journalism and the law, to interior design and film making.

Mathematics

The Sixth Form Entrance paper in Mathematics aims to assess mathematical potential. The work for any higher level GCSE course is sufficient preparation for it. Candidates who wish to be considered for any of the four pathways (see below) will be assessed on this single paper and the interview that follows it.

Mathematics is an essential qualification for university courses in Engineering, Economics, Architecture, the Sciences and, of course, Mathematics itself; and for others (e.g. Law, Linguistics, Medicine) it is strongly valued. Prestigious universities may additionally require Further Mathematics for some courses. Beyond university it is a qualification highly respected by many employers. Although mathematical techniques constitute a central component in the applied sciences, the discipline is above all else aesthetic; boys who successfully negotiate Mathematics in VI Book are those who are broadly sympathetic with this view.

There are four pathways (please see below) of Mathematical study in VI Book.

1) a two-year course with 8 lessons per week leading to A-level Mathematics (**Mathematics**);

2) a one-year course with 9 lessons per week leading to A-level Mathematics at the end of VI Book 2 (**accelerated Mathematics**);

3) a two-year course with 14 lessons per week leading to A-level Mathematics and A-level Further Mathematics (**Further Mathematics**);

4) a two-year course with 9 lessons in VI Book 2 and 10 lessons in VI Book 1 leading to A-level Mathematics and A-level Further Mathematics (**accelerated Further Mathematics**).

All pupils take GCSE at the end of V Book. The top three sets will also take OCR Free Standing Maths Qualification (FSMQ). We follow the OCR A (H240) Mathematics and OCR A (H245) Further Mathematics.

For the Mathematics course, we expect at least a grade 7 in GCSE. It is our experience, however, that boys in 3Mf, 3Mg and 3Mh, who achieve a grade 7 in GCSE and embark upon A-level Mathematics, tend to find the course challenging, and rarely achieve a grade higher than a B at A-level.
For accelerated Mathematics and Further Mathematics, we expect a grade 8 or 9 in GCSE and a grade A in OCR FSMQ (the highest grade available in this qualification).

For accelerated Further Mathematics, boys need first to be in one of the two highest sets in V Book and secondly to achieve a grade 8 or 9 in GCSE and a grade A in OCR FSMQ.

Modern Languages: French, German, Spanish and Russian

The study of Modern Languages is a demanding and rewarding academic discipline. Those who choose to study a language in depth will be introduced to the literature, culture and ideas of a foreign country. They will learn to communicate effectively and accurately in writing and in the spoken language.

French, Spanish and German follow the AQA A-level course which consists of three papers. Reading, listening and translation are worth 50%. The remaining 50% are made up of a literature and speaking exam, which comprises an individual research project and a syllabus-specific conversation. Russian follows the Edexcel A-level course which consists of three components: listening, reading and translation (40% of marks), written response to works and translation (30%) and speaking (30%).

Boys are encouraged to use the library and online resources to improve their knowledge of literature and contemporary culture and must attend conversation classes weekly to practise the spoken language. They should also plan to spend at least two weeks in a country in which their language is spoken.

The Head of French runs an annual exchange for boys in VI Book with a school in Bordeaux. The German Department organises a VI Book study trip to Germany to hone pupils' oral proficiency before their oral exams. The Spanish Department runs an annual exchange for boys in VI Book with a school in Seville. There is an annual study visit to Russia for those in VI Book 1 and 2 and an annual exchange with a school in St Petersburg.

Those in VI Book 2 must enter for a prize exam on a set text. They may participate also in a speech competition for recitation in the foreign language. These competitions are held in the first term of the top year.

Every year approximately ten boys go on to read Modern Languages at university. Pupils who may be thinking of studying the subject at a university where the course is likely to have a significant bias towards literature (as opposed to a joint honours course in, say, Spanish and Business) are strongly advised to take English Literature A-level alongside their language A-levels.

Chinese is not offered for study in VI Book.

Music

If a Sixth Form candidate is seeking a Music Scholarship or Exhibition, he should register his interest with the Music Administrator (jma@wincoll.ac.uk) by the end of September in the year preceding entry. Application forms will be sent out to all those candidates who secure an offer of a place at Winchester. Auditions will take place during the Spring Term at a mutually convenient time. See details on page **3**.

Music can fit with almost any combination of subjects, and because many music graduates opt for employment outside the subject, is not seen as an entirely specialised vocational study.

The AQA A-level course in Music is assessed through three components: appraising, performing, and composing. Appraising involves the study of a wide range of music from the Western Classical music from 1650 to the present, including Baroque concertos, the operas of Mozart, Romantic Piano Music, and Jazz. The paper includes listening to both familiar and unfamiliar works, analysing them and putting them into context. For the performing element, boys will give a short recital on their chosen instrument, which must be at a minimum of Grade 7 standard. This can include improvisation, playing or singing as a soloist, as an accompanist, or in a duet or as a member of an ensemble. Composing (which is a coursework element) involves stylistic exercises based on the chorales of J.S. Bach, and a commissioned composition in a style of the candidate's choice.

In addition to studying for an A-level in Music, candidates will have the opportunity to be entered for the Grade 8 Theory examination, which is highly regarded and sought-after by universities, and to take a diploma on their chosen instrument(s). Both of these elements are optional but highly recommended and will add further breadth to their VIth Book studies.

Candidates who wish to obtain a high grade for A-level Music do not need to have studied Music at IGCSE, but must be advanced performers on at least one instrument (Grade 7 minimum) and possess sophisticated listening and writing skills which they can apply across a wide range of Western Classical music. The most successful candidates are those who learn several instruments, and are immersed in a wide range of practical music (through participating in ensembles, orchestras, and choirs), and who demonstrate a passionate curiosity about the subject, attending concerts and listening to a variety of repertoire.

Philosophy

In AQA A-level Philosophy you will learn the critical thinking skills which will be essential to any profession you choose to enter after university. These skills are now part of many critical thinking tests for admission to a wide range of undergraduate degree courses.

You will learn how to:

- identify the structure of an argument: its premises, assumptions, reasons, conclusions and inferences
- identify different forms of argument: deduction, induction, abduction - and be able to analyse and evaluate arguments in ways appropriate to their form: validity/invalidity, soundness/unsoundness, certainty/probability
- recognise and deal appropriately with flaws in an argument, including circularity, contradictions, question-begging and other fallacies
- use examples and counter-examples
- generate arguments, objections and counter-arguments

The knowledge content of the syllabus covers questions arising in the core areas of the Western philosophical tradition and looks at the work of key historical and contemporary contributors to these debates:

1. **Epistemology**: How do we acquire knowledge about ourselves and the world? Are we born hardwired with some knowledge already or is everything acquired via our sense experience? What counts as 'knowledge'? What is a 'proof'?

2. **Moral philosophy**: What makes an action right or wrong? Is it our intentions? The consequences? Our laws? Our conscience? What do we mean by living a 'good life'? Are we free? Are we always responsible for our actions?

3. **The question of God**: Does the problem of evil decisively rule out God's existence? What do we mean by 'causation'? Are faith and reason compatible or are they always in opposition?

4. **Philosophy of Mind:** Are Mind and Brain identical, distinct or separate? What is consciousness? Can computers think? Can chimpanzees? What about a hive of bees?

Philosophy A-level will be examined at the end of the course in two three-hour papers. There is no Personal Investigation nor project work. Paper 1 covers the first two core areas and Paper 2 covers the second two core areas.

The examinations will test your ability to define key terms correctly, give accurate short answers to specific topics and finally assess your ability to construct and assess a philosophical argument in a longer essay. The essay will be on questions drawn from each of the four core areas.

Philosophers should bring an insatiable curiosity to their studies. They should enjoy asking questions which advance their understanding and, crucially, should enjoy having their own questions and responses cross-examined in turn. Philosophy is an excellent complement to a wide range of other subjects. In recent years boys have gone to university to study Physics and Philosophy, Modern Languages and Philosophy, Theology and Philosophy, Psychology and Philosophy and PPE. Others have found the study of Philosophy useful in progressing to Law, Linguistics, Mathematics, Natural Sciences, Economics and Medicine.

Sciences

The three sciences are very popular at Winchester and the atmosphere in the Science School is dynamic. Pupils find the courses stimulating and are supported in reaching their potential by enthusiastic and varied teaching. We encourage able VI Book scientists to participate in a number of competitions, particularly in the international Olympiads, which have proved very challenging and rewarding for many years. Pupils are also encouraged to gain experience of work in science and engineering in vacations.

All three sciences will pursue national A-level courses, given the announced demise of the Cambridge Pre-U qualification. However, extension work that is Pre-U in character will still be available for sufficiently able sets. It is difficult to study science at this level without mathematics and, at university, pure science (but not always medicine) will require it.

Studying the sciences need not lead to subject specialisation at university. Many university science and engineering degree courses are now very broad and contain a wide variety of options studied in combination with the main subject. Science and engineering degrees are more vocational than arts subjects but science graduates are not locked into research or industrial careers: many end up transferring to law or entering the financial world.

Most universities adopt a flexible entry policy for science courses, many of which are undersubscribed. Certain combinations are required for some subjects, for instance Chemistry and, often, Biology for Medicine; and Physics and Mathematics for engineering. Boys who are thinking of studying Engineering at university are strongly encouraged to take A-level Design & Technology as one of their course options. Pupils interested in Medicine must bear in mind that more than 3 A-levels may be demanded, and so they will need to check carefully the course requirements. Many university

courses cross the traditional school subject divides: Materials Science (Physics and Chemistry), Biophysics, and Biochemistry.

Biology

The unlocking of DNA's structure by Watson and Crick was the catalyst for an explosion of biological exploration that has fundamentally altered the scientific landscape. Biology is unquestionably a subject that affects us all, whether socially, ethically or economically.

The Edexcel (Pearson) Biology B A-level course extends the interesting components of the IGCSE syllabus to satisfy more fully the intellectual curiosity of our pupils. For those looking to supplement their humanities education with a challenging alternative, Biology is highly regarded when offered in support of university applications to non-science courses. The syllabus contains sufficient diversity to interest all. The core components of molecular biology, biochemistry, genetics and biotechnology will appeal to the technically minded pupil, whilst at the same time supplementing the interest of a natural historian. There is lots of practical application with the requirement to complete 12-16 core practicals throughout the course. Those considering this option will need to gain a grade 7-9 at IGCSE.

The A-level course is well supported outside the classroom, with a wide range of activities available, including: Biological Society which encompasses Journal Club, Dissection Club, Medic Society, the British Biology Olympiad and field studies trips.

Chemistry

Boys in V Book who continue with Chemistry will pursue the OCR A course for A-level. The course contains some high-level material and so boys electing to pursue Chemistry will need to have a good grounding in the subject—ideally an 8 or 9 at IGCSE, although a 7 grade will also be acceptable. It is not necessary for VI book Chemistry to take Mathematics at A-level.

One of the most flexible disciplines, Chemistry is a useful partner to Mathematics, Physics, Biology, Economics or History and is a requirement for Medicine and useful for Engineering. Chemistry is also highly valued in research, insurance, consultancy, law and many other careers because of its training of analytical and problem-solving skills.

About a quarter of the course is dedicated to laboratory work, developing the practical skills that a chemist needs. There is a series of assessed practical tasks over the two-year course, in which certain skills must be demonstrated by pupils and recorded.

There will be many opportunities for extension work beyond the syllabus, and good results in the Cambridge Chemistry Challenge for Lower Sixth or the UK Chemistry Olympiad are useful indicators for university admissions tutors.

Physics

Many are inspired by the "big science" of the Big Bang or the Higgs boson, but Physics is involved in understanding the universe at every scale, from the flame of a candle to the nuclear fires of a star. The careful, precise thought and mathematical competence demanded by the subject make it a highly respected qualification for any university course; it is essential for the study of Physics and Engineering at university and is very useful for any course involving Maths or Science.

A degree in Physics or Engineering is obviously necessary for a specialist career in these fields, but leaves options open to take any path after graduation. In particular, the physicist's habit of developing mathematical models of the world has provided a fine grounding to many pursuing careers in computing or finance.

All pupils will be following national A-levels, with a single set of exams at the end of a two-year course. The course will retain its mathematical rigour: we would expect those taking Physics to be studying Maths in VI Book and to have at least an 8 in Physics IGCSE. The practical element of the qualification will involve continuous assessment of laboratory work over the two-year course: typically the amount of experimental work we do would be well in excess of the minimum requirements of the exam board.

DIVISION IN THE SIXTH FORM

Division (Div) is a compulsory element in the Winchester College curriculum. It is taken in addition to specialist subjects.

Div is at the heart of the education we offer at Winchester. Four lessons a week will be dedicated to 'traditional' Div. These lessons will provide an opportunity to:

- examine subjects not covered by A-level syllabuses, for example: scientific ideas, philosophy, politics, European and non-European civilisations, literature, art and music;
- examine the inter-relationship between different branches of knowledge;
- develop essential skills of critical thinking and communication through essays, discussions, debates, role-playing and creative writing;
- explore intellectual ideas and develop acceptance of others' opinions.

The remaining two Div lessons a week will be dedicated time for boys to complete an Extended Project Qualification (EPQ). The EPQ harnesses a number of the skills which are nurtured in Div; an ability to complete independent research and detailed analysis over a prolonged period of time coupled with well-structured and logical writing.

The EPQ is highly valued by universities and boys will have free rein to choose their project topic and supervisor. It should be intellectually stimulating and, if properly grasped, will ensure that boys become expert in their area of interest.

A written task, which will be related to 'traditional' Div or the EPQ will be set weekly.