THE CEDARS
SCHOOL

Sixth Form

A Level
Course Booklet

Contents

A Level Studies at The Cedars

Choosing A Levels

A Level courses are *linear*, two-year qualifications. The whole two-year course is examined at the end of Year 13. We encourage prospective students to research their options carefully. The Russell Group's website, Informed Choices, is a helpful place to start.

Success at A Level depends upon

- strong prior attainment at GCSE
- sound and steady study habits
- a collaborative and positive approach to relations with teachers and fellow students
- a real interest and enthusiasm for one's chosen subjects.

Admissions Procedure and Entry Criteria

Please consult the Sixth Form Admissions page of the school website for details of the admissions process. We welcome applications from external candidates. The admissions procedure and entry criteria are explained in the school's Admissions Policy. All internal and external applicants must complete a Sixth Form Supplementary Application Form by the deadline date given on the website.

Academic entry criteria: five grades at 7 and three grades at 6 from the boys' best eight GCSEs, and at least a Grade 7 in each of the subjects to be studied at A Level.

A Level Teaching, Directed and Independent Study

Most boys take three A Levels. However, those whose prior attainment indicates they are suited to a stimulating and challenging workload are encouraged to take four A Levels. All boys take Common Core studies. They so have the option of pursuing an Extended Project Qualification.

Aided by excellent teaching, small class sizes, and personalised support via the Tutorial System, boys at The Cedars progress quickly through material. A Level subjects are allocated FIVE teaching lessons, and one additional period of directed study tasks, per week.

Boys *in Year 12 progress steadily towards completing 21 hours a week of independent study required for success at A Level.*

Assessment, Monitoring & Reporting

Assessment tests take place every 2-3 weeks in each subject and results are shared with parents. A student's academic progress is monitored by the Head of Sixth Form as well as by his subject teachers. Tutors play a key role in supporting boys and parents throughout the Sixth Form, and there is a formal parents' evening each year.

Academic Enrichment, Personal Development, Initiative and Leadership in Service

Our Year 12 and Year 13 boys belong to the first cohorts of young men who are laying the foundations of a new Sixth Form and setting a tone of excellence in service which others will build upon for generations to come.

- While A Level study can tend toward narrow and compartmentalised learning, our commitment to Eudaimonia encourages boys to appreciate the interconnectedness of knowledge and to foster broad academic and cultural interests:
    - The Eudaimonia Programme and visiting speakers provide boys with a broad cultural formation and through which they are introduced to the varied application of specialised knowledge in a host of professional settings.
    - Theology, Philosophy & Ethics provides all Sixth Form boys with an introduction to some major themes in philosophy, anthropology, ethics, theology and the social teaching of the Church, and provides a coherent framework for health and relationships education.
    - Subject teachers encourage boys to pursue areas of interest beyond the confines of the classroom and the course specification, making full use of lectures and university study days.
    - Sixth Form boys take responsibility and initiative, and develop their presentation skills via the Becket Seminars, in which they explore topics of interest beyond the A Level curriculum.
- Effective time management and personal organisation is encouraged and monitored through effective use of the Sixth Form Study Planner and through supervised study periods.
- Boys develop their study skills, critical thinking, and prepare for university and career plans in meetings with their Tutor, the Head of Sixth Form and during regular group sessions.
- As prefects and House Captains, and by taking a leading role in music, sport and extra-curricular clubs and activities, boys develop talents, grow in virtue and set a tone of leadership in service that lies at the heart of the school's ethos: *In Gaudio Serviamus*.
- Online careers platforms, visiting speakers, presentations, and university taster programmes provide boys with a broad appreciation of the range of opportunities open to them beyond A Levels: traditional undergraduate and degree apprenticeships, apprenticeships and school leavers employment programmes, as well as gap year opportunities.
- Sixth Form boys set an example to other boys through their adherence to the Sixth Form Code of Conduct.
- Our Dress Code encourages boys to express their personality while showing a seriousness of purpose and respect for others.

Art & Design

Teacher Ms S Beetlestone

Examination Board Edexcel Fine Art (9AD01) Specification

Develop your creative voice

Art is exciting and the Art room is a creative space where we will value your imaginative and intuitive response to works of art. It is safe environment in which to explore ideas and to make creative mistakes that will often evolve into inspired and imaginative pieces of artwork. You will learn the technical, thinking and planning skills that enable you to transform ideas into objects or images.

Course Content

Component 1: Personal Investigation portfolio and personal study (60 %)

In Year 12 you will learn to draw to record, explore and express ideas, paint (oil and watercolour) to work with clay and printmaking in response to a range of themes. In Year 13 you will have the opportunity to devise your own programme of study, supported by the research and writing of an extended essay, a critical and contextual essay exploring your work within the context of historical or contemporary artwork. Through the course you will have the opportunity to visit art galleries and work with contemporary artists.

Component 2: Externally Set Assignment (40%)

You will receive an externally set theme in Year 13 and have a period of 8 -12 weeks to go through the creative process, researching artists and exploring media before they produce a final realisation under controlled conditions. This takes the form of a 15-hour timed piece or pieces for artwork produced independently with close reference to your preparatory work.

Assessment Overview

Both the above components are teacher-assessed and externally moderated.

Specific Entry Requirements

GCSE Art at Grade 7 or above.

Biology

Teacher Mr B Rix

Examination Board AQA (7402) Specification

A level Biology is a highly respected academic A level which offers you access to a wide range of university courses and careers. Biology is a requirement for most degrees in medicine, biology, biomedical sciences, dentistry, dietetics, physiotherapy, orthoptics and veterinary medicine. Biology is usually required or recommended for courses in biochemistry, environmental science, nursing, occupational therapy, optometry, pharmacy, sports science, physiology and speech therapy.

The course specification builds on concepts and skills that have been developed at GCSE, and presents biology as an exciting, relevant, topical and challenging subject.

Course Content

1 Biological molecules

2 Cells

3 Organisms exchange substances with their environment.

4 Genetic information, variation and relationships between organisms.

5 Energy transfers in and between organisms.

6 Organisms respond to changes in their internal and external environments.

7 Genetics, populations, evolution and ecosystems.

8 The control of gene expression.

Assessment Overview

Paper 1	**Paper 2**	**Paper 3**
What is assessed?	*What is assessed?*	*What is assessed?*
Topics 1– 4, including relevant practical skills.	Topics 5–8, including relevant practical skills.	Topics 1–8, including relevant practical skills.
How is it assessed? Written exam: 2 hours 91 marks 35% of A- level	*How is it assessed?* Written exam: 2 hours 91 marks 35% of A- level	*How is it assessed?* Written exam: 2 hours 78 marks 30% of A- level

Practical Assessment

Practical work is at the heart of science.
Boys must keep a log of all their practical work which will be checked by AQA inspectors.
There are 12 required practicals that all boys must undertake. These practicals and their relevant skills will be assessed in the written exams. Overall, at least 15% of the marks for an A Level Biology qualification will require the assessment of practical skills.

The 12 required practicals are:

1. Investigation into the effect of a named variable on the rate of an enzyme-controlled reaction.
2. Preparation of stained squashes of cells from plant root tips; setup and use of an optical microscope to identify the stages of mitosis in these stained squashes and calculation of a mitotic index.
3. Production of a dilution series of a solute to produce a calibration curve with which to identify the water potential of plant tissue.
4. Investigation into the effect of a named variable on the permeability of cell-surface membranes.
5. Dissection of animal or plant gas exchange or mass transport system or of organ within such a system.
6. Use of aseptic techniques to investigate the effect of antimicrobial substances on microbial growth.
7. Use of chromatography to investigate the pigments isolated from leaves of different plants, e.g., leaves from shade-tolerant and shade-intolerant plants or leaves of different colours.
8. Investigation into the effect of a named factor on the rate of dehydrogenase activity in extracts of chloroplasts.
9. Investigation into the effect of a named variable on the rate of respiration of cultures of single-celled organisms.
10. Investigation into the effect of an environmental variable on the movement of an animal using either a choice chamber or a maze.
11. Production of a dilution series of a glucose solution and use of colorimetric techniques to produce a calibration curve with which to identify the concentration of glucose in an unknown 'urine' sample.
12. Investigation into the effect of a named environmental factor on the distribution of a given species.

Specific Entry Requirements

GCSE Biology and GCSE Maths at Grades 7 or above. GCSE English at Grade 6 or above.

Chemistry

Teachers Mr T. Part, Dr P. Virgili, Dr D Adams

Examination Board AQA (7504) Specification

Chemistry A level is a rigorous and multifaceted course. Sometimes called the 'central science' for its connections to both Biology and Physics, is an excellent choice for many degrees and careers pathways. It is a compulsory choice for anyone wishing to pursue medicine, dentistry and veterinary science, as well as chemistry-based degrees, such as pharmacy, pharmacology, and biochemistry.

Course Content

1. Physical chemistry

1.1 Atomic structure
1.2 Amount of substance
1.3 Bonding
1.4 Energetics
1.5 Kinetics
1.6 Chemical equilibria, Le Chatelier's principle and Kc
1.7 Oxidation, reduction and redox equations
1.8 Thermodynamics
1.9 Rate equations
1.10 Equilibrium constant Kp for homogeneous systems
1.11 Electrode potentials and electrochemical cells
1.12 Acids and bases

2. Inorganic chemistry

2.1 Periodicity
2.2 Group 2, the alkaline earth metals
2.3 Group 7(17), the halogens
2.4 Properties of Period 3 elements and their oxides
2.5 Transition metals
2.6 Reactions of ions in aqueous solution

3. Organic chemistry

3.1 Introduction to organic chemistry
3.2 Alkanes
3.3 Halogenoalkanes
3.4 Alkenes
3.5 Alcohols
3.6 Organic analysis
3.7 Optical isomerism
3.8 Aldehydes and ketones
3.9 Carboxylic acids and derivatives
3.10 Aromatic chemistry
3.11 Amines
3.12 Polymers
3.13 Amino acids, proteins and DNA
3.14 Organic synthesis
3.15 Nuclear magnetic resonance spectroscopy
3.16 Chromatography

Assessment Overview

Paper 1	**Paper 2**	**Paper 3**
What is assessed	*What is assessed*	*What is assessed*
Physical chemistry topics (1.1 to 1.4, 1.6 to 1.8 and 1.10 to 1.12)	Relevant Physical chemistry topics (1.2 to 1.6 and 1.9)	Any content
Inorganic chemistry (see 2)	Organic chemistry (see 3)	Any practical skills
Relevant practical skills	Relevant practical skills	
How is it assessed	*How is it assessed*	*How is it assessed*
Written exam: 2 hours	Written exam: 2 hours	Written exam: 2 hours
105 marks	105 marks	90 marks
35% of A- level	35% of A- level	30% of A- level

Practical assessment

Practical work is at the heart of chemistry. Boys keep a log of all their practical work which can be checked by AQA inspectors. Practicals and their relevant skills are assessed in the written exams.

The 12 required practicals are:

1 Make up a volumetric solution and carry out a simple acid–base titration
2 Measurement of an enthalpy change
3 Investigation of how the rate of a reaction changes with temperature
4 Carry out simple test-tube reactions to identify:
- cations – Group 2, NH_4^+
- anions – Group 7 (halide ions), OH^-, CO_3^{2-}, SO_4^{2-}

5 Distillation of a product from a reaction
6 Tests for alcohol, aldehyde, alkene and carboxylic acid
7 Measuring the rate of reaction:
- by an initial rate method
- by a continuous monitoring method

8 Measuring the EMF of an electrochemical cell
9 Investigate how pH changes when a weak acid reacts with a strong base and when a strong acid reacts with a weak base
10 Preparation of a pure organic solid and test of its purity and a pure organic liquid
11 Carry out simple test-tube reactions to identify transition metal ions in aqueous solution
12 Separation of species by thin-layer chromatography

External links

There will be opportunities for attending lectures and developing links with the major university institutions in London (Imperial, King's, UCL (University College London)).

Specific Entry Requirements:

GCSE Chemistry and GCSE Maths at Grades 7 or above.

Computer Science

Teacher Mr A Tran

Examination Board OCR (H446) Specification

A level Computer Science is excellent preparation for future studies - apprenticeship or a degree-based – in computer science, information technology or information systems. With so much reliance on computing in the modern world, having a good understanding of how computers work and how to program them will set you up for success in many strands of life.

After university, there are numerous interesting fields of study and professions that you can go in to, such as robotics, artificial intelligence, machine learning, cloud computing, big data processing, networking, ethical hacking, computer game development, or home automation.

Course Content

Component 01: Computer systems

Students are introduced to the internal workings of the (CPU), data exchange, software development, data types and legal and ethical issues. The resulting knowledge and understanding will underpin their work in component 03.

It covers:

- The characteristics of contemporary processors, input, output and storage devices
- Types of software and the different methodologies used to develop software
- Data exchange between different systems
- Data types, data structures and algorithms
- Legal, moral, cultural and ethical issues.

Component 02: Algorithms and programming

This builds on component 01 to include computational thinking and problem-solving.

It covers:

- What is meant by computational thinking (thinking abstractly, thinking ahead, thinking procedurally, etc.)?
- Problem solving and programming – how computers and programs can be used to solve problems
- Algorithms and how they can be used to describe and solve problems.

Component 03: Programming project

Students are expected to apply the principles of computational thinking to a practical coding programming project. They will analyse, design, develop, test, evaluate and document a program written in a suitable programming language. The project is designed to be independently chosen by the student and provides them with the flexibility to investigate projects within the diverse field of computer science. We support a wide and diverse range of languages.

Assessment Overview

Component	Mark	Duration	Weighting
Computer systems (02)* *No calculator*	140	2 hours 30 mins	40%
Algorithms and programming (02)* *No calculator*	140	2 hours 30 mins	40%
Programming project (03)* *Coursework*	70	-	20%

*Denotes synoptic assessment i.e. drawing on material learned in other components.

Specific Entry Requirements

GCSE Computer Science and GCSE Maths at Grades 7 or above.

Common Core Curriculum

Eudaimonia

Course Leader Mr C Doran

This course is not externally examined

As part of our commitment to providing a uniquely comprehensive preparation for life beyond school, we are developing an innovative 6th Form Eudaimonia Programme that will provide boys with knowledge and skills for life. There are four elements to the course:

1. Study Skills & Time Management

Throughout their A Level studies, but especially at the outset, boys will be exposed to a full range of study and revision techniques, as well as effective approaches to habit tracking and acquisition, time management and planning.

2. Learning beyond the A Level Curriculum

A key aspect of Eudaimonia is introducing boys to topics which deliberately depart from the subject specific approach of A level studies. They provide boys with opportunities to make connections between learning across subject disciplines and apply subject specific knowledge to new contexts. Both academic qualities are highly valued by universities.

Science and wonder Politics and international relations Media and technology	Law and society Language, literature, and the arts Family, education, work, and economics

Topics from the list above will be explored in a range of ways, including by visiting speakers, video documentaries, and classic texts.

3. Preparation for University, Alternative Pathways and Careers

School leaver programmes Apprenticeships Degree Apprenticeships	University Abroad Studying in the USA Degree courses you may not know about

Which will include practical guides to the application process, and adapting to student life e.g. managing and eating on a budget

4. Virtuous Leadership

This is an innovative course developed in collaboration with the outside speakers that introduces boys to the practical application of the virtues of Prudence, Justice, Courage and Self-Control, Humility and Magnanimity in a variety of leadership settings, including the workplace, sport, politics, and family life.

Theology, Philosophy & Ethics

Course Leader Mr M Tomsky

This course is not externally examined

This course focuses upon the dignity of the human person, made in the image and likeness of God, and called to holiness in service in the middle of the world.

Through this unifying framework boys are introduced to a wide range of philosophical and theological themes.

The course combines academic study and practical activity – debates, interviews, group work and case studies.

Boys will gain an historical perspective on the dialogue between Christians and their contemporaries in pursuit of the truth about the nature and dignity of the human person through time.

A key objective of the course is to give boys the philosophical and theological tools with which to connect knowledge acquired across diverse subject disciplines, and to encourage them to think more deeply about the moral and spiritual dimensions of these disciplines.

Lower Sixth	Upper Sixth
Communicating the Faith without Raising your Voice	The Theology of the Body
Christian Anthropology	Social Teaching of the Church
Bioethics	

Economics

Teachers Mr J Boggan

Examination Board Eduqas Specification

Why study Economics?

Economics is the study of scarcity and its implications for the use of resources, production of goods and services, growth of production and welfare over time, and a great variety of other complex issues of vital concern to society.

Why choose Eduqas A level Economics?

- You will have the opportunity to develop an awareness of contemporary economic issues relevant to the UK and world economy and a broad understanding of recent economic history issues.
- You will develop an understanding of economic concepts and theories through a critical consideration of current economic issues, problems and institutions that affect everyday life.
- Some learners will have already gained knowledge, understanding, and skills through their study of Economics at GCSE but there are no prior learning requirements at The Cedars.

What will I study?

The subject content has been grouped into three broad areas of study**: Microeconomics, Macroeconomics** and **Global Economics**.

Microeconomics

- Demand and supply in product markets
- Demand and supply in labour markets
- Resource allocation
- Costs, revenues, and profits
- Market structures
- Market failure

Macroeconomics

- Macroeconomic theory
- Macroeconomic objectives
- Policy instruments

Global Economics

- International trade
- Non-UK economies
- Economic development

What skills will I develop?

A level Economics encourages learners to develop an interest in and enthusiasm for the subject, to appreciate the contribution of economics to the understanding of the wider economic and social environment and to develop an understanding of a range of concepts and an ability to use those concepts in a variety of different contexts

Economists use an enquiring, critical and thoughtful approach to study and develop an ability to understand that economic behaviour can be studied from a range of perspectives.

They develop analytical and quantitative skills, together with qualities and attitudes which will equip them for the challenges, opportunities and responsibilities of adult and working life.

Careers with A Level Economics

This specification provides a suitable foundation for the study of economics or a related area through a range of higher education courses, progression to the next level of vocational qualifications or employment.

In addition, the specification provides a coherent, satisfying and worthwhile course of study for learners who do not progress to further study in this subject.

Assessment Overview

Via multiple choice, short answer questions, data response and essays

Component 1: Economic Principles: Written examination: 1 hour 30 minutes 30% of qualification.

Component 2: Exploring Economic Behaviour: Written examination: 2 hours 30 minutes 30% of qualification.

Component 3: Evaluating Economic Models and Policies: Written examination: 2 hours 30 minutes 40% of qualification.

Resources

In addition to both physical and online textbooks you will have access to the many resources the board provides plus a vast library of past papers and mark schemes. Websites like tutor2u provide invaluable resources – videos, study notes, sample questions, and a daily blog about the issues of the day. Other web sites are excellent, too – Economics Online, Economics Help, the BBC, the Guardian – all without paywall. Exam papers always reflect topical matters and the conscientious student who stays up to date is invariably rewarded with better marks.

Specific Entry Requirements

GCSE Grade 7 or above in English and Mathematics.

English Literature

Teachers Mr M Narbrough, Mr J Cook, Dr P Mulgrew

Examination Board OCR (H472) Specification

Studying English Literature is about participating in a debate concerning humanity's role and purpose. In English you will engage with some of the finest minds from the past, in the present, for the good of the future.

Language shapes our perception of ourselves and the world; it is a personal, social and political tool and it is therefore in our interest to master it. Its role in shaping culture is immense.

The study of great books at A Level provides you with a toolkit that enables you to become a more confident and enquiring reader now and sets you on a literary journey that will last for the rest of your life.

Employers love English students - research shows that companies value collaboration, critical thinking, independence, adaptability, resilience and moreover, skilled and empathetic communication. English Literature teaches all of these.

Imagine studying a subject that offers you opportunities to be consoled, inspired, provoked. Imagine being introduced to a range of writers that ask questions about love, ambition, childhood and death. Poetry, prose and drama offer narratives that attempt to justify or challenge the way we see ourselves. English Literature is a long, ongoing conversation about the meaning of existence. If you want to join the conversation, choose A Level English Literature.

Course Content

Students study a minimum of eight texts, including at least two examples of each of the genres of prose, poetry, and drama, to develop their ability to analyse and evaluate literary texts across a variety of genres and periods.

Component 01: Drama and poetry pre-1900

In Section 1: Shakespeare, students study *Hamlet.*

In Section 2: Drama and poetry pre-1900, students study one pre-1900 drama text and one pre-1900 poetry text: Henrik Ibsen's *A Doll's House* and Christina Rossetti's *Selected Poems.*

Component 02: Comparative and contextual study

American Literature 1880—1940: F. Scott Fitzgerald: The Great Gatsby and Willa Cather: *My Antonia.*

Component 03: Literature post-1900

This component encourages individual study, interest and enjoyment of modern literature. Students study three literary texts, which must include one prose text, one poetry text, and one drama text. All texts must have been first published or performed after 1900, and at least one must have been first published or performed after 2000. Texts in translation are not permitted.

There are two tasks:

Close reading or re-creative writing with commentary – based on one literary text

Comparative essay – must be based on two literary texts.

Prose text: *Men at Arms* by Evelyn Waugh

Poetry text: *Burning Babylon* by Michael Symmons Roberts

Drama text: *Journey's End* by R. C. Sherriff

Assessment Overview

Component	**Mark**	**Duration**	**Weighting**
Drama and poetry pre-1900 (01) *Closed text exam*	60	2 hour 30 mins	40%
Comparative and contextual study (02) *Closed text exam*	60	2 hour 30 mins	40%
Literature post-1900 (03) *Non-exam assessment*	60	-	20%

Specific Entry Requirements

GCSE Grade 7 or above in English Language and English Literature.

Extended Project Qualification

Teacher Mr C Doran

Examination Board AQA (7993) Specification

The Extended Project Qualification (EPQ) allows a student to embark upon a largely self-directed enquiry. In discussion with his supervisor, the student decides his own area of research, and with appropriate guidance, works systematically through the process of planning, researching and completing their project.

The Extended Project Qualification is highly valued by universities. It encourages creativity, curiosity, and the acquisition of research skills.

Course Content

A project topic may be directly related to a student's main study programme but should look beyond the specification. It can, alternatively, explore a completely different area of knowledge. A finished project may take the form of:

- a research based written report of c.5000 words
- a production* e.g., a charity event, a fashion show or sports event etc.
- an artefact* e.g., a piece of art, a computer game or realised design

*A written report of c.1000 words must accompany these options

Supported by a guided learning programme of research methods, project management and critical thinking, boys record their project process in a production log. The process of recording and completing a project is as important as the finished product, since the final project, the production log and a presentation of their project findings to a non-specialist audience, all contribute to the final assessment.

Assessment Overview

The production log, project and presentation are internally marked and externally moderated. The EPQ is graded A* - E.

It is valued at **50%** of a full A Level.

Specific Entry Requirements

None.

French

Teacher Mr E Loembe

Examination Board AQA (7652) Specification

The AQA A Level French course builds on the skills and knowledge that students acquired at GCSE. It is a richly blended study of language, culture and society. Apart from enabling students to develop linguistically in the target language and gain a deep understanding of the French-speaking world, the course also promotes the fostering of transferable skills such as effective oral and written communication, critical thinking and research capability.

Course Content

The course aims to develop students' ability to communicate effectively in French and secure a high level of proficiency in the target language. The course also focuses on how the French-speaking world has been shaped socially and culturally, and how it continues to evolve. These learning objectives will be achieved as students repeatedly engage with authentic spoken and written sources in French.

The topics that will be covered include:

French cultural heritage	Voluntary Work
Social change	The Treatment of Crime & Criminals
Politics & Immigration	Cinema

Students' appreciation of French-speaking society will be enhanced by the study of either two novels or a novel and a film from the French-speaking world.
Grammar will naturally constitute an integral part of the course and students will have ample opportunity to explore and develop a wide range of linguistic structures.

Assessment Overview

Paper 1: Listening, reading and writing – 2 hours and 30 minutes
Aspects of French society; artistic culture in the French world; multiculturalism in French society; aspects of political life in French society. Grammar.

Paper 2: Writing – 2 hours
This paper will assess one text and one film or two texts from the list set in the specification as well as grammar.

Paper 3: Speaking - 23 minutes

This assessment will be based on an individual research project and one of four themes (aspects of French society; artistic culture in the French world; multiculturalism in French society; aspects of political life in French society).

Specific Entry Requirement

GCSE French at Grade 7 or above.

Geography

Teacher Mrs S Corpas

Examination Board CIE (9696) Specification

Geography is a subject that spans both the natural and social sciences and its strong skills base and breadth in content make it a rigorous and very highly regarded subject at A-Level. Rooted in current political, socio-economic, and environmental affairs, Geography challenges students to question the world around them and go deep into understanding the physical and human processes that shape it. Arguably, the study of geography has never been more important than now as the world faces the challenges of climate change, resource depletion and land degradation alongside rapidly expanding economic and technological advancements and social change.

From international development to statistical analysis of climate change patterns to the study of global fertility rates to environmental management, Geography is the ultimate multi-disciplinary subject. Embedded throughout the course are core numerical, decision-making, statistical and literary skills that enable a thorough evaluation not only of the themes we study but also the methods by which we study them.

Requirements: a good grasp of Maths is needed for the interpretation of maps and graphs and a willingness to rote learn is needed to acquire extensive new terminology. Geography uses a large range of case studies at local through to regional and national scales, so a good memory is important as well as the ability to write essays that evaluate and debate wide-ranging issues. Keeping up with the news is essential to get the most out of this contemporary subject as rarely will there be articles in the news that do not relate in some way to our course and studies. Being open-minded and interested in issues beyond the UK is vital, as is the ability to debate and reflect on different viewpoints to achieve a balanced understanding. A proactive attitude is needed as Geographers not only seek to understand the challenges of the world around them but how to help overcome them.

A Level Geography helps boys to develop:

- an understanding of the principal processes operating within physical and human geography
- an understanding of the causes and effects of change on natural and human environments and their relationship to current environmental issues
- an awareness of the usefulness of geographical analysis to understand and solve contemporary human and environmental problems
- strong place knowledge and a good grasp of current affairs
- the ability to handle and evaluate different types and sources of information
- the skills to think logically, and to present an ordered and coherent argument in a variety of ways
- an excellent foundation for studies beyond A Level in Geography, in further or higher education, and for professional courses.

Course Content

The course is divided into physical and human geography.

The Course Content is structured as follows:

Core Physical Geography	***Core Human Geography***
- Hydrology and fluvial geomorphology	- Population
- Atmosphere and weather	- Migration
- Rocks and weathering	- Settlement dynamics
Advanced Physical Geography	***Advanced Human Geography***
Two options from:	*Two options from:*
- Tropical environments	- Production, location and change
- Coastal environments	- Environmental management
- Hazardous environments	- Global interdependence
- Hot arid and semi-arid environments	- Economic transition

Assessment Overview

Four examinations each lasting 1 hour 30 minutes and each worth 25% of the overall A Level grade will be sat at the end of Upper Sixth.

Specific Entry Requirements

GCSE Geography Grade 7 or above.

History

Teacher Mr C Doran

Examination Board CIE (9489) Specification

A-Level History is an excellent way to discover and explore the past. The course builds upon a love of reading, writing and discussion and provides many opportunities to grapple with complex and challenging historical problems. The past has given us all our political and religious ideas and institutions, our social customs, and indeed our own personal and family identities. The study of British, European and World History between 1970 and 1945 will equip you with unique perspectives on the contemporary world and the skills needed to make mature judgements about a wide range of current affairs.

A Level History is a traditional step along career pathway towards journalism, broadcasting, law, politics, advertising, teaching, publishing, and marketing.

Course Content

Papers 1 & 2 - International History, 1870-1945

- Empire and the emergence of world powers, 1870–1919
- The League of Nations and international relations in the 1920s
- The League of Nations and international relations in the 1930s
- China and Japan, 1912–45

Paper 3 – The Origins of the First World War, 1890-1914

This is paper focusses upon conflicting historical interpretations of a major historical event.

Paper 4 - European history in the interwar years, 1919–41

- Mussolini's Italy, 1919–41
- Stalin's Russia, 1924–41
- Hitler's Germany, 1929–41
- Britain, 1919–39

Assessment Overview

Component	Questions	Mark	Duration	Weighting
Paper 1	2-part document question	40	1 hr 15 min	20%
Paper 2	2 essay questions	60	1 hr 45 mins	30%
Paper 3	1 essay question	40	1 hr 15 mins	20%
Paper 4	2 essay questions	60	1 hr 45 mins	30%

Specific Entry Requirements

GCSE Grade 7 or above in History, or GCSE Grade 7 or above in English, for boys who have not taken GCSE History.

Latin

Teacher Mr W J Ash

Examination Board OCR (H433) Specification

Why choose A Level Latin?

OCR's A Level in Latin has been designed to help boys develop their understanding of the Latin language and the related ancient literature, values and society. The linear nature of the qualification allows separate components to assess language and literature. Boys have a greater choice in the texts they can study. The specification lists interesting and engaging set texts. An A Level in Latin engages boys, develops a desire within them to continue learning Latin and helps develop a lifelong enthusiasm for the Classical world.

Aims and learning outcomes

An A Level in Latin will enable boys to:

- develop an appropriate level of competence in the language studied
- acquire the language skills which enable boys to read literary texts, both prose and verse, in the original language
- develop an interest in, and enthusiasm for, the literary, historical and cultural features of the ancient world
- acquire the literary skills which enable boys to read ancient literature, both prose and verse, in its original language with appropriate attention to literary techniques, styles and genres
- apply analytical and evaluative skills at an appropriate level which show direct engagement with original texts in the ancient language
- make an informed personal response to the material studied
- begin to develop a sensitive and analytical approach to language generally
- develop research and analytical skills that will empower them to become independent boys

What are the key features of this specification?

- a choice of set texts to study, giving the opportunity to create an appropriate and engaging course for boys
- the opportunity to be inspired, motivated and challenged by reading widely across a range of set texts
- the opportunity to gain a deeper understanding of the life and culture of the ancient world through the literature studied
- the encouragement to develop and apply critical analytical skills, which will help boys in their future study
- the opportunity to develop linguistic skills which will help both in the study and application of English and other languages
- the separation of the assessment of unseen language and set texts in different question papers
- the chance to develop the language and literature skills needed to progress to studying Classics at undergraduate level.

Content of A Level in Latin (H443)

The OCR A Level in Latin will build on the knowledge, understanding and skills specified for GCSE (9–1). Boys will be introduced to a greater range of vocabulary through wider reading of original material, more complex examples of syntax and accidence and the in-depth study of prose and verse literature. There is no defined vocabulary list for the A Level in Latin. Rather, the qualification will require boys to know and build upon words and regular compounds of the words, which are listed in the Defined Vocabulary List for AS Level Latin.

Boys are expected to study a range of authors' work so as to develop a wider vocabulary and more complex understanding of syntax and accidence. This will enable them to translate unseen passages, and either answer comprehension and grammar questions on an unseen prose passage.

The A Level in Latin will also extend the study of ancient literature in terms of breadth and depth, further developing boys' ability to critically analyse and evaluate ancient literature. The Prose and Verse Literature components will give boys the option to study one author in greater depth or the works of two different authors.

The qualification also requires boys to read additional literature in translation in order to understand the context from which the set texts have been taken. Over the course of the A Level, boys will have studied the works of at least four different authors in preparation for the Language and Literature examinations

Specification Overview of OCR's A Level in Latin (H443)

Boys must take all components: 01, 02, 03 and 04 to be awarded the OCR A Level in Latin.

Component	Content	Assessment	Value
01	Boys study texts written by a range of prose authors and the verse unseen author to develop linguistic competence	1 hour 45-minute written paper 100 marks	33%
02	Prose Composition or Comprehension	1 hour 15-minute paper Written paper 50 marks	17%
03	Boys study two Latin Prose Literature set texts in depth. Boys also study additional literature in translation in order to understand the context from which the set texts have been taken	2 hour written paper 75 marks	25%
04	Boys study two Latin Verse Literature set texts in depth. Boys also study additional literature in translation in order to understand the context from which the set texts have been taken	Verse Literature 2 hour written paper 75 marks	25%

Please note: An AS Latin course is also available. It can be studied in 4 lessons per week for one year or at 2 lessons per week over two years.

How do I find out more information?

Join the OCR Classics community: http://social.ocr.org.uk/ groups/classics

Specific Entry Requirements

GCSE Grade 7 or above in Latin.

Mathematics and Further Mathematics

Teachers Mr P Moloney, Mr R Teague, Mr J Mathasing, Mr A Tran.

A Level Mathematics and Further Mathematics are significantly more challenging than GCSE Mathematics, but most boys find them correspondingly more interesting and rewarding. Both are regarded as "facilitating subjects" by universities and the logical and analytical thinking skills developed in Mathematics are also highly valued by employers. If you are considering a degree in a STEM subject, Mathematics is essential and Further Mathematics is likely to benefit your application.

Aside from the practical value of Mathematics, it is a deeply fascinating subject which many of us find beautiful. In the words of Martin Gardner, an American mathematician: *"All mathematicians share a sense of amazement over the infinite depth and the mysterious beauty and usefulness of mathematics."* Famous physicist, Richard Feynman expressed a similar sentiment: "*To those who do not know mathematics it is difficult to get across a real feeling as to the beauty, the deepest beauty, of nature ... If you want to learn about nature, to appreciate nature, it is necessary to understand the language that she speaks in*." Such enjoyment of Mathematics may sound like an unlikely prospect but the further you go in the subject, the more beauty you will see. Study at A Level will take you to the threshold of some spectacular vistas.

A Level Mathematics Course Content and Assessment Overview

Examination Board Edexcel – Mathematics (9MA0) Specification

We follow the Edexcel course which will be assessed over three papers which are all out of 100 marks and last 2 hours. Each paper is worth 1/3 of the final grade.

Paper 1 and 2: Pure Mathematics 1 and 2

Proof, algebra, graphs, sequences, trigonometry, logarithms, calculus, vectors, functions, numerical methods and differential equations.

Paper 3: Statistics and Mechanics

Statistics (Section A)
Probability, the binomial distribution, the normal distribution and hypothesis testing.

Mechanics (Section B)
Kinematics, forces, Newton's laws, motion under gravity, friction and moments.

Specific Entry Requirements

GCSE grade 7 or above in Mathematics

Further Mathematics

Examination Board Edexcel (9FM0) Specification

Course Content and Assessment Overview

There are four papers which last 1 hour and 30 minutes each. All papers contain 75 marks and have equal weighting to the overall grade.

Paper 1 and 2: Core Pure Mathematics 1 and 2
Proof, Complex numbers, Matrices, Further algebra and functions, Further calculus, Further vectors, Polar coordinates, Hyperbolic functions, Differential equations

Paper 3: Further Statistics 1
Discrete probability distributions, Poisson and binomial distributions, geometric and negative binomial distributions, hypothesis testing, Central Limit Theorem, chi squared tests, probability generating functions

Paper 4: Decision Mathematics 1
Algorithms, graph theory, critical path analysis, linear programming.

Specific Entry Requirements

GCSE grade 8 or above in Mathematics

Frequently Asked Questions

Does further maths cover different topics (from normal maths), or does it just consist of the same topics studied at a higher level?
A bit of both: many additional topics are introduced but a good part of the course develops topics already encountered in single maths. As a result, further maths is rather more challenging. The most common approach is to study both subjects alongside each other and this is the approach that we will take at The Cedars.

Is it too narrow to study both maths and further maths?
It depends on what you want to study at university and how certain you are about your choice. It is certainly worth considering a fourth subject though, and a good mathematician will find the workload involved in "double maths" less than double that of single maths.

Is it possible to study further maths without single maths?
No, because a lot of further maths builds on single maths.

Will I need a calculator?
Yes, all exams at A-Level allow the use of a calculator. It is very likely you will need a new one as the one most commonly used at GCSE does not have the required functionality for A-Level. The CASIO fx-991EX is a good buy at around £20. If you decide to buy a more high-powered machine, make sure it can be taken into the exam!

Music

Teachers Mrs C Usher, Mr M Gibson

Examination Board Eduqas (A660QS) Specification

A-level music is a rigorous academic subject which sets students up well for university study, and universities are aware of this. Also, ABRSM qualifications count towards the UCAS points required for university. A number of studies have shown that music benefits learning by activating all areas of the brain: auditory (sound processing); motor (rhythm processing) and limbic (emotions).

The word "music" covers a huge range of different styles and genres, and each one of us has our own preferences and interests. The Eduqas AS and A level specifications recognise this through the varied areas of study and the choice of routes through the course.

A-level music involves written, analytical, practical and social/personal skills such as:

- Independent learning: having to be disciplined about practise
- Teamwork: particularly if involved in weekly groups or ensembles, concerts and performances
- Performance and presentation skills: which are useful for any job/career
- Listening: these are highly developed in musicians and it is an important part of the course
- Analytical and essay-writing skills
- Confidence and self-esteem: which has a knock-on effect in all areas of life and learning
- Creativity and self-expression: helping young people to think differently and harness the power of their imagination.

Making music can help a young person maintain good mental health during a time of high pressure and anxiety. Research has shown that music can improve mood and prompt creative flow, which helps with anxiety and self-doubt. It can also help young people to regulate their emotions.

Where could A-level music lead?

It could lead to a Music degree: here's what Oxford University says about theirs:

"*The varied nature of the course enables students to develop highly desirable skills in areas such as self-management, creativity, data analysis, performance, teamwork, problem-solving, and communication, all of which makes them an attractive prospect for potential employers... other popular destinations for Music graduates... include broadcasting, publishing, law, politics and the Civil Service. Rather than limiting your career prospects, a music degree opens doors to a wide range of careers.*"

If you don't want to be a musician or study music at University, A-level music is still a great choice. It can open doors to a range of education and employment pathways in:

- *Music* - being a musician isn't the only career in music – other options include being a sound technician, community musician, music therapist, teacher, or private tutor, or a range of careers in the music industry, in a concert hall or music venue.

- *The arts/creative industries* - this might include work in film, TV, theatre, radio, arts administration, or creative education.
- Professions such as medicine, law, accountancy

Music is highly regarded as an academic subject and so could complement your other studies in leading to a professional career.

Course content

Areas of study include the Development of the Symphony; a choice of Rock and Pop Music, Jazz, or Musical Theatre; and at A level, either Into the Twentieth Century or Into the Twenty-First Century.

Performing is assessed by a visiting examiner allowing students to demonstrate their communication of the music to the listener and giving a real sense of occasion.

Composition is assessed through two pieces: one written in a Western Classical Style in response to a chosen brief, and one free piece which can be in any style, allowing candidates to demonstrate and develop their personal specialisms.

Students at A level can choose whether they wish to be assessed on a longer performance or submit a third composition, allowing them to develop their preferred specialism.

Music will enable you to demonstrate many skills which employers, colleges and universities will be looking for. It can also give you opportunities to travel, meet people and get the most out of life.

Assessment Overview

Component	Duration	Weight
Component 1: Performing *Non-exam assessment: externally assessed by a visiting examiner*	*Either* Option A 10-12 minutes *Or* Option B 6-8 minutes	*Either* 35% *Or* 25% of the total
Component 2: Composing *Non-exam assessment: externally assessed by WJEC*	Either Option A 4-6 minutes *Or* Option B 8-10 minutes	*Either* 25% *Or* 35% of the total
Component 3: Appraising *Written examination*	2 hours 15 minutes	40%

Specific Entry Requirements

GCSE Music Grade 7 or above. Grade 5 Theory or higher. Grade 6 or higher on a musical instrument.

Physical Education

Teacher Mr C. Ashton, Mr S. Tiffin

Examination Board AQA (7582) Specification

The Cedars Sports Department promotes a lifelong interest in physical activity and well-being through offering a broad curriculum both in lessons and through the wider curriculum.

A Level Physical Education provides boys with an opportunity to deepen their scientific understanding of physical education, improve their personal and team performance, and develop coaching skills.

Physical Education contributes to the social, physical, mental and moral formation of young people, and develops skills that are essential for many career pathways, such as organisational skills, endurance, and teamwork.

To be successful at A Level Physical Education, boys should have

- a passion for Sport
- a determination to succeed
- an ongoing commitment in team sport

and enjoy being challenged.

Course Content

1. Applied anatomy and physiology

2. Skill acquisition

3. Sport and society

4. Exercise physiology

5. Biomechanical movement

6. Sport psychology

7. Sport and society and the role of technology in physical activity and sport

Paper 1: Factors affecting participation in physical activity and sport

Section A: Applied anatomy and physiology

Section B: Skill acquisition

Section C: Sport and society

Paper 2: Factors affecting optimal performance in physical activity and sport

Section A: Exercise physiology and biomechanics

Section B: Sport psychology

Section C: Sport and society and technology in sport

Non-exam assessment: Practical performance in physical activity and sport

Students assessed as a performer or coach in the full sided version of one activity.

Plus:

written/verbal analysis of performance.

Assessment Overview

Component	Questions	Mark	Duration	Weighting
Paper 1: Factors affecting participation in physical activity and sport	*Each Section A - C is assessed via multiple choice, short answer, and extended writing questions. Each is worth 35 marks.*	105	2 hours	35%
Paper 2: Factors affecting optimal performance in physical activity and sport		105	2 hours	35%
Practical Performance in physical activity and sport	*Internal Assessment, external moderation*	90		30%

Specific Entry Requirements

GCSE Grade 7 or above in Sports Science.

Physics

Teacher Mr A. Magee

Examination Board AQA (7408) Specification

In A Level Physics, we explore the laws that explain why everything in the universe exists: where energy comes from, how it behaves and how it can be transformed. We also examine the forces of nature – like gravity – and how they work. A Level Physics will give you an understanding of how sustained flight works and why satellites don't (usually) fall from the sky.

Studying A Level Physics will develop your reasoning, problem-solving and analytical skills, and will provide you with excellent preparation for university. It will train you to investigate theories, devise tests and explore new ideas. Such strong problem-solving skills are highly sought after. Indeed, qualifications in physics and maths are two of the most desirable qualifications employers look for.

Course Content

Besides the common core content, boys must pick ***one*** out of the five optional topics depending on their interests or likely areas of future study.

Core content
1 Measurements and their errors
2 Particles and radiation
3 Waves
4 Mechanics and materials
5 Electricity
6 Further mechanics and thermal physics
7 Fields and their consequences
8 Nuclear physics

Optional content (one to be chosen)
9 Astrophysics
10 Medical physics
11 Engineering physics
12 Turning points in physics
13 Electronics

Assessment Overview

Paper 1	**Paper 2**	**Paper 3**
*What is assessed***?**	*What is assessed?*	*What is assessed?*
Topics 1–5 and 6.1 (Periodic motion)	Topics 6.2 (Thermal Physics), 7 and 8 *Assumed knowledge from sections 1 to 6.1*	***Section A:*** Compulsory section: Practical skills and data analysis ***Section B:*** Boys enter for **one** of Topics 9, 10, 11, 12 or 13
How is it assessed? Written exam: 2 hours 85 marks 34% of A- level	*How is it assessed?* Written exam: 2 hours 85 marks 34% of A- level	*How is it assessed?* Written exam: 2 hours 80 marks 32% of A- level

Required practicals

As ever, the practical aspects of physics are extremely important, and these will also feature heavily in the course. The third paper of the A Level course focuses on the practicals the student will be doing.

The required practicals are as follows:

1. Investigation into the variation of the frequency of stationary waves on a string with length, tension and mass per unit length of the string.
2. Investigation of interference effects to include the Young's slit experiment and interference by a diffraction grating.
3. Determination of g by a free-fall method.
4. Determination of the Young modulus by a simple method.
5. Determination of resistivity of a wire using a micrometer, ammeter and voltmeter.
6. Investigation of the emf and internal resistance of electric cells and batteries by measuring the variation of the terminal pd of the cell with current in it.
7. Investigation into simple harmonic motion using a mass-spring system and a simple pendulum.
8. Investigation of Boyle's (constant temperature) law and Charles's (constant pressure) law for a gas.
9. Investigation of the charge and discharge of capacitors. Analysis techniques should include log-linear plotting leading to a determination of the time constant RC.
10. Investigate how the force on a wire varies with flux density, current and length of wire using a top pan balance.
11. Investigate, using a search coil and oscilloscope, the effect on magnetic flux linkage of varying the angle between a search coil and magnetic field direction.
12. Investigation of the inverse-square law for gamma radiation.

Overall, at least 15% of the marks for all A Level Physics courses will require the assessment of practical skills.

Specific Entry Requirements

GCSE Grade 7 or above in Physics & Mathematics.

Spanish

Teacher Mrs Bowers

Examination Board AQA (7692) Specification

The AQA A-Level Spanish course builds on the skills and knowledge that students acquired at GCSE. It is a richly blended study of language, culture and society. Apart from enabling students to develop linguistically in the target language and gain a deep understanding of the Spanish-speaking world, the course also promotes the fostering of transferable skills such as effective oral and written communication, critical thinking and research capability.

Course Content

The course aims to develop students' ability to communicate effectively in Spanish and secure a high level of proficiency in the target language. The course also focuses on how the Spanish-speaking world has been shaped socially and culturally, and how it continues to evolve. These learning objectives will be achieved as students repeatedly engage with authentic spoken and written sources in Spanish.

The topics that will be covered include:

Modern and traditional values	Artistic culture
Cyberspace	Regional Identity
Equal rights	Politics
Immigration	

Students' appreciation of Spanish-speaking society will be enhanced by the study of either two novels or a novel and a film from the Spanish-speaking world.
Grammar will naturally constitute an integral part of the course and students will have ample opportunity to explore and develop a wide range of linguistic structures.

Assessment

Paper 1: Listening, reading and writing – 2 hours and 30 minutes
Aspects of Hispanic society; artistic culture in the Hispanic world; multiculturalism in Hispanic society; aspects of political life in Hispanic society. Grammar.

Paper 2: Writing – 2 hours
This paper will assess one text and one film or two texts from the list set in the specification as well as grammar.

Paper 3: Speaking - 23 minutes
This assessment will be based on an individual research project and one of four themes (aspects of Hispanic society; artistic culture in the Hispanic world; multiculturalism in Hispanic society; aspects of political life in Hispanic society).

Specific Entry Requirements

GCSE Spanish at Grade 7 or above.