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Introduction

The choices you make for your Sixth Form course of study will have a vital impact on the rest of your education and, in all likelihood, on your future career.

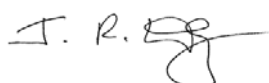
Consider carefully which programme of Sixth Form study you wish to follow: A Levels or the International Baccalaureate Diploma Programme (IBDP). Both courses of study are examined only in the summer of the Upper Sixth year. Whichever you choose or have chosen, this booklet is designed to give you more detailed information about specific subjects. Read it carefully and discuss it with your parents.

Once you have made your preliminary choices you will have the opportunity to discuss these with your teachers, your tutors and your HM, as well as the staff who advise on Careers and Higher Education. Please make good use of this period of consultation, because once your choices are finalised there is little chance of further change.

The following points are offered for guidance:

- If you have a particular career in mind and this requires Sixth Form study in a specific subject, make sure that you include this in your thinking (for example, if you are considering medicine as a career, you have to take Chemistry). Your HM, Mr Hunt or Mrs Hunter will be able advise you.
- Sixth Form studies give you the chance to develop your interest and skills in a more limited range of subjects than at GCSE. You will be spending as many hours outside the classroom as you do in lessons for each subject you study; it is important that you enjoy the subjects you have chosen.
- The International Baccalaureate Diploma Programme has breadth and balance built into it. As far as A Level is concerned, however, it is worth looking at the profile of your subject choices overall. You may decide to complement three Arts subjects with a Science subject, or vice versa. Ideally you will achieve a range which suits your abilities and interests. The A level block system is devised to support a balanced curriculum, and your HM and tutor will again be able to guide you in this.

We very much hope that you will find the process of Sixth Form course and subject choice both stimulating and encouraging. Please feel free to approach any of us if we can be of any help.



Mr J.R.Elzinga
Director of Studies



Mr I.R.M. Rowley
Senior Tutor



Mr M.Parker
I.B. Diploma Co-ordinator

A Level Option Blocks for September 2010

DRAFT

NB. This might not represent the exact programme the school will offer as other subjects could be added and the viability of some courses may be dependent on demand.

a	b	c	d	e
Classical Civilisation English Literature Geography History of Art Maths Maths for Scientists Physical Education Politics	Art Biology Design Technology Economics English Literature Geography Latin Physical Education Religious Studies Theatre Studies	Art Chemistry Classical Civilisation Design & Technology Economics Geography German Greek* Music Philosophy Spanish	Chemistry French History Physics Politics Religious Studies Theatre Studies	Art Biology Further Maths (AS and A level) History History of Art Italian (GCSE) Music Physics Spanish

* Greek is put into this block provisionally, depending on the other subject choices for those taking Greek

Notes:

1. All subjects have the same number of lessons except for Further Maths and Italian, which use up to half the lessons in the block in which they are placed, and Maths for Scientists, which is not an exam subject but designed to support the mathematical elements of Physics and Chemistry A Level for those pupils not taking Maths AS. All subjects may be continued to A2. Further Maths may be taken only with Maths. Italian is only offered as a GCSE.
2. Most Sixth Form pupils will complete four or five full A Levels. You should choose **four** subjects at this stage. Should you want to study **five** subjects in the Lower Sixth, you may do so, but you should consider carefully the work-load involved in the light of your co-curricular commitments.
3. You are strongly advised to make a coherent selection of courses which also provides you with a good breadth to your studies.
4. There is very limited flexibility with the block system, and while you will have the opportunity to register any clashes when you come to make your preliminary choices, it should be said that the block system is devised to make most likely combinations possible.

International Baccalaureate Diploma Programme

September 2010

Students must study 6 subjects – 3 at Higher Level (HL) and 3 at Standard Level (SL) – chosen from a range of subjects which have been divided into six groups (see below).

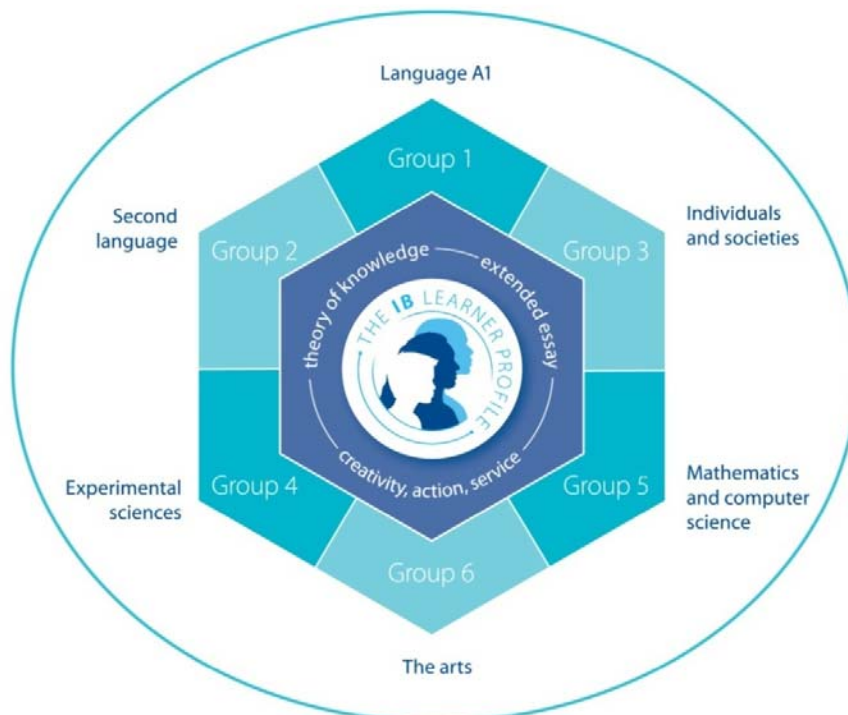
As well as English (as their native language) and Maths, students must study a second language, a science and a humanity subject. For their sixth choice, students must choose either an Arts subject or they can opt to study an additional language, science or humanity.*

It is generally advised that the subject(s) most closely related to a student's likely degree course should be studied at Higher Level. In this way students are able to study some subjects in depth and some more broadly in a course designed around their own ambitions and interests.

In addition, students will complete the following three core components which lie at the very heart of the diploma programme and are integral to its philosophy:

1. Theory of Knowledge (TOK)
2. The Extended Essay
3. Creativity, Action & Service (CAS)

The IB Diploma Programme Hexagon



* Under special circumstances, permission can be sought from the IBO for an individual to study 3 sciences (at the expense of both an Arts and a Humanity subject)

Broadly, the subject choices at St. Edward's are as follows:*NB.*

This might not represent the exact programme the school will offer as other subjects could be added and the viability of some courses may be dependent on demand.

Group	Area	HL or SL	SL only
1	Language A1	English	
2	Languages	French Spanish German Latin Greek	Arabic (ab initio) Italian (ab initio)
3	Humanities	Economics Geography History Philosophy	Environmental Systems & Societies
4	Sciences	Biology Chemistry Physics	Design Environmental Systems & Societies
5	Maths	Maths	Maths Studies
6	Arts or Alternative	Music Theatre Arts Visual Arts an additional Language, Science or Humanity	

The 3 core components:

TOK is an interdisciplinary course designed to provide coherence to learning by exploring the nature of knowledge across disciplines and encouraging an appreciation of other cultural perspectives. Students must write an essay at the end of the course.

The Extended Essay (4000 words limit) offers the opportunity to investigate a topic of individual interest and acquaints students with the independent research and writing skills expected at university. It is perceived by universities to be a key strength of the IB diploma programme and has proved to be a distinct advantage in university interviews.

CAS (much like the Duke of Edinburgh award scheme without the expedition element) provides a counterbalance to the academic challenges of the diploma. Its purpose is to encourage students to be involved in artistic pursuits, sports and community service work and so foster an awareness and appreciation of life outside the academic arena.

The combination of diversity and academic rigour offered by the IB Diploma programme, with its emphasis on independent learning and thinking, ensures that students enjoy a varied and challenging course which prepares them particularly well for their future experiences, both at university and in their professional career.

Choosing your subjects: further thoughts

The following factors should all be considered before making a choice of subjects. You should also bear in mind that some subjects are not available in both the A Level and IB Diploma courses.

Interest and Enjoyment – The Sixth Form gives you much more opportunity to make choices about what you study than so far in your school career, so there is not much point in choosing to study a subject you do not enjoy. Apart from anything else, you will naturally be prepared to put in the necessary effort for a subject you do enjoy. You should also take note of your Morrisby profile. Remember, however, that there is often a considerable difference between the syllabus content of a subject at GCSE and Sixth Form level, so make sure you know what the new syllabus will involve.

Ability – We ask that you have at least a B at GCSE in any subject you take at A Level, and for the IB Diploma Programme, we ask for an average of at least a B across your GCSE subjects. You should therefore bear in mind your predicted GCSE grades. In the case of subjects that you might take for the first time at A Level, we ask for at least a B in a related GCSE subject. For Theatre Studies, Classical Civilisation, Philosophy and History of Art, for example, this is English; for RS and Politics, English or History; for Economics, Maths and English. You should approach Mr Parker for more detailed guidance on the IB Diploma Programme.

Combinations of Subjects – This is less of an issue with IB than it is with A Level, because the IB Diploma Programme has breadth and balance built in. At A Level, some subjects naturally support each other. For example, it is sensible for Biologists to study Chemistry, and Physicists would be wise to take a Mathematics course. Others go together in the sense that Scientists might choose three science subjects, and Linguists two languages, although these patterns are less strong than they once were. With four subjects to study, you should seriously consider making a choice that maintains some breadth to your education – for example, by adding a language to a mainly science combination, or a science or mathematics to a mainly arts or humanities combination. There is a degree of overlap between some subjects (Biology and Physical Education, for example, Religious Studies and Philosophy) and you should take advice about choosing both subjects.

Usefulness – Beware of choosing a subject at A Level just because you think it might be useful in later life, if you have no particular interest or ability in it. Most A Level courses are academic rather than practical, and many careers provide their own in-service training in the practical application of subjects and skills which may only have been studied as far as GCSE or not at all. Remember that employers, as well as those making selections for further education, will also be concerned with a number of less measurable qualities, such as initiative, imagination and ability to work independently and in a team, in addition to a good performance at A Level or in the IB Diploma. Choose a combination of subjects that will allow you to develop both your academic skills and your personal qualities.

Future Career – Some careers require specific Sixth Form subject courses as qualifications and in some cases there is very little choice open. This applies particularly to careers such as Medicine, Veterinary Surgery, Engineering, and many Science-based careers. You need to research your options carefully, and further advice on these and other courses can be obtained from the Careers and Higher Education departments, ISCO interviewers, Housemasters and Housemistresses and tutors. A good proportion of all graduate-level jobs are open to students of any subject, but there are in-built prejudices in certain areas. For example, jobs in the media, advertising, marketing, and public relations are more likely to go to Arts graduates.

Career Implications of A Level/IB Diploma choices

If you have a pretty clear idea of what you wish to study at Higher Education many decisions at this stage are straightforward; if you are likely to want to study English at university then you obviously need to be well-qualified in the subject before applying; likewise if you want to apply for languages you need to prove your ability with languages at school.

However, the first thing you need to do is some research to be sure you are choosing the right subjects at AS or for the IB Diploma Programme and that these choices will not preclude access to university courses later on. This kind of research is slow and you need to devote time to it. Go to www.ucas.com and choose 'Course Search' to find out about courses.

Below we have used Medicine as an example to compare different requirements at three different institutions: Cardiff, Cambridge and The Peninsula Medical School. The different stipulations of each of these places gives you an idea of the complexity involved in preparing yourself for some subjects at Higher Education.

Cardiff University

AS/A2: 3.5 GCE A Levels ('a fourth A2 level subject will not enhance your application').

AS: Chemistry or Biology, if not taken at A level, at grade B; for other subjects at least a grade C.

A2: Two science subjects (one being Chemistry or Biology) from Chemistry, Biology, Physics, and either Mathematics or Statistics. AB grades required.

IB Diploma Programme: 36 points, two sciences (out of Chemistry, Biology, Physics, and either Maths or Statistics) at higher level, one being Chemistry or Biology with 6 points. 18 points in higher level subjects required. Chemistry or Biology must be offered at standard level if not at higher level.

All applicants must have taken the UKCAT.

Cambridge University

NB Be sure to consult individual colleges for their specific requirements.

GCSE: Passes at grades A, B, or C in Double Award Science (or two single awards in Biology and Physics) and Maths.

AS/A2: 3 GCE A Levels, A*AA.

AS: Three of Biology, Chemistry, Physics, Mathematics; Chemistry required to at least AS Level.

A2: Biology, Chemistry, Physics, or Mathematics. All colleges prefer applicants to have Chemistry A Level & St John's insists on it.

IB Diploma Programme: Offers between 7,6,6 and 7,7,7 in the higher level subjects, with overall scores between 38-42 points. Chemistry is required at higher level. Two Science subjects and Maths are preferred at higher level.

All applicants must have take the BMAT.

The Peninsula Medical School, Exeter & Plymouth

GCSE: Minimum of 7 at A-C, to include English Language, Maths, Biology or Double Science.

AS/A2: 3.5 GCE A Levels to achieve 400 points, 340 from A2.

AS: No specifics relevant to St Edward's pupils.

A2: Grade A in a Science subject, plus two further subjects at A level.

IB Diploma Programme: At least 36 points with a minimum of 6 in a Science and 6 in a further subject at higher level; however, this is 'not necessarily the threshold for interview'.

All applicants must have taken the UKCAT.

ART

We offer A Level and International Baccalaureate Diploma Programme courses in Fine Art. The following applies to both courses.

- A good GCSE grade is required.
- With their strong coursework emphasis, both courses follow on quite naturally from GCSE. When selecting subjects in the Sixth Form and looking at a balance of workloads, pupils must bear in mind that a high grade can only be achieved through concerted effort over the duration of a course.
- There are very few restrictions as regards scale or choice of media. Whatever expressive path an individual takes and however non-figurative the work, competent draughtsman-ship is seen as an essential skill central to all activities.

A Level

The AQA A Level in Fine Art comprises of four units:

AS Each unit carries 80 marks which is 50% of total AS marks and 25% of the total A-level mark.

Unit 1 Portfolio

Over the year candidates produce a wide ranging and richly diverse body of well researched coursework. We are not prescriptive in terms of subject matter or choice of media but encourage individuals to find and develop their own expressive path.

Unit 2 Externally-Set assignment

A lead-in period of no more than eight weeks, when candidates work on their chosen question. During the second month pupils must produce a five-hour unaided but supervised piece of work.

A2 All work produced for each unit will be marked as a whole by the centre and externally moderated by AQA.

Unit 3 Personal Investigation

Candidates develop a personal art related investigation based on an idea, issue concept or theme. The bulk of this work will be practical but projects must be supported by 1,000 to 3,000 words.

Unit 4 Externally-set assignment

A lead period of no more than eight weeks, during which candidates work on their chosen question, concludes with fifteen hours of supervised but unaided work.

VISUAL ARTS

International Baccalaureate Diploma Programme

The department offers an IB course as a part of the Diploma programme at both Standard and Higher level and in parallel with A Level Art courses.

There is no externally set assignment but all coursework produced at both HL and SL is assessed at the end of the two year course.

We will provide similar pupil centred non prescriptive courses for those working towards an IBDP qualification as we do for those at A Level.

Assessment Outline for both Standard and Higher levels:

External Assessment	70%
Part A Studio Work	
Exhibition and Interview	
Internal Assessment	
Part B Research Workbooks	30%
Internally assessed and externally moderated by the IBO	

CLASSICAL CIVILISATION

A Level (not available as part of IB)

Did you struggle with Latin grammar and syntax but love the background material on armies and chariot races? Have you always been fascinated by mythology? When watching *Troy*, *Alexander the Great* or *Gladiator*, did you wonder how accurate a portrayal of Greek or Roman life they were? Are you interested in history, culture, art, architecture, drama, literature, philosophy, politics, religion of our own and other societies? Then Classical Civilisation is certainly for you!

No prior knowledge is required to undertake this course leading to the AQA AS and A2, but you will need to enjoy reading and have a proven record in English and/or History. This modular course offers the study of Greek and/or Roman Civilisation across a range of topics, based on studying the ancient world through primary evidence of all types, and it will further develop your critical and evaluative skills in other literary, historical and analytical subjects. The wide choice of topics available include archaeology, architecture, art, history & politics, literature, and philosophy.

Classical Civilisation works very well even just to AS level, providing a literary, historical, political, cultural, social and philosophical background to modern European Civilisation. It complements arts and humanities A Levels and broadens any combination of subjects.

There is no course work required in this or any other classical subject.

AS candidates take any two modular AS units. This can be followed by another two modular A2 units for the full A level.

Each unit at AS is equally weighted and is examined in a 1½ hour paper.
Each unit at A2 is equally weighted and is examined in a 1½ hour paper.

The range of AS topics include:

Unit 1

- Greek Architecture & Sculpture Civ1A
- Athenian Democracy Civ1B
- Aristophanes & Athens Civ1C
- Women in Athens & Rome Civ1D
- Menander & Plautus Civ1E
- The Life & Times of Cicero Civ1F

Unit 2

- Homer Iliad Civ2A
- Homer Odyssey Civ2B
- Athenian Vase Painting Civ2C
- Athenian Imperialism Civ2D
- Roman Architecture & Town Planning Civ2E
- Second Punic War Civ2F

All AS modules are examined by candidates answering **one** structured source question out of two, based upon a selection of source material, and **one** short essay out of two on their chosen topic.

The range of A2 topics include:

Unit 3

- Mycenaean Civilisation Civ3A
- Persian Wars Civ3B
- Greek Tragedy Civ3C
- Augustus & Foundation of the Principate Civ3D

Unit 4

- Socrates & Athens Civ4A
- Alexander Civ4B
- Roman Epic Civ4C
- Tiberius & Claudius Civ4D

All A2 modules are examined by candidates answering **one** structured source question out of two, based upon a selection of source material, and **one** extended essay out of two on their chosen topic.

To enhance the course, the department makes excellent use of resources and materials to be found in the Ashmolean Museum and takes regular trips to sites in this country and a biennial tour to any one of Greece, Italy, Turkey or North Africa.

Higher Education

Classical Civilisation is now a popular degree in many universities – either standing alone or in combination with Archaeology & Anthropology. Oxford now offers a fascinating course in Ancient & Modern History, as well as one in Classical Archaeology and Ancient History, for which the knowledge of neither Greek nor Latin is a prerequisite. An increasing number of pupils at St Edward's are applying for a classical degree.

GREEK

A Level

Please read the Latin entry first, regardless of whether you wish to take that subject in addition to Greek, because what is said there applies equally to Greek – except that the rewards here are still greater! It is recognised that those embarking on a Greek A Level will not have studied the language for as long as they have been doing Latin. GCSE is of course desirable, but if you have not had the chance to take it, you will be accepted provided you are able to demonstrate a high degree of linguistic ability and strong motivation. The JACT Greek Summer School is highly recommended. Numbers for Greek are relatively small but growing, so you can expect a great deal of individual support and guidance.

This course offers you the opportunity to study elements of the language and literature of the Greek world, acquiring in the process some understanding of the culture, politics and social life of Greece at a most significant period in its history. It also enables spiritual, moral, political, historical and cultural issues to be considered as they emerge in context.

There is no course work required in this subject.

In the Lower Sixth you cover the course, leading to the AS examinations sat at the end of the Upper Sixth, which consists of **TWO** units:

- **G1 – Greek Language**
There will be one passage of Greek **prose** to translate into English especially composed so that its level of difficulty will be between that of GCSE and the full A Level. There will be an option of translating into Greek. For this ‘unseen’ a Defined Vocabulary List will be issued.
- **G2 – Classical Greek Verse & Prose Literature**
Candidates are expected to prepare **TWO** set texts: one **prose** (eg. Xenophon) and one **verse** (eg. Homer). Approx. 200 lines will be set from each text, from which passages for linguistic and literary comment will be chosen for examination. Candidates will demonstrate an understanding of literary techniques within the appropriate social and historical context and will be encouraged to make a personal response to the material studied.

In the Upper Sixth, you cover the remaining **TWO** A2 units as well as revising AS material in time for the exams.

- **G3 – Greek Verse**
Section A: Greek verse is studied through specified authors, such as Euripides or Aristophanes, of whom about 250 lines are set for comment.
Section B: An unseen passage from a named verse author is set for comprehension and translation into English. An ability to scan hexameters and/or iambic trimeters is expected. There is no defined vocabulary.

- **G4 - Greek Prose**

Section A: Greek prose is studied through specified authors, such as Plato or Thucydides, of whom about 250 lines are set for comment.

Section B: Candidates **EITHER** tackle an unseen passage from a named prose author in terms of comprehension and translation into English, for which there is no defined vocabulary, **OR** they write a passage of prose composition from English into Greek.

The prescribed authors at both AS and A2 are chosen from a range of playwrights, historians, epic poets and philosophers. In addition to studying the prescribed texts and gaining practice at unprepared translation, a range of other authors will be introduced, and language work previously studied to GCSE will be developed further, so that by the end of the two years you will have extended your understanding not only of the Greek language and literature, but also of the people who spoke it and of the society in which they lived.

Outside the classroom, visits to lectures, plays and exhibitions are arranged whenever possible. There are also trips abroad, for example to Greece and Turkey every two years.

For a university course, Greek can be offered, usually (but not necessarily) in combination with Latin, to read either Classics or a wide variety of other subjects such as Law, Ancient and Modern History, Philosophy, Politics, Modern and Oriental Languages, Theology and Archaeology.

The most prominent areas of employment for Classicists are:

- finance, banking, insurance, accountancy
- marketing and related areas
- management, administration, civil service, law
- the arts, journalism, publishing, education
- computer sciences.

According to Oxbridge statistics, not only is Classics one of the least competitive courses on which to gain a place, but it also has the highest rate of immediate high level employment for its graduates.

LATIN

A Level

In Latin you are studying a language, a literature, and a civilisation – all of which have had a profound influence in shaping the modern world.

This course, whether taken to AS or to the full A Level, offers you the opportunity to study broad aspects of the language and literature of the Roman world. You will acquire, in the process, some understanding of the culture, politics and social life of Rome at significant periods of her history, depending on the texts under study. By the end of the Lower Sixth, you will have acquired an understanding of linguistic structures, you will be able to read and make a personal response to a varied selection of Latin literature and, where relevant, to consider the spiritual, moral, political, historical and cultural issues that emerge from their reading. The skills and knowledge gained in the first year of the course will be built upon and expanded by choosing different authors during the Upper Sixth.

There is no course work required in this subject.

In the Lower Sixth you cover the course, leading to the AS examinations now to be sat at the end of the Upper Sixth, which consists of **TWO** units:

- **L1 – Latin Language**

There will be one passage of Latin **prose** to translate into English especially composed so that its level of difficulty will be between that of GCSE Higher Tier and the full A Level. There will be an option of translating into Latin. For this ‘unseen’ a Defined Vocabulary List of about 1000 words will be issued.

- **L2 – Latin Verse & Prose Literature**

Candidates are expected to prepare **TWO** set texts: one **prose** (eg. Cicero) and one **verse** (eg. Ovid). Approx. 200 lines will be set from each text, from which passages for linguistic and literary comment will be chosen for examination. Candidates will demonstrate an understanding of literary techniques within the appropriate social and historical context and will be encouraged to make a personal response to the material studied.

In the Upper Sixth, you cover the remaining **TWO** A2 units as well as revising AS material in time for the exams.

- **L3 – Latin Verse**

Section A: Latin verse is studied through specified authors, such as Virgil or Catullus, of whom about 250 lines are set for comment.

Section B: An unseen passage from a named 1st Century BC/AD verse author is set for comprehension and translation into English. An ability to scan epic and/or elegiac metre is expected. There is no defined vocabulary.

- **L4 - Latin Prose**

Section A: Latin prose is studied through specified authors, such as Livy or Tacitus, of whom about 250 lines are set for comment.

Section B: Candidates **EITHER** tackle an unseen passage from a named 1st Century BC/AD prose author in terms of comprehension and translation into English, for which there is no defined vocabulary, **OR** they write a passage of prose composition from English into Latin.

To enhance the course, the department makes excellent use of resources and materials to be found in the Ashmolean Museum and takes regular trips to sites in this country and a biennial tour to one of Greece, Italy, Turkey or North Africa.

Latin thus shares the virtues of History, English and Modern Language A-Levels, and combines well with them, as it does with mathematics, to provide a sound general education. Many Latinists have also taken the subject successfully with Economics or a science.

Strong University and Employment Prospects:

Gaining a good grade in Latin (and/or Greek) at A Level is viewed as excellent proof of a student's academic and intellectual abilities by admission tutors in a wide range of university disciplines, but especially Law, Medicine, Classics, History, Politics, Modern and Oriental Languages, Archaeology, Theology and English.

The most prominent areas of employment for Classicists are:

- finance, banking, insurance, accountancy;
- marketing and related areas;
- management, administration, civil service, law;
- the arts, journalism, publishing, education;
- computer sciences.

According to Oxbridge statistics, not only is Classics one of the least competitive courses on which to gain a place, but it also has the best rate of immediate high level employment for its graduates: surely worthy of consideration, therefore!

CLASSICAL LANGUAGES

International Baccalaureate Diploma Programme

Course description, focus, purpose, aims and objectives:

The IB Classical Language courses seek to further students' knowledge in one or both of the two rich and varied languages and literatures of Greece and Rome. Between them, both have left a massive mark on the culture, history, politics, law, arts and writing of all European and many other countries since. The programme introduces a balance between language, literature and civilisation and grants the candidates an element of choice in the works to be studied.

In both Latin and Classical Greek it is a fundamental principle that the texts should be studied in the original language and therefore that students' linguistic ability should be at the appropriate level to be able to achieve this. Further parts of the same text and others are currently studied in translation, within their cultural context, so as to widen a student's understanding of classical literature and history and the symbiosis between them.

At both Higher and Standard Level, the internal assessment "Individual Study" component will enable candidates to study independently, in depth, an aspect of ancient language, literature and civilisation that they find of particular interest.

Objectives for candidates following the Classical Languages syllabus:

- to demonstrate competence in understanding, translation and appreciation of texts in the original language;
- to demonstrate a knowledge of different genres, techniques and styles of literature studied partly in the original language and partly in translation;
- to demonstrate a knowledge, in so far as it helps an appreciation of the texts, of the historical and cultural background of those texts;
- to demonstrate an awareness of relationships between the ancient and the modern world, including between individual or imperial states and more recent history of nationalism and internationalism, all within their respective cultural and historical contexts;
- to demonstrate an ability to collect and analyse relevant information independently and to present it clearly.

There are three parts to SL and HL Latin & Classical Greek.

Part 1: Study of the Language (SL & HL)

The study of **one** prescribed author (either Cicero or Ovid in Latin, and Xenophon in Classical Greek) in order to develop basic language skills including translation into English (French or Spanish) of an unprepared text.

Part 2: Topics (SL & HL)

A detailed study of **two** topics, in the original language. Chosen from the following, but with longer line prescriptions for HL.

Epic	Latin Topic Virgil: <i>Aeneid</i> 6	Epic	Classical Greek Topic Homer: <i>Iliad</i> : 6
Satire	Juvenal: 1,3,16	Tragedy	Sophocles: <i>Oedipus Tyrannos</i>
History	Livy: Book 1	History	Thucydides 2
Letters	Pliny Letters	Comedy	Aristophanes: <i>Frogs</i>
Elegiac & Lyric	Horace Odes 3 & Catullus selection	Socratic Philosophy	Plato: <i>Crito</i>

Part 3: Individual Study (SL & HL)

One of three choices:

A A Research Dossier, under teacher guidance, of annotated sources in classical history, literature, language, religion, mythology, art, archaeology or influence, which may be an extension of a subject area studied in Part 2, or a new subject area.

B An Oral Presentation, accompanied by an annotated commentary.

C A Prose or Verse Composition in Latin or Classical Greek respectively, accompanied by an annotated commentary.

SL quantity required is approx. 2/3 that of HL.

External Assessment

See Subject Guide pp.17 – 26

Higher Level, External Assessment: (3 hours 30 mins) 80%

Paper 1 (1 hour 30 mins) 35%

35 marks

Translation into English, French or Spanish of a specified part or parts of **one** unprepared passage, from one of the prescribed authors (part 1). Total length: **115-125 words**.

Paper 2 (2 hours) 45%

The paper consists of **two** compulsory sections, each based on the prescribed topics (part 2).

44 marks

Questions based on ten extracts, two from each genre. Candidates answer questions on **four** extracts covering **two** topics.

Standard Level, External Assessment: (2 hours 45 mins) 80%

Paper 1 (1 hour 15 mins) 35%

35 marks

Translation into English, French or Spanish of a specified part or parts of **one** unprepared passage from one of the prescribed authors (part 1). Total length: **55-60 words**.

Paper 2 (1 hour 30 mins) 45%

Questions based on ten extracts, two from each genre. Candidates answer questions on **three** extracts covering **two** topics.

Internal Assessment

H & S Level Internal Assessment: 20%

Individual Study, internally assessed by teacher, externally moderated by IBO.

30 marks

PRODUCT DESIGN (3D Design)

A Level

Candidates wishing to study **Product Design: 3D Design** should ideally have studied a GCSE Design and Technology course. The specification for Product Design encourages candidates to tackle technological problems that impinge upon their lives and human activities whether in advanced or developing societies. It provides opportunities to study, propose and realise quality solutions that satisfy designing and making needs. Solutions will be the outcome of rigorous research and application of knowledge and understanding. Design and Making skills will be delivered through coursework.

The specification offers candidates opportunities to acquire and demonstrate:

- knowledge and understanding of the world of designing and making
- an awareness of how styles have changed through history and the work of influential designers including the opportunity to handle and analyse the latest products from contemporary designers
- their own flair and technological capabilities through the making of quality outcomes
- an awareness of industrial processes and manufacturing techniques that underpin the manufacture of products and systems within products
- awareness of the responsibilities of designers and technologists to mankind through an increasing knowledge of the potentials and hazards inherent in technological advancement.

Where it Leads

The course leads naturally into all engineering disciplines and all design vocations, including architecture. In the past many pupils from St. Edward's have gone on to read related subjects at University. The strategic and creative thinking the course teaches can be readily applied to Management Training, Law or Teaching, and has been by past pupils of St Edward's.

Scheme of Assessment

Course Requirements	AS	Title	Content	AS%	A%
	1	Materials Components and Application PROD1	Written paper (2 Hours)	50	25
	2	Learning through Designing and Making PROD2	Portfolio of Skills (approx 50 Hours)	50	25
	A2	Title	Content	A2%	A%
	3	Design and Manufacture PROD3	Written paper (2 Hours)	50	25
	4	Design and Making Practice PROD4	Major Design and build project (approx 60 hours)	50	25

Project work

In Unit 2 pupils are expected to assemble a portfolio that demonstrates their abilities both to design and to make products. This takes the form of samples of the best work from a series of class focused projects that will be undertaken throughout the course, as well as evidence of practicing different making skills. Candidates will have the opportunity to specialise in certain skills or direct the design of the outcomes in some of the projects.

In Unit 4 will provide opportunities for open-ended practical work where candidates choose the nature of the project they design and build. All coursework tasks are marked by the teacher, internally standardised within St Edward's and externally moderated by AQA.

Written Papers

In the two theory modules, Units 1 and 3, candidates will be encouraged to draw upon practical experience to demonstrate a breadth of technological understanding.

The Unit 1 syllabus covers:

- Materials and components
- Design and market influences
- Commercial processes & manufacturing

Unit 3 requires further study of the above areas of Product Design as well as introducing:

- Modern materials including 'smart materials'
- Copyright protection and patent law
- Safety legislation
- Management of product development and improvement

These modules will be taught through a combination of classroom teaching and, as far as possible, 'hands on' experience, trips, and visits.

Work not directly marked for A Level

The course contains plenty of opportunities for students to experiment with materials and processes. This includes access to precious metals and commercial casting equipment in our Jewellery workshop, which is a facility unique to St Edward's.

In Lower Sixth year there will be 'skills' modules inserted into the programme, that will allow students to explore ICT and Photography techniques that they can then apply to their coursework. In addition pupils will be taught the basics of how to use several commercial high end CAD programs.

DESIGN TECHNOLOGY

International Baccalaureate Diploma Programme

IB Design Technology – Group 4 – Standard Level only

Although Design Technology is associated in Group 4 with pure science subjects, it embodies a very different approach to managing knowledge. Design is about applying a body of knowledge and skills in order to achieve very human goals. The type of thinking involved bridges the certainties of science, and the cultural and aesthetic values that define civilisations. It encourages a boldness of thought that can jump between the beauties of nature and the confident understanding of materials and manufacturing processes, so that products can be developed that solve human problems with elegance and efficiency.

The first thing to understand about Design Technology as part of the IB Diploma Programme is that no previous experience is necessary. You can do IB Design without having taken a design GCSE.

Course structure

The course is built around eight modules.

Core Modules

- Design process – understand the steps that ensure an effective outcome to your goals.
- Product innovation – how can an inspired invention become a successful innovation?
- Green Design – we all know the basics, but how can we actually achieve a sustainable future.
- Materials –if you know how materials perform you can build a solution to most problems.
- Product Development – this is where the imaginative ideas are forged into a workable solution.
- Product Design – getting the detail right ... the look and the feel.
- Evaluation – without putting your ideas to the test there is no knowing how good they are.

Additional Topic

CAD/CAM – put yourself in control by learning how today’s technology is controlled. Computer Aided Design – harness technology to apply the power and precision of the computer. Computer Aided Manufacture, quality products that could only have been dreamt of a generation ago. At St Edward’s you have the equipment to make your dreams a reality.

These eight modules will be assessed in 3 written papers taken at the end of the course and worth 64%.

Internally assessed projects

The philosophy of the St Edward's Design Department is to teach as much as possible through first hand experience.

The modules delineated above cover what you need to know about effective yet creative design and each module will be accompanied by a piece of associated 'hands on' practical work. This is known as IA or Internally Assessed work and is worth 18% (of which 1.8% are marks for a short project undertaken in co-operation with other group 4 students).

Major Project

Finally there will be an extended 'design, make and test' project, undertaken during the second year, which builds on the knowledge and skills acquired from study of the eight linked modules and IA projects. The major Design Project is also worth 18%.

Beyond IB Design Technology

This course would provide you with a range of skills and capabilities invaluable for almost any profession or career, as well as being a stepping stone to the specifically design orientated professions like, architecture, engineering, product design, or furniture, interior and jewellery design.

	Title	Content	%	IB%
Course Components	Theory paper 1	30 multiple choice questions ($\frac{3}{4}$ hour)	20%	64%
	Theory paper 2	Section A – Short answer questions Section B – One extended response question (from a choice of 3)	24%	
	Theory paper 3	Short and extended response questions on the additional topic	20%	
	Internally Assessed Projects	Theory associated projects (17 Hours)	16.2%	18%
	Group 4 project	A collaborative project (10 Hours)	1.8%	
	The Major Project	Major Design and build project (approx 28 hours)	18%	18%

DRAMA AND THEATRE STUDIES

A Level

The course offered is the AQA Advanced Level GCE 5241 in Drama and Theatre Studies. It is designed for pupils to:

- develop their interest and enjoyment of drama and theatre, both through experience as audience members and through development of their own theatre skills;
- develop their knowledge and understanding of the social and cultural contexts of drama and theatre, through detailed study of dramatic texts (in their context), and of the work of theatre practitioners;
- develop their ability to respond critically and sensitively to a range of drama texts and to theatre in performance.

No prior learning is necessary for candidates to undertake the course, but they should both enjoy drama and theatre, and have a genuine desire to develop this interest. Group work and theatre visits will play an integral part of the course. All pupils are required to engage in practical work and this practical work is assessed throughout the course.

Why chose Drama and Theatre Studies ?

- Students can pursue their interests and develop their skills in a range of practical drama elements including acting, directing, costume, set design, mask and technical design. However, the 60% written paper requirement also enables students to gain an entry qualification for most degree courses including those in the area of drama and theatre studies.
- This qualification offers students the freedom to choose both the content and the form of their practical presentations at each level. At AS, candidates perform an extract from any play selected to illustrate their understanding of an influential director, designer, theatre company or other practitioner. At A2, candidates devise drama on any topic to be performed in a theatrical style of their choice. The emphasis is on offering students a genuine opportunity to pursue areas of interest.
- Assessment for the practical unit takes account of the students' contribution throughout the preparation period as well as of their final performance. The process is as important as the final product.

The AS course will be assessed in two units:

Unit 1 Live Theatre Production Seen and Prescribed Play – Written

This unit is divided into two sections. Each section is taken as a separate paper with time allowance of 45 minutes.

Section A requires candidates' personal response to various aspects of live theatre seen during the course. Students will be taken on a number of theatre visits during the year and will experience a range of different styles of theatre. They will be expected to have undertaken some background research into the plays beforehand and should be able to demonstrate some knowledge of the text and its genre in their responses.

Section B requires candidates to answer one question on a set play. Questions are focused on the interpretation of the play from a performance perspective. Students are required to answer from the viewpoint of an actor, director or designer.

Unit 2 Presentation of an Extract from a Play – Practical.

Students are required to work in groups to present for an audience an extract from a published play of their choice. Each group is to be self contained and totally responsible for all aspects of the presented extract which should realise clear dramatic intentions for an audience. Students may choose to be assessed in one of the following skill areas: directing, acting, costume design, mask design, set design, technical elements. The interpretation of the extract should evidently be influenced by the work of an influential director, designer, theatre company or other practitioner who has made a significant contribution to theatre practice. A record of the rehearsal process and research will be kept in students' theatre journals.

Marks for this unit are divided equally between:

1. Preparation, development and analysis of the devised work (based on teacher's continual monitoring, and on the written supporting notes produced by the students)
2. Presentation of the finished piece.

The A2 course follows the same two module system but demands broader, deeper and more synoptic responses:

Unit 3 Further Prescribed Plays including Pre-Twentieth Century – Written

Students are required to study two set plays. One set play will be a pre-twentieth century text and the second play will be chosen from the modern period. The students will study these plays from the perspective of the theatre director, designer or actor.

Unit 4 Presentation of Devised Drama – Practical

Students are required to work in groups to present for an audience a devised drama, performed in a theatrical style of their choice. Each group is to be self-contained and totally responsible for all aspects of the devised work which should realise clear dramatic intentions for an audience. While all students share responsibility for the development and presentation of the finished piece, each student will choose a specific theatre skill for the purpose of assessment. Those skills include directing, set design, acting, costume design, lighting and/or sound design. Students will keep a journal that records the process of rehearsal and research. From this journal they will then provide supporting notes which will form part of their assessment.

THEATRE ARTS

International Baccalaureate Diploma Programme

The theatre course emphasises the importance of working individually and as a member of an ensemble. Students are encouraged to develop the organisational and technical skills needed to express themselves creatively in theatre. The course demands that students explore and appreciate theatre from a variety of cultures and in a variety of styles. At the core of the theatre course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement and imaginative synthesis – all of which should be achieved through practical engagement in theatre.

The theatre course at both Higher Level and Standard Level requires no previous experience in drama or theatre.

Aims

The aims of the theatre course at HL and SL are to enable students to:

- Experience and participate in a wide and varied range of theatre activities and develop proficiency in more than one area of theatre technique
- Become familiar with forms of theatre from their own and different cultures
- Explore different theatre traditions in their historical contexts
- Develop academic skills appropriate for the study and understanding of theatre
- Become reflective and critical practitioners in theatre
- Develop the confidence to explore, to experiment and to work individually and collaboratively on innovative projects which should involve challenging established notions and conventions of theatre.

Objectives

Having followed the theatre course at HL or SL, students will be expected to:

- Demonstrate a theoretical and practical knowledge of theatrical traditions from more than one culture
- Demonstrate an understanding of production elements and theatre practices
- Evaluate critically a range of diverse performances
- Engage practically in creating and presenting performances which will include a basic level of technical proficiency
- Reflect on their own development in theatre through continual self-evaluation and recording
- Acquire appropriate research skills and apply them.
- Demonstrate an ability to interpret play-texts and other types of performance texts analytically and imaginatively
- Demonstrate initiative and perseverance in both individual and group projects.

Core Syllabus (HL and SL)

The theatre core syllabus at HL and SL consists of three interrelated areas. Students are required to explore these three areas from the perspective of dramaturg, director, performer, group ensemble, production team and spectator.

Internal Assessment

- Theatre performance and production presentation
SL 20 minute oral presentation with 5-7 images
HL 30 minute oral presentation with 7-10 images
- Independent project portfolio
SL 2,000 words
HL 3,000 words

ECONOMICS

A Level

The aim of the Economics A Level course is to provide candidates with a knowledge and understanding of the tools of economic analysis so that they are able to apply them to specific real world issues and problems. The specifications are intended to enable students to understand the economic issues that affect their lives and those of others, and thereby provide them with the skills and knowledge to analyse and evaluate decision-making by consumers, producers and citizens. At St Edward's the exam board followed is OCR. There are four externally assessed examinations; two at AS and two at A2. There is no coursework element.

AS candidates should be able to:

- demonstrate knowledge and understanding of the specified content.
- apply this knowledge and critical understanding to a variety of current economic problems and issues.
- analyse these economic problems and issues.
- evaluate economic arguments and evidence, whilst recognising that these skills will further be developed, applied and integrated in more depth at the A2 stage.

Students take two modules at AS level, each carrying 50% of the total AS marks: the macroeconomic **National and International Economy (Unit F582)** and the microeconomic **Markets in action (Unit F581)**. The question papers for the AS units are of a similar format: compulsory questions based on an unseen case study. Some questions towards the end of the paper require candidates to write in continuous prose. The final question is always an essay question and is worth approximately 25% of the marks. The quality of written communication is assessed where answers are written in continuous prose.

On completion of the AS, candidates will be able to apply this portfolio of knowledge to practical situations in the Upper Sixth, enabling them to develop further their understanding of appropriate micro and macro-economic aspects of applied economics. The subject matter of these modules is of relevance in today's complex global economy as well as being of significance in fostering a better appreciation of contemporary economic issues in the UK economy. Students will be taking the following two modules in their final year, each carrying 50% of the total A2 marks:

Transport Economics (Unit F584)

The focus is on economic concepts and issues which are applied to a variety of transport contexts. Transport industries are considered in terms of models of market structure, particularly with a consideration of contestability. The environmental impact of the transport industry and ways in which governments can correct market failure are considered.

The Global Economy (Unit F585)

This unit provides the conceptual framework for the understanding, analysis and evaluation of macroeconomic performance in regional, national and global contexts. The key topics are comparative economic performance indicators and policies, trade and integration, development and sustainability and the economics of globalisation.

Teaching is shared between the two teachers in the department, one concentrating on the Microeconomic modules, the other on the Macroeconomic elements within the specification. Pupils have to submit two pieces of written work per cycle, in addition to completing extra formal tasks.

There are no particular requirements in terms of GCSE hurdle grades for studying Economics at A Level. The level of Mathematics required is very basic and so long as pupils are able to understand simple graphical presentation of concepts and are not frightened by numbers then there is no barrier to effective learning. In fact the ability to write clearly is rather more important for success in grade terms. As far as subject combinations are concerned, a case may be advanced for suggesting that most combinations are appropriate. Economics is quite different from any other discipline, closest perhaps to Philosophy to the extent that the subject emphasises logical intellectual processes. Indeed the development of these logical skills and capabilities is perhaps the main benefit of studying Economics. However, it should be said that most university Economics courses do not require Economics at A Level. However, anecdotal evidence from large numbers of former pupils at St Edward's who have gone on to study Economics at university suggests that their further education work has been given a large boost by participating in the Economics programme at St Edward's.

Since considering Economics as a possible A Level choice does involve something of a leap in the dark for pupils, it would be sensible to attempt to obtain more information about the subject's suitability in individual cases. This may be done by glancing at the AS/A2 textbooks in the possession of current L6/U6 pupils studying the subject, discussing the subject with such persons, reading Economics articles which appear on a daily basis in the quality newspapers, seeking advice from Housemaster/mistresses or contacting DF/CTP for individual queries.

Most pupils do relatively well in grade terms in Economics.

Good results in this subject require hard work, especially in the early stages, since all of the material is quite new and therefore requires full engagement. Pupils considering the subject must realise this and be prepared to commit. If they do that then the outcome in grade and learning outcomes should be more than satisfactory.

ECONOMICS

International Baccalaureate Diploma Programme

Economics is one of the social sciences. The social sciences are concerned with the study of the behaviour of people and organizations within society. Economics, in particular, entails studying the behaviour of the various economic agents including consumers, firms and governments.

Positive economics, objective and free of value judgments, is the study of the allocation of scarce resources: an observation of the economic agents as they attempt to satisfy their unlimited wants with the scarce resources available. It is the study and investigation of the systems and structures designed by societies for the purpose of allocating or sharing out these scarce resources. Economists study the systems and structures, and the behaviour of the economic actors within the systems in order to establish the various outcomes; the concept of efficiency is of particular significance. It is a scientific approach based on logic, reason and empirical evidence.

The intention is to provide the student, whether on the higher or standard level course, with the required knowledge of economic theories and concepts, and to encourage and promote independent learning, so that the student is able to answer questions on the level of the individual firm, consumer and industry, as well as on national and international matters. It is the aim of this course to promote an understanding of internationalism in economics and therefore many issues will be explored from an international, global perspective.

The diploma provides the conceptual framework for the understanding, analysis and evaluation of macroeconomic performance in regional, national and global contexts. The key international topics are comparative economic performance indicators and policies, barriers to economic growth and economic development, development strategies, trade and integration, consequences of growth and sustainability, and the economics of globalisation.

There are five sections taken over the two year course: Introduction to economics; Microeconomics; Macroeconomics; International economics; Development economics

Assessment

Higher level economics is assessed externally through public examinations taken early in the sixth term and internally through a portfolio of four commentaries (750 words each) written during the two year course (80% external, 20% internal).

Standard level is assessed in the same way (75% external, 25% internal).

H/L external assessment (80%)

Three written papers:

Paper 1. (1 hour, 20%): Four extended response questions covering the whole of the syllabus. Candidates answer one question.

Paper 2. (1 hour, 20%): Three short answers from a total of six. The questions cover the whole of the syllabus.

Paper 3. (2 hours, 40%): Five structured data response questions based on the whole syllabus. Candidates answer three questions.

H/L internal assessment

Students are required to produce four commentaries (650–750 words); each one is based upon a news media article. The purpose is to provide an opportunity for candidates to apply economic theory and concepts to a real world situation. Three out of the four must focus upon a different section of the syllabus (20%).

S/L external assessment (75%)

Paper 1. (1 hour, 25%): Four extended response questions covering all sections of the syllabus. Candidates are to answer one question.

Paper 2. (2 hours, 50%): Candidates to answer three structured data response questions from a total of five, based on all sections of the syllabus.

S/L internal assessment (25%): See H/L internal assessment

The assessment method for external examinations adopts an approach that awards marks according to ‘levels of response’. More specifically, students are taught and encouraged to acquire knowledge (level 1) that they apply to a given situation (level 2). Using economic theory, students are expected to analyse (level 3) and critically evaluate outcomes of events and/or policy (level 4).

For the internal assessment, marks are awarded for meeting rubric requirements (2 marks), organisation and presentation (4), use of economic terminology (5), application and analysis of economic concepts and theories (5), and evaluation (4).

There are no particular requirements in terms of GCSE hurdle grades for studying IB Economics. The level of Mathematics required is very basic and so long as pupils are able to understand simple graphical presentation of concepts and are not frightened by numbers then there is no barrier to effective learning. In fact the ability to write clearly is rather more important for success in grade terms. Economics is quite different from any other discipline, closest perhaps to Philosophy to the extent that the subject emphasises logical intellectual processes. Indeed the development of these logical skills and capabilities is perhaps the main benefit of studying Economics. However, it should be said that most university Economics courses do not require the student to have studied the subject at school, however, anecdotal evidence from large numbers of former pupils at St Edward’s who have gone on to study Economics at university suggests that their further education work has been given a large boost by participating in the Economics programme at St Edward’s.

Since considering Economics as a possible choice does involve a leap in the dark for pupils, it would be sensible to attempt to obtain more information about the subject’s suitability in individual cases. This may be done by glancing at the textbooks in the possession of current L6/U6 pupils studying the subject, discussing the subject with such persons, reading Economics articles which appear on a daily basis in the quality newspapers, seeking advice from your HM or contacting the Economics teachers for individual queries.

ENGLISH LITERATURE

A Level

It is first and foremost the aim of the English department to help pupils develop an appreciation for a wide range of literature, and to stimulate a passionate interest in discussing and exploring the various moral, philosophical and intellectual challenges which are made by literary texts of all kinds, all in a context of emphasising the enjoyment of this kind of study. Thus, a Sixth Form English classroom might resound with witty discussion, reasoned debate or even impassioned argument on subjects as wide-ranging as religion, politics, philosophy, history and others. English Literature is a course that touches on a huge variety of other subjects, and therefore complements almost any other A Level combination.

You will need to be interested in reading some of the most remarkable and fascinating literature in the world, and investigating the ideas and society of the people who wrote it; you will need to be brave enough to contribute your own conclusions – even in the face of others’ ideas which conflict with your own – and explain how you arrived at them; you will need to have a natural sympathy with other people, the language they use and the importance of understanding them. **In return, you will be given** every opportunity to show that you can be original and scholarly in your work – both as a reader and as a writer; you will be taught by a terrific team of teachers who share both a passion for their subject and an outstanding record of A Level success; and, finally, you will discover an experience that is enriching, rewarding and fun.

Below is an outline of the proposed course, but if you have any further questions about English Literature at A Level, don’t hesitate to ask any member of the English Department. Alternatively, there is much more information available in the Sixth Form English Handbook, available here:

<http://www.stedwardsoxford.co.uk/images/6TH%20FORM%20CIE%20ALEVEL%20HAND%20BOOK%202009-2011.pdf>

Candidates for the Advanced Level qualification take four papers as below:

Paper Reference	Assessment	Paper Weighting	Example texts
Paper 3 <i>Poetry and Prose</i>	2 hrs exam	25% (50% of AS Level)	Wordsworth: <i>Selected Poems</i> Bronte: <i>Jane Eyre</i>
Paper 4 <i>Drama</i>	2 hrs exam	25% (50% of AS Level)	Shakespeare: <i>Twelfth Night</i> Miller: <i>A View from the Bridge</i>
Paper 5 <i>Shakespeare and other pre-20th Century Texts</i>	2 hrs exam	25%	Shakespeare: <i>Hamlet</i> Marvell: <i>Selected Poems</i>
Paper 8 <i>Coursework</i>	Two essays, totalling 3,000 words	25%	Any novel of your own choosing

In addition, all candidates write an internally assessed Summer Project on a subject of their own choosing and undertake additional complementary study during the course.

ENGLISH (LANGUAGE A1)

International Baccalaureate Diploma Programme

The English A1 programme is an exciting and varied course of literature of many different types. We will be reading books published within the last twelve months, literature written in the fourteenth century, and everything in between. About a quarter of the works we'll be looking at will have their origins abroad and you will be assessed through essays, oral presentations and exams. Just like at GCSE and A Level, your enthusiasm to discuss and debate ideas and themes will be exercised robustly, but the course will move much more quickly, giving an overview of a variety of different texts linked by different themes, rather than close, in-depth analysis of a small number of texts.

You will need to be someone who enjoys reading and making your own mind up about things. You will have an interest in the literature and ideas of different cultures and be prepared to challenge your own prejudices and assumptions. You will also need to be a confident speaker – prepared to contribute ideas in class and to present them in front of an audience. **In return, you will be given** access to a wide range of exciting literature and the freedom to be original and scholarly. Ultimately you will become a well-read, confident and proficient communicator, and you will have benefited from the teaching of a team of outstanding, enthusiastic teachers in a lively and friendly department.

There is much more information available in the Sixth Form English Handbook, available here:

<http://www.stedwardsoxford.co.uk/images/6TH%20FORM%20IB%20HAND%20BOOK%202009-2011.pdf>

Component	Requirements	Example Theme & Texts	Assessment
PART 1 WORLD LITERATURE 20%	HL & SL: three world lit texts from prescribed list	Tragic Women Racine: <i>Andromaque</i> Euripides: <i>Medea</i> Ibsen: <i>Hedda Gabler</i>	1. 1,500 wds comparative c/w (SL & HL) 2. 1,500 wds analytical or commentary (HL)
PART 2 DETAILED STUDY 15%	HL: four texts of diff. genres (at least one by Shakespeare) SL: two texts of different genres (one Shakespeare)	Individual Meditations Blake: <i>Songs of Innocence & Experience</i> Woolf: <i>Essays</i> Shakespeare: <i>Hamlet</i> Bronte: <i>Jane Eyre</i>	20 minutes preparation then 15 minutes Oral Commentary
PART 3 GROUPS OF WORKS 25% (PAPER 2)	HL: four texts SL: three texts	Love & Loneliness Hardy: <i>1912-13</i> Chaucer: <i>General Prologue & The Knight's Tale</i> Plath: <i>Selected Poems</i> Neruda: <i>20 Poems of Love</i>	HL: two hour exam. SL: one and a half hour exam.
PART 4 SCHOOL'S FREE CHOICE 15%	HL: four texts chosen freely SL: three texts chosen freely	Maverick outsiders Goethe: <i>Faust</i> RLS: <i>Dr Jekyll & Mr Hyde</i> Shelley: <i>Frankenstein</i> Miller: <i>The Crucible</i>	HL & SL: 10-15 minutes' recorded presentation followed by questions
PAPER 1 COMMENTARY PAPER 25%	HL: two unseen texts for commentary SL: two unseen texts for commentary	<i>n/a</i>	HL: two hour exam; one commentary on one text. SL: one and a half hour exam; one commentary on one text

GEOGRAPHY

A Level

A Level Geography is suited to students with an interest in trying to understand an ever changing world. It also helps if they are willing to work hard and have fun.

Both physical and human geography are studied and as well as marvelling at the wonder of the natural world (and perhaps visiting such places as the mid-Atlantic Ridge in Iceland), a key component is the interrelationship of people and the environment. If you are interested in the natural world and the following sort of issues, geography is likely to be for you:-

- *Hurricane Katrina devastated one of the richest countries in the world. Do you think Hurricane Katrina has changed our view that the impact of hazards and our ability to respond to them is greater in richer countries than poorer countries?*
- *Does Aid work? Who do you think is to blame for recent famine in Somalia and Ethiopia?*
- *You phone for information on trains to London. Your call is answered in Bangalore. What do you think this tells us about the world we live in?*
- *The Cold War was a massive geopolitical issue. Global terrorism is currently a massive geopolitical issue. HIV/AIDS/'waters wars' will be next? What do you think?*

We have no formal entry requirement for Geography at A Level but suggest students consider whether they fit in with the ethos below:-

We aim to create an environment that allows you to fulfil your potential as a geographer both in terms of examination performance and broad geographical understanding beyond the exam syllabus. We also aim to equip you with 'life skills' such as presenting to your peers, essay writing, note taking, research and IT skills.

We aim to give you a very positive A level experience in which, with our help and support, you take responsibility for your studies and learn how to learn for yourself. We feel it is important for you to realise your success will be dependent on your hard work but that we will offer a huge amount of support to those that ask for it.

Whilst hard work is crucial, we also feel a sense of fun and willingness to participate in fieldwork and the extra activities the department offers is important. And when it's tipping it down on Studland Beach but we still insist you measure the height of the vegetation on the sand dunes, a sense of humour is pretty essential too.

Finally, and perhaps most importantly, our main recommendation if you are considering Geography A level is to talk to the current Lower and Upper Sixth Geographers about their experiences of the course and to members of the Geography Department.

The Syllabus

The department will enter students for the **AQA Specification A**. The two AS modules and the two A2 modules will be sat at the end of the Upper Sixth year.

A note on fieldwork

Students are **not** required to submit a written project at A Level. However, they are expected to conduct fieldwork in both physical and human geography and to sit an exam on their fieldwork techniques and experiences. They will develop statistical and ICT capabilities, crucial for life beyond the sixth form. The Sixth Form fieldwork programme comprises:

- River processes of the River Cole
- Rural settlement in Oxfordshire and Urban Issues in Oxford
- Ecosystem succession on Dorset sand dunes
- A study of a TNC - BMW in Oxford.
- Iceland – Geography of awe and wonder (optional).

<u>AS</u>	<u>The AS syllabus overview</u>	
<u>Unit1</u>	All candidates must study the core human and physical sections. In addition to the core sections at least one of the three physical options and at least one of the three human options must be studied.	
	Core Physical Section	
	Rivers, floods and management	<i>The hydrological cycle, river processes, fluvial landforms, the impact of humans on flooding and its impact on humans and flood management.</i>
	The Physical Options	
	Cold Environments	<i>Glaciers as systems, ice movement, glacial, fluvioglacial and periglacial processes and landforms and the future of Antarctica.</i>
	Coastal Environments	<i>The coastal system, landforms of erosion, coastal flooding and coastal management.</i>
	Hot Desert Environments	<i>Causes of aridity, arid geomorphological processes, arid landforms and desertification.</i>
	Core Human Section	
	Global Population Change	<i>Population structure, growth and global concerns, migration impact.</i>
	The Human Options	
	Food Supply Issues	<i>Global patterns, changing demand of food supply, managing food supply and sustainable food supply.</i>
	Energy Issues	<i>Types of energy, the geopolitics of energy, sustainable energy supply and energy and the environment.</i>
	Health Issues	<i>Global patterns of health, food and health and the impact of infectious disease.</i>
<u>Unit2</u>	Candidates will develop the use and application of a variety of geographical skills. All geographical skills will be taught as an integral part of Unit 1 physical and human geography.	
	Applied Geography	<i>Fieldwork investigation</i> – written paper based on fieldwork experiences and unseen fieldwork data.

A2	The A2 syllabus overview	
Unit 3	All candidates must study at least three of the six sections, at least one from the three physical options and at least one from the three human options.	
	The Physical Options	
	Plate tectonics and associated hazards Weather and climate and associated hazards Challenges facing ecosystems	
	The Human Options	
	World cities – evolution or revolution? Development and globalisation Contemporary conflicts and challenges	
Unit 4	Geography Fieldwork Investigation	
	This unit build on the AS Skills paper and consists of a mixture of questions based on unseen data and on fieldwork that the pupils have completed as part of their courses.	

GEOGRAPHY

International Baccalaureate Diploma Programme

Geography is a **Group 3 Individuals and Societies** subject and would provide an excellent balance to any IB programme. It will be available to students as both a Higher and Standard Level course. Geography is a flexible subject which is especially attractive to those who want to maintain strong links with the "real world" outside the classroom. It is an excellent subject to study in its own right but also has many transferable skills relevant to Science, Mathematics and English, as it encourages the development of a range of skills in students. Consequently it is a sound choice when taken with the varied diet in an IB Diploma course. It allows the student with an aptitude for sciences to develop important literacy skills and one with a propensity for arts to develop important numeracy and graphical skills. Data collection handling and information technology are central to the subject, and students are encouraged in the use of ICT skills.

Geography in the IB Diploma does have a distinct emphasis which makes it particularly relevant to today's world and this is clearly embedded in the syllabus aims. These include encouraging students to develop a global perspective and a sense of world interdependence. The need to develop a concern for the quality of the environment, and an understanding of the need to plan and manage for present and future generations is obvious in today's world and this, as well as how geographers can help modify values and attitudes in relation to geographical problems and issues is fundamental to IB geography. Furthermore, the IB geographer will need to recognize the need for social justice, equality and respect for others; appreciate diversity; and consider how we can combat bias, prejudice and stereotyping.

This means the IB geographer must be willing to challenge the knowledge being acquired, to have and defend opinions and to be motivated to follow up issues independently as well as in class.

What will IB Geography involve?

IB Geography is a sound mix of both Physical and Human Geography and allows candidates to extend their knowledge of some familiar subjects while also learning about new topics. It is very accessible to Geographers who have studied a GCSE course in the Fifth Form – but this is not essential.

At both higher and standard level the IB syllabus consists of a **Core Theme (Part 1)**, with **four compulsory topics**:

- **Populations in transition**
- **Disparities in wealth and Development**
- **Patterns in environmental quality and sustainability**
- **Patterns in resource consumption**

Part 2 consists of 7 **Optional Themes**. At Standard Level, 2 are studied. At Higher Level, 3 are chosen.

- Freshwater – issues and conflicts
- Oceans and their coastal margins
- Extreme environments

- Hazards and disasters
- Leisure and tourism
- The geography of food and health
- Urban environments

At both Higher and Standard Level, **Part 3** of the IB syllabus requires an individual **Fieldwork Report**, consisting of data collection, analysis and evaluation. This is internally assessed and makes up 35% of Standard Level and 30% of Higher Level Geography.

At **Higher Level**, in addition to these three parts, students follow a **Global Interactions** paper, consisting of 7 topics:

- Measuring global interactions
- Changing space – the shrinking world
- Global interactions: economic interactions and flows
- Global interactions: environmental change
- Global interactions: socio-cultural exchanges
- Global interactions: political outcomes
- Global interactions at the local level

IB Geography is assessed by three written papers (two for Standard Level) in addition to the Fieldwork Report. Some questions are structured, requiring short answers and there are also essay questions.

If you need further information on content, style or assessment of IB geography, please contact Mrs Webb (Head of Geography) or Mr Cope, Dr Nagle or Mr Howitt who are currently teaching IB. Also, seek out and talk to current IB Geographers.

GOVERNMENT AND POLITICS

A Level

There is no particular GCSE requirement for Sixth Formers wishing to study this course. However, good GCSE grades in cognate subjects such as History and English are desirable; the Government and Politics course makes demands upon Sixth Formers similar to other Arts subjects. Students will do well in this subject if they enjoy reading, making use of a variety of sources, have talents of literary composition, and enjoy debate and the exchange of ideas. Most importantly, students will do well if they enjoy keeping abreast of current affairs, and following the news.

The Government and Politics courses aim

- to develop a critical awareness of the institutions and processes of politics
- to allow candidates to acquire knowledge of British institutions and systems and how these differ from other systems
- to allow candidates to acquire knowledge of their rights and responsibilities as adults.

The Lower Sixth course is solely focused on the syllabus core – British Government and Politics. This involves a study of: elections and voting systems, voting behaviour, the structure and functions of Parliament; the party system; the power and responsibilities of the Prime Minister and Cabinet; pressure groups, the media, the role of the institutions of the European Union; and the rights and responsibilities of the individual.

The AS Course comprises firstly a module dedicated to Political Parties, Pressure Groups, UK Elections, Voting Behaviour in the UK, and Political ideologies. This unit is assessed with a 90 min paper of essay questions, with a compulsory section, and some choice for the candidate in an optional section.

The second unit focuses on the Government of the UK and deals with the Constitution, parliament, the Cabinet and Prime Minister, the European Union, the judiciary, and rights and liberties. It is assessed with a 90-minute paper of essay questions, with a compulsory section, and some choice for the candidate in an optional section.

The Upper Sixth course focuses on the syllabus option: American Government and Politics, and has a ‘synoptic’ feature in the comparative study of British and American and other political systems. This involves a study of the role and structure of Congress, the nature and role of parties in the American system, the election and power of the president, his relations with Congress, and the various parts of his executive branch; the role of the Supreme Court and the power of judicial review, pressure groups, the rights of individuals, federalism, the nature and development of the US Constitution. The Course is examined in June of the Upper Sixth year using two units. First, an American Politics paper consisting mostly of essay questions focussing on the American Political System -in addition, there is a compulsory section with a text based question. Secondly, the synoptic assessment – a paper consisting of eight essay questions focussing on the Theory and Practice of UK and American and other political systems – a comparative paper. Candidates attempt two.

Politics is a subject for Sixth Formers who can commit themselves to reading the newspapers regularly, or who find themselves absorbed by current affairs. Being engrossed in emergent events such as campaigns, crises and debates is part of the fun of this course, but it is also one of its more important obligations. In a very real sense, current affairs update the text books, and if we are to achieve a deeper understanding of the subject, it must be through the constant revision of theories by a study of what happens in the world. In this way, Politics, as a subject, has vitality like no other.

The department regularly runs optional, bi-annual study trips to Washington DC to attend talks, meet politicians and bureaucrats and others, and make a practical first-hand study of American Politics. We also run a smaller and shorter trip to New York, and attend a conference held there in February by the United Nations International School, in the General Assembly Hall of the UN.

Government and Politics A Level combines well with other Arts subjects such as English, Philosophy or Geography, but it has an obvious relevance for those studying Economics or History.

An A Level in Government and Politics will be especially useful for those planning to study Politics and related subjects at University, such as Sociology, Public Policy, International Relations and so on. The subject may also have some practical relevance to those aiming ultimately for a career in law, or public administration such as local government or the civil service. Several Sixth Formers have gone on to enter the world of politics – as Parliamentary researchers, lobbyists and party officials, or the periphery of politics, such as journalists, or news broadcasters.

HISTORY

A Level

1. It is not necessary to have taken GCSE History in order to study A Level History. All that is required is an interest in the subject and a sound level of written expression. Sixth Form historians should enjoy reading, but the reading load is no longer as punishing as it once was, reflecting the changes in the Sixth Form curriculum.
2. History is normally taken with other arts or social science subjects (e.g. Languages, English, Politics, Economics, Geography). It can provide a contrast for those doing certain pure or life science A Levels (e.g. Maths or Biology), although those considering this option may need to take advice from the appropriate Head of Department, their tutors and HMs.
3. The aims of the Sixth Form courses are:
 - (a) To stimulate an enthusiasm for the past inside and outside the classroom. It is an interesting, relevant and enjoyable subject and the areas of study offered by the department reflect this.
 - (b) To develop a range of interpretation skills, research skills, evaluation skills and communication skills. We learn to read critically, sift and evaluate evidence and communicate ideas persuasively in discussion and succinctly on paper. Emphasis is increasingly being placed upon the use of IT skills in the research for and production of assignments.
 - (c) To cater for those with an interest in the past and who have enjoyed History thus far and to provide opportunities for pupils to broaden their appreciation and experience of History as a discipline. In particular, the department aims to offer a sound base from which pupils can move naturally and easily into studying History at University.
4. The Department currently uses the OCR Syllabus and offers complementary units of study in the mediaeval, 16th and the 18th to early 20th centuries, although we may decide in any year not to offer all three periods, depending on numbers. Pupils who are unsure of which period they would like to study are encouraged to speak to the Head of Department or any other A Level history teacher.
5. Lower Sixth 2 units are studied.
Option 1 – English History (Enquiries & Period Studies).
Option 2 – European & World History (Enquiries & Period Studies)

For the academic year 2010-11, the following units are likely to be offered:

	Mediaeval	16 th Century	18 th /19 th /20 th Century
Option 1	Anglo-Saxon & Norman England 1035-87	The Mid-Tudor Crisis 1529-89	British Foreign & Imperial Policy 1846-1902
Option 2	The First Crusade Crusader States 1073-1130	Luther & the German Reformation 1517-59	The Origins & Course of the French Revolution 1774-1795

Upper Sixth

Two options are studied. The Historical Theme paper is examined in a two hour written paper and the other option is in the form of two 2,000 coursework essays, set and marked by the Department.

The following units are likely to be studied:

	Mediaeval	16 th Century	19 th /20 th Century
Option 3	Crown, Church & Government 1066-1216	France 1498-1610	Russian Dictatorships 1855-1956
Option 4	2 x 2,500 coursework assignments	2 x 2,500 coursework assignments	2 x 2,500 coursework assignments

Whilst in the Sixth Form you will have the opportunity of participating in a variety of **historical visits**. Plans are being laid for trips in 2010/11. Recently we have travelled to St Petersburg, Rome and Normandy. 'Local' trips in and around Oxford are scheduled as well as visits to appropriate sites such as the site of the Battle of Hastings, Hampton Court and the National Portrait Gallery for the Tudor group and Bristol for the Modern group. Other trips to hear lectures by university historians are also undertaken. **The Senior History Society** offers events and excursions for sixth form historians, **the Blenheim Group** is the forum for historical discussion and **Oxbridge History** meetings cater for those applying to read History at either Oxford or Cambridge. There is a wide variety of activity on offer intended to complement the curriculum and ensure the breadth and depth of experience the department believes is essential for a well-rounded sixth form historian.

A Level History is a valuable and often essential qualification for almost 300 degree courses, including favourites such as Law, Politics, the Church, Archaeology, Architecture, Business Studies, Modern Languages, Geography and, of course, History itself. Combinations are possible (for example, History and Politics, History and Modern Languages). In single subject degrees there are still more places available at university for historians than for any other Arts students except English.

Students of History or any arts subject at A Level are sometimes victims of their misplaced doubts as they wonder about the relevance of their studies in an increasingly technological age. What they forget is that society desperately needs people with the range of skills mentioned above. The A Level Historian is very well placed to offer all these to the world of the journalist, the businessman, the lawyer, the cleric, or in Public Service and the armed forces, to mention but a few career opportunities.

HISTORY

International Baccalaureate Diploma Programme

Within the IB matrix History is part of **Group 3 Individuals and Societies**. The subject is available at both Standard Level and Higher Level with the following options being offered by the department.

Standard Level	Higher Level
Paper 1 Arab – Israeli Conflict 1945-79	Paper 3 The French Revolution & Napoleon 1789-1815 Unification & Consolidation of Germany & Italy 1815-90 Ottoman Empire 1850-1923 OR European Diplomacy and WWI 1870-1923
Paper 2 Development of Authoritarian & Single Party States – Castro, Mao, Hitler & Stalin Democratic States – Challenges & Responses: USA 1953 -73 & Great Britain & Northern Ireland	
Internal Assessment : 2,000 word essay on a subject from the course	

The subject matter of history naturally lends itself to speculation, investigation and enquiry. History is difficult to define and its purpose can be used to mean different things, from Sallust's belief that history is a story to keep alive "the memory of great deeds" through to Trevelyan's understanding of history as the basis of all humane studies. The skills required by historians such as synthesis, originality, scepticism, an understanding of human relations and an ability to communicate their arguments in a stylish and readable manner are just as important for today's students as they were generations ago.

Bill Vaughan, the noted American columnist, once wrote "It might be a good idea if various countries of the world would occasionally swap history books, just to see what other people are doing with the same set of facts." This comparative approach is at the heart of the Standard Level history course. Students study a number of the most important issues in the twentieth century, learn about the responses to these crises and formulate their own judgement based upon rational and critical use of the source materials and books provided. At Higher Level the same approach is required, but the focus is much more clearly European based. In order to provide students with the best possible background to studying the subject at university level, either as a Single Honours subject or for a Joint Honours course students learn about the nineteenth century, in order to give them an insight into a culture, politics and civilization which still very much shapes the world we live in today. The IB history course will provide students with the very best possible background for reading the subject at university level.

The Basics

Standard Level historians will sit two exams and Higher candidates will sit a third paper, as outlined in the grid. The papers will test a range of skills including historical content, critical evaluation of sources, historiography, synthesis and judgement. All IB historians will also write a 2,000 word essay (the Internal Assessment) which is internally marked and externally moderated. Candidates are encouraged to select a title from the courses that they are studying.

The department intends running several field trips to support both the Standard Level and Higher historians. There will be trips to Moscow and St Petersburg, Krakow and Auschwitz, Constantinople, Hastings and Paris. When possible there are visits to galleries in London, to see relevant exhibitions, and both levels can expect to attend a series of external lectures.

In order to provide a forum for discussion between the IB historians and the A level historians there is the *Blenheim Society*, which is the Sixth Form history discussion group which meets four times a term. All Sixth Form historians are encouraged to attend these meetings.

For further information please contact Jonathan Lambe, Head of History

HISTORY OF ART

A Level

History of Art is a wonderful subject to study that has become very popular in recent years and anyone wanting to choose it as an A Level option should have a strong leaning towards the visual as well as good analytical and writing skills, with a solid GCSE in English as a basic requirement. In order to do well pupils must learn to write fluent essays and be willing to read widely and visit exhibitions. History of Art has strong links with other subjects such as History and English and provides interested students with opportunities to explore the context of their studies via the literature of the period and its historical background.

The new AQA A Level course, which started in 2008, consists of two units or modules. The first covers the formal analysis and interpretation of works of painting, sculpture and architecture, the second considers some significant art historical themes from classical Greece to the art of the twentieth century. The A2 concentrates on two specific periods in considerable depth, giving pupils a good knowledge of twentieth-century art. We are planning a joint Lower Sixth and Upper Sixth trip to Paris and in the Upper Sixth there will be a number of short visits to see important works and buildings studied; these trips will provide an ideal opportunity to reinforce work done in the classroom.

Unit 1: Visual Analysis and Interpretation (One hour, 20% of the total A-level marks)

This paper requires knowledge and understanding of formal characteristics, terminology, and a general knowledge of historical, social and cultural contexts for painting, sculpture and architecture, although no specific knowledge of the photographed works is needed. It consists of photographs of identified works of painting, sculpture and architecture and is designed to train pupils to analyse and interpret the works they are presented with. Examples can be from any period from Classical Greece to the end of the twentieth century (500 BC to AD 2000). Candidates are required to answer three questions, one each on painting, sculpture and architecture.

Unit 2: Written Paper: Themes in History of Art – from Classical Greece to the end of the twentieth century (1.5 hours, 30% of the total A-level marks)

This unit involves the study of a number of art historical themes such as the 'Historical and social contexts of art and architecture', and 'Subjects and genres in art'. At St Edward's we will be studying Greek and Roman art and architecture, Gothic architecture, Renaissance art and architecture, Realism and Impressionism, Post-Impressionism, Gothic Revival architecture, and Modernist architecture as a basis for the paper. The exam requires candidates to write three essays from a choice of six.

Unit 3: Investigation & Interpretation (1) (1.5 hours, 25% of the total A-level marks)

Questions test knowledge and understanding of art and architecture in relation to one teacher-selected period from a choice of four. For this and the following unit we have chosen periods that relate well to those taught at AS so that a sense of chronology is maintained and pupils can build on the foundations of the first year of study. In this case we will be studying Art and Architecture in Europe and the United States of America 1946 to 2000. The exam requires candidates to write two essays from a choice of four.

Unit 4: Investigation & Interpretation (2) (1.5 hours, 25% of total A-level marks)

The unit follows the same format as Unit 3 but here we have selected Art and Architecture in Europe and the United States of America 1900 to 1945.

History of Art has become a popular subject in recent years as museums have proliferated and modernised and London and other British cities hold so many important and interesting exhibitions. As a result there is much more opportunity for working in this sector and a number of our pupils have gone on to take a degree in History of Art at one of the many good universities and colleges offering the subject such as The Courtauld Institute, Edinburgh, UCL, Manchester University, and Oxford and Cambridge Universities.

MATHEMATICS

A Level

Course Outline

This course is taken over two years. Three modules are examined at the end of the Upper Sixth: two are Pure Mathematics (Core 1 and Core 2) and one is Applied Mathematics (Mechanics 1 or Statistics 1).

Pure Mathematics contains such topics as trigonometry, calculus, co-ordinate geometry, sequences and series, functions and numerical methods. Students develop their algebraic skills, their understanding of proof, and their knowledge and understanding of the behaviour of different functions.

Applied Mathematics may be Mechanics or Statistics. Mechanics is the study of forces and motion, and is of particular interest to students who are also taking A level Physics. Statistics develops the data handling skills learned at GCSE, and includes topics such as probability, normal distribution and hypothesis testing particularly useful for those studying subjects such as social sciences or Economics.

Suitable Pupils

It is suitable for those who enjoy maths and feel confident with it and have achieved a minimum of a B grade at GCSE. An A/B grade at AS maths will support almost any University application.

Mathematics is often wrongly perceived as a very difficult subject. Those who are good with numbers and algebra will find that this is not the case at all. Successful students learn and practise the work thoroughly as they go along; there is no last-minute cramming, and no essays to write, and no coursework!

Comment from a past student of Mathematics

“I enjoyed Maths in the Sixth Form because it offered an interesting and engaging contrast to my other subjects which were predominantly essay-based. Studying Maths at a higher level developed my ability to organise my thoughts, a skill eminently applicable to both Arts and Science subjects, as well as instilling habits of rigour and method. I found it exciting, elevating and strangely calming to explore the building blocks of such a fascinating and universe-encompassing discipline.”

MATHEMATICS

A Level

Course Outline

This course is also taken over two years. Six modules are examined at the end of the Upper Sixth: four are Pure Mathematics (Core 1 to 4) and two are Applied Mathematics (any two from Mechanics 1, Mechanics 2, Statistics 1, Statistics 2 or Decision 1).

For a description of Pure Mathematics, Statistics and Mechanics please see AS Maths. Decision Maths is the study of algorithms for solving a great variety of problems. It has many practical applications in Business, Engineering and IT.

Suitable Pupils

Everyone who passes Higher Tier GCSE Mathematics with an A or A* should think very seriously about taking Mathematics. To have an A level in Mathematics is a distinct advantage when it comes to entry to many university courses and careers. The logical and deductive thought processes which are developed are necessary for careers as diverse as law and psychology. Statistics is crucial to business, medicine, and most aspects of public life. As well as being an important subject in its own right, Mathematics enables students to develop skills which can be applied in subjects such as Physics, Chemistry, Biology, IT, Geography, Psychology and Economics. It is also chosen as an interesting and enriching contrast by those who are otherwise studying Arts subjects.

Mathematics is both challenging and rewarding. Most students finish their two year Mathematics A level with an A or a B grade, and a sense of real achievement at having taken on and mastered something which was sometimes difficult. About 40 pupils per year take Mathematics A-level and over 85% achieve A/B grades.

A level Mathematics opens the doors to a tremendous variety of subjects at university. Mathematics is necessary for subjects such as Physics, Engineering, Architecture and Computer Studies, and useful for Chemistry, Biology, Economics, Geography, Business Studies and Medicine. It may be that Mathematics does not immediately support the course a student takes at university but helps later on as part of a professional career – for example in business or finance. Admissions tutors look very favourably on students presenting with Maths A-level whatever subject they are planning to study.

Good algebraic skills are fundamental to many areas of the course. In order to be able to cope with the level of difficulty at A level, students should have passed Higher Tier GCSE, preferably with an A* or an A grade.

Another essential prerequisite is a large degree of determination. All students encounter difficulties at times. Those who succeed are the ones who will not give in. We run a Maths Clinic after lunch a few times a week, and expect those with problems to bring them along for help. Many students gain high grades at A level who are not natural mathematicians but who have worked consistently and rarely let a problem get the better of them.

FURTHER MATHEMATICS

A Level

Course Outline

For the most able mathematicians, Further Mathematics is an exciting and challenging addition to A Level Mathematics. It is essentially two A Levels in Mathematics:

- In the Lower Sixth year, the six modules which make up A level Mathematics are covered, giving students an A level in Mathematics. (For more information, please read the pages in this booklet titled 'Mathematics'.)
- In the Upper Sixth year, a further six modules are covered, giving students a second A Level (in Further Mathematics). There is an option to stop studying maths after taking three modules in January of the Upper Sixth which will result in an AS in Further Maths.

In order to accomplish this, students attend mathematics lessons in both timetable blocks A and E.

Suitable pupils

Further Mathematics is highly recommended for anyone wishing to study Mathematics, Physics, Engineering or Computer Science at University. These courses will include topics covered in the Further Mathematics specification. We expect those wishing to take Further Mathematics to have an A* at GCSE or IGCSE.

About 10 pupils per year take Further Mathematics A Level. Almost all achieve an A in both their Mathematics A Level and their Further Mathematics A Level.

MATHEMATICS

International Baccalaureate Diploma Programme

There are three Mathematics courses from which the IB Diploma pupil can choose. Mathematics Higher Level, Mathematics Standard Level and Mathematical Studies Standard Level.

Higher Level is suitable for the gifted and talented young mathematician who is aiming to study Mathematics at University. It is recommended for pupils who have gained an A* at GCSE and an additional qualification such as an A in Additional Mathematics.

Standard Level is suitable for those pupils with a good mathematical ability and whose chosen University course and career path would benefit from studying Mathematics. This course is suitable for those with an A* to B at GCSE.

Mathematical Studies is an excellent course for those who are not so keen on pursuing Mathematics. It builds on GCSE work and contains practical applications such as Financial Mathematics. Mathematical Studies is within the ability range of all our pupils who progress to or enter into the Sixth Form.

Each course is taught over two years and examined at the end of the Upper Sixth.

MODERN LANGUAGES (French, German, Spanish)

A Level

Languages at A level offer a unique combination of up-to-date and historical cultural study, practical communication skills and a wide range of literature. The three main languages have similar syllabuses which are based around the study of a number of themes but which have the flexibility to develop teachers' and pupils' personal interests:

AS modules

Unit 1 Oral (Discussion of topics and general conversation)

Unit 2 Listening, reading and writing (includes grammar, translation into English, and an essay)

A2 modules

Unit 3 Oral (structured discussion and an exposé)

Unit 4 Listening, reading and writing (includes translation into the target language, and a Guided Studies Essay)

Choosing and preparing for the course:

A study of one or two modern foreign languages can be sensibly combined with courses in many other subjects. You should aim to achieve at least an A grade at GCSE languages.

Course content:

You need to be interested in both the spoken and written language, prepared to listen to tapes, watch foreign television and be willing to read newspapers, magazines and books outside the classroom and on the Internet.

The AS and A2 examinations test candidates' skills in speaking, reading, listening and writing. Grammar and written accuracy are increasingly important. All three languages use the WJEC Board where the Oral is worth 40% and the foreign language is required almost exclusively for answers elsewhere. A very small amount of translation into English is set. Literature continues to be an important aspect of the course in all languages.

All members of the Sixth Form are encouraged to participate in study courses, work experience or exchanges across all three languages. Indeed as the assessment is so orally based, it is completely in the best interests of the pupil to spend an extended period of time in the target language country. Pupils are required to attend a conversation class once per week with the relevant Language Assistant who provides native speaker practice. The Department is comprehensively equipped with modern ICT facilities for both teaching and learning: satellite TV, a computer room with state-of-the-art applications and hardware.

Languages at university:

Many different types of courses comprising Modern Languages are available at universities.

- a) For a traditional Modern Languages degree you will probably study two languages. At university, it is often possible to start a new language such as Italian, Japanese, Chinese or Russian.
- b) Each year the Department prepares candidates for language courses at Oxford and Cambridge. These courses have a substantial literary content.
- c) A foreign language can be read in conjunction with almost any other subject: Business Studies, English or History are particularly popular.
- d) A language qualification (at AS, A Level or Degree Level) is at a premium in a country which is notoriously short of good linguists.

ITALIAN

GCSE

We offer Italian at GCSE in the Sixth Form. This is a one-year course for beginners, with the full examination taken in the summer term. This has been a very successful option grades. Since the course fits into a single year, it can be started in either the Lower Sixth or the Upper Sixth, although in the Upper Sixth this will depend on the blocks into which you're a levels fall.

The course offers rapid acquisition of the grammar, syntax and vocabulary that enable practical use of the language and a basis for further study. Experience of other languages at GCSE means that pupils grasp the new language quickly. Clearly candidates need to have linguistic ability, but also commitment, since the course runs alongside a full set of A Levels and therefore entails a great deal of work on the part of the pupil. A key element of the success of our course is the affection and enthusiasm for the language and culture of Italy engendered along the way.

MODERN LANGUAGES **(French, German, Italian and Spanish)**

International Baccalaureate Diploma Programme

It is a requirement of the IB Diploma Programme that students study at least one foreign language.

The aim is to promote an understanding of another culture through the study of a second language. The main emphasis of the modern language courses is language acquisition and use in a range of contexts and for different purposes.

Language *ab initio* courses are for beginners, who have little or no previous experience of learning the language they have chosen. These courses are only available at standard level. We are offering Italian at this level.

Language B courses are intended for students who have had some previous experience of learning the language, in most cases to a good level at GCSE. They may be studied at either higher or standard level. We are offering French, German, and Spanish at this level.

Emphasis will be placed on the handling of different styles and registers of text, and developing skills to analyse and reproduce the same. Oral fluency and ease of communication will also feature strongly.

Assessment is done by means of two oral activities, one interactive and one individual, that are assessed during a series of such exercises throughout the course, and by two written papers, involving comprehension, analysis, and grammatical study of several texts, and production of the written foreign language in response to a stimulus, that are taken at the end of the two year course.

All members of the Sixth Form are encouraged to participate in study courses, work experience or exchanges across all three languages. Indeed as the assessment is so orally based, it is completely in the best interests of the pupil to spend an extended period of time in the target language country. Pupils are required to attend a conversation class once per week with the relevant Language Assistant who provides native speaker practice. The Department is comprehensively equipped with modern ICT facilities for both teaching and learning: satellite TV, a computer room with state-of-the-art applications and hardware.

MUSIC

A Level

Good numbers come forward to study music in the Sixth Form each year, and the department is proud of its results. Teaching is mostly in small groups, ensuring plenty of individual attention. Not only does the subject enable performers to take a qualification largely based upon their instrumental studies, but it enables any music lover – of any standard – to learn to analyse and enjoy different genres of music.

If you would like to take A level Music you should be able to play an instrument or to sing to at about Grade 5 standard for AS and Grade 6 -7 standard for A2. It is not essential to have taken the grade exam. In performing, you will be able to use solo material prepared in lessons, as well as any school ensembles which you are part of. We record everything, and then take the best performances for the exam board at Christmas in the U6.

The AS and A2 modules continue the three core disciplines of listening, composing and performing that were encountered at GCSE. The style in which they are taught and examined changes greatly, however, and new disciplines are introduced. It is also important to remember that everything is at a higher standard than it was at GCSE.

Performing (40%)

A Level pupils give performances of various pieces, building up a short portfolio of 5-8 minutes for AS, and a longer selection of 15 minutes at A2. These performances can take place whenever you are ready to perform throughout the course, and can be in front of an audience of hundreds, or in front of a couple of mates in a practice room. There are music tech options instead, with sequencing and recording, if you are taking extra-curricular lessons in this area.

Harmony (30%)

We teach you to complete harmonisations of hymn tunes and 3-part pieces in the style of composers like Bach and Handel. Here, some grounding in grade 5 theory would help, but again isn't a necessity for students who are willing to work hard. We teach this area from scratch to enable you to learn the rules to produce strong chord progressions in the coursework examples. Keen composers may also be able to follow separate options for a free composition portfolio – ask us for more details if this interests you.

Listening and understanding (30%)

Here, we teach you to analyse pieces of music in detail, placing pieces in their historical contexts and knowing their relationship to other significant works. The end of course exam tests how well you know the set works, as well as testing your aural skills and ability to notate, identify and describe features from the score. The set works studied presently are Mozart *Symphony no 41* and Vaughan Williams *Symphony no 5*, as well as looking at choral music throughout music history.

Beyond A-level

This is a sufficiently academic course to prove your ability to analyse works in depth and to produce solid written explanations of the creative process. As such, it is as valuable as any other A Level, in terms of university choices in any subject. However, the course obviously prepares pupils well for continued studies in music at university. Alternatively, the performance element also means that students can look at ambitions in specialist music colleges with some confidence.

MUSIC

International Baccalaureate Diploma Programme

Good numbers come forward to study music in the Sixth Form each year, and the department is proud of its results. The teaching is mostly in small groups, ensuring plenty of individual attention and a comfortable pace.

There are three areas of study: Performing, Musical Perception and Analysis and Composing.

Performing (25%)

If you would like to take music for the IB Diploma you should be able to play an instrument or to sing to at least Grade 5 standard before starting the course. It is not essential to have taken the grade exam. The performance element requires each student to come up with 20 minutes worth of music (15 minutes for Standard Level), performed and recorded on mp3, by Christmas of the U6. Within this portfolio, most pieces must be solo material learnt in instrumental/singing lessons, although some of the work can also include school ensembles. There are also music tech options for those who study that as an extra-curricular pursuit.

Musical Perception and Analysis (50%)

Study here comprises two Prescribed Works and the study of a wide variety of musical styles from various traditions. The study places emphasis on the development of listening skills. We teach you the historical context and important musical features prevalent in Mozart *Symphony no 41* and Copland *El Salon Mexico*, and the final exam tests your ability to think through the works and offer detail in some kind of analytical essay.

In addition, candidates are required to produce a piece of original research of 1200-1500 words on a topic of their choice: the Musical Investigation. This dissertation-like exercise requires a good deal of self-discipline and a willingness to read and listen around the topic.

Composing (25%)

All students, Higher and Standard Level, are taught harmony from scratch. This requires students to learn to harmonise melodies in the style of Bach chorale hymns, and Haydn string quartets. We assume no previous knowledge here, although grade 5 theory skills can help.

On top of this, students must prepare composition work, showing the ability to write music in contrasting styles. At Standard Level, one composition is required; at Higher Level, two compositions. Each must be of about 3-5 minutes.

There are other options in this area for those who take Music Tech extra-curricular lessons: ask for more details if this is something that applies to you.

Beyond A-level

This is a course with less of a slant upon performance work, which enables students who have more of a historical, analytical or contextual interest in music to gain the qualification. It is a sufficiently academic course to prove your ability to analyse works in depth, and yet is a very creative option within the group 6 options. It would therefore complement many of the subject choices from both arts and science based sixth formers, yet still preparing pupils well for continued studies in music at university.

PHILOSOPHY

A Level

There is no GCSE or other pre-Sixth Form assessment in this subject, and it is therefore not required that Sixth Formers have any particular qualification at this level before beginning the course. However, good GCSE grades in cognate subjects such as History and English would be desirable; the Philosophy course will make demands upon Sixth Formers not unlike other Arts subjects. More specifically, however, students will do well in this subject if they enjoy reading and working with abstract ideas, can think clearly, and are able to write lucidly.

The Philosophy course helps students firstly to gain a knowledge and understanding of Philosophy, but it has a far wider merit, which students of many disciplines have long appreciated. The study of Philosophy gives students a chance to develop a set of transferable intellectual skills including comprehension, analysis, the ability to construct and develop clear and coherent argument – all of which are of great value in other academic pursuits and elsewhere in life. More importantly, Philosophy also aims to provide students with the categories and techniques necessary for any serious reflection upon human experience. As Socrates put it, ‘The unexamined life is not worth living’.

The content of the course.

From 2008, the AS course has two modules. The first module (**An Introduction to Philosophy I**) invites study of five themes, including:

- Reason and Experience
- The Idea of God
- Persons
- Why should I be moral?
- Why should I be governed?

We are expected to cover at least two themes, as candidates must answer questions on two themes; we shall aim to cover three of these themes, so that candidates have a choice of question. The module is assessed by a ninety-minute paper using stepped questions.

The second module (**An Introduction to Philosophy II**) also offers five themes:

- Knowledge of the External World
- God and the World
- The debate over Free Will and Determinism
- Tolerance
- The Value of Art

Candidates are again expected to answer questions on two themes, and we will aim to cover three themes. The module is assessed with a ninety minute paper with stepped questions.

The 2 modules for study in the A2 course include:

Module 3: Key Themes in Philosophy, which again offers study of a choice of five themes including:

- Philosophy of Mind
- Epistemology and Metaphysics
- Philosophy of Religion
- Moral Philosophy

This module is assessed by a two-hour paper; we anticipate that candidates will answer two questions on two different themes. In each section of the paper there will be a choice of questions.

It is again our intention to teach three of these themes, to maximise candidates' choice when sitting the paper, while not spreading ourselves too thinly. Our preference is for **Philosophy of Mind**, which raises questions such as the mind-body problem; how to explain consciousness; artificial intelligence, the relationship between mentality and physics, **Moral Philosophy**, which will discuss the theories of ethical behaviour and ask: what is moral truth; do moral judgements have a value independent of the consequences of actions and so on; and **Epistemology and Metaphysics**, the study of which allows us to pick up issues and debates raised in the AS course in the modules on Reason and Experience and Knowledge of the External World.

The fourth module **Philosophical Problems** takes a specific text such as Descartes' *Meditations* or Hume's *Enquiries*. The objective is to encourage study of a text in detail, and for candidates to make connections between the texts and other parts of their course. Themes associated with the two texts we hope to study include: rationalism, scepticism, the mind/body problem, the ontological argument for God in the *Meditations*; and empiricism, the status of miracles, the nature of causality; free will and determinism; liberty and necessity in the *Enquiries*. The module is assessed by a paper with questions on each theme.

Associated with the study of Philosophy is the school's Philosophy Society: **Symposium**. This is an evening discussion group which meets to discuss philosophical questions during the term. The group will normally hear a paper or presentation from a philosopher, and discuss it informally afterwards. Symposium has had some very distinguished visitors in the recent past, including Peter Hacker, Galen Strawson, John Cottingham and others.

The mode of study required for Philosophy AS and A2 suggests that it combines well with other Arts subjects such as English, Politics or Religious Studies. However, Philosophy has relevance for students of all subjects: the ideas and disciplines taught by Philosophy are universally useful. Philosophy contributes to our wider understanding of all subjects, and there is considerable benefit in a course which involves thinking critically about arguments. Sixth Formers considering the subject should, however, be aware that it involves working with what, on the face of it, are quite outrageous ideas, and they will need to be open-minded and receptive. For example, one must be ready to take seriously the view that the only things in the world are one's mind and its ideas.

In addition, Philosophy has a certain notoriety with those people who need to have concrete or definitive answers to their questions. Anyone who feels this could be frustrating might read the paper: 'Why Study Philosophy?' which is to be found on the school website. Lastly, the study of Philosophy can be taken on different levels; it is not necessarily difficult, but it does require careful reading and orderly thought.

A Level in Philosophy will be especially useful for those planning to study and related subjects at University: again, most Arts subjects, but any other discipline in which clear, logical thinking and reasoned argument is valuable. This commends it to everyone, but it would be particularly useful for those going on to study Law, for example. It also provides the framework for study in Theology, Politics, Literary Criticism, Classics, Physics. Philosophy departments universally claim that their graduates have relatively little difficulty in finding employment, as the analytic skills of a philosopher are valuable to employers. Many Sixth Formers have gone on to study Philosophy at University, either as a single honours or as part of a combined course, such as PPE. There is no doubt that Sixth Formers (and others) studying the subject do become truly passionate advocates for Philosophy. After reading some philosophy, people are never the same again.

PHILOSOPHY

International Baccalaureate Diploma Programme

1. Many of the comments on Philosophy as a subject of study made elsewhere in this booklet apply to IB Philosophy; I will repeat only the most important of them.
Students will do well in this subject if they enjoy reading and working with abstract ideas, can think clearly, and are able to write lucidly.
2. The Philosophy course helps students firstly to gain a knowledge and understanding of Philosophy, but it has a far wider merit, which students of many disciplines have long appreciated. The study of Philosophy gives students chance to develop a set of transferable intellectual skills including comprehension, analysis, critical abilities in constructing and de-constructing arguments – all of which are of great value in other academic pursuits and elsewhere in life. More importantly, Philosophy also aims to provide students with the categories and techniques necessary for any serious reflection upon the human condition and experience.
3. **The content of the course.** The description which follows is a sketch of the course at the Higher Level. As those interested in IB will know, the Standard Level course requires students to do fewer optional themes, and so SL is a subset of HL.
All candidates, however, study the Core theme.

1. Core Theme: What is a human being?

This theme and module allows us to discuss some of the central questions in the philosophy of mind:

What is personhood, and what are the characteristics necessary for personal identity?

Could animals or machines be persons?

What is the self? Are we composed of mind and body; what is the relationship between mind and body?

What do we know of other minds?

Are we free or determined?

The module allows discussion of other themes, such as – human nature, our search for meaning in a meaningless world, how do we use language; how do we use value judgments; how do we combine reason, emotions and experiences in our understanding of ourselves and others.

2. Optional Themes

Theme 1: Grounds of epistemology

Epistemology is the study of the nature, origin, scope and limits of human knowledge.

This theme allows students to explore such questions as: Can I know anything at all? What role does

experience and reason play in the acquisition of knowledge? What is the relationship between knowledge and

certainty? Is certainty possible or is all knowledge relative? Is there an end to

knowledge? Is knowledge culturally dependent?

This theme connects well with the TOK course.

Theme 2: Philosophy of religion

Philosophy of religion examines the nature of religion, explores rational arguments for and against various

religious views, analyses the nature of religious language and explores the variety of human religious

experience. It attempts such questions as: Can we prove the existence of a higher being through reasoning or

experience? Can morality be based on religious experience? What is the nature and scope of religious

language? Can religion give meaning to life? Is spirituality possible without reference to a higher being?

(Higher Level candidates study both of these optional themes. Standard Level candidates study one only.)

3. *Philosophical Text Study*

All students will read and study a prescribed text. There are twelve options, but we have selected either: Descartes' *Meditations* for study, as we are encouraged to choose a text which supports the teaching of the optional themes. Descartes' *Meditations* supports our study of Epistemology, Philosophy of Religion, and the elements of Philosophy of Mind to be found in the Core Theme.

4. *Internal Assessment*

This exercise takes the form of a philosophical analysis of non-philosophical material. The purpose of the exercise is to allow students to develop their philosophical skills by applying knowledge and understanding of philosophical ideas and concepts through the analysis of non-philosophical material. Students will choose their own material for analysis – which can be a film, book, newspaper article, and so on. Students in the 2009–2010 year group are using films to work with. They are expected to show how non-philosophical material can challenge their assumptions and be treated in a philosophical way; how they can apply the skills of philosophical analysis to material of a non-philosophical nature.

Part 5 *Unseen text—exploring philosophical activity* (HL only)

Purpose and nature of the unseen text

The purpose of the unseen text paper is to allow students to demonstrate an understanding of philosophy as an activity by means of a holistic application of the philosophical skills, knowledge and ideas they have developed throughout the course. The text will be chosen to reflect the nature, function, methodology and meaning of philosophy as a reflective activity. The emphasis of this exercise is on students' understanding of philosophy as an activity, and on their appreciation of the nature of the different methodologies and approaches they encounter in philosophical activity. Examples of ways this can be developed during the course include the following.

- A student studying the core theme might ask how and why philosophical activity, as contrasted with science and religion, contributes to the debate on the human condition.
- A student studying one of the optional themes might investigate the methods that philosophers use to formulate arguments.
- A student studying a prescribed text might consider how a philosopher formulates, poses and writes about philosophical problems or responds to the work of other philosophers.

4. Associated with the study of Philosophy is the school's Philosophy Society: ***Symposium***. This is an evening discussion group which meets to discuss philosophical questions on occasions during the term. The group will normally hear a paper or presentation from a philosopher, and discuss it informally afterwards. Symposium has had some very distinguished visitors in the recent past, including Peter Hacker, Galen Strawson, John Cottingham and others.

5. In thinking about the combination of courses in the hexagon, Philosophy has a relevance for students of all subjects – the ideas and disciplines taught by Philosophy have universal application; indeed, whether you take this subject or not, you will encounter philosophical ideas in the TOK course. Philosophy contributes to our wider understanding of all subjects. Sixth formers considering the subject should, however, be aware that it involves working with what, on the face of it, are quite outrageous ideas, and they will need to be open-minded and receptive. For example, one must be ready to take seriously the view that the only things in the world are my mind and its ideas. In addition, Philosophy has a certain notoriety with those people who need to have concrete or definitive answers to their questions. Anyone who feels this could be frustrating might read the paper: 'Why Study Philosophy?' which is to be found on the school website. Lastly, the study of philosophy can be taken on different levels; it is not necessarily difficult, but it does require careful reading and orderly thought.

6. An IB portfolio containing Philosophy will be especially useful for those planning to study and related subjects at University – again, most Arts subjects, but any other discipline in which clear, logical thinking and reasoned argument is valuable. This commends it to everyone, but it would be particularly useful for those going on to study Law, for example. It also provides the framework for study in Theology, Politics, Literary Criticism, Classics, Physics. Philosophy departments universally claim that their graduates have relatively little difficulty in finding employment, as the analytic skills of a philosopher are valuable to employers. Many sixth formers have gone on to study Philosophy at University; either as a single honours or as part of a combined course, such as PPE. There is no doubt that sixth formers (and others) studying the subject do become truly passionate advocates for Philosophy.

PHYSICAL EDUCATION

A level

A Level Physical Education was introduced in 1999 and there are currently 50 students studying the subject in the Sixth Form, with four of last year's leavers applying to read Sports Science at University, two of which went to Loughborough on 2 A's and B offers.

Through the study of Physical Education, students are able to analyse the affects of Exercise Physiology, Sport Psychology and Sociology of performance and participation, both at recreational and elite levels. Students undertaking advanced studies commence with varying ranges of experience and expertise but all have a common enthusiasm for and enjoyment of the subject. Although challenging, the course is extremely rewarding and interesting, providing students with an insight in to the ever-developing, competitive world of sport.

The 2008 Olympics in Beijing have highlighted the phenomenal levels of finance and scientific support that today's elite athletes require and this course is specifically designed for those with the desire to understand the science behind the performances. When billions of pounds are at stake nothing is left to chance and students will be able to study the political, economical and scientific factors that play such a vital role in the preparation of elite athletes from all corners of the world.

Unit 1 Opportunities for and the effects of leading a healthy and active lifestyle

Written examination: 2 hour paper 84 marks 60% of AS marks 30% of A level marks.

Section A will require candidates to answer two questions on each of applied exercise physiology, skill acquisition and opportunities for participation.

- Health, exercise and fitness
- Nutrition
- Pulmonary function
- Transport of blood gases
- Cardiac function
- Analysis of movement in specified sporting actions (including planes and axes)
- Levers.

Section B will examine the application of theoretical knowledge to a practical situation.

- Principles of training, concepts of specificity, progression, over-training, overload, reversibility and tedium, FITT principles.
- Fitness testing, reasons for testing, principles of maximal and sub-maximal tests, limitations of testing, specific test protocols, issues relating to validity and reliability
- Physiological and psychological value of a warm-up and cool-down. Types of stretching exercises, active, passive, static and ballistic. Principles of safe practice.
- Training methods, continuous, intermittent, circuit, weights, plyometrics and mobility training.

- Explanation of the principles of each method, specific examples, advantages and disadvantages.
- Characteristics and definitions of skill.
- Difference between motor and perceptual abilities.
- Difference between skill and ability.
- Types of skill, cognitive, perceptual and psychomotor.
- Classification of skill, use of skill continua, open and closed, discrete, serial, continuous, gross, fine, self paced, externally paced.

Unit 2 Analysis and evaluation of physical activity as a performer and/or in an adopted role or roles

Internal assessment: 100 marks 40% of AS marks and external moderation 20% of A Level marks.

Candidates are assessed on their ability to perform, analyse and evaluate the execution of core skills/techniques in isolation and in structured practice as **either** a player/performer and in an adopted role **or** in two adopted roles.

- Section A requires candidates to be assessed on their ability in two from a choice of three roles.
- Section B will look at the theoretical factors that improve performance. Candidates are assessed on this element through the section B question in Unit 1.

Unit 3 Optimising performance and evaluating contemporary issues within sport

Written examination: 2 hour paper 84 marks 30% of A level marks

Section A assesses how exercise physiology can optimise performance.

Energy systems, energy sources and systems, fats, carbohydrates and proteins; locations within the body, factors affecting their use, related to intensity and duration of the exercise, resynthesis of ATP.

Section B assesses how the application of psychological knowledge can optimise performance.

Aspects of personality, Arousal, Goal-Setting, Attitudes, Confidence, Attribution theory, Group Success, Leadership.

Section C evaluates contemporary influences in sport and their impact on the performer.

- The impact of World Games on the individual, the country and the government.
- The stages of Sport England's sport development continuum and the factors influencing progression from one level to another.
- The social and cultural factors required to support progression from participation to performance and excellence.
- The development of rational recreation as a result of changing socio-cultural factors through the Industrial Revolution, urbanisation, the emergence of the middle classes, improved communications, the church, public provision and the changing nature of

working conditions for the masses and how this has influenced the current day sporting arena.

- The development and spread of rational recreation within society and globally through the influence of ex-public school boys, formation of national governing bodies and the emergence of mass spectator sport and how this can be still seen in the current day sporting arena.
- The historical view of the amateur and professional when compared with the current viewpoint.
- The concepts of gamesmanship and sportsmanship and the Olympic Ideal.

Unit 4 Optimising practical performance in a competitive situation

Internal assessment with 120 marks 20% of A level marks external moderation

Candidates are assessed on their ability to perform, analyse and evaluate their own performance in a competitive/performance situation as either a player/ performer or in an adopted role. Then using their knowledge and understanding candidates identify their weaknesses; suggest the causes of these weaknesses and the appropriate corrective measures.

Section A. The ability to perform and analyse relevant core skills/techniques as a performer, official or leader/coach within a fully competitive situation or equivalent scenario.

Section B. The ability to analyse and critically evaluate their own/others. weaknesses within a fully competitive or equivalent situation in relation to an elite level performer.

Section C. The ability to identify theoretical causes for weaknesses in performance and suggest appropriate corrective practices to optimise performance.

RELIGIOUS STUDIES

A Level

Is there any absolute good in the world or are values only relative to individuals and cultures? Must I always tell the truth? Are our actions free or already determined? Do I have a conscience and if so should I pay any attention to it? Can War ever be justified? Are the Gospels historically accurate? How did the Roman occupation affect the religious life of Jews and the rise of Christianity in first century Palestine? While many humans might consider some of these questions at some point in their lives, few understand the context of these issues, and even fewer have the skills needed to answer them appropriately.

The department welcomes people from any religious backgrounds or none, and prioritises healthy debating and discussion. Students who choose to study this subject at AS or A Level will learn the skills of critical thinking and constructive argument, both orally and in writing. The lessons are usually in the context of a round table conversation, and considerable time is dedicated to reflection, debate and consideration of the views of everyone present. This subject is an academic discipline that develops appropriate knowledge and understanding through an enquiring, critical and empathetic approach. Many students from the department have gone on to study Philosophy, PPE, History, English, Law, Medicine, Theology or Religious Studies at university, including Oxford and Cambridge.

The A Level Course is in 2 equal sections: **Religious Ethics** and **New Testament**.

RELIGIOUS ETHICS:

In the **Lower 6th** students explore various ethical theories, such as Virtue Ethics, Utilitarianism, Natural Law and the Categorical Imperative. As they learn about these theories, there is opportunity to explore the ideas of absolute and relative morality, the relation of religion and morality, and what humans means by the concept of 'Good'. In the final section of Practical Ethics, students have the chance to put these theories into practice as they consider ethical situations in medicine, namely abortion, euthanasia, genetic engineering and stem cell research.

In the **Upper 6th** students will explore the nature and role of the Conscience, ask to what degree we are Free to act as we choose or are our actions all Determined by other causes, and then undertake a detailed study of Christian ethics. The final component of this ethics module examines practical ethics in the Environment, Sex and Relationships, and War, Peace and Justice.

NEW TESTAMENT:

In the **Lower 6th** students are invited to take a fresh look at the gospels and the origins of the Christian faith. They examine both Jewish and Roman influences on the early church & debate whether the gospels should be viewed as reliable historical documents. Alongside this, students will examine the debates about when the Gospels were written and with what purposes & how the different Gospels present Jesus. These debates are brought together into a study of how the death and resurrection of Jesus are presented in the Bible.

In the **Upper 6th** the focus turns to the life of Jesus including an academic study of the teachings of Jesus and their links to Jewish teaching at the time and the actions of Jesus including the accounts of miracles in the Gospels. Students will also debate whether Jesus was the expected Messiah and whether views of Jesus as Son of God and Son of Man are coherent when looked at in the context of Jewish expectations at the time.

SCIENCES

The following courses are offered by the Faculty of Sciences:

- A Level **Biology** (AQA Specification)
- A Level **Chemistry** (OCR Salter's Specification)
- A Level **Physics** (OCR Advancing Physics)
- IB **Biology** (Standard and Higher level)
- IB **Chemistry** (Standards and Higher Level)
- IB **Physics** (Standard and Higher Level)
- IB **Environmental Systems and Societies** (Standard level)
- **Mathematics for Scientists** (not examined)

Benefits of Studying Sciences in the Sixth-Form

The study of any science subject is, of course, immensely rewarding in itself and part of this country's heritage, but will also provide the student with many of the transferable skills that potential employers are now seeking in the increasingly competitive careers' market. Skills of numeracy, computer literacy, critical analysis, problem solving and the ability to think logically are examples of the type of attributes that the study of science will foster.

GCSE Requirements

Whilst there are no absolute examination grade requirements for the study of sciences at either A Level, experience has shown that a good grade at GCSE (grade B) is needed in both Science and Additional Science for success at this higher level. In addition there is a certain degree of numeracy required and therefore competence at mathematics should also be seen as a pre-requisite.

Subject Combinations

It is of course perfectly possible to study any of **Biology**, **Chemistry**, or **Physics** in isolation at A Level. However, it should be borne in mind that a certain amount of overlap, both in terms of concepts and techniques of study, exists between them and therefore combinations of the three tend to be mutually supportive and beneficial.

For those not taking A Level Mathematics, the non-examinable course **Mathematics for Scientists** should be attended in the Lower Sixth Year.

BIOLOGY

A Level

Predicting the future is notoriously difficult. However, one thing is certain: the 21st century will be the era of the biologist. Biologists will be at the forefront of the most challenging problems, such as gene technology, the molecular basis of embryonic development and the mechanisms of memory and learning. Having completed the mapping of the entire human genome at the start of the century, we are just beginning to understand how genes affect our bodies, brains and behaviour. Biologists must now identify and understand the precise three-dimensional shapes of proteins. Protein shapes control everything that happens in cells; knowing these shapes will help us understand how diseases prevent proteins from maintaining a healthy body. Biology also lies at the heart of major global problems that face mankind in the coming decades, such as sensible management of the environment and the ability to feed a rapidly expanding human population.

This new course has been designed to interest anyone who wishes to understand the structure and functioning of living things, whether or not they are taking other science AS or A Levels. Among the many benefits, this new specification is designed to encourage students to develop:

- an enthusiasm for Biology
- practical skills alongside understanding of concepts and principles
- an appropriate and relevant foundation of knowledge and skills for the study of Biology in Higher Education.

All candidates should have at least a B grade in Biology or Science and Additional Science at GCSE and should have studied Chemistry as well.

Lower Sixth

Unit 1: Biology and Disease

- How digestive and gas exchange systems may be affected by communicable and non-communicable diseases
- How knowledge of basic biology allows us to understand the symptoms of disease and interpret data relating to risk factors.
-

Written Paper: 1 hour 15 minutes

Weighting: 33% of total AS Level marks
16% of total A Level marks

Unit 2: The Variety of Living Organisms

- The influence of genetic and environmental factors on intraspecific variation
- How the variety of life is reflected in similarities and differences in its biochemical basis and cellular organisation
- How size and metabolic rate affect an organism's requirements and give rise to adaptations.

Written Paper: 1 hour 45 minutes

Weighting: 46% of total A Level marks
23% of total A Level marks

Unit 3: Practical and Investigative Skills

- Coursework is no longer required for AS-level Biology. Instead, pupils carry out an Investigative Skills Assignment (ISA) in which they carry out a practical, process the data and then sit a written paper.

Weighting: 20% of total A Level marks
 10% of total A Level marks

Upper Sixth

Unit 4: Populations and Environment

- How living organisms form ecosystems through which energy is transferred and chemical elements cycled
- How human activity affects ecological balance in a variety of ways
- How genetic variation and isolation may lead to the formation of new species.

Written Paper: 1 hour 30 minutes
Weighting: 18% of total A Level marks

Unit 5: Control in Cells and in Organisms

- Stimulus and responses - the biology of the nervous and endocrine systems
- Homeostasis and the maintenance of a constant internal environment
- Genes and genetic expression

Written Paper: 2 hours 15 minutes
Weighting: 23% of total A Level marks

Unit 6: Practical and Investigative Skills

- Coursework is no longer required for A-level Biology. Instead, pupils carry out an Investigative Skills Assignment (ISA) in which they carry out a practical, process the data and then sit a written paper.

Weighting: 10% of total A Level marks

Students are expected to attend a five day residential field course in South Devon at the end of the summer term in the Lower Sixth. This will allow experience in data collection, and subsequent statistical analysis, in a variety of habitats e.g. Rocky Shore, Freshwater Stream, Woodland, Marine Shingle Ridge and Freshwater Lake.

Throughout the course students will have the opportunity to carry out many practical investigations, including some new exciting areas of genetics such as human DNA extraction, DNA fingerprinting and analysis, PCR and the transfer of a luminescent gene from a jellyfish into a bacterium!

Biology can be taken alongside other sciences and Mathematics as well as languages, Geography and Humanities; indeed the blocking system allows a wide range of options.

You should appreciate that for medicine and some other biological science courses beyond A Level, A Level Chemistry is an essential requirement. However, even for medicine, combinations of Biology and Chemistry with an arts subject (especially English) are becoming accepted by the medical schools.

Not only will the course sustain and develop enjoyment and interest in Biology it will also develop the skills that are required of those contemplating a career in the biological sciences, medicine or veterinary science.

BIOLOGY

International Baccalaureate Diploma Programme

Predicting the future is notoriously difficult. However, one thing is certain: the 21st century will be the era of the biologist. Biologists will be at the forefront of the most challenging problems, such as gene technology, the molecular basis of embryonic development and the mechanisms of memory and learning. Having completed the mapping of the entire human genome at the start of the century, we are just beginning to understand how genes affect our bodies, brains and behaviour. Biologists must now identify and understand the precise three-dimensional shapes of proteins. Protein shapes control everything that happens in cells; knowing these shapes will help us understand how diseases prevent proteins from maintaining a healthy body. Biology also lies at the heart of major global problems that face mankind in the coming decades, such as sensible management of the environment and the ability to feed a rapidly expanding human population.

Is IB Biology for me?

A successful IB Biologist will certainly require a good working knowledge of biology up to GCSE level, but must also be a highly motivated and open-minded inquirer, thinker and communicator. Beyond the classroom, students will have deadlines to meet on practical write-ups, prep assign, to complete and the background reading necessary for a full understanding of the subjects studied in class.

The aims of the course are:

- To provide students with a conceptual framework and factual knowledge of the subject
- To enable students to develop experimental, investigative, critical and analytical skills in biology
- To encourage students to make judgements on moral, social, ethical, economic and environmental implications of using science and to develop an appreciation of the limitations of science

As a Group 4 Experimental Science, the IB Biology course will provide a ‘hands on’ and a rigorous academic challenge to students. The emphasis on a practical approach to learning applies to all Group 4 subjects and must not be mistaken for an easy option. Students at Standard Level (SL) are required to spend 40 hours, and students at Higher Level (HL) 60 hours on practical and investigative work during the two-year course. This work will be ‘Internally Assessed’ by the teacher and will be worth 24% of the Student’s final assessment, written examinations contributing the other 76%.

The Course

The IB Biology course comprises three elements: Theory, investigations and the Group 4 Project. At SL, the theory will consist of ‘core’ material and two ‘options’. At HL, theory will consist of core material, options and ‘Additional Higher Level’ (AHL) material. This additional material and the greater number of hours spent in the subject provide the difference between SL and HL. The teaching staff will select the Options.

Core		Example of study within topic
Topic 1	Statistical analysis	Statistical analysis on Tesco 'value' versus Waitrose kidney beans.
Topic 2	Cells	Modelling eukaryotic cells.
Topic 3	The chemistry of life	The role of water in life.
Topic 4	Genetics	DNA fingerprinting practical.
Topic 5	Ecology and evolution	<i>Mollusca</i> or <i>arthropoda?</i> - Classification
Topic 6	Human health and physiology	HIV/AIDs, heart dissection

AHL

Topic 7	Nucleic acids and proteins	DNA replication
Topic 8	Cell respiration and photosynthesis	The Krebs's Cycle
Topic 9	Plant science	What are monocots and dicots?
Topic 10	Genetics	Why are gametes ALL different?
Topic 11	Human health and physiology	What makes a muscle contract?

Options

Option A (SL)	Human nutrition and health
Option B (SL)	Physiology and exercise
Option C (SL)	Cells and energy
Option D (SL and HL)	Evolution
Option E (SL and HL)	Neurobiology and behaviour
Option F (SL and HL)	Microbes and biotechnology
Option G (SL and HL)	Ecology and conservation
Option H (HL)	Further human physiology

Assessment

1. Internal assessment (24%)

Students are required to write up all practical work and investigations during the course, with many of the write-ups being marked by the teacher according to a mark scheme. Students will have full access to this mark scheme and when work is to be assessed, minimal direction will be given for these tasks. The Group 4 Project is also internally assessed with students being assessed on self-motivation and perseverance, team work and self-reflection.

2. External Assessment (76%)

This takes the form of three written exams during May of the second year of the course. Paper 1 takes the form of multiple-choice questions. Paper 2 includes a data-based question, several short-answer questions and one extended-response question. Paper 3 consists of several short-answer questions based on the Options covered.

Students are expected to attend a five day residential field course in South Devon at the end of the summer term in the Lower Sixth. This will allow experience in data collection, and subsequent statistical analysis, in a variety of habitats e.g. Rocky Shore, Freshwater Stream, Woodland, Marine Shingle Ridge and Freshwater Lake.

Throughout the course students will have the opportunity to carry out many practical investigations, including some new exciting areas of genetics such as human DNA extraction, DNA fingerprinting and analysis, PCR and the transfer of a luminescent gene from a jellyfish into a bacterium!

CHEMISTRY

A Level

Chemistry is the study of the properties and reactions of substances and their applications in our lives. Human existence is reliant upon and is constantly being transformed by chemistry: medicines, drugs, dyes, pigments, foods, flavours, vitamins, antioxidants, fireworks, explosives, atomic bombs, fuels, fertilisers, plastics, diamonds, batteries... the scope of study is boundless. The A Level course which we teach at St. Edward's is directed towards the Salter's specification, which focuses on several of these applications of Chemistry to industry, culture and our environment.

In our studies we do not lose sight of Chemistry as an intellectual pursuit, the development of which is part of our cultural heritage, and we aim to trace in outline the development of some of its ideas and theories, avoiding as far as possible the temptation to present them as unalterable 'facts'. As many as possible of the processes and phenomena are examined in the context of the important chemical concepts with atomic theory, energy levels, and instrumental techniques being given appropriate weight. There is also time to consider some fundamental questions in greater depth: How big are atoms? What shapes are molecules? What makes an acid? How and why do substances react? How is it possible to find out any of this?

All A Level Chemists become members of the Cavendish and Priestley Societies, which provide a forum for scientific discussion, encourage independent research into the history and philosophy of science and provide opportunities for students to give presentations on their project work or an area of scientific interest. The department also encourages the integration of information and communication technology into learning and facilitates informal meetings between students and professional scientists. Practical skills are an essential part of any chemistry course and these are fostered and assessed in both the A Level years.

Biochemical topics provide numerous links with A Level Biology, and there are cross-curricular connections with Physics, Mathematics, Archaeology, Information Technology, History of Art, Philosophy, Art, Geography, History and English.

The AS course will consist of the first 5 Teaching Units. These will be assessed in two written papers in June of the U6. Coursework will consist of a number of assessments of practical skills which is completed in the first two terms of the L6.

- Elements of Life
- Developing Fuels
- Elements from the Sea
- The Atmosphere
- Polymer Revolution

The A2 course continues with eight more Teaching Units. The coursework takes the form of an Individual Investigation, carried out in February and March of the Upper Sixth year. There are two written papers and all students go on an organised industrial visit.

- What's in a Medicine?
- The Materials Revolution
- The Thread of Life
- The Steel Story
- Agriculture and Industry
- Colour by Design
- The Oceans
- Medicines by Design.

The study of chemistry at this level is synoptic by nature. The skills and information acquired in one topic are directly transferable to the next, during which we revise, build upon and develop ideas further. The Individual Investigation and the final written examination are very much synoptic forms of assessment.

An A Level qualification in Chemistry provides the transferable skills required in a whole host of courses and occupations. It is commonly required for the study of Medicine, Veterinary Science, Dentistry, Natural Sciences, Pharmacy, Pharmacology and Biochemistry at most Universities and it is advisable to have chemistry in your portfolio if you intend to study courses in Biological Sciences, Environmental Sciences, History of Science and Physiotherapy. However, the best reason for choosing to study Chemistry at these levels is, of course, a liking for the subject itself.

Chemistry provides all candidates with the opportunities to develop a lifetime of skills: planning, organising, handling data and quantities, measuring, assessing, compiling, interpreting, summarising, presenting, debating, working in groups, improving understanding and decision making. It is little wonder that today's chemists will be tomorrow's lawyers, politicians, managers, consultants and leaders.

The Salters Chemistry course is designed to be thought-provoking, challenging and stimulating. Where it leads you is up to you!

CHEMISTRY

International Baccalaureate Diploma Programme

Chemistry is the study of the properties and reactions of substances and their applications in our lives. Human existence is reliant upon and is constantly being transformed by chemistry: medicines, drugs, dyes, pigments, foods, flavours, vitamins, antioxidants, fireworks, explosives, atomic bombs, fuels, fertilisers, plastics, diamonds, batteries... the scope is boundless.

It is the 'central science' with many overlaps with the biological and physical sciences. The IB diploma syllabus also highlights chemistry's international perspective: the global nature of the problems and issues facing mankind, and the role all sciences have in solving them. Whether researching and studying the causes and effects of the very topical dilemma of climate change, or the chemistry involved in drug synthesis and testing, the sharing of ideas and the need to adapt solutions to specific global environments ensures an international aspect to all teaching throughout the course.

The ease with which information can be shared by e-mail means links with any number of schools (both domestic and international) will be possible. These contacts can also help to develop an understanding of the difficulties and situations experienced in different parts of the world, both common and unique.

The chemical principles encountered in IB Chemistry underpin the work of all science and as such the work of chemists of any description can have far reaching effects. Hence the IB focuses on the need for students to be aware of the moral, social, ethical, economic and environmental implications of using science. 'Science with a conscience' is vital, as is a realisation that there are limitations to what can be achieved through science and the scientific method. The ability for students to think for themselves and to question what they are presented with is a skill encouraged in the course.

Chemistry is a subject that demands academic rigour and the need to acquire high level practical and investigative skills. The aim of the IB Diploma course is to instil the facts, methods and techniques needed to understand the subject, but also the ability to use the material and methods taught and apply them in unusual circumstances. Allied to this skill is the need to be able to analyse and evaluate scientific information presented in a range of formats.

The IB focuses on the investigative nature of Chemistry. It can be maddening when a carefully thought-through plan does not realise the results or data expected, but the beauty of the subject is in realising you have learnt something different by mistake, as have many illustrious chemists before you. With the generous allocation of time for practical work there is great scope in the IB Diploma course for challenging, interesting and thought provoking investigative work. Assessment of the broad key skills of Design, Data Collection & Processing and Concluding & Evaluating, along with Manipulative Skills, should encourage students to be assiduous in their approach to all their investigative work, and so derive the greatest benefit from it, working with precision and safety in mind. The formal assessment of Personal Skills is a welcome aim of the IB Diploma course.

The IB Diploma course offers a sound grounding in the core material. and the extension material allows the opportunity to stretch the most able and most interested. The options offer an interesting range (such as Human Biochemistry, Chemistry in Industry and

Technology and Environmental Chemistry). At Standard Level (SL) students study the Core material, whilst those doing Higher Level (HL) also study the Additional Higher Level material (AHL).

Core

- Topic 1: Quantitative chemistry
- Topic 2: Atomic structure
- Topic 3: Periodicity
- Topic 4: Bonding
- Topic 5: Energetics
- Topic 6: Kinetics
- Topic 7: Equilibrium
- Topic 8: Acids and bases
- Topic 9: Oxidation and reduction
- Topic 10: Organic chemistry
- Topic 11: Measurement and data processing

AHL

- Topic 12: Atomic structure
- Topic 13: Periodicity
- Topic 14: Bonding
- Topic 15: Energetics
- Topic 16: Kinetics
- Topic 17: Equilibrium
- Topic 18: Acids and bases
- Topic 19: Oxidation and reduction
- Topic 20: Organic chemistry

Options (HL: 2 options, 22 hours each; SL: 2 options, 15 hours each)

- Option A: Modern analytical chemistry
- Option B: Human biochemistry
- Option C: Chemistry in industry and technology
- Option D: Medicines and drugs
- Option E: Environmental chemistry
- Option F: Food chemistry
- Option G: Further organic chemistry

Assessment is through ongoing Internal Assessment, worth 24% of the final grade, and three written papers at the end of the course (paper 1 is multiple choice, papers 2 and 3 are longer response question papers). Internal Assessment includes a cross curricular collaborative Group 4 Project where a topical area of study is chosen by the students which they research in mixed science groups.

The IB Chemistry course is designed to be thought-provoking, challenging and stimulating. Where it leads you is up to you!

PHYSICS

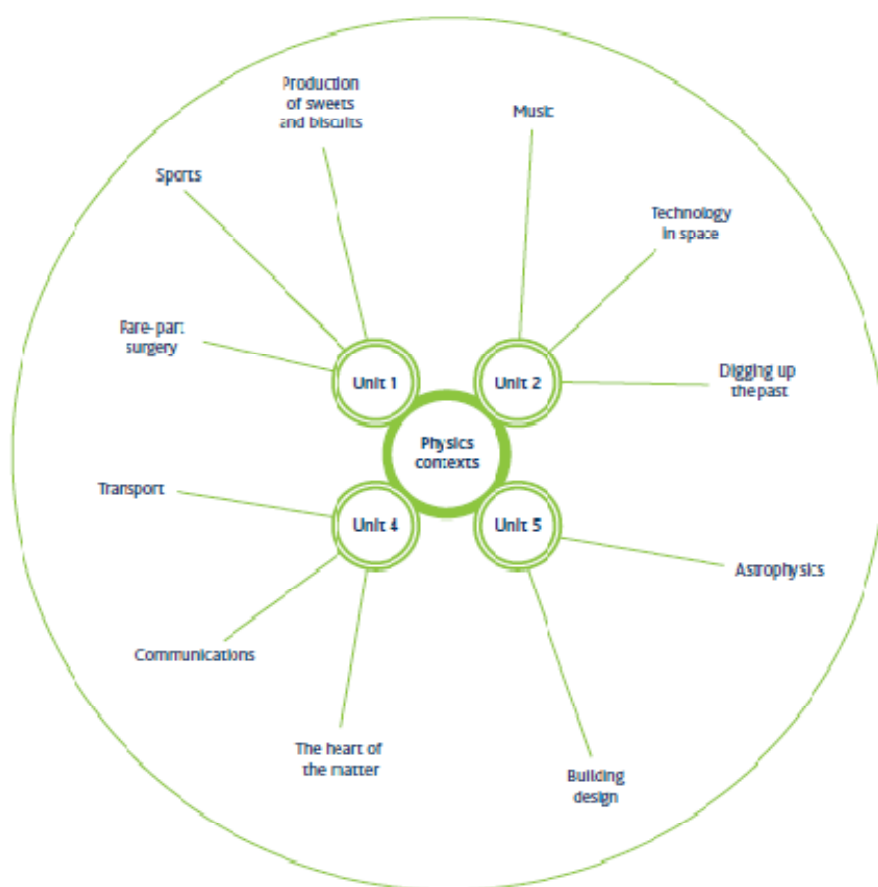
A Level

The Physics department has just launched a new A level course designed by the University of York. The new course includes cutting edge Physics and provides an excellent platform for University studies. The course is context led. This means that aspects of Physics are studied using a wide range of applications rather than a traditional topic led course. This approach has led to both excellent results and a genuine interest in the subject.

The teaching will combine all of the most contemporary modes of delivery with a strong emphasis on the use of ICT and Practical Work to present and model physical phenomena. The willingness to use computers to present information and manipulate data is important. Students will be introduced to a number of new software programmes and will attain a high degree of computer literacy by the end of the course.

A good degree of mathematical skill is useful but not vital for the A Level course, a greater ability is necessary to study the subject in the Upper Sixth. The course has been designed to provide a more graduated path from GCSE to AS Level and then again from the AS to the A2.

The course consists of two examination units and a coursework unit at AS and a similar structure at A2.



<p>AS</p> <p>Unit 1 – This unit includes the study of Sports, the production of sweets, and designing materials for medicine.</p> <p>Mechanics and sport</p> <ul style="list-style-type: none"> • speed and acceleration in sprinting and jogging • work and power in weightlifting • forces and equilibrium in rock-climbing • forces and projectiles in tennis • force and energy in bungee jumping <p>Materials</p> <ul style="list-style-type: none"> • measuring and controlling the flow of a viscous liquid for producing sweets • mechanical testing of products • mechanical properties of bone and replacement materials for spare part surgery • ‘designer’ materials for medical uses 	<p>Unit 2 – This unit includes the CD player, how satellites are powered and how Physics is used in archaeology</p> <p>The sound of music</p> <ul style="list-style-type: none"> • synthesised and ‘live’ sounds • standing waves in string and wind instruments • reading a CD by laser <p>Satellites</p> <ul style="list-style-type: none"> • illuminating solar cells • operation of solar cells • combining sources of emf • radar imaging <p>Archaeology</p> <ul style="list-style-type: none"> • resistivity surveying • artefact analysis by X-ray diffraction • artefact analysis by electron microscopy
<p>A2</p> <p>Unit 4 – This unit examines the physics of Eurostar and Airbus. It also examines the structure of the Atom and how Physicists can analyse objects at this scale.</p> <p>Transport system</p> <ul style="list-style-type: none"> • track circuits and signalling • sensing speed • mechanical braking • regenerative and eddy current braking • crash-proofing <p>Communication and display techniques</p> <ul style="list-style-type: none"> • fibre optics and exponential attenuation • CCD imaging • cathode-ray tube • liquid crystal and LED displays <p>Probing the heart of matter</p> <ul style="list-style-type: none"> • alpha scattering and the nuclear model of the atom • accelerating particles to high energies • detecting and interpreting interactions between particles • the quark-lepton model 	<p>Unit 5 – This unit examines the current understanding of Astronomy and stars. It looks at Earthquakes and designing structures to resist such disasters.</p> <p>Reach for the stars</p> <ul style="list-style-type: none"> • distances of stars • masses of stars • energy sources in stars • star formation • star death and the creation of chemical elements • the history and future of the universe <p>Building design</p> <ul style="list-style-type: none"> • earthquake detection • vibration and resonance in structures • damping vibration using ductile materials

There are two coursework elements to the course:

In the AS Unit 3 students will go on a visit Thorpe Park and see Physics in action. They will then complete a related experiment.

In the A2 Unit 6 students design and carry out an experiment of their choosing. Studying Physics in the Sixth Form will naturally complement A Level courses in Maths, Chemistry and Biology but there are also links with Philosophy, Geography and Design

and Technology. The skills obtained by physics students are becoming increasingly sought after and enable further study in university courses as varied as: Architecture, Accountancy, Biochemistry, Biology, Economics, Engineering, Medicine, Music, Psychology and Veterinary Science.

Physicists are interested in the answers to the some of the world's biggest questions. They are willing to study any aspect of our Universe from Galaxies down to Quarks, from the beginning of time to the end of time and from the practical to the theoretical. The skills they possess have made them indispensable in fields as disparate as Astronomy and Medicine. This course will suit anyone with a natural urge to explain the world around them and will equip them with the tools needed to do so.

PHYSICS

International Baccalaureate Diploma Programme

Imagination is more important than knowledge.

Einstein 1879-1955

*One must learn by doing the thing; though you think you know it,
you have no certainty until you try.*

Sophocles 495-406 BC

The general objectives of IB Physics at St Edward's are to encourage the natural sense of wonder that drives all studies in Physics. This is promoted by equipping students with the practical and intellectual skills necessary to take the subject further, and in so doing we hope to make the subject alive, showing why it is so relevant in these times of rapid technological development and in its power to change the world.

The IB Physics syllabus has recently been improved and updated and accordingly provides an excellent grounding in the physical sciences for those who wish to continue in this course of study after school. It is a natural choice for those wishing to study Engineering and Natural Sciences but would also provide useful skills for Medical students, Architects, Accountants and many others.

We are committed to the Theory of Knowledge which lies at the heart of the IB. Indeed many of the recent advances in Physics such as the search for the Graviton and the development of quantum computing provide rich discursive material for the TOK.

We are also committed to the international flavour of the IB Diploma course. It is often assumed that Physics is "Universal" in that the subjective knowledge that it utilises and provides transcends national and cultural boundaries. It is the department's belief that these assumptions should be questioned both historically (by encouraging an understanding and appreciation of the people and societies that developed our scientific knowledge) and geographically (by developing an awareness of the work that is currently taking place around the globe). It is hoped that students may gain some awareness that the analytical approach to science used by Western societies is only one way of thinking of the world (albeit a highly effective one).

A brief course of study for both the Standard level and Higher level follows.

Standard Level	Higher Level
<p><i>1st Year</i></p> <p>Physics and physical measurements Mechanics Thermal Physics Oscillations and waves Electric currents Fields and Forces Group 4 project</p> <p><i>2nd Year</i></p> <p>Atomic and Nuclear Physics Energy, power and climate change Option 1 Option 2</p>	<p><i>1st Year</i></p> <p>Physics and physical measurements Mechanics Motion in Fields Thermal Physics Oscillations and Waves Wave phenomena Electric currents Electromagnetic induction Fields and Forces Energy, power and climate change Group 4 project</p> <p><i>2nd Year</i></p> <p>Atomic and Nuclear Physics Quantum Physics and nuclear physics Digital technology Option 1 Option 2</p>

The Options will be decided from the following lists:

At Standard Level:-	At Higher Level:-
Sight and wave phenomena Quantum physics and nuclear physics Digital technology Relativity and particle physics Astrophysics Communications Electromagnetic waves	Astrophysics Communications Electromagnetic waves Relativity Medical physics Particle physics

The Group 4 project is only one of the elements of the Practical Scheme of Work, which also includes simple experiments and longer investigations which will be completed throughout the year. All are aimed at developing the practical skills needed to study the subject successfully.

In the words of the IB website, Physics is ‘above all, a human activity’ which has had ‘a profound influence on the daily lives of all human beings—for good or bad’. We believe that this course will provide students with the ability to appreciate and understand these influences and ultimately become more effective members of society.

ENVIRONMENTAL SYSTEMS AND SOCIETIES

International Baccalaureate Diploma Programme

The rapidly changing environmental health of the Earth is of growing concern, with issues such as population explosion, deforestation, coral reef decay, pollution, and climate change at the forefront of current scientific agenda. As currently the only transdisciplinary IB course, Environmental Systems and Societies draws on knowledge, methods, and skills from different disciplines and cuts across different subjects including human culture, geography, ecology, biology, politics and philosophy, and fulfils both group 3 (individuals in societies) and group 4 (science) of the IB diploma. Environmental Systems and Societies offers a wider perspective than offered by purely biological or geographical IB or A-level courses, combining as it does elements from both subjects and other disciplines. Sustainable solutions to the problems faced by both ecosystems and societies can only be solved through an international approach, and this philosophy lies at the heart of the course.

Environmental Systems and Societies has a world-wide focus, looking at such issues as deforestation and biodiversity loss, global warming and the effect on coral reef ecosystems, and cultural impacts on regional environmental systems. The areas studied are: ecological principles; ecosystems; conservation and biodiversity; pollution; and population and resources. By the end of the course you will understand the impact of the choices and decisions you make in your own life on important environment issues.

One of the single most important aspects of the course will be hands-on work in the laboratory and in the field. The emphasis on a practical approach to learning applies to all Group 4 subjects and must not be mistaken for 'an easy option', and is one of the more difficult subjects available. Students are required to spend 30 hours on practical and investigative work during the two-year course. This work will be internally assessed by the teacher and will be worth 20% of the Student's final assessment, written examinations contributing the other 80%.

The Course

The IB Environmental Systems and Societies course is made up of theory and investigations. The course is available at Standard Level only, and there are no additional options.

		Example of study within topic
Topic 1	Systems and models	Modelling different ecosystems; calculating ecological footprints.
Topic 2	The ecosystems	How do ecosystems work?
Topic 3	Human population, carrying capacity and resource use	What environmental demands do different cultures make?
Topic 4	Conservation and biodiversity	Deforestation and species loss.
Topic 5	Pollution management	Acid rain and erosion of Oxford colleges; smog in Rio de Janeiro
Topic 6	The issue of global warming	What does a warmer Earth mean for us? What solutions are there?
Topic 7	Environmental value systems	How do different cultures view environmental issues? Are their lessons for us?

Is IB Environmental Systems and Societies for me?

You can study the course as either a Group 3 or Group 4 subject. It will appeal to pupils who may be linguists, artists, or scientists who wants to explore complex and challenging ideas, or someone who may not just see themselves not only as a scientist but also as someone who has broader interest in the social and political implications of humanity's actions on planet Earth. You will be open to being challenged academically, and want to learn how to question and evaluate information critically.

The aims of the course are:

- To give pupils a complete view of the relationship between the natural world and human societies
- To enable pupils to develop an informed personal response to a full wide range of pressing environmental issues
- To provide pupils an opportunity to develop both practical investigative skills and an understanding of how cultural, political and cultural and political factors help to shape environmental ideas.

Assessment

Internal assessment (20%)

Students are required to write up all practical work and investigations during the course, with many of the write-ups being marked by the teacher according to a mark scheme. Students will have full access to this mark scheme and when work is to be assessed, minimal direction will be given for these tasks.

External Assessment (80%)

This takes the form of two written exams during May of the second year of the course. Paper 1: short answer and data analysis questions, making up 35% of total marks; Paper 2: case study and two structured essay questions – 45% of total marks.

Still unsure as to whether or not IB Environmental Systems and Societies is for you?

Please contact Dr Davis for more information.

MATHEMATICS FOR SCIENTISTS **(not examined)**

Many students following advanced science courses find their enjoyment of these courses and their progress hindered by inadequate mathematical skills. The application of previously learned skills set in a scientific context, and the study of more advanced skills are essential to the success of an advanced science course.

Mathematics for Scientists is designed to:

- Give scientists confidence in the use of mathematics
- Allow candidates to practice the numerical techniques they will encounter in their studies
- Allow candidates a deeper understanding of the methods used in the study of their subjects
- Foster and enjoyment in the use of numbers and their operations
- Prepare candidates for higher education science courses.

Who should take this course?

All candidates taking an A-level science subject, but not studying AS Mathematics, should take this course. It is envisaged that it will be taught over a few periods per cycle in the first two terms of Lower Sixth year.