



"Welcome to CCHSG"

It is my great privilege as the Executive Principal of Colchester County High School for Girls to warmly welcome you to our unique and inspiring community. I hope that you find the Prospectus useful in helping you decide if this is the right Sixth Form for you and which A Levels you wish to study. The Sixth Form has an excellent academic reputation and we are extremely ambitious for our students. The standards of teaching and learning are exceptional and we expect Sixth Formers to work hard and take increasing responsibility for their learning. This is a vibrant, happy school providing an exceptional opportunity for students to develop their talents, enjoy themselves and flourish as individuals. The learning and well being of our students is at the centre of all that we do.



We are proud of our pastoral system; our supportive, caring tutors and pastoral assistants will listen to any concerns. The school was founded in 1909 to provide an excellent education for girls and continues to combine both tradition and innovation to fulfil that aim in the 21st Century. The safe and secure environment fosters self belief and encourages our students to develop leadership skills, preparing them to be well rounded, active and capable citizens. From September 2018 our students will also benefit from a stunning new Sixth Form centre, providing them with a high quality professional working and social environment, complete with lecture theatre, ICT suite and common room with kitchen area.

Our enthusiastic teachers work incredibly hard to support our Sixth Form students and are always willing to give up a great deal of their time outside the classroom to help you. We offer a wide range of extra-curricular activities from Drama, Music, Arts and Sports and enrich the curriculum with visits throughout the year to places of interest in Britain and abroad.

Thank you for your interest in Colchester County High School for Girls. We hope that if you decide to continue your studies here, you will be happy and successful in every possible way.





CCHSG Sixth Form Contents



	Page No		Page No
Welcome to CCHSG	1	Extended Project Qualification	18
A message from the Student Leadership Team	2	French	19
Examination Success	3	Further Mathematics	20
Life in the Sixth Form	4 & 5	Geography	21
Students as Leaders	6	German	22
Young Enterprise and European Youth Parliamer	nt 7	History	23
Sixth Form Activities	8 & 9	Latin	24
Art	10	Mathematics	25
Biology	11	Music	26
Chemistry	12	Physics	27
Classical Civilisation	13	Psychology	28
Computing	14	RS: Philosophy and Ethics	29
Economics	15	Careers	30
English Language	16	Applying to University	31
English Literature	17	Oxbridge at CCHSG	32

A message from the Student Leadership Team

As members of the CCHSG Student Leadership team, we would like to warmly welcome you to our Sixth Form as we are delighted to represent a school with such a strong student community. Our school makes the jump from GCSEs to A Levels a smooth and simple one, with constant support from teachers to help us surpass our academic expectations. As well as this, we are provided with so many opportunities outside of the classroom, such as Young Enterprise, European Youth Parliament, Sporting Events, Music Performances and Drama shows – there is something for everybody no matter where your interests lie. We are given the guidance and encouragement we need to help us choose our next steps, as well as the skills to get us there. Our time at CCHSG has helped us develop as young people and realise our potential both inside and out of an academic environment. We wish you the best of luck in your examinations and hope to see you in September.







Examination Success

We use Alps (A Level Performance Systems) which is a nationally recognised system established over twenty years ago. Alps provides minimum target grades based on a student's average GCSE score and the bench mark used is the 75th percentile of A Level candidates.

Below is the overall measure of grades achieved against their individual target grades of all examinations taken by our Year 13 students over the last 3 years and illustrates the excellent progress they made.

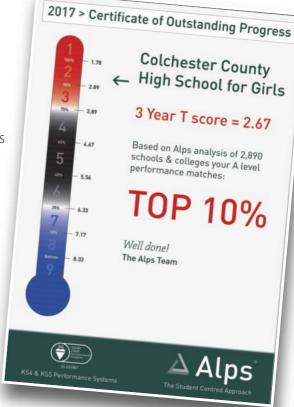
CCHSG rated one of the best in the Country

Colchester County High School for Girls has been ranked the 10th best school in the UK, according to the Real Schools Guide. The school is also top in Essex for Student Progress. Figures from the Department for Education show that students who took their GCSEs in the summer of 2017 made more progress, as judged by the new Progress 8 measure, in their time at CCHSG here than at any other school in Essex. The school also ranks 8th nationally for Attainment 8 with an average score of 80.7. Progress 8 is a new government measure of the progress that students make from arrival in Year 7 until GCSE results. The CCHSG Progress 8 score of 0.91, means that students on average achieved almost a whole GCSE grade higher than they would have been expected to achieve. CCHSG is also ranked 5th nationally for overall GCSE attainment.

Headteacher Gillian Marshall said: This is particularly pleasing given that students join us already achieving at a high level and is something that can only be achieved with huge dedication from both staff and students and the support of their families and the wider school community. While we are delighted with the

school's performance in both attainment and progress and on the many and varied

opportunities that strong examination results open to them, the students also deserve to be commended for attributes not reflected in league tables, such as their kindness, support of each other and community spirit. It is a pleasure and a privilege to work with them and we thank the students themselves, our parents for their consistent support and our hard working and loyal staff who aim high and always want the very best for all our students.









Life in the Sixth Form

Our excellent examination results

The A Level results are constantly well above national averages and the school is consistently placed in the top 1% of the National League Tables.

Each year over 95% of students apply to university. Many submit successful applications to Oxbridge and others are offered places at prestigious universities on highly competitive courses. A large number of students apply for Medicine, Dentistry and Veterinary Science as well as a range of other courses depending on their interest and academic ability.

Personalised learning programme

When students leave our Sixth Form they will leave with not only an excellent set of A Level results, but with a broad range of experiences. We achieve this by offering an extensive range of activities in addition to the A Level courses, which aim to develop a highly personalised learning programme tailored to the needs of each student based on their strengths and areas of interest.

We also offer the Extended Project Qualification which demonstrates the students' capabilities of studying beyond the confines of the A Level specifications and the ability to study independently.

Learning outside of the curriculum

We broaden students' experiences by fostering an active attitude of caring for the community we live and work in. This can be through our school prefect systems, through charitable fundraising and other outreach schemes with our partner schools (primary, secondary and special needs).

"The standards reached by the students during their time at the Sixth Form are exceptionally high".

"The development of students' leadership and team working skills is excellent.

Involvement in extra-curricular activities is high with many run by the sixth form students themselves, including clubs for younger students.







Life in the Sixth Form

There are 120 students per year group. Each year approximately 40% of our total intake consists of external students from other local schools. Students comment on the intimate nature of the environment where they feel welcome, are known personally and are treated as adults. They also like the relatively informal atmosphere, positive relationships with staff and the college-type environment within a school setting.

Mr Seeley (Head of Sixth Form) meets weekly with all students and is available daily to discuss issues of concern, as well as offer advice and support for academic and pastoral matters.

Every student is guided through their two years of study by their Tutor who has daily contact via registrations, tutorials, one-to-one interviews and other formal meetings.

They monitor each student's progress, offering support and guidance as required. The Tutor also assists with the complex process of university, gap year or employment applications and is an integral part of the PSHCE, careers counselling and mock interview programmes.



MedSoc Royal College of Surgeons Surgical Career Workshop held at CCHSG

"The levels of care, guidance and support are outstanding".

OFSTED - Outstanding

Students will be generally taught by one or two members of staff for each subject area. As students progress from their Year 12 into Year 13 we ensure that there is continuity of teaching staff as far as possible. All our staff have degrees or higher degrees in their academic disciplines. Many have supplemented their teaching skills through external marking experience with the major examination boards. Staff seek to engage and stretch the students, often enhancing the learning experience through trips and visits both within Britain and abroad.







Sixth Form Students as Leaders

The Sixth Form offers a range of opportunities for students to enjoy their time in post-16 education as well as to develop skills that will help equip them for life at university and the world of work.

Sixth Form students as Form Prefects

The primary aim of the Form Prefect is to promote the ethos of the School & the Sixth Form whilst supporting and assisting the Form Tutor of a Year 7-10 form group on a weekly basis.

Form Prefects work with the Form Tutor to coordinate an appropriate range of relevant activities such as:

- assisting with the organisation of form and school charity events
- planning and coordination of assemblies
- leading topical discussions, possibly linked to current PSHCE programme
- · arranging quizzes and other similar events
- offering peer support and advice on academic and social issues

Sixth Form students as Subject Prefects

Sixth Form Subject Prefects work with the departments to coordinate an appropriate range of relevant activities such as:

- assisting with the support of students in the specific subject area
- offering advice on learning strategies and revision methods
- supporting the teacher by working with lower school students in subject lessons

Student Leadership Team

Sixth Form students can apply for a position on the Student Leadership Team. The members of the team represent the school in the local community and the Sixth Form within the school community. The Head Girls and Deputy Head Girls are selected from the team and they work closely with members of the Senior Leadership Team.







UK Young Enterprise at CCHSG

Young Enterprise is a national education charity that encourages young people to get involved in business from an early age. The programme that allows 15-19 year olds to set up and run their own company for a year, create and market their product, and gain invaluable experience of the business world, while competing in the Young Enterprise competition. The scheme is run for Year 12 students at CCHSG and we have had a great deal of success in the Young Enterprise competition to date, including runners up in Europe and reaching National Finals.

We ran two successful Young Enterprise teams for 2017-2018. Team Altitude invested in mini, waterproof Bluetooth speakers and quickly set about marketing these within the school and outside through social media. At the Area Finals team Altitude won the award for the best Trade Stand. Team Lumos put together their own product, Jus'Tin case, their aim was to provide students with all the small things they often found they needed but didn't have. Team Lumos were runners up at the Area Finals and progressed to the County Finals, here they won the award for the best Presentation.



The European Youth Parliament (EYP) is a non-partisan and independent educational programme for young European

citizens. It supports the development of young people into politically aware and responsible citizens by involving them in European political thinking and promoting intercultural understanding. The EYP encourages independent thinking and initiative in young people and facilitates the learning of crucial social and professional skills.

A team of nine students is chosen each year to participate in the East Anglia Regional Forum at the University of Cambridge. Judged on their respectful attitude, ability to work in a team and grasp core issues, CCHSG have been selected to represent the region at the National Session for three years running.

For the duration of the Session, the participants are divided into international working groups that draft resolutions on their respective topics. In these groups, the task of the young people is to come up with their own suggestions and ideas for Europe's most pressing challenges. The results are then presented and debated in a parliamentary assembly at the end of the Session.

Previous teams have won the National Session and have represented the UK at the International Forum. Many have also worked with the EYP as officials.





Sixth Form Activities

Listed below are some of the activities available in the Sixth Form, but many students form their own club depending on their interests:

Boxing Interact

Amnesty International English Oxbridge Club

MED SOC VET SOC

Debating Society/Juniors

Christian Union Psychology Society Islamic Society

European Youth Parliament

Young Enterprise Chess Club

English Club/Literature Girls

Law Society

History Club

Drama Club and productions

D of E

Charity Fundraising

History and Politics Society Visits from external speakers

Music

Senior Choir and Auditioned Chamber

Choir

Rock and Pop Choir Chamber Music Groups

Wind Band Guitar Ensemble Flute Choir Junior Orchestra (below grade 5) Senior Orchestra (Grade 5 and above)

Sports

Football Netball

Dance

Fitness classes including yoga, zumba

and aerobics

Tennis Lacrosse Swimming Running club

Trampolining

Many students also organise clubs/activities for younger students e.g. Art Club, Debating Society, Maths π club, Music clubs and activities.

The Student Voice

The Student Voice is elected by the students to work for the good of all students at Colchester County High School for Girls. It consists of student officers who have a range of roles, responsibilities and skills and who represent students' views in many areas of school life.

Representatives work alongside staff and provide the student voice in discussions on all aspects of school policy.

The Student Voice also fulfils a vital role in the community and social life of the school by, for example formulating and promoting the school's anti-bullying policy and the introduction of new healthy eating foods in the canteen.







New Sixth Form Centre

From July 2018, students in the Sixth Form will have use of a stunning new facility which significantly extends the existing Sixth Form area. The provision has been designed, following consultation with students and staff, to meet the needs of aspirational young adults ensuring that they have the very best facilities to support their studies. Costing £1.25 million and taking over 11 months to build, the high quality professional environment incorporates a lecture theatre, a large computer suite, teaching rooms and a large common room with kitchen. Students now also have a separate entrance atrium, giving the Sixth Form Centre a distinctive identity.

The lecture theatre, with its tiered seating can accommodate over 150 students and is fully equipped with the latest audio visual equipment. Students have a range of options for study space, with an entirely new computer suite, study booths and quiet areas.

The new accommodation includes a large common room which provides spaces for informal group study and social areas alongside a well equipped kitchen. In warmer weather there are two pleasant, furnished patio areas exclusively for Sixth Form use.

Students commented on how much they like the college-type environment within a school setting.

"The new building gives us twice as many computers and I love the lecture theatre with the huge TV" "It's great having a whole area of the school that is just for the Sixth Formers to use."

Sixth Sixth

CCHSG Sixth Form



Art

Whether you have an inborn talent, natural creativity or simply a desire to make things and learn how to do this better, this is your subject. Art and Design meets the needs of students who wish to take up a wide range of careers - practical or academic. Art and Design is part of our whole life. Art both reflects and helps us to create a culture of vision. Take a look around you and you will see that Art and Design surrounds us. Studying Art is rewarding and fun. It helps us to build a deeper understanding of the world we live in. Art provides a means by which we can understand our past and its relationship to our present, because the act of making art is one of humanities most ubiquitous activities.

There are many industries that could not exist without people trained in Art and Design. The A Level course in Art and Design educates you in the looking and seeing functions of the mind. It will train you to mentally analyse, physically express and communicate what you see.

What do you study?

Art Courses at A Level will involve students in both practical and theoretical investigations and encourage a broad range of media including: painting, drawing, printmaking, photography, sculpture and digital media. Students are encouraged to think deeply and creatively using experimental expressive skills, aesthetic understanding and judgments. This course develops intellectual, imaginative, creative and intuitive powers and provides an understanding of the relationships between Art and Design and the contexts in which they operate.

Students will regularly work in the local environment and visit artists and exhibitions. This work informs to the practical work and ensures depth and breadth of Art and Design including the use of traditional and digital methods of working. A related study is also completed which is an extended artist response to a set theme.

Beyond A Level

Many students are preparing for a career in Art and go on to prestigious Art Colleges at Higher Education or Foundation Course level but many others combine Art with A Levels in English Literature, Humanities or even Sciences. Art courses are not confined to Fine Art. Students can pursue courses and careers in Advertising, Architecture, Art History, Animation, Interior Design, Product Design, Fashion Design, Public Art, Jewellery Making, Silversmithing, Ceramics, Graphic Design, Textile Design, Surface Design, Architecture, Photography, Advertising and Animation.

The creative industries have moved into first place to be the fastest growing economic sector in the UK, responsible for 5.6% of jobs, and worth £76.9 billion to the UK economy.

Many creative professionals can trace the igniting of their creativity back to school.

Five reasons to study Art

- 1. Arts make self starters and develop emotional intelligence.
- 2. Arts are stretching and build strong organisational skills.
- 3. Art students are highly sort after by employers.
- 4. Arts develop the broader dimensions of the human being mind, body and soul.
- 5. Arts reach students in a different manner to traditional subjects and can release other pressures.

Art A Level can provide a gateway into a structured commercial career. The natural progression route is to the one-year Foundation Course in Art and Design, but many of our students apply and are accepted at leading Universities onto B.A. Degree Courses both within and outside of London

Examinations

Examination board OCR Specification code: H600

There are two components to the course, a personal investigation with a related study and an externally set task. The early release paper is issued on 1 February in the year of the examination and provides students with preparatory time before their timed task.

Assessment Overview

01: Personal Investigation60% of the total A Level marks

02: Externally Set Task 40% of the total A Level marks

Staff Members

Mrs Saunders Head of Art
Mrs Hatwell Teacher of Art

Student comments

"This has been an interesting course in which I have been able to explore a wide range of ideas and processes, which I feel has furthered my own style."

"A highly enjoyable course that enables you to express your art in your own specific way."

"A well structured course which makes sure the end results are something to be proud of."







Biology

Biology is an exciting, rapidly advancing area of science that forms the basis of many important issues in today's society and will take us into unknown areas in the future. Frequently in the news there are headlines concerning Biology such as stem cell therapies, cloning, genetic engineering, DNA evidence at crime scenes, zoonotic infections, biodiversity, infectious disease outbreaks and vaccinations. All these and more, are topics considered during the A Level course.

What do you study?

The course encompasses the whole biological spectrum from cell structure to molecular biology, with topics such as biochemistry, genetics, excretion, endocrine and nervous systems, health and disease and many more. The new specification is challenging, thought provoking and up-to-date. Practical skills in the new specification are assessed in written papers, based on a set of core practicals specified by the examination board, which will be undertaken as part of each module studied. You will also undertake many more practical tasks beyond the core to supplement the theory in our well equipped laboratories, including modern molecular biology practical work.

We go on a four day residential Ecology field trip to a field centre based at Osmington Bay in Dorset. Here you will be taught by Ecology specialists and undertake Ecology practical activities in the fabulous surrounding area, such as sampling invertebrates in rivers and assessing pollution, sand dune formation and succession, conservation management, transects and identifying plant species and their adaptations.

Beyond A Level

Biology is a very important A Level STEM subject highly regarded by universities as it develops a wide range of skills, such as analysing, evaluating, independent research and thought. It is acceptable for many courses in higher education leading to degrees in Biological Sciences, Biochemistry, Molecular Genetics, Psychology, Pharmacy, Dentistry, Medicine, Veterinary Medicine and many other subjects. It is a preferred subject for many including Medicine, Dentistry and Veterinary Medicine Courses and students without Biology find themselves at a disadvantage in the early stages of these university courses. There are many Biological Science degree courses available, which are not only stimulating in their own right but provide entry to other careers including Law, Marketing, Accountancy, the Civil Service and

Industry. Above all the Biology Department is keen to produce successful biologists with a love of the subject that will stay with them for the rest of their lives.

Examinations

Examination board OCR *Specification code: H420*

A Level Biology is a two year course which is assessed in three written papers at the end of the two years. Topics covered will include cell biology, biological molecules, exchange and transport, biodiversity, evolution, disease, homeostasis, the nervous system, respiration, photosynthesis, genetics, ecosystems and biotechnology. A wide range of practical skills will be developed over the two years to count towards a free-standing Practical Endorsement.

Extension activities

Students also have the opportunity to attend extension classes and enter national competitions, including the British Biology Olympiad. Many students choose to subscribe to Biological Sciences Review magazine and all have the opportunity to be a Biology mentor to students lower down the school.

Staff members

Dr Martin Head of Biology
Miss Barrett Teacher of Biology
Mrs Cliff Teacher of Biology
Miss Seager Teacher of Biology

Students comments

""Studying A Level Biology has given me the best possible foundations I need to be able to study Medicine. Fantastic teaching meant that we covered content over and above the syllabus. A full range of practical experiments has given me the confidence to understand and interpret more complex data which has proven invaluable.

I found that studying Biology at CCHSG put me in an advanced position studying Biology to Masters level at York University in terms of theory and practical skills. I am going on to a PhD based on enzymes."







Chemistry

Chemistry is important. Chemists design new drugs which save lives. They develop the materials from which every product is made. They help farmers produce enough food to feed the world's increasing population. They are playing a key role in finding ways to minimise global warming. Chemists have played a major role in improving life expectancy and quality of life. Chemists are at the forefront of scientific research, medicine and industry. Chemistry is a great basis for almost any career. A Level Chemistry is a popular choice at CCHSG being chosen by 70 – 80 students each year.

What do you study?

Inorganic Chemistry is the study of the periodic table. It is similar to GCSE but also looks at how and why things happen. Physical Chemistry explains the properties of substances and how far and fast reactions go.

Organic Chemistry is the study of carbon compounds and links with Biology.

We place a big emphasis on practical work such as analysing aspirin, making dyes & indicators, making TCP, extracting orange oil and making fruity esters. As a result you will develop a wide range of practical techniques.

Mathematical Skills are developed e.g. during data analysis and interpretation (moles calculations) pH calculations and rates experiments.

Sustainability and environmental implications are considered throughout and the role of the chemist in developing sustainable processes is addressed.

Beyond A Level

A Level Chemistry provides a starting point for the study of Chemistry, Pharmacy, Biology, Biochemistry, Agriculture Medicine, Veterinary Science, Dentistry, Environmental Science, Food Science, Materials Science and Chemical Engineering. It is often considered valuable for Physics, Geology, Psychology, Forensic Science and Physiotherapy.

Much of industry is based on Chemistry, so chemists are employed not only in Research and Development but also in Management, Marketing, Production and Personnel. The problem solving and numerical skills in Chemistry make it a good starting point for many other careers such as Journalism, Advertising, Finance, Banking and Accountancy. There are countless opportunities open to a well-qualified chemist.

Examinations

Examination board OCR Specification code: H432

The modules covered are Foundations in Chemistry, Periodic Table and Energy, Core Organic Chemistry, Physical Chemistry, Transition Elements, and Organic Chemistry and Analysis.

Practical skills are developed on a weekly basis throughout the two years allowing our students to become highly competent practical chemists.

Paper 1 – Periodic Table, Elements, Physical Chemistry 2 hours 15 minutes. 37% of the total A Level marks

Paper 2 – Synthesis and Analytical Techniques
2 hours 15 minutes. 37% of the total A Level marks

Paper 3 – Unified Chemistry

1 hours 30 minutes. 26% of the total A Level marks

Extension Activities

Students have the opportunity to attend extension lessons and take part in competitions such as the Cambridge Chemistry Challenge and the Chemistry Olympiad. Each year we take a team of Chemists to compete in the RSC Analysts Competition, and we are visited by an RSC 'Spectroscopy in a Suitcase' team. Many students choose to subscribe to the New Scientist and Chemistry Review magazines and all students have the chance to make excellent use of their knowledge by becoming 'Chemistry Mentors' to younger students.

Staff members

Dr van Mierlo Head of Chemistry
Dr Cox Teacher of Chemistry

Head of Science and Physics

Dr Parrott Teacher of Chemistry

Vice Principal

Miss Murison Teacher of Chemistry/Science
Miss Neacsu Teacher of Chemistry/Science

Miss Walachowski Teacher of Chemistry

Student comments

"I have to say the way this school teaches Chemistry has really changed my way of thinking and I have truly enjoyed the lessons"

"There is so much that this school does which you just don't realise. Chemistry here [Cambridge University] has been really easy as we did an awful lot at A Level which the majority of other students here didn't do....Our Science Departments at school are amazing."







Classical Civilisation

Classical Civilisation is a truly broad multidisciplinary subject, involving elements of English, History, Art, Mathematics, Sciences, Philosophy etc. The purpose of the course is to introduce candidates to a time and culture which is so different, and yet so similar to our own, and in so doing develop an awareness of the progress and nature of humans and their interaction within an organised society. No prior knowledge or GCSE is required.

What do you study?

3 areas of study

- The world of the hero. Study of epic Greek and Latin literature.
- **Culture and the arts.** An opportunity to consider the visual material and the culture of Greece and Rome.
- **Beliefs and ideas.** Component will involve the study of an area of classical thought e.g. the religions and political ideas and beliefs of the Greeks and Romans.

Beyond A Level

Classical Civilisation is particularly useful for those interested in History, English, Art and Archaeology and the course provides a suitable foundation for the study of Classics in higher education.

Students acquire and develop a range of skills (analysis, interpretation, critical thinking and the ability to produce evaluative writing) which prepare them well for a wide range of courses in higher education and beyond.

Examinations

Examination board OCR *Specification code: H408*

All modules will be taken in May/June of Year 13

Paper 1 – The World of the Hero

The works of Homer and Virgil 2 hour 20 minute paper. 40% of the total A Level marks

Paper 2 – Greek Art

Greek vases, freestanding and architectural sculpture 1 hour 45 minute paper. 30% of the total A Level marks

Paper 3 - Greek Religion

1 hour 45 minute paper. 30% of the total A Level marks

Staff members

Miss Hodgkinson Head of Classics Mr Doyle Teacher of Classics

Student comments

"I thrived on the creativity of the subject"

"It is really interesting to see how the skills of ancient civilisations developed and where ideas originated from"

"It is like English Literature and History rolled into one!"







Computing

At CCHSG we believe in preparing our students to become lifelong learners and strive to equip them with the skills to compete in the workplace of today and the workplace of the future. Studying Computer Science at A Level presents a huge number of options for higher education and employment. The course is challenging yet enjoyable and is unique in both content and delivery. Choosing to study A Level Computer Science is an exciting option for any student who has a genuine interest in technology and for those who wish to futureproof their career options.

What do you study?

Computer Science students at CCHSG study an engaging combination of computational thinking skills and computer system design concepts. We expect our students to become skilled programmers learning the fundamentals of programming in various languages.

In addition to the theoretical science of computation students will study in depth the practical application of the science in learning how computer systems work and how we get them to work for us.

In learning a systematic approach to problem solving and developing functional programming skills students will be expected to tackle a practical computing project that builds on many of the skills delivered during the course.

Beyond A Level

The skills and concepts taught in this course will be helpful in many areas of higher education and employment. They will be indirectly applicable to numerous professions such as medicine, law, engineering and design to name but a few but the course is designed to be directly applicable to higher education courses and employment sectors that involve the use of ICT and Computing.

There are few careers these days that do not involve the use of computers and technology at some stage; this will grow in the future as technology continues to advance rapidly. Choosing a career that specifically makes use of and provides you with the opportunity to continually grow and develop these skills could prove to be a very wise move for the future. This industry is currently very undersubscribed especially amongst females, who actually prove to be better programmers and engineers than many of their male counterparts. As a result of this, it means that if you are employable then you will rarely be out of work. Careers in the computing industry tend to be very well paid.

A-Level Computer Science will be helpful in many career options, especially as more and more industries are adopting computing and AI technology.

Examinations

Examination board AQA *Specification code: 7517*

Paper 1 – Programming, data structures and computational thinking

2 hours 30 minutes On-screen Examination, 40% of the total A Level marks

Paper 2 – Computer systems, networking and databses 2 hours 30 minutes Written Examination, 40% of the total A Level marks

Non-examined assessment

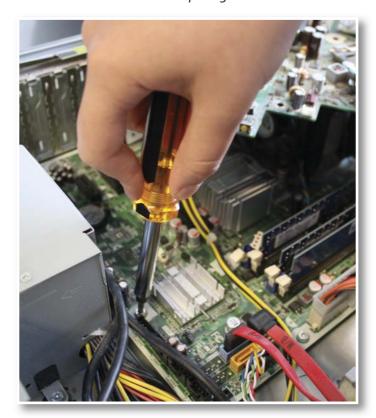
Practical computing project, 75 marks, 20% of the total A Level marks

Extension Activities

There will be numerous opportunities to support and extend the learning beyond the A-Level curriculum. As well as the opportunity to support and take leadership roles in the computing department's successful extra-curricular programme students will be encouraged to spearhead Computer Science Society and Al Society which will involve working with and organising talks with industry professionals amongst other activities. There will be trips and visits to support the curriculum and opportunities to extend the relationship between the school and the computer science department at the University of Essex.

Staff members

Mr Nachman Head of Computing







Economics

Dramatic events in the world's economies over the past few years have put Economics centre stage and contributed to a sharp rise in interest among students. In fact in recent years, Economics has been one of the fastest growing subjects nationally, thus relecting growing interest amongst young people in the discipline. Ultimately Economics affects us all, which is why everybody has an opinion on the economy. In fact, everybody seems to be an expert – it appears that everyone knows how to put the economy right! However in order to truly grasp what is going on in the world today, a basic level of economic understanding is essential.

What do you study?

Economics will help you to understand what is happening in the world. It explains such concepts as inflation, recessions, inequality and economic growth. It answers familiar questions such as why the exchange rate is different at the start of your holiday from the end, why do interest rates go up and down, why some people seem to earn far more than others and what exactly are these stocks, shares and bonds.

Beyond A Level

If you are looking to a career in business, finance, perhaps starting your own business venture, or are just keen to understand what is going on in the world, studying Economics is a great place to start. It may also be a good starting point if you are passionate about the environment, helping the poor or have an interest in Politics or History. Economics is a practical subject to study so, while theory is involved, students are encouraged to apply ideas to the real world. Even if you do not continue with Economics beyond A Level, it will forever allow you to understand what they are talking about when you watch the news! Similarly, with the return on an Economics degree in terms of desirability amongst employers and future earnings being very high, Economics is a subject that can have real monetary value to students too.

Examinations

Examination board AQA Specification code: 7136

Economics is assessed in a linear manner, with all examinations taking place at the end of Year 13. The specification is set into two main sections, Micro and Macro Economics Students will be assessed through three examination papers. There is no coursework element.

Paper 1 – Microeconomics2 hour paper 33.3% of the total A Level marks

Paper 2 – Macroeconomics 2 hour paper 33.3% of the total A Level marks

Paper 3 – Economic Principles and Issues - Includes topics from both Micro and Macroeconomics

2 hour paper 33.3% of the total A Level marks

Previous knowledge of the subject is not necessary as the course is self-contained. With increased emphasis in the new specification on helping students to develop an understanding of the role and impact of the financial sector on the real economy as well as current economic issues such as Brexit, or rising inequality globally, this subject is set to continue to interest and intrigue students for many years to come.

Staff members

Mr Hughes Head of Economics, Year Leader (Year 7) and SENCO

Students comments

"Economics has given me a much better insight into how the world works."

"The subject is so relevant. The topics we studied are issues you see in the news every day."

"I have really enjoyed taking Economics. The lessons have been really enjoyable, the teaching has been excellent and I have received great support throughout the year."

"I have loved Economics this year, so much so that it has made we want to study it further at university."

• Many of our students continue to study Economics in some form at university. Those whose interests lie with government action to improve life often choose Politics, Philosophy and Economics, a popular option. Others who seek business careers combine it with Business Studies in some form, while those good at Mathematics or want to study the law find many interesting combinations available.

Ultimately, economics is an essential and practical subject that will serve you well if you wish to further your understanding of the society and economy in which you live today.







English Language

The English language is a fascinating subject to study. It is constantly changing, often spoken entirely differently from one person to the next and now faces the massive impact of new technologies. Maybe you listen with particular interest when you come across an accent that is different from your own, or you might have a young child in your family learning to talk before your very eyes, or perhaps you are intrigued by the way new words seem to appear on a weekly basis – or even by the unique histories of older words. Each of these, and many more besides, are the business of the linguist – and that is what you will become if you study English Language at A Level.

What do you study?

You will study a range of texts, both spoken and written. These tend not to be literary texts but could range from an advertisement to a comedy sketch. You will explore the way language is used in society, particularly looking at how technology, occupations and gender influence language use. The course requires students to undertake an independent investigation of language and complete a piece of original writing with a commentary.

Beyond A Level

What does the future hold for a linguist? English Language is a subject very well regarded by Higher Education institutions, and because you are studying your own language, it easily complements any education course you might follow. English related courses range from creative writing to speech therapy and your A Level studies will share ground with subjects such as Psychology and Law and of course English Literature.

Examinations

Examination board AQA Specification code: 7702

Paper 1

2 hrs 30 mins – 40% of the total A Level marks Language, the Individual and Society (exploration of Language variation in two texts; children's language development)

Paper 2

2 hrs 30 mins – 40% of the total A Level marks Language Diversity and Change (choice of discursive essay questions on language diversity and change; textual analysis; directed writing task on language discourses)

During year two, you will also produce two pieces of coursework: a Language Investigation and a piece of Original Writing with a Commentary. This non-examination assessment comprises 20% of the total A Level

Staff members

Mrs ArmstrongTeacher of EnglishMrs ThorntonActing Head of EnglishMrs HanlonTeacher of EnglishMrs CroxsonTeacher of English

Student comments

"English Language at A Level offers a lot of freedom. It encourages independence through research and self-study and is altogether extremely enjoyable!"

"English Language allows you to explore some of the reasons behind why we live and speak the way we do at present."

"I find the things I learn in language easy to apply to real life."

"I enjoyed finding out about how men and women use language differently in conversations."

"It made me much more aware of how I and others use language."

"I became much more aware of how advertising seeks to influence us in subtle ways."







English Literature

"Reading a book is like re-writing it for yourself. You bring to anything you read all your experience of the world. You bring your history and you read it in your own terms." Angela Carter.

The first requirement for studying English Literature at A Level is that you love reading and enjoy discussing and analysing what you have read. Texts range from Chaucer and Shakespeare to Ibsen's 'A Doll's House' to Alan Bennett's 'The History Boys'.

What do you study?

You will have the opportunity to study at least eight texts that cover the genres of prose, poetry and drama. You will explore the historical and social background of the texts as well as honing your techniques of literary analysis. The course requires students to demonstrate knowledge and understanding of the following: the ways in which texts are interpreted by different readers, including over time; ways in which texts relate to one another and to literary traditions, movements and genres; the significance of cultural and contextual influences on readers and writers.

Beyond A Level

The analytical and communication abilities that studying English Literature develops are transferable skills for any degree course. Studying English Literature at University opens many doors. The ability to read, reflect and critique – and then synthesise your conclusions clearly – is essential to many kinds of work – as is the ability to construct and defend an argument.

Extra -curricular information

As well as the course itself, the English department also offer extra-curricular courses where you can broaden your literary experience. These have included: Shakespeare Club and the Victorian poets.

We also offer extensive support and guidance to those students applying to read English at degree level, including Oxbridge entry.

Examinations

Examination board OCR *Specification code: H472*

Paper 1

2 hrs 30 mins – 40% of the total A Level marks Section A – Shakespeare – 'Twelfth Night' Section B – Comparative question – Chaucer's 'The Merchant's Prologue and Tale with Ibsen's A Doll's House'

Paper 2

2 hrs 30 mins – 40% of the total A Level marks Comparative and contextual study – Women in Literature – 2 core texts are 'Sense and Sensibility' and 'Mrs Dalloway'.

During year two, you will also produce a coursework portfolio consisting of two pieces of coursework: a close textual analysis and a comparative essay. This non-examination assessment comprises 20% of the total A Level.

Staff members

Mr Day
Teacher of English
Associate Vice Principal
Mrs Armstrong
Teacher of English
Mrs Cudmore-Rice
Teacher of English/Head of Drama
Mrs Davidson
Teacher of English
Miss Lucas
Teacher of English

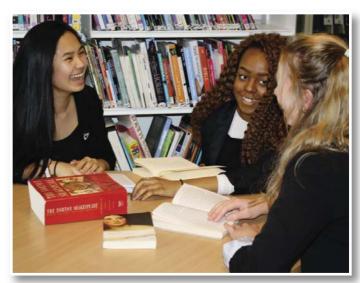
Student comments

"A Level made me fall in love with English."

"Another thing I really enjoyed was being introduced to new authors, periods and styles that I didn't know much about, some of which have become favourites...there was a real sense of passion and interest that always made the sessions something I looked forward to."

"It is so gratifying to discuss an area of literature you love with people who are genuinely interested."

"The teaching was brilliant and I got extra help where needed."







Extended Project Qualification

What is the EPQ?

It is a qualification that:

- Comprises a single piece of work, of your choosing, that shows evidence of planning and research and involves the delivery of a presentation
- Is equivalent to about half the size of an A Level study programme and will be graded on a six point scale of A* to E.

May include: a design; a report; a dissertation; an artefact or a performance

Some examples of titles are:

- · Next Generation Nanotechnology
- The Stream of Consciousness: It's inheritance and legacy
- · Period Drama: A Modern Fascination
- Is cardiovascular disease the number one killer in the UK?
- Breaking the Strangles Hold an investigation into the equine disease known as 'The Strangles'
- The Credit Crunch and its effects on Higher Education

What are the benefits?

- Extend planning, research and critical thinking, presentation synthesis and evaluation skills
- To allow you choice and input into the design of an extended piece of work.

- To support your application to higher education in the personal statement on the UCAS form and also at interviews.
- To provide a 'tool kit' of skills, knowledge and understanding which you will be able to use when tackling similar projects in the future such as dissertations at University.

Examinations

Examination board AQA Specification code: 7993

For more information follow the link: http://www.aqa.org.uk/qualificatins/projects/extended-project.php

Staff members

Centre Co-ordinator Mrs Pigott

Head of Enrichment Learning

EPQ Supervisors

Each student will be allocated a Supervisor which will be allocated once the student has identified their chosen topic.

Student comments

"I did enjoy this project and I think it is a good idea for students who need a bit more flexibility to express their potential."

"I am pleased that I decided to do the extended project because it has been useful and interesting."

"I really have enjoyed the project even though it wasn't easy to find information. I was really happy I could do something personal instead of working on specific themes for my exams."







French

Studying French gives you access to an enormous range of career options. As languages are no longer compulsory at GCSE, there are fewer students studying them at A Level. Therefore linguists who have studied French to A Level and beyond will seem like gold dust to future employers. Learning a modern language opens your mind to other cultures and A Level French will enable you to broaden your job prospects on all five continents. Many UK employers are prepared to offer higher salaries to people who can speak other languages.

What do you study?

The main aim of the course is to develop the use of the language and an informed understanding of the culture and people of France, and other francophone countries. Oral communication in French is seen as being of tremendous importance and 1:1 conversation with the French Assistant is available every week.

Topics covered will include the family, the multi-cultural society, French contemporary music and cinema, and aspects of political life in the French-speaking world, as well as two cultural topics which will be the work of a French film director and a work of French literature.

The French exchange with a school near Lyon will be open to Year 12 students, enabling them to experience total immersion in a French family for a week.

Beyond A Level

A Level provides the basic entrance requirements for university language courses. Although a French degree is an end in itself, French A Level can open up a whole range of career options including: Banking, Marketing, Journalism or Business Management. French forms an integral part of many more courses than ever before. Here are some examples: French with Politics, Law with French, European Business Management, Engineering with French and Computer Studies with French. In fact, French goes with everything!

Examinations

Examination board AQA Specification code: 7652

All modules will be taken in May/June of Year 13.

Paper 1 Listening, Reading and Writing

2 hours 30 mins. 50% of the total A Level marks This paper includes translation from English into French and French into English

Paper 2 Writing

2 hours. 20% of the total A Level marks 2 essays in French on EITHER 2 works of literature OR 1 work of literature and one film

Paper 3 Speaking

About 20 minutes plus 5 minutes preparation time 30% of the total A Level marks Discussion of a sub-theme plus presentation and discussion of an individual research project

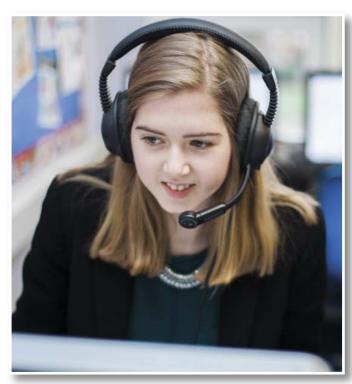
Staff members

Ms Ollite Head of French
Mrs Huggon Teacher of French
French Assistant

Student comments

"The French department here at CCHSG is brilliant – they are so supportive and encouraging, and have made the jump from GCSE to A-level a lot less difficult! French has quickly become one of my favourite subjects at A-level because it is so different to everything else I am taking. Taking part in the French play 'La Belle et la Bête' was a highlight for me, and having the French Assistant once a week really helps with conversational French, which is very useful with the oral test."

"French has definitely been a rewarding subject at A level. It is amazing how quickly you progress in French due to the extra speaking practice and small classes. Learning about contemporary subjects such as the environment and immigration makes it really interesting. Taking French has enabled me take apply for a university course where I can study in Paris in the third year."







Further Mathematics

Further Mathematics is designed for students with an enthusiasm for Mathematics, many of whom will go on to degrees in Mathematics, engineering, the sciences and economics. The qualification is both deeper and broader than A Level Mathematics. A Level Further Mathematics builds from GCSE level and A Level Mathematics. As well as building on the algebra and calculus introduced in A Level Mathematics, the A Level Further Mathematics core content introduces complex numbers and matrices fundamental mathematical ideas with wide applications in mathematics, engineering, physical sciences and computing. The non-core content includes different options that can enable students to specialise in areas of mathematics that are particularly relevant to their interests and future aspirations. A Level Further Mathematics prepares students for further study and employment in highly mathematical disciplines that require knowledge and understanding of sophisticated mathematical ideas and techniques.

There are many good reasons to take Further Mathematics:

- Students taking Further Mathematics overwhelmingly find it to be an enjoyable, rewarding, stimulating and empowering experience.
- For someone who enjoys mathematics it provides a challenge and a chance to explore new and/or more sophisticated mathematical concepts.
- It enables students to distinguish themselves as able mathematicians in the university and employment market.
- It makes the transition to a mathematics related university course easier.

What do you study?

The course comprises:

- 50% core (all Pure Mathematics: e.g. proof, complex numbers, matrices, further algebra/functions, further calculus and vectors, polar coordinates, hyperbolic functions, differential equations.)
- 50% optional and can include
 - Further Pure Mathematics
 - Further Mechanics (builds on A level mechanics)
 - Further Statistics (builds on A level statistics)
 - Decision Mathematics (e.g. algorithms, graph theory, critical path analysis, linear programming)

Beyond A Level

As well as giving you the necessary preparation for a degree in Mathematics or for mathematically related degrees such

as Engineering, Computing, Physics and Chemistry, Further Mathematics considerably enhances your reasoning ability, and it is possible to study completely unrelated courses.

Examinations

Examination board Edexcel *Specification code: 9FM0*

Paper 1 – Core Pure Mathematics

1 hour 30 minute paper. 25% of the total A Level marks

Paper 2 – Core Pure Mathematics

1 hour 30 minute paper. 25% of the total A Level marks

Paper 3 – Further Mathematics Option 1

1 hour 30 minute paper. 25% of the total A Level marks

Paper 4 – Further Mathematics Option 2

1 hour 30 minute paper. 25% of the total A Level marks

Option 1 at CCHSG is Decision Mathematics and Option 2 is Further Statistics or Further Mechanics (there is some flexibility depending on student requirements and staff expertise).

Staff members

Mrs Ball Head of Mathematics
Mr Mucklow Teacher of Mathematics
Mrs Roshen Deputy Head of Mathematics

Student comments

"I found doing Further Mathematics at A Level to be extremely beneficial when studying Physics at university. A degree in Physics requires you to have a strong knowledge and understanding of mathematics, and a Further Mathematics A Level really helps to prepare you for this."

"You have to be willing to accept that it is a challenging subject, and you need to be prepared to work quite hard – it is definitely not the easiest A Level you can take! I found that the teachers explained the material well and were able to help me with any problems I had in understanding the material."







Geography

Michael Palin recently said, "Geography is the subject which holds the key to our future" and, if you study A Level Geography, you will certainly be better prepared to understand the issues currently affecting our planet such as climate change and sea level rise.

In addition to knowing about our planet and its people, those who choose to study A Level Geography will learn many life skills including an ability to think critically, research and communicate their thoughts through writing and other means. You will also learn the importance of team work and independent enquiry.

This course will particularly appeal to those students who:

- · have an interest in and concern for the environment,
- · are interested in current affairs,
- enjoy studying a subject that is relevant to their own lives and experiences,
- enjoy finding out their own answers not just being taught.
- want to broaden their A Level studies to cover both 'sciences' and 'humanities',
- and want to keep their options open Geography
 A Level is an appropriate qualification for a very wide range of higher education or career choices.

Beyond A Level

As Geography is such a diverse discipline, it can lead to numerous career options in areas ranging from business location systems to hazard management.

Examinations

Examination board AQA *Specification code: 7037*

A Level Geography consists of the following components.

Physical Geography

Section A: Water and carbon cycles

Section B: Systems and landscapes

Section C: Hazards

2 hours 30 minutes. 40% of the total A Level marks

Human Geography

Section A: Global systems and global governance

Section B: Changing places

Section C: Contemporary urban environments

2 hours 30 minutes. 40% of the total A Level marks

Geography investigation

Students complete an individual investigation which must include data collected in the field. The individual investigation must be based on a question or issue defined and developed

by the student relating to any part of the specification content.

Approximately 4,000 words. 20% of the total A Level marks, marked by teachers, moderated by AQA.

Field trips support the non examined assessment and taught content of the A Level Geography course.

Staff members

Mr King Head of Geography Mr Holdsworth Teacher of Geography Mr Kennedy Teacher of Geography

Student comments

"The Field trip was amazing and made up my mind about studying Geography at University."

"I didn't realise just how much Geography overlapped with my other A Level subjects."

"Studying Geography at A Level has been awesome and I now look at the World in a different way."

"Geography taught me so many transferable skills it has been invaluable."







German

Studying German to A Level gives you an enormous range of career options. The world is literally your oyster! As there are fewer students studying languages at GCSE, linguists who have studied German to A Level will seem like gold dust to future employers. Learning a modern language opens your mind to other cultures and A Level German will open up opportunities worldwide. Many UK employers are prepared to offer higher salaries to people who can speak an additional language. And it can even be fun!

What do you study?

The aim of the course is to develop the use of the language and acquire a sympathetic and informed understanding of the culture and people of Germany. Communicating effectively in spoken German as well as writing is essential and a 30 minute conversation lesson per week with the German Assistant is offered. The German exchange is open to Year 12 students, enabling them to practise speaking German and develop their knowledge of German society by staying with a family in Giessen. It is also possible for students to do a week's work experience as an alternative to the traditional exchange.

Topics covered will include family, multi-cultural society, youth culture, the digital world and aspects of political life in the German-speaking world, as well as two cultural topics which will be the work of a German film director and a work of German literature.



A Level provides the basic entrance requirement to university language courses. Although a German degree is an end in itself, German A Level can open up a whole range of career options including: Law, Banking, Marketing, Journalism or Business Management. German forms a part of many more courses than ever before. You could say German goes with everything!

Examinations

Examination board AQA Specification code: 7662

All modules will be taken in May/June of Year 13.

Paper 1 Listening, Reading and Writing

2 hours 30 mins. 40% of the total A Level marks This paper includes translation from English into German and German into English

Paper 2 Writing

2 hours. 30% of the total A Level marks 2 essays in German on EITHER 2 works of literature OR 1 work of literature and one film

Paper 3 Speaking

About 20 minutes plus 5 minutes preparation time 30% of the total A Level marks
Discussion of a sub-theme plus presentation and discussion of an individual research project

Staff members

Ms Davison Mrs Goddard German Assistant

Head of Modern Languages Teacher of German and French

Student comments

"Studying German at A Level enables you to improve your essay writing skills. German also compliments most subjects; it is logical like maths and science, but the essays help with English and History."

"German at A Level is much more thought provoking and challenging than in previous years. Not only do your language skills progress at a fast pace but your knowledge of German culture expands, which is fascinating."

"It's not just about learning the language but also about the culture and history of Germany, which is interesting. Plus the teachers are great!"





History

History is not just a fascinating study in itself, it is a valuable way to increase our understanding of the world in which we live. Learning how things came to be as they are enhances our appreciation of the political, economic, social and cultural organisation of our own and other countries.

It teaches us who we are and gives insights into the principles and values on which this is based. It explains age old conflicts, demonstrates the power of ideas and gives us the big picture of how change has proved possible in the past and may be possible in the future. History students gain valuable skills of organisation and analysis. Their critical abilities are sharpened and they learn to write stylishly and to argue effectively.

What do you study?

History students at CCHSG study a stimulating combination of early modern and modern historical themes, which significantly enrich our apprecation of the world today. The components chosen will develop students understanding of political conflict and instability whilst considering the role played by individuals groups and nations.

Students will develop a sophisticated understanding of significant historical developments and associated historical interpretations through completing a breadth study in "The Tudors: England 1485-1603".

They will refine their high levels of analysis and ability to interpret primary sources through the depth study of major changes and developments in "International Relations and Global Conflicts, c1890-1941".

Alongside these components students will complete a historical investigation from a topic area. They will evaluate the historiographical interpretations of a key area of debate about the past, and therefore provide students with an exciting opportunity to experience the research methods of an academic historian.

Beyond A Level

The wide range of skills developed by History students are highly valued and create opportunities for many careers. The critical analysis of evidence and the ability to argue are an excellent preparation for business, administration and politics. The skills of the historian are particularly suited to studying Law. History can be used directly in teaching, museum and heritage work and the tourist industry. It is a popular theme in film and television.

Several past students work as historians in the media, researching information, costume and period effects, or in journalism. History enables the budding journalist to write well and equips her with a wealth of good examples.

Examinations

Examination board AQA Specification code: 7042

70421c The Tudors: England 1485-1603 2.5 hour written paper (40% of A Level)

70422k International Relations and Global Conflict, c1890-1941

2.5 hour written paper (40% of A Level)

Historical Investigation 3,000 -3,500 words (20% of A Level)

Staff members

Mrs Sanderson Head of History
Mr Paz Teacher of History
Mrs Pigott Teacher of History

Head of Creative and Critical Thinking

Student comments

"Studying History at CCHSG has been such an enjoyable and rewarding experience. It has enabled me to develop skills when forming arguments, which will be beneficial when I read Law next year."

"I love taking History at A-Level because it helps me develop my critical thinking and analysis skills, and provides a deeper understanding of the present."

"History is a challenge worth pursuing; it gave me the ability to think synoptically and gave me transferrable skills to my other subjects."







Latin

Latin is the first truly broad interdisciplinary subject. The purpose of the course is to provide an understanding of some of the elements of Classical Civilisation, literature and language which have had a great influence on our own, to fire imagination and to deepen and develop experience by considering a wide range of issues such as aesthetic, ethical, linguistic, political, religious and social questions. The course provides a satisfactory experience in itself and also a sound basis for further study.

What do you study?

The course continues to develop the knowledge of language and the skills gained at GCSE Level, but concentrates progressively on authentic Latin texts. You will read extracts from the works of several Latin authors, both poetry and prose. As well as using the texts as a vehicle to improve your knowledge of the language, emphasis will also be placed on the enjoyment of the texts as works of literature per se. You will also be expected to develop an understanding of the social and historical background against which the authors lived and wrote.

Beyond A Level

Latin is particularly useful for those interested in Modern Foreign Languages, English and History and is an asset for anyone intending to pursue a career in Law and Medicine. There are many careers and courses for which no particular A Levels are required and in these cases Latin is as relevant as any other subject. Latin graduates find employment at least as easily as other Arts graduates and are very popular with accountants, bankers, computer software designers and advertisers.

Examinations

Examination board OCR *Specification code: H443*

All modules will be taken in May/June of Year 13.

Paper 1 - Unseen Translation

1 hour 45 minute paper. 33% of the total A Level marks.

Paper 2 - Prose Comprehension

1 hour 15 minute paper. 17% of the total A Level marks.

Paper 3 - Prose Literature

2 hour paper. 25% of the total A Level marks.

Paper 4 - Verse Literature.

2 hour paper. 25% of the total A Level marks.

Staff members

Miss Hodgkinson Head of Latin Mr Doyle Teacher of Latin

Student comments

"Latin was my favourite subject all through A Level.
I looked forward to every lesson and loved learning both
the language and the history behind the literature."

"A Level Latin was one of the best subject choices I ever made. I enjoyed the course which varies a lot so you can always find a strength whilst improving elsewhere."

"The fun and interactive lessons, coupled with the varied structure and tasters of different classical literature made the course the best A Level I took."







Mathematics

A Level Mathematics builds from GCSE level Mathematics and it gives you the opportunity to develop your powers of reasoning, mathematical skills, thinking skills and imagination with regard to problem solving. You are introduced to calculus and its applications.

The course emphasises how mathematical ideas are interconnected and how Mathematics can be applied to model situations mathematically using algebra and other representations, to help make sense of data, to understand the physical world and to solve problems in a variety of contexts, including social sciences and business. It prepares students for further study and employment in a wide range of disciplines involving the use of mathematics – Biology, Chemistry, Physics, Economics, Psychology, and Engineering. Mathematics is a very popular subject and a large proportion of the sixth form at CCHSG study it each year.

What do you study?

The course comprises:

- Pure Mathematics (e.g. calculus, coordinate geometry, trigonometry, sequences and series, algebra and functions, exponentials and logs, numerical methods, vectors. proof)
- Mechanics (e.g. quantities and units in mechanics, kinematics, forces and Newton's laws, moments)
- Statistics (e.g. sampling, data presentation/ interpretation, probability, statistical distributions, hypothesis testing)

Beyond A Level

Mathematics is a highly respected academic subject, which is welcomed by employers and universities alike. As well as leading to degrees in Mathematics and mathematically related subjects such as Engineering and Physics, it provides excellent preparation for degrees such as Biology and Chemistry, Social Science degrees such as Economics and Psychology, and also Medical degrees. Moreover, many of our students who have studied Mathematics A Level have gone on to follow a wide range of Arts degrees including History and English.

Examinations

Examination board Edexcel *Specification code: 9MA0*

Paper 1 –Pure Mathematics

2 hour paper. 33\%% of the total A Level marks

Paper 2 -Pure Mathematics

2 hour paper. 331/3% of the total A Level marks

Paper 3 – Statistics and Mechanics

2 hour paper. 331/3% of the total A Level marks

AS Mathematics over 2 years is also available (Examination board Edexcel, Specification code: 8MA0)

Staff members

Mrs Ball Head of Mathematics
Mr Gosling Teacher of Mathematics
Year 10 & 11 Year Leader
Mrs King Teacher of Mathematics
Mr Mucklow Teacher of Mathematics
Mrs Roshen Deputy Head of Mathematics
Mr Seeley Teacher of Mathematics
Head of Sixth Form
Mr Williams Teacher of Mathematics

Mr Williams Teacher of Mathematics Mr Glease Teacher of Mathematics

Student comments

"The work we do challenges the mind and makes what you have done previously seem easy. It makes you understand more fully what you have learned already and why it is needed."

"Work is marked thoroughly so that I can see what level I am at and how I can improve."

"Teachers go out of their way to help in free time."

"Teachers ensure that you understand the work you are covering and if you don't, or are unsure of something, they are willing (happily willing) to spend time helping you."

"I can definitely recommend it as a subject to take whilst in the sixth form. The strongest point for me about Mathematics A Level at CCHSG is the incredibly high teaching quality."







Music

Music A level is a diverse subject, rich in both academic and practical work. It is a hugely enjoyable course and involves working closely with others.

What do you study?

You will enhance your current performance skills (solo and/or ensemble), develop composition skills and study harmony. You will also build upon your listening and analytical skills through the study of 18 separate set works, together with a diverse range of related listening repertoire.

The aim of this course is to enrich and stimulate students' musical appreciation in all three areas. For those wishing to take Music further, it develops their skills in each area to prepare them for a Music-related degree.

What experience should you have?

- You must be able to read music
- Ideally, you should have, or be studying for Grade 5 Theory
- You should be at least Grade 6 or equivalent on your main instrument
- You must be able to work with other people and be prepared to contribute time and effort to music making in school
- You will be expected to join a Music Department ensemble and encourage other students in music making across the school

Beyond A Level

It is an obvious choice if you wish to pursue any type of musical career, in performing, composing music, criticism, music administration.

Music A Level is highly regarded as it involves academic work, a huge amount of self-discipline, IT skills and working with others.

Aims of the course

- To develop performing skills to demonstrate an understanding of musical elements, style, sense of continuity, interpretation and expression
- To develop composing skills to demonstrate the manipulation of musical ideas and the use of musical devices and conventions
- To broaden musical experience and interests, develop imagination and foster creativity
- To develop as effective, independent learners and as critical, reflective thinkers with enquiring minds

Examinations

Examination board Edexcel *Specification code: 9MU0*

Component 1 - Performing (30%)

This component is public performance of between 8-12 minutes either as a solo and/or ensemble performance.

Component 2 - Composing (30%)

You will create one composition of a minimum of four minutes. You will also complete one technical study of at least one minute in length (Bach Chorale).

Component 3 - Appraising (40%)

This is a written paper consisting of two hours of listening and appraising music. You will study 18 set works from 6 areas of study – Vocal Music, Instrumental Music, Music for Film, Popular Music and Jazz, Fusions, New Directions

Staff members

Mr Ulph Head of Music Miss Barnes Teacher of Music

Student comments

"Music A Level develops an appreciation of a wide range of styles of music that I hadn't been exposed to before".

"It enriches your development as a musician, whilst at the same time being academically challenging and rewarding".







Physics

Physics is crucial in helping us understand the world around us, the world inside us and the world beyond. By studying Physics you are empowering yourself with the knowledge and skills to give you a more informed understanding of the world - and a valuable qualification to add to your curriculum vitae.

Physics A level covers a wide range of topics including mechanics, electricity, waves and the often strange world of quantum physics. It goes on to include electromagnetism, astrophysics and cosmological theories, medical imaging and a study of the fundamental particles which make up all the matter in the universe.

Physics is the most fundamental science which underlies all other sciences and as such is a natural complement to other science subjects. It also goes well with Mathematics.

Beyond A Level

Physics and the skills acquired when completing Physics A level are widely applicable to many degrees and careers. Physics is a useful subject for many degree courses including Physics, Astrophysics, Medicinal Physics, Engineering (Civil, Electrical, Chemical, Medical and others), Chemistry, Natural Sciences, Geography, Geophysics, Material Science, Biophysics, Medicine, Radiography, Ophthalmology, Veterinary Medicine, Dentistry and Mathematics.

It is also a subject that is appreciated in many other career areas including Accountancy, Finance, Communications, Information Systems, Computing, Electronics, Architecture, Climatology and Oceanography.

Examinations

Examination board OCR *Specification code: H556*

A level Physics is a two year course which is assessed in three written papers at the end of two years. Examination questions have a balance of mathematical calculations and written explanations. Practical activities are also carried out which count towards a free-standing Practical Endorsement. Topics covered will include Mechanics, Electricity, Waves, Astrophysics, Nuclear and Particle Physics, Medical Physics and Quantum Physics.

Extension activities

Students also have the opportunity to attend extension classes and enter national competitions including the British Physics Olympiad. Many students choose to subscribe to Physics Review magazine and all students have the opportunity to sign up as 'Physics Mentors' to students lower down the school.

Staff members

Miss Blackburn Teacher of Physics

Dr Cox Head of Physics, Head of Science

Dr Edgington Teacher of Physics Miss Jones Teacher of Physics

Student comments

"It was thanks to the education that I received at CCHSG that I arrived at UCL equipped with a firm grasp of basic concepts on which I was able to build solidly, particularly in Physics. I am beginning my career as a field engineer with "Schlumberger". I look forward to the challenges that this will bring knowing that I received a first class education from an inspiring Physics teacher and a school that instils self belief."

Graduated with a 1st Class Degree in Engineering UCL.

"I have enjoyed learning Physics. It complements other science subjects and it is really not as hard as you might think!"

"Choosing Physics has been the best decision as it answers so many questions. The Physics Department here has given me a love of Physics and has inspired me to go on to study Mechanical Engineering at university."

"I was initially unsure about taking Physics, but I can honestly say that after 2 years of A Level it has become my favourite subject and I am so glad I took it."

"I'll miss Science lessons at CCHSG so much next year - although at Cambridge I'm sure I'll have load of fun. Thank you so much I wouldn't be here without you."







Psychology

Psychology is a fascinating subject and is classed as a science. To some extent we are all naïve psychologists as we try to interpret and understand the behaviour of those around us. Psychologists further our understanding by generating theories and hypotheses and using scientific methods to test and draw conclusions about human and non-human animal behaviour.

What do you study?

There is a broad range of topics studied across the two year course. The A Level consists of three units with each unit being examined by one paper. There are two compulsory papers and one paper where there is some choice of topics. Papers one and two are each worth 35% of the total A Level: Paper three is worth 30% of the total A Level. There will be the opportunity to attend an A Level conference.

Paper 1: Foundations in Psychology

This paper is compulsory and includes Social Psychology, Cognitive Psychology, Biological Psychocology, and Learning Theories. The paper also includes key issues and Debates within Psychology.

Paper 2: Applications of Psychology

This paper has one mandatory topic, Clinical Psychology, and students will study Schizophrenia and Obsessive-Compulsive Disorder. Students will also study Child Psychology.

Paper 3: Psychological Skills

This paper is compulsory and focuses on Psychological Skills which will include Methods, Synoptic review of Studies, Issues and Debates.



Beyond A Level

Psychologists are involved in many areas of research. Some conduct applied research seeking to answer actual problems. These can range from finding ways to reduce stress to advising on the design of complicated equipment. Pure research focuses on areas which may not have an immediate and obvious application. Psychologists are employed in a range of fields including teaching and education, social work, the probation service, clinical and counselling areas, hospitals, industry and commence. The study of Psychology provides the student with transferable skills which can be utilised within many non-psychology careers including market research, advertising, careers guidance, retail management and personnel. It is extremely useful in any career which involves people, or understanding people, and is a popular choice at degree level.

Examinations

Examination board Edexcel *Specification code: 9PSO*

Assessment will be a 2 hour examination for each of the three papers taught. The papers will consist of a mixture of questions including stimulus-response, short answer, extended response questions and some data calculations where calculators can be used.

Staff members

Mrs Cordy-McKenna Head of Psychology

Student comments

"Psychology is a topic that I knew nothing about but it is now considered as my favourite subject. Although a challenge, it is enticing and relatable topics create a subject that could not fail to be enjoyed".

"The topics studied in A-level Psychology at CCHSG are hugely thought provoking and have given me a great insight into what influences human behaviour. I'm really happy that I chose Psychology for A-level here, and I can't wait to learn more at A2!

"I love studying Psychology mainly because it is very applicable to real life, and it helps you to understand not only other people's behaviours but also your own. It's very interesting to discover what you do and why you do it."





RS: Philosophy and Ethics

In Religion, Philosophy and Ethics, we provide students with an opportunity to understand and reflect on both religious and secular beliefs and values that people hold in the world today. The A Level offers a creative and informative way for students to understand and evaluate complex ideas in a wide range of areas concerning belief in God, the nature of God, lifestyle choices and ethics.

What do you study?

The course will be divided equally between Philosophy of religion, and Religion and ethics, and Developments in religious thought. We consider the big issues such as whether God exists, why people are becoming atheists, whether feminism and religion can be compatible, and Freud and Marx's views on religion.

By the end of the programme students will have developed a good level of understanding of religious beliefs and why people hold them, as well as the logical and critical skills to assess and evaluate complex theories and construct arguments about them.

Beyond A Level

The evaluative skills and ability to construct a strong argument developed in Religion, Philosophy and Ethics A Level is highly regarded by top universities and has good transferrable skills for students interested in careers such as Law, Medicine, Journalism, Politics, Broadcasting, Education, and many of the caring professions.

For many students, the value of this course has been in the personal discovery and development it fosters. If you enjoy discussing the existence of God, how we can decide what is right and wrong and whether we will still have religion in the future, you would enjoy the Religion, Philosophy and Ethics course.

Examinations

Examination board OCR *Specification code: H573*

The Course will be divided equally between Philosophy of religion, and Religion and ethics, and Developments in religious thought.

Philosophy of religion

Students will study:

- ancient philosophical influences
- the nature of the soul, mind and body

- arguments about the existence or non-existence of God
- the nature and impact of religious experience
- the challenge for religious belief of the problem of evil
- ideas about the nature of God
- issues in religious language.

2 hour written paper. 33.3% of the total A Level marks

Religion and ethics

Students will study:

- · normative ethical theories
- the application of ethical theory to two contemporary issues of importance
- · ethical language and thought
- debates surrounding the significant idea of conscience
- sexual ethics and the influence on ethical thought of developments in religious beliefs.

2 hour written paper. 33.3% of the total A Level marks

Developments in religious thought

Students will study:

- religious beliefs, values and teachings, their interconnections and how they vary historically and in the contemporary world
- sources of religious wisdom and authority
- practices which shape and express religious identity, and how these vary within a tradition
- significant social and historical developments in theology and religious thought
- key themes related to the relationship between religion and society in the context of one religion chosen from Christianity

2 hour written paper. 33.3% of the total A Level marks

Staff members

Miss Jupp

Head of Religious Studies

Student comments

Philosophy and Ethics develops one's ability to analyse theories and arguments, as well as teaching you to think outside the box and explore new ideas. It's not until you study Philosophy and Ethics for yourself that you can properly understand human nature, and start to comprehend the bigger questions of life."







Careers Guidance in the Sixth Form

Staff members

Mrs Warren: - Independent Careers Adviser Mr Seeley: Head of Sixth Form and Careers Lead

The Sixth Form Tutor Team

How we will support you

Within the two years leading up to finishing your A Levels, key decisions need to be made. You will need to decide your next steps after your time within the Sixth Form, as well as achieving the best qualifications you can, and build up your skills so that you are fully prepared when moving on to your next challenge.

Post -18 you will have several choices: Higher Education, Apprenticeships, Employment or a Gap Year. Throughout the two Sixth Form Years, we will support you and provide you with the key information to make your important decisions.

Not only do you have the support of the Careers Team, your subject tutors and form tutors, you also have access to the Careers resources in the Library. We have the latest information online; through using vetted websites you can get the most modern thinking, information on careers and key contacts within each employment area. Additionally the Library contains work experience information, careers reference books, Labour Market Information, University prospectuses, detailed information on Oxbridge applications, Gap Year Information (volunteering, getting a job abroad) and Leavers Information, Interview Techniques, CV Writing and Covering Letters.

Every year we co-ordinate an Year 13 Mock Interview Programme, which stretches and prepares students for interviews, whether for 18+ applications or confidence in dealing with interviews in later life. Ultimately we strive to create a provision so that each girl is armed with the correct information so that she can make the right career decisions.



The school has achieved The Quality in Careers Standard for our Careers Education, Information, Advice and Guidance.

Student comments

30







Applying to University

We have a comprehensive programme of support to help you through the process of choosing a course through to making an application to University. In addition to the programme outlined below there will be a variety of talks during the year linked with Higher Education and support for admissions tests. You can contact our ex-students to gain an insight into particular courses and universities.

Year 12

October - Forward Thinking Day

You will spend the day looking at how to:

- Choose a university
- Write your Personal Statement

Investigate courses through work experience and/or reading around the subject.

There will also be talks given by Admissions Tutors and subject specific talks by external speakers.

January - PSHCE Talks

You will have a number of talks including:

- Options at 18
- Applying to Higher Education
- Applying to Oxbridge

April - Higher Education Evening

We will invite you and your parents to attend the evening where we will give you an overview of how the UCAS process works and how to prepare for an application. Admission Tutors will also be invited to share their expertise.

June/July - UCAS preparation

You will register online with UCAS and we will advise you on how to fill out the application form.

We will support you while you write your Personal Statement.

You will continue to research courses.

Year 13

September - UCAS application and interviews

You will have a review of your progress in Year 1 and UCAS application with your tutor. During PSHCE we will give you interview advice. You can submit your application to UCAS from early September. Deadlines for UCAS include 15 October for Oxbridge, Veterinary Science and Dentistry. All remaining courses will have a deadline in early January. Once you have submitted your UCAS form you will be invited to apply for Higher Education funding.

October/November - Preparation, interviews and offers.

During the PSHCE programme you will have mock interviews, advice on writing covering letters and advice on living on a budget. You will have a minimum of two mock interviews, your first interview will be a general interview and the second will be with a subject specialist. At this time of year you start to be called for interview.

February/March - Accepting offers

You will be given advice regarding making your first and second choices.

May/August - Results

We will give you guidance, outline the procedure for results day and be available if required on the day.





Oxbridge at CCHSG

Year 12

During the year there will be opportunities to talk to Admissions Tutors when they visit CCHSG. You can contact our ex-students to gain an insight into particular courses and colleges.

January - PSHCE talks

Applying to Oxbridge – how the application process works and how to choose a college.

June/July – Writing your Personal Statement and Preparation for Admissions Tests

We discuss your choice of course and college with you and help you write a dazzling Personal Statement. Preparation for ELAT (English), MLAT (Modern Foreign Languages), NSAT (Natural Sciences), LNAT (Law) and BMAT (Medicine and Veterinary Science) takes place within PSHCE.

Those of you that will be applying for Organ or Choral Scholarships will need to complete the Oxbridge application form before the end of the summer term.

June/July - Oxbridge Presentation

Half day sessions with recent Oxford and Cambridge Graduates, covering a variety of subject areas.

July – Cambridge and Oxford Universities Open Days

The Universities and individual colleges have their open days. Students will have the opportunity to hear talks by Admissions Tutors and lectures given by a variety of departments.

Year 13

September – The Application

We support you through the final stages of making the application.

September/October/November – Preparation for Interviews

Mock interviews begin. You will have a minimum of two interviews (a general interview and an interview with a subject

specialist).

December

Oxbridge interviews and offers.

