



WINCHESTER  
COLLEGE

## Academic Curriculum

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The academic curriculum at Winchester College is designed to provide as broad an education as possible, combined with specialist study in chosen examination subjects. We offer much flexibility in the choice of GCSE/IGCSE subjects and advanced courses (in Years 12 & 13 pupils take A-levels), as well as a varied programme of non-examined study known as Div (or Division).

Div is at the heart of a Winchester education and is taken very seriously. Div in Year 9 is the vehicle used in the delivery of English. Throughout the remainder of the lower school (Years 10 and 11) it is a general course in History, Divinity and Philosophy, taught by a mixture of specialists and non-specialists. For pupils in Years 12 and 13, the purpose of Div is to complement the specialised A-level teaching and to give pupils some understanding of British, European and world history and culture. Div in Year 12 is also used for the delivery of the Extended Project Qualification (EPQ).

Pupils take ten GCSEs/IGCSEs. These include English Language and English Literature, Mathematics, French or German, and two or three Sciences. To these may be added: Latin, Geography, History, Computer Science, additional foreign languages and creative subjects (Music, Art, Design), up to a total of ten subjects. Some pupils take an additional qualification in Mathematics. GCSEs/IGCSEs are taken at the end of Year 11. Pupils then take three, four or five linear A-level subjects in the sixth form.

Further information about the curriculum will be provided at annual Parents' Evenings, well in advance of any choices having to be made. There will also be many opportunities to consult Heads of Departments and subject teachers about the content of particular courses in advance of these being chosen. The Director of Studies sends regular communications and keeps parents informed.

Careers advice is available at all stages but formal work with pupils will start with ISCO testing in Year 11, supplemented by further testing and opportunities for more detailed consideration of future career pathways and higher education choices in Years 12 and 13. The Careers and Higher Education Library and staff are resources that pupils are strongly encouraged to make use of, particularly when making exam subject and university choices. The Careers and Higher Education department also keeps full information about work experience and other external opportunities. The school also makes use of BridgeU, an online platform designed to help pupils make informed choices about university courses which also streamlines the application process itself.

Assessment of pupils for special educational needs takes place in the early part of the first term of a pupil's time at the school, and further assessments will take place later on if concerns have been raised, either by parents or teachers. Pupils with Statements of Need/EHCPs are reviewed according to the circumstances by the Special Educational Needs Coordinator or SENCO, parents/guardians, pupil and

relevant outside agency. The SENCO is responsible for ensuring that special provisions contained within the Statement/ECHP are communicated and implemented. Pupils who need additional assistance with EAL will, in Year 9, be placed, as appropriate in the Division of a teacher with specific experience of teaching pupils with EAL issues. There may additionally be one-to-one assistance for pupils in any year group with EAL. Pupils are also prepared separately by the Head of English for IELTS if required for university entrance.

## Year 9

The following subjects are taught to all:

Division (English)	4 x 35 minute lessons
Mathematics	5 x 35 minute lessons
Latin	4 x 35 minute lessons
Foreign Language 1 (see below)	4 x 35 minute lessons
Foreign Language 2 (see below)	4 x 35 minute lessons
Physics	3 x 35 minute lessons
Chemistry	3 x 35 minute lessons
Biology	3 x 35 minute lessons
Geography	2 x 35 minute lessons
History	2 x 35 minute lessons
Religious Studies (RS)	2 x 35 minute lessons
2 of Music, Art or Design	4 x 35 minute lessons
Physical Education	2 x 35 minute lessons

Before joining the School, new pupils will be asked to express a preference for each of the two Foreign Language blocks:

- Foreign Language 1: French or German
- Foreign Language 2: French (if not already chosen for FL1), German (as French), Russian, Ancient Greek and Spanish.

They will also be asked to select two subjects from Music, Art and Design.

The final decision as to subject is made by the School, but preferences and comments are sought from pupils and their parents and every attempt made to accommodate these.

One 35-minute lesson in the timetable (Wednesday 4) is dedicated to time with a boy's academic and pastoral tutor. The tutor period is used as the vehicle for the delivery of, and follow-up to, the school's PSHEE programme. Tutor groups are arranged in a vertical structure (2-3 pupils from each year group – Year 9 – Year 13) and are populated with pupils from the same boarding house.

## Years 10 and 11

Towards the end of Year 9, pupils are given a further opportunity to express their preferences for GCSE study. Pupils take 11 subjects in total (including Division).

The compulsory and optional elements of the Year 9 and 10 curriculum are as follows:

Compulsory:

Division	4 x 35 minute lessons
English Language and Literature	6 x 35 minute lessons
Mathematics	5 x 35 minute lessons (4 in Year 11)
Foreign Language 1 (French or German)	4 x 35 minute lessons
2 or 3 of Physics Chemistry Biology	4 x 35 minute lessons

Optional (a choice of 5 or 4 additional subject (depending on whether three or two Sciences are taken)):

Foreign Language 2 (see below)	4 x 35 minute lessons
Latin, Computer Science, History, Greek, Music, Geography	4 x 35 minute lessons
Art or Design	4 x 35 minute lessons

- FL2: French (if not chosen for FL1), German (as French), Spanish, Russian (0, 1 or 2 to be studied) 4 hours

Pupils and parents are always advised further at the time these allocations and decisions take place.

One 35-minute lesson in the timetable (Wednesday 4) is dedicated to time with a boy's academic and pastoral tutor. The tutor period is used as the vehicle for the delivery of, and follow-up to, the school's PSHEE programme. Tutor groups are arranged in a vertical structure (2-3 pupils from each year group – Year 9 – Year 13) and are populated with pupils from the same boarding house.

## 9-1 grading at GCSE & IGCSE

GCSEs have moved to a numerical grading system, whereby 9 is the new top grade. The rationale behind this is that nine levels of performance rather than eight (A\*-G) will offer greater differentiation of the ablest pupils, with grade 9 introducing a grade above A\*.

The International GCSEs set by Cambridge International Examinations (CAIE) account for a significant number of subjects taken by our pupils at Winchester. In order to provide comparability with the reformed GCSEs, CAIE is now also offering the 9-1 grading system to their UK schools, but without any change in syllabus content. We adopted their 9-1 graded exams as soon as they became available.

### Conversion chart

<i>New grade</i>	<i>"Old money"</i>
9	A* +
8	A*
7	A
6	B +
5	B
4	C
3	D

## Sixth form/Years 12 & 13

Sixth Form pupils ordinarily study three subjects. Those who are considered suitable to do so may be able to take Mathematics/Further Mathematics (combined) and an additional optional subject to make four A-level classes in total. Those who choose both Latin and Greek may take four subjects. Other combinations of four subjects require a discussion with the Director of Studies.

One 35-minute lesson in the timetable (Wednesday 4) is dedicated to time with a boy's academic and pastoral tutor. The tutor period is used as the vehicle for the delivery of, and follow-up to, the school's PSHEE programme. Tutor groups are arranged in a vertical structure (2-3 pupils from each year group – Year 9 – Year 13) and are populated with pupils from the same boarding house.

A comprehensive guide regarding entry to the Sixth Form can be found [here](#).

### DIV IN SIXTH BOOK

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.

## SUBJECTS

### Art

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-20<sup>th</sup> 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 some of 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, among 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 varied course helps you develop an understanding of physical and human geography whilst unpicking the debates surrounding contemporary challenges facing the world. Bridging the divide between the sciences and the arts it works well alongside a variety of subjects and is an excellent preparation for a career in 21<sup>st</sup> century business where social and environmental considerations are increasingly important.

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

Paper 1 (22%)	Physical Systems	<ul style="list-style-type: none"> <li>• Earth's life support systems</li> <li>• Glaciated landscapes</li> </ul>
Paper 2 (22%)	Human Interactions	<ul style="list-style-type: none"> <li>• Changing spaces; making places</li> <li>• Global migration</li> <li>• Power and borders</li> </ul>
Paper 3 (36%)	Geographical Debates	<ul style="list-style-type: none"> <li>• Climate Change</li> <li>• Disease Dilemmas</li> </ul>
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.

The variety in the papers gives you an opportunity to recognise and be able to analyse the complexity of people-environment interactions at all geographical scales, and consider their links to societal and environmental issues. They will also improve your understanding of the ways in which values, attitudes and circumstances have an impact on the relationships between people, place and environment. You will develop the knowledge and ability to engage, as citizens, with the questions and issues arising

Essay writing is an important part of the assessment and there is a focus on you reading and writing throughout the course. A variety of other skills are integrated with IT and fieldwork prioritised via two short residential field courses. The division in the course between human and physical geography means that the independent investigation can be a great opportunity to develop data management and analytical skills, but it can also be approached in a more qualitative or philosophical manner depending on your interests. There is significant flexibility and an opportunity for you to follow your own academic interests.

Around a third of Geographers continue to study the subject as a single or joint honours course at university. There are also a large range of related subjects such as HSPS, Human Sciences, PPE, Anthropology, Zoology, Marine Biology, Earth Sciences, Geophysics etc. that have been pursued by former pupils. The foundation in essay writing *and* data skills that it provides makes a useful basis for most 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 15<sup>th</sup> and 16<sup>th</sup> 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.

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.

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.

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

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 of Mathematical study in VI Book.

	Mathematics	Accelerated Mathematics	Further Mathematics	Accelerated Further Mathematics
Course content	A-level Maths	A-level Maths AS Further Maths	A-level Maths A-level Further Maths	A-level Maths A-level Further Maths
Lessons per week	8	8	14	9 (VI2) 10 (VI1)
Recommended for 3M sets	cdef	bc	bcd	ab
GCSE/FSMQ requirement	8 in GCSE Maths	9 in GCSE Maths B in FSMQ Maths	9 in GCSE Maths A in FSMQ Maths	9 in GCSE Maths A in FSMQ Maths

We follow the OCR A (H240) Mathematics and OCR A (H245) Further Mathematics A-level courses in VI Book. Boys not taking FSMQ Maths who wish to access Further Maths are recommended to work through the textbook (ISBN: [9781510449640](https://www.amazon.co.uk/dp/9781510449640)) to prepare for this course.

For more information about mathematical requirements for various degree courses please visit the following [link](#).

## 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 V Book with a school in Seville, thereafter they are encouraged to organise independent travel to a Hispanic country. 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.

## **Music**

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 VI 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**

All three sciences 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.

**TNT – Director of Studies (March 2021)**