



BRITISH VIETNAMESE INTERNATIONAL SCHOOL  
HO CHI MINH CITY  
A NORD ANGLIA EDUCATION SCHOOL

*Choosing the right*  
**A Levels**  
*for your future*





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# Introduction to A Levels

We hope that this A level booklet will help you to make good choices to support you when you leave school. At BVIS we have a balanced curriculum that will help you develop the skills that you need whatever you want to do after school. To do this we have a broad range of subjects that includes 3 or 4 A levels, Academic English, Vietnamese literature, history and geography, PE and a Personal Social and Health Education (PHSE) programme that prepares you for life after school and includes units on careers and university applications to help you get ready for a successful transition. The table below explains how lesson time in years 12 and 13 is used.

Course	Time	Benefit
3 or 4 A level courses	6 lessons a week per A level	These are an excellent preparation for university and accepted and respected by the best universities in the world. Students who do well in their A levels will get offers from good universities around the world.
Academic English*	3 lessons per week	All students need excellent English to do well in their A levels whatever subjects they are studying. This course will support them in developing towards fluent first language speakers to support their studies. The course also prepares students to secure an IELTS certificate at a level of 6.5 or higher, allowing them to meet the English language proficiency requirements of the vast majority of university courses worldwide.





Vietnamese Literature, History and Geography	2 lessons per week	As part of our Mission to develop Global Citizens with a Vietnamese perspective we retain the teaching of Vietnamese literature, history and geography to ensure our students come out of school in touch with their culture and language.
Physical Education	1 lesson per week	PE in year 12 and 13 focus on improving overall fitness for health while participating in a wide range of activities and sports. Students are encouraged to develop an understanding of the importance of fitness testing and apply knowledge of components of fitness to help them identify preferred activities. The long-term aim is to build a commitment to and passion for life-long participation in sport and exercise.
PSHE	2 lessons per week	The PSHE curriculum is designed to give the KS5 students the opportunity to maximise their university placement chances as well as to pick up more vital skills for living away from home either in Vietnam or internationally. PSHE is an essential part of the student's overall development and covers a wide range of academic, social and personal development areas. Within the programme a variety of study skills are covered along with careers and university application guidance necessary to maximise the students their

\* Y12 only and only students on 3 or less A levels

## What are A Levels?

A levels are England's national high school qualification, although they are also used in 125 other countries because they have a proven reputation for being excellent preparation for universities around the world, employment and life. They are studied by students aged 17 - 18 during their final two years at school.

Students usually take three subjects. For a few universities and courses, it is helpful to take four subjects and our head of sixth form and our university and careers guidance councillor can help you to decide what is the right path for you.

## What are the benefits of A Levels?

1. Universities around the world, including all UK universities and the vast majority US universities, accept A Levels for entry. Many universities including Oxford, Cambridge, Harvard, Yale, MIT and Stanford often see the best A Levels applicants as prime targets. To find out more about university recognition of A levels visit [www.cie.org.uk/recognition](http://www.cie.org.uk/recognition)
2. A levels provide a deep understanding of chosen subjects, enabling students to prepare for specific university courses and career pathways.
3. Academic expectations are high and close to those experienced in top universities.
4. A levels emphasise and develop critical thinking, advanced comprehension and research skills.
5. A levels promote advanced reading and writing skills, particularly the ability to structure and defend an argument
6. A levels develop the ability to present and participate in a debate and to positively engage with critical feedback
7. A levels develop students as independent learners.

## Cambridge Assessment International Examinations and Pearson Edexcel

BVIS is a registered examination centre for the Cambridge Assessment and Pearson Edexcel A Levels. Cambridge Assessment is the world's largest provider of education programmes and qualifications with over 9,000 schools in 160 countries.

## Choosing your options

Most students will take three or four AS level subjects in year 12. For those taking three A levels a course in Academic English is also provided to help prepare for any English language tests necessary for university applications.

The subjects you choose should be based on the grades you get at IGCSE as well as your intended career pathway, and your form tutor, subject teachers and Mr Lowry will help you with these.

**You should not be choosing subjects based on a teacher you like or the subjects that your friends have chosen.**

Your final decision should be made after you have discussed it with your form tutor and parents.



## Courses Offered

BVIS offers one of the largest ranges of A levels courses in HCMC and each year as our school grows, we offer more courses. The list of course on the following pages are the courses that we will be offering this year.

**It is important to note that we will only run each course if there are enough students opting to take the course.**

Therefore, whilst most will be running they are not all guaranteed.



## *Progression from IGCSE to A Levels*

Students and parents often ask if you need to study a particular subject at IGCSE to study it at A Level. The answer depends on the subject.

The first group of subjects require an IGCSE in the same subject before starting A Level. This is because A Level study builds upon the knowledge, skills and understanding gained through IGCSE study. Our experience suggests that students who do well in these subjects normally have a B grade (or above) pass at IGCSE:

- Art
- Maths
- Music
- English Literature

Similarly, the following subjects require a good IGCSE pass in either coordinated or triple science before starting A Level:

- Biology
- Physics
- Chemistry

The following subject requires a grade A or A\* pass in both Maths and Additional Maths IGCSE:

- Further Maths

The next group of subjects are offered at IGCSE and this is a good preparation for A level study. However, the syllabuses are designed to allow students to start A level study without having done the subject at IGCSE and some students do this successfully each year:

- Business Studies
- Drama
- Economics
- History
- Geography
- Physical Education

Finally, BVIS also offers a few new subjects at A level which are not taught at IGCSE and you do not need prior knowledge to study these courses. They often make good choices if you are interested in that subject:

- Media Studies
- Psychology





# *A Levels Choice and University Entrance*

Your choice of A Levels subjects will affect what you can study in University and where you can apply. Universities often require specific A Levels subjects for particular courses. Some individual universities and universities in some countries also have general subject entry requirements you must meet. To make sure you choose the right subjects for what you want to do in the future, use this quick guide:

## **If you know the subject you want to study at university and the country you want to study in:**

- Check the general and subject specific entry requirements for several universities in that country online and make sure you know the subjects you need to take. If you don't know how to do this, find Mr Curran in the careers room (249) and ask for help.

## **If you don't know the subject but do know the country you want to study in:**

- Check the general entry requirements for several universities in that country online and make sure you know the subjects you need to take. If you don't know how to do this, find Mr Curran in the careers room (249) and ask for help.
- Keep your options open by choosing at least one maths/science subject and one English/humanities subject at A Level.
- Where possible, choose at least two facilitating subjects. The facilitating subjects BVIS offer are: Maths, English Literature, History, Geography, Physics, Chemistry and biology. Economics can also be a good alternative to these.

## **If you know the subject but not the country you want to study in:**

- Check the subject entry requirements for several universities in different countries online and make sure you know the subjects you need to take. If you don't know how to do this, find Mr Curran in the careers room (249) and ask for help.

## **If you don't know what you want to study or the country you want to study in:**

- Keep your options open by choosing at least one Maths/science subject and one English/humanities subject at A Levels.
- Where possible, choose at least two facilitating subjects. The facilitating subjects BVIS offer are: Maths, English Literature, History, Geography, Physics, Chemistry and biology. Economics can also be a good alternative to these.

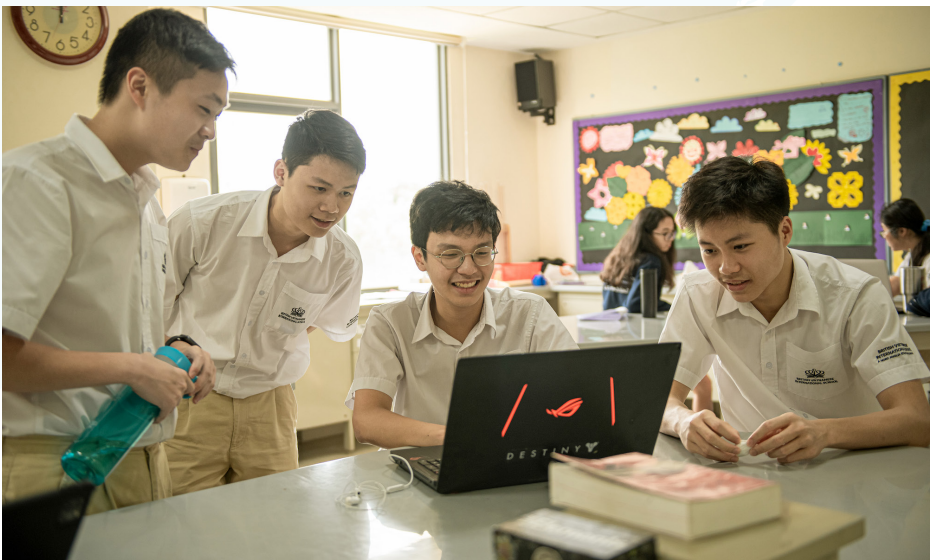




### A few things to watch:

- To apply to university, you should have 5 IGCSE passes at grade C or above, including Maths and English (1st or 2nd language) as well as your AS and A Levels.
- The number of A levels you will need to take depends on your academic ability and the country you intend to study in. Please speak to Mr Curran, Mr Reid or Mr Lowry for individual advice.
- In future, most Australian Universities will require at least AS and possibly A Levels maths. If you are thinking of applying to Australia, you should take maths.
- Most business studies courses in the UK/Europe/Canada/Australia require A Levels maths.
- RMIT in Ho Chi Minh City require a C grade in AS Levels maths and a C grade in 1st Language/ B grade 2nd Language English IGCSE. So you need to take AS Levels maths.
- If you want to study science at university you may need to do maths and additional maths. Please talk to Mr Curran about this.

**If you or your parents are unsure about subject choices and how they will affect your university applications, you must talk to Mr Curran as soon as possible. He is there to help.**







# Art and Design



A Levels Art and Design offers students the opportunity to develop their technical skills and ideas through a range of different media and materials. Students complete four components for this qualification, two in the first year and two in the second. In all components, students investigate a theme or topic through critical engagement with a theme:

\* Component 1: AS Levels coursework

(A Levels weighting: 25%, AS weighting: 50%)

Portfolio of up to five sheets supporting work (A2 size)

One final outcome (no time constraints)

\* Component 2: AS Levels externally set assignment

(A Levels weighting: 25%, AS weighting: 50%)

Portfolio of up to three sheets of supporting work (A2 size)

One final outcome produced in a 15 hour Controlled Test

\* Component 3: A Levels Personal Investigation

(A Levels weighting: 50%)

One final outcome

Portfolio of supporting work (A2 size)

Written analysis (1000-1500-word essay)

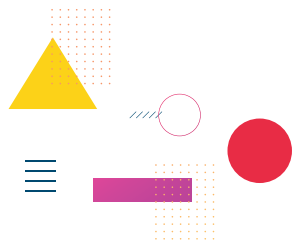
Core skills are introduced at the beginning of the course to develop a visual language through exploration of the formal elements, composition and experimentation with a variety of 2D and 3D processes.

Students are expected to produce preparatory work for all components, culminating in a final piece using their chosen media. Possible materials, processes and techniques include drawing, painting (acrylic, gouache, watercolour), printmaking (mono, Lino, dry point, block), collage, sculpture (assemblage, construction, casting, moulding) and mixed-media.

Students contextualise their ideas through researching the work of other artists, studying their techniques and responding to these. Critical and analytical vocabulary is introduced and encouraged through annotations, reflections and evaluations.

Sketchbooks are provided and should evidence idea development from initial concept right through to realisation. Students must show engagement with their surroundings through first hand recording and drawing from observation.

Students may progress on to a variety of university courses in a range of disciplines, such as Fine Art, Fashion and Textiles, Architecture, Photography, Graphic Design, Illustration, Product Design, Interior Design, 3D Design, Animation, Media Studies, Advertising, Film, Accessory Design, Jewellery, and Art History.



# Drama

The study of Cambridge International A Levels Drama provides opportunity for students to develop acute understanding of themselves and their society. It offers a platform for public and persuasive speaking and explores how language and design can influence others. The course will develop confident and independent learners, with keen social empathy and responsibility.





## What are the syllabus aims?

- develop interest in, and lasting enjoyment of, drama and theatre as a unique means of human communication and expression
- appreciate the aesthetic power of drama and theatre, and expand their ability to stage imaginative interpretations of existing repertoire and devise creative practical work of their own
- develop their practical skills in drama, and understand the contribution of actors, designers and directors in a production situation
- develop the critical and theoretical apparatus necessary for in-depth analysis of drama
- expand their knowledge and understanding of practitioners, performance texts, styles and genres, and increase their appreciation of the social, cultural and historical dimensions of drama and theatre
- form a suitable preparation for higher education, whether at university, drama school or elsewhere.

## What will you study in Drama and Theatre?

- Practitioners and their contribution to the modern Theatre
- Devising original performance work.
- Theatre Design (lighting, sound, costume and set)
- Interpreting language and using it with purpose.

## Assessment

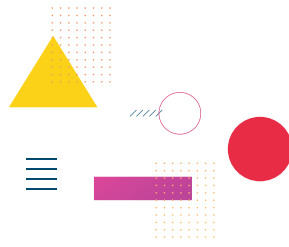
**The A Levels Drama and Theatre course consists of 4 components.**

- |  |                                   |
|--|-----------------------------------|
| • Component 1 – Written exam                   | 25% of the A Levels qualification |
| • Component 2 – Practical Drama                | 25% of the A Levels qualification |
| • Component 3 – Theatre Making and Performance | 25% of the A Levels qualification |
| • Component 4 – Theatre in Context             | 25% of the A Levels qualification |

## What kind of student is this course suitable for?

All students would benefit from this training and any students can apply. To access the higher grades you need to be confident, thoughtful and committed to the training. This course can also be beneficial to students that want to build confidence, develop teamworking skills, experience leadership and participate in public performance before the next stage in their education.

# Music



## Why study Music?

Music as an academic subject provides a unique set of skills which are acknowledged to be excellent preparation for a range of careers and vocations. Music enhances creativity, communication and self-expression and as a result learners have a deeper appreciation for Music in a global context. Music combines Arts, Maths, Science, Humanities, Languages and Sociology which creates a well-rounded education admired by Universities and employers.





## Course Description

Cambridge International A Levels Music combines listening, performing, composing, practical musicianship and investigation. Throughout this course you will:

- Develop your instrumental knowledge through performing.
- Develop your own creative and interpretative skills through composing in Western and/or non-Western traditions.
- Develop a better understanding of the musical processes, cultures and history.
- Learn how to communicate this understanding, supporting judgements by evidence-based argument.
- Develop a deeper understanding of Music in its wider cultural context.

## Assessment structure

Cambridge International A Level Music candidates take 4 components across 2 years:

### **AS Music (Year 1):**

*Listening 30% (Exam)* – Western Music History and Theory

*Practical Musicianship 20% (Coursework)* – Performance & Composition

### **A Level (Year 2):** You choose TWO components:

*Performing 25% (Coursework)* – Perform and record on your chosen instrument  
OR

*Composing 25% (Coursework)* – One composition in the style of your choice  
OR

*Investigation and Report 25% (Coursework)* – A research essay on any aspect of Music which you choose.

## What kind of student is this course suitable for?

All students are welcome to apply to for A Levels Music as long as they can play at least one instrument to a good standard and have a passion and interest in the subject.

Cambridge International A Levels Music can prepare students for a career in almost anything, with many going on to areas such as Music, Finance, Management and Law. The transferable skills you will learn, such as self-confidence, teamwork and creative thinking will open up many opportunities for any career path or University course you may choose.





# English Literature

## Why study English literature?

*Since the emergence of human consciousness we have given ourselves imaginative accounts of what it is to be human. To study literature is to engage in a dialogue with your own humanity. Literature is an essential study for all whose future careers involve dealing with people.*

The study of English literature is your passport to the professional, creative and business worlds. English is a world language which is essential for anyone who wants to become a teacher, doctor, architect, lawyer or a business executive, or indeed, gain entry to universities worldwide. The English literature AS and A Levels course will enrich your knowledge of the English language and help you to confidently develop analytical, critical and innovative thinking skills. The course requires its participants to be reflective learners, developing an independent ability to engage socially and intellectually to a wide range of theories, ideas and texts from the English literary heritage. The course is particularly suitable for strong students in English who enjoy reading and discussing their thoughts and ideas; young philosophers who have inquisitive, creative minds and attitudes to the world around them.

If you take the course, which is most suitable for those who have studied English Literature at IGCSE, you will begin by studying the Advanced Subsidiary (AS) Level in Year 12. Once the AS Levels in English Literature is achieved, you can continue to take the Advanced Level qualification in Year 13.

## What will you learn as part of your course?

Successful Literature in English students develop an understanding and enjoyment of a wide-ranging literary texts and in addition gain skills for life, including:

- the ability to write clearly and effectively;
- skills in developing arguments;
- skills in researching and managing information;
- the ability to respond to a passage-based question and an essay-based question;
- the ability to analyse complex texts in different forms and styles.

The examinations in Year 12 and 13, test your ability to maturely discuss concepts and theories with clarity and fluency. You will use your imagination to explore various texts and new concepts in detail. Finally, you learn to structure your thoughts into critical appreciations of works from some of English literature's finest writers.

The emphasis of the course is on developing personal responses to texts, backed up by a firm understanding of those texts and an awareness of the use of language, structure, characterisation and other literary devices. A wide range of texts is studied, including poetry, prose, short stories and drama. You do not need to be native speakers of English to succeed in the literature course, but an eagerness to build and develop the foundations you have learnt in English language and a passion for reading English texts are important.

The two examinations in Year 12 (Paper 3 and Paper 4) combine to make up 100% of your total mark for AS Levels Literature in English. They are both “closed book” examinations, which means that you cannot take your texts into the examination room with you.

In Year 12 you will study two play texts, a collection of poems and a modern novel from a different culture; in total you will answer 4 questions.

In Year 13, the Year 12 examinations contribute to 50% of the final grade. You will study a further Shakespeare play, a collection of poems, a novel and a collection of modern short stories; these four texts will contribute to 50% of your A Levels grade.

The course will develop your ability to:

- Respond to texts in the three main forms (prose, poetry and drama) of different types and from different cultures.
- Understand the ways in which writers' choices of form, structure and language shape meanings.
- Produce informed, independent opinions and judgements on literary texts.
- Communicate clearly the knowledge, understanding and insight appropriate for literary study.
- Appreciate and discuss varying opinions of literary works.

Studying AS and A Levels Literature in English can enhance your ability to use English with accuracy and sensitivity. The course is challenging but immensely satisfying and enjoyable.


# Media Studies

## Why Study Media?

Media has a considerable impact on the day to day lives of the majority of people on the planet. As we move further into the 21<sup>st</sup> Century this impact will only continue to develop. Through studying A Levels Media Studies, students will develop an understanding of the role media institutions play in the production and dissemination of information and will also have an opportunity to start exploring the production of media. The course has a strong emphasis on the practical side of media production with students being given the opportunity to develop skills in a variety of areas and engage with media issues and arguments. They gain lifelong skills and a solid foundation for further study.







Throughout the course students will gain lifelong skills including:

- the ability to apply practical skills creatively
- research and evaluation skills
- information management and project management skills
- the ability to analyse text and media products critically
- the ability to reflect critically upon their own learning.

These skills are easily transferrable and will support students in their future endeavours, on whichever path they choose to take.

## Media Studies Course

Students will complete two Components in Year 12 and two components in Year 13.

### Year 12:

**Component 1: Foundation Portfolio** – Students will develop their media production skills by completing either a film based task or a magazine based task. (Coursework)

**Component 2: Key Concepts** – Students will learn about media institutions and practices. They will also develop an understanding of how media products are used to shape meaning. (Examination)

### Year 13:

**Component 3: Advanced Portfolio** – Students will produce a campaign of media products, digital evidence of the process of their work and a creative critical reflection. (Coursework)

**Component 4: Critical Perspectives** – Students will continue to develop their understanding of the media industries and contemporary issues. (Examination)

**Assessment** – Each component carries equal weighting. Components 1 & 3 are coursework based and Components 2 & 4 are examination based.



# Business



The study of Cambridge International AS and A Levels Business allows learners to take the first step towards a career in private or public organisations or progress with confidence to a degree in business and management related subjects.





## What are the syllabus aims?

The syllabus aims to enable candidates to:

- understand and appreciate the nature and scope of business, and the role of business in society, internationally and within each candidate's own country
- develop critical understanding of organisations, the markets they serve and the process of adding value
- evaluate business behaviour from the perspective of a range of stakeholders including owner/shareholder, manager, employee, customer, supplier, lender and government
- develop an awareness of the political, economic, social, technological, legal, environmental and ethical issues associated with business activity
- develop quantitative, problem-solving, decision-making and communication skills.

## What will you study in business?

- Business and its environment
- People in organisations
- Marketing
- Operations management
- Finance and accounting
- Strategic management.

## Assessment

**The A Levels Business course consists of 3 exams.**

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| • Paper 1 - Short answer and essay | 20% of the A Levels qualification |
| • Paper 2 - Data response          | 30% of the A Levels qualification |
| • Paper 3 - Case study             | 50% of the A Levels qualification |

### What kind of student is this course suitable for?

This course will appeal to those students who:

- Have an interest in how a business operates
- Enjoy studying a subject that is relevant to their own lives and experiences
- Would like to do a subject that offers opportunities for a career in business
- Would like to learn how to make business decisions and solve business problems
- Want to keep their options open – business can be a useful choice for a wide range of careers and can be combined with a wide range of subjects.



# Economics

The study of Cambridge International AS and A Levels Economics allows learners to explore concepts and theories which can be applied to the way that modern economies work.

The students will develop the ability to explain, evaluate and analyse economic issues and arguments. They gain lifelong skills and a solid foundation for further study.





## What are the syllabus aims of the course?

The syllabus aims to enable candidates to develop:

- an understanding of the factual knowledge of economics
- a facility for self-expression, not only in writing but also in using additional aids, such as statistics and diagrams, where appropriate
- the habit of using works of reference as sources of data specific to economics
- the habit of reading critically to gain information about the changing economy we live in
- an appreciation of the methods of study used by the economist, and of the most effective way economic data may be analysed, correlated, discussed and presented.

## What will you study in economics?

- Basic economic ideas and resource allocation
- The price system and the micro economy
- Government microeconomic intervention
- The macro economy
- Government macro intervention

## Assessment

### The A Levels Economics course consists of 4 exams.

Paper 1 - Multiple choice	20% of the A Levels qualification
Paper 2 - Data response and essay	30% of the A Levels qualification
Paper 3 - Multiple choice	15% of the A Levels qualification
Paper 4 - Data response and essays	35% of the A Levels qualification

### What kind of student is this course suitable for?

This course will appeal to those students who:

- Enjoy studying a subject that is relevant to their own lives and experiences
- Have an interest in how an economy operates
- Would like to develop range of skills
- Would like to do a subject that offers opportunities for a career in business, government and financial institutions.



# Geography

*“The study of geography is about understanding the complexity of our world, appreciating the diversity of cultures that exists across continents. And in the end, it’s about using all that knowledge to help bridge divides and bring people together.”*

*- President Barack Obama -*

Leading Economists at the Davos Forum in 2014 warned that global geographical issues were among the biggest issues facing the global economy today, with a clear message that business leaders and economists need to understand geographical issues. Whatever your future career choice, studying geography is extremely beneficial; business leaders and economists of the future will need to have a good grounding in geography.





## Who is Geography suitable for?

The study of geography is suitable for anyone who has an interest in the world around them, the problems that exist (environmental, social, economic) and the solutions to those problems. The diverse topics studied in geography mean that geography students go on to a vast range of careers from business and legal careers to scientific and environmental. This diversity means that geography can combine well with most other subjects. Geography is much sought after by employers and, together with philosophy, has the best rates of employment after university.

## What is studied at A-Level?

AS Level is studied in Year 12 (50% of the total A-Level) and consists of two 1.5 hour exams, sat on different days, covering separate physical & human geography units:

### Paper 1 Physical Core

- Hydrology and fluvial geomorphology
- Atmosphere and weather
- Rocks and weathering

### Paper 2 Human Core

- Population
- Migration
- Settlement dynamics

In Year 13 you will study for the full A-Level qualification and will sit two 1.5 hour exams, sat on different days, covering separate physical and human options:

### Paper 3 Advanced Physical Geography

- Coastal Environments
- Hazardous Environments

### Paper 4 Advanced Human Geography

- Environmental management
- Global interdependence



# History

**History A Levels can help students gain lifelong skills including:**

- assessing different interpretations of an argument
- formulating their own ideas about a subject
- presenting clear and logical arguments
- evaluating historical evidence
- developing an understanding of historical concepts such as cause and effect, similarity and difference and continuity



The AS Levels is made up of two components (a depth study with interpretations and a source based breadth study), whilst the A Levels is made up of 4 components (the two AS Levels components added to a thematic interpretations based question and an international source based study question).

**Units:**

Unit 1: Germany 1918-1945

Unit 2: India, 1857–1948: The Raj to Partition

Unit 3: Civil Rights and Race Relations in the USA, 1865–2009

Unit 4: The World Divided: Superpower Relations, 1943–90

There are 2 examinations at the end of each year of two hours each.

**Unit 1** (50% of IAS, 25% IAL) 2 hours: Depth Study with Interpretations. Candidates answer two questions from a choice of four. Questions are essay based tackling knowledge and understanding of the period in depth and analysis of historical interpretations. (50 marks)

**Unit 2** (50% of IAS, 25% IAL) 2 hours: Breadth Study with Source Evaluation. Candidates answer two questions. One from Section A and one from Section B. Section A questions focus on ability to analyse source material. Section B focuses on understanding of the whole period. (50 marks)

**Unit 3** (50% of IA2, 25% IAL) 2 hours: Thematic Study with Source Evaluation. Candidates answer two questions. One from Section A and one from Section B. Section A questions focus on ability to analyse source material. Section B focuses on understanding of the whole period. (50 marks)

**Unit 4** (50% of IA2, 25% IAL) 2 hours: Thematic Study with Source Evaluation. Candidates answer two questions. One from Section A and one from Section B. Section A questions focus on ability to understand and evaluate different historical interpretations. Section B focuses on understanding of the whole period. (50 marks)

# Mathematics



## Why study Mathematics?

*“No employment can be managed without arithmetic, no mechanical invention without geometry” - Benjamin Franklin.*

Mathematics at Advanced Level is both challenging and enjoyable. Mathematics develops key employability skills such as problem solving, logical reasoning, communication and resilience, whilst providing you with an increased knowledge and understanding of mathematical techniques and their applications. It also supports the study of other A Levels subjects and provides excellent preparation for a wide range of university courses such as social sciences, engineering, sciences and of course mathematics.

Researchers at London School of Economics found that having an A-Level in Mathematics increases your earning potential by 7-10% compared to any other A-Level.

We offer the Edexcel AS and A Levels in Mathematics. If you take the course, which is suitable for those who have gained grade B or above at IGCSE level (or equivalent), you begin by studying the Advanced Subsidiary Level in Year 12. Once the Advanced Subsidiary A Levels in Mathematics is achieved, you can continue to take the Advanced Level qualification in Year 13.

## What will you learn as part of your course?

Edexcel AS and A Levels Mathematics is accepted by universities and employers as proof of mathematical knowledge and understanding. Successful candidates gain lifelong skills, including:

- A deeper understanding of mathematical principles;
- The further development of mathematical skills including the use of applications of mathematics in the context of everyday situations and in other subjects that they may be studying;
- The ability to analyse problems logically, recognising when and how a situation may be represented mathematically;
- The use of mathematics as a means of communication;
- A solid foundation for further study.

The A Level course is split into 6 units, 4 pure units and 2 applied units. In Year 12, you will study three units, Pure 1, Pure 2 and an applied module (Mechanics/Statistics). In Year 13, these units are expanded upon in Pure 3, Pure 4 and an applied module (Decision/Mechanics). You will be able to choose your preferred applied module to study for AS and A2. Each unit is equally weighted.

## Year 12 – AS level Further Mathematics

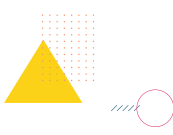
Pure 1 and 2	Applied (Mechanics 1 or Statistics 1)	
	Mechanics 1	Statistics 1
<ol style="list-style-type: none"> <li>1. Proof</li> <li>2. Algebra and Functions</li> <li>3. Coordinate geometry</li> <li>4. Trigonometry</li> <li>5. Sequences and series</li> <li>6. Calculus</li> <li>7. Logarithms and exponentials</li> </ol>	<ol style="list-style-type: none"> <li>1. Mathematical models</li> <li>2. Vector</li> <li>3. Kinematics</li> <li>4. Dynamics</li> <li>5. Statics</li> <li>6. Moments</li> </ol>	<ol style="list-style-type: none"> <li>1. Representation of data</li> <li>2. Probability</li> <li>3. Discrete random variables</li> <li>4. The normal distribution</li> <li>5. Linear combinations of random variables</li> </ol>

## Year 13 – A level Mathematics

Pure 3 and 4	Applied (Mechanics 1 or Decision 1)	
	Mechanics 1	Decision 1
<ol style="list-style-type: none"> <li>1. Proof</li> <li>2. Algebra and Functions</li> <li>3. Coordinate geometry</li> <li>4. Trigonometry</li> <li>5. Sequences and series</li> <li>6. Calculus</li> <li>7. Logarithms and exponentials</li> </ol>	<ol style="list-style-type: none"> <li>1. Mathematical models</li> <li>2. Vector</li> <li>3. Kinematics</li> <li>4. Dynamics</li> <li>5. Statics</li> <li>6. Moments</li> </ol>	<ol style="list-style-type: none"> <li>1. Algorithms</li> <li>2. Graphs and Networks</li> <li>3. Critical Path Analysis</li> <li>4. Linear Programming</li> </ol>

This course will ensure you have the necessary subject knowledge to go to study a wide range of subjects at university. It is a must for those considering mathematics, engineering and physics. Mathematics is highly regarded by both universities and employers, not only because of the rigor of the subject but also due to the wide range of transferable skills it will help you to develop:

- Analytical skills – clear thinking, attention to detail, ability to follow complex reasoning, ability to understand and construct logical arguments.
- Communication skills – ability to answer questions clearly and to communicate an argument precisely and logically, both orally and in written form.
- Investigative skills – knowing where and how to find information.
- Learning skills – ability to understand difficult concepts and apply them to a problem.
- Problem solving skills – being able to present a solution clearly, take a flexible approach, tackle a problem with confidence and appreciate when to seek help.
- Self-management – thorough approaches to work, time management, ability to work independently, determination.



# Further Mathematics at AS & A Levels

## Why study Further Mathematics?

Further Mathematics is an A-level which is studied alongside AS and A2 level Mathematics. It is, therefore, a challenging qualification, which both extends and deepens your knowledge and understanding beyond the standard of A Levels Mathematics. As well as learning new areas of pure mathematics you will study further applications of mathematics in mechanics, statistics and decision mathematics. Further Mathematics qualifications are highly regarded and are warmly welcomed by universities. Students who take Further Mathematics are really demonstrating a strong commitment to their studies, as well as learning mathematics that is very useful for any mathematically rich degree. Some prestigious university courses require you to have a Further Mathematics qualification and others may adjust their grade requirements more favourably to students with Further Mathematics.

If you are not planning to study for mathematically rich degrees but are keen on mathematics you will find Further Mathematics a very enjoyable course and having a Further Mathematics qualification identifies you as having excellent analytical skills, whatever area you are considering for a career.

We offer the Edexcel AS and A2 Level in Further Mathematics. The AS Further Mathematics does not require knowledge of A2 Mathematics so can be studied alongside AS Mathematics. If you take the course, which is suitable for those who have gained grade A or above at IGCSE level (or equivalent), you begin by studying the Advanced Subsidiary Level in Year 12 in both Maths and Further Maths. Once the Advanced Subsidiary A Levels in Mathematics is achieved, you can continue to take the Advanced Level qualification in Year 13.

**To study Further Mathematics, you must also choose Mathematics as part of your options, and achieve at least an A grade at iGCSE mathematics.**

## What will you learn as part of your course?

Edexcel AS and A Levels Further Mathematics extends the mathematics learnt in AS and A2 Level Mathematics to provide the deeper understanding required for maths rich subjects at university. It takes the algebra and calculus further to introduce complex numbers, advanced matrices, differential equations and proof.

For AS Levels Further Mathematics you take 3 units in addition to your AS Mathematics, one of which is a Further Pure Mathematics unit and the other two are often two application units, such as Mechanics, Statistics or Decision Mathematics. For A Levels

further maths we will decide what units will be taken depending on the strengths of the students studying A Levels Further Maths and the results achieved in AS Maths and Further Maths.

### Course Structure for A and AS Levels Mathematics and Further Mathematics

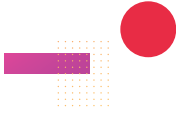
Course	No. of Units	Core content	Applied content
AS Mathematics	3	Pure 1, Pure 2	Statistics 1
A2 Mathematics	3	Pure 3, Pure 4	Mechanics 1
AS Further Mathematics	3	Further Pure 1	Statistics 2, Decision 1
A2 Further Mathematics	3	Further Pure 2, Further Pure 3	Mechanics 2

#### Year 12 – AS level Further Mathematics

Further Pure 1	Statistics 2	Decision 1
<ol style="list-style-type: none"> <li>Complex numbers</li> <li>Numerical solution of equations</li> <li>Coordinate systems</li> <li>Matrix algebra</li> <li>Series</li> <li>Proof</li> </ol>	<ol style="list-style-type: none"> <li>Binomial distribution</li> <li>Poisson distribution</li> <li>Continuous random variables</li> <li>Populations and sampling</li> <li>Hypothesis tests</li> </ol>	<ol style="list-style-type: none"> <li>Algorithms</li> <li>Graphs and Networks</li> <li>Critical Path Analysis</li> <li>Linear Programming</li> </ol>

#### Year 13 – A level Further Mathematics

Further Pure 2	Further Pure 3	Mechanics 2
<ol style="list-style-type: none"> <li>Inequalities</li> <li>Series</li> <li>Further complex numbers</li> <li>First order differential equations</li> <li>Second order differential equations</li> <li>Maclaurin and Taylor series</li> <li>Polar coordinates</li> </ol>	<ol style="list-style-type: none"> <li>Further coordinate systems</li> <li>Further calculus</li> <li>Further vectors</li> <li>Further matrix algebra</li> </ol>	<ol style="list-style-type: none"> <li>Kinematics</li> <li>Dynamics</li> <li>Centres of mass</li> <li>Work and energy</li> <li>Collisions</li> <li>Statics</li> </ol>

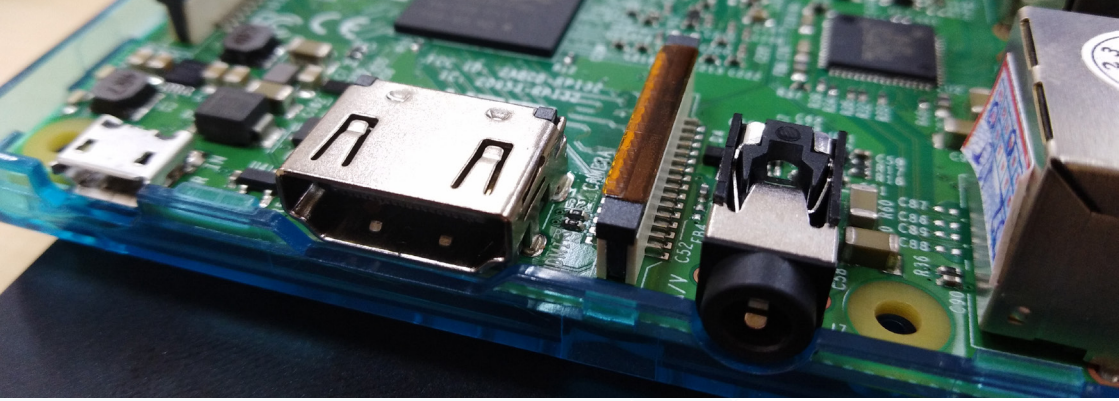


# Computer Science

“Everybody should learn to program a computer, because it teaches you how to think” - Steve Jobs

Critical thinking is an important skill in modern lives, from working with computers to develop new technology to becoming an entrepreneur and developing a new business or idea. The problem solving used in considering how computers and data is represented helps us consider simply how tasks are completed. Being able to break down complex issues into smaller manageable tasks is a transferrable skill which everyone can benefit, from the manager in a factory to the CEO of a worldwide company.





## This course is designed:

- to provide a general understanding and perspective of the development of computer technology and systems, which will inform their decisions and support their participation in an increasingly technologically dependent society
- to provide the necessary skills and knowledge to seek employment in areas that use computer science
- to develop their knowledge and understanding of computer science through entry to University and beyond.

## Topics

Information and data representation  
 Communication and Internet technologies  
 Processor fundamentals  
 Security, privacy and data integrity  
 Ethics and ownership  
 Database and data modelling

Algorithm design and problem-solving  
 Programming & software development  
 Hardware & Software  
 Monitoring and control systems  
 Computational thinking and problem-solving

Components	Weighting	
	AS	A
Paper 1: Theory Fundamentals This written paper contains short-answer and structured questions.	50%	25%
Paper 2: Fundamental Problem-solving and Programming Skills This written paper contains short-answer and structured questions.	50%	25%
Paper 3: Advanced Theory This written paper contains short-answer and structured questions.	-	25%
Paper 4: Further Problem-solving and Programming Skills This practical section will test problem solving skills.	-	25%



# Physical Education

## Why study

### A Levels Physical Education?

Study of physical education at A Levels will enhance your knowledge and experience of PE and Sport, as well as giving you a deeper understanding of health issues. This A Levels offers a multidisciplinary approach to the study of and participation in sport, play, leisure and recreation, allowing you to study movement, performance and behaviour in relation to PE.

### Who is A Levels Physical Education suitable for?

You should enjoy science and looking at how the human body and mind is affected by sport participation and performance, and you should also be interested in the place of PE and sport in our society and how the subject has developed opportunities for participation. It goes without saying that you must also enjoy developing and acquiring skills and techniques in a variety of physical activities.

### Prior learning

We recommend that candidates who are beginning this course should have previously completed a Cambridge IGCSE course in Physical Education or the equivalent and currently be taking part in competitive school or club sport.

### What will I learn?

The Edexcel AS and A Levels Physical Education syllabus is both practical and theoretical. As well as fostering enjoyment in physical activity, it will encourage students to develop an understanding of the interaction between theory and practice by focusing on the performer and performance.

#### AS (first year) students learn about:

- Scientific Principles of Physical Education (Applied anatomy & physiology, Exercise physiology and applied movement analysis)
- Psychological and Social Principles of Physical Education (Skill acquisition and sport psychology, Sport and society)
- Practical Performance in one sport (as a performer or coach)



## A2 (second year) students learn:

- Scientific Principles of Physical Education (Applied anatomy & physiology, Exercise physiology and applied movement analysis)
- Psychological and Social Principles of Physical Education (Skill acquisition and sport psychology, Sport and society)
- Practical Performance in one sport (as a performer or coach)
- Performance Analysis and Performance Development Programme

## Progression

Edexcel A Levels Physical Education provides a suitable foundation for the study of Physical Education, Sport Sciences or related courses in higher education. Equally it is suitable for candidates intending to pursue careers or further study in teaching, coaching, sport development, the leisure industry, recreational management and professional sport. However, A Levels physical education is recognized as a good course to help or as part of a course of general education.

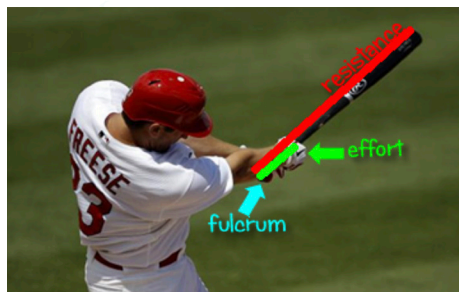
## Assessment

### AS (First Year)

- Scientific Principles of Physical Education – 1h 45 minute exam (90 marks) – 40% of final grade.
- Psychological and Social Principles of Physical Education – 1h 15 minute exam (60 marks) – 30% of final grade.
- Practical performance assessment in one sport as a performer or coach - 15% of final grade.
- Performance analysis in your chosen sport – 15% of final grade.

### A2 (Second Year)

- Scientific Principles of Physical Education – 2h 30 minute exam (140 marks) – 40% of final grade.
- Psychological and Social Principles of Physical Education – 2h exam (100 marks) – 30% of final grade.
- Practical performance assessment in one sport as a performer or coach - 15% of final grade.
- Performance analysis and Performance Development Programme in your chosen sport – 15% of final grade.





# Biology

## Why study Biology?

*“An understanding of the natural world and what’s in it is a source of not only a great curiosity but great fulfillment.” - David Attenborough.*

Biology involves the study of a wide range of exciting topics, ranging from molecular biology to the study of ecosystems and from microorganisms to mammoths. Biology is never far from the headlines either... The human genome has been sequenced and we know the complete arrangement of the three thousand million bases that make up human DNA. In Kenya, 350 people die every day from AIDS and in South East Asia the skies are dark with smoke as the last Bornean rainforests are burned to grow oil palms. Biologists are concerned with all these issues. They work in the fields of cell biology, medicine, food production and ecology... and the work they do is vital to us all.

Cambridge International AS and A Levels Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination in Year 12.

The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Levels Biology is ideal for learners who want to study biology or a wide variety of related subjects at university or to follow a career in science.

If you take the course, which is most suitable for those who have gained grade B or above at IGCSE level Science (or equivalent), you begin by studying the Advanced Subsidiary Level in Year 12. Once the Advanced Subsidiary A Levels in Biology is achieved, you can continue to take the Advanced Level qualification in Year 13.

## What will you learn as part of your course?

This syllabus is designed to provide you with:

- Confidence in a technological world, with an informed interest in scientific matters
- An understanding of the usefulness (and limitations) of scientific method, and its application in other subjects and in everyday life
- An understanding of how scientific theories and methods have developed, and continue to develop, as a result of groups and individuals working together
- The ability to communicate effectively using universal scientific conventions
- An awareness of the importance of IT and a concern for accuracy and precision
- Improved awareness of the importance of objectivity, integrity, enquiry, initiative and inventiveness
- An interest in, and care for, the local and global environment and an understanding of the need for conservation

In year 12 you will study the following topics:

- Biological molecules
- Cells as the basic units of life
- DNA and the mitotic cell cycle
- Transport and gas exchange
- Disease and protection against disease

In year 13 you will study the additional topics of:

- The diversity of life
- Genetics
- Molecular biology and gene technology
- Respiration
- Mammalian physiology
- Plant physiology

## Assessment

For the Advanced Subsidiary A Levels in Biology there are 3 examination papers sat in the May/June examination session in year 12.

Paper 1 - Multiple choice  
Paper 2 - AS structured questions  
Paper 3 - Advanced practical skills

To continue on to the Advanced Level there are 2 more examination papers sat in the May/June examination session in year 13

Paper 4 - A2 structured questions  
Paper 5 - Planning, analysis and evaluation



# Chemistry

## Why study Chemistry?

*“Wherever we look, the work of the chemist has raised the level of our civilisation and has increased the productive capacity of the nation.” - John Calvin Coolidge.*

The behaviour of atoms, molecules, and ions determines the sort of world we live in, our shapes and sizes, and even how we feel on a given day. Chemists that understand these phenomena are very well equipped to tackle problems faced by our modern society. On any given day, they may be measuring the amount of insecticide in drinking water, comparing the protein content of meats, developing a new antibiotic, or analysing a moon rock. To design a synthetic fibre or even the skin of a space capsule requires a knowledge of chemistry. To understand why an autumn leaf turns red, or why a diamond is hard, or why soap gets us clean, requires, first, a basic understanding of chemistry.

Cambridge International AS and A Levels Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS and A Levels Chemistry is ideal for learners who want to study chemistry or a wide variety of related subjects at university or to follow a career in science.

If you take the course, which is most suitable for those who have gained grade B or above

at IGCSE level Science (or equivalent), you begin by studying the Advanced Subsidiary Level in Year 12. Once the Advanced Subsidiary A Levels in Chemistry is achieved, you can continue to take the Advanced Level qualification in Year 13.

## What will you learn as part of your course?

*This syllabus is designed:*

- to stimulate students, create and sustain their interest in chemistry, and understand its relevance to society
- to give a thorough introduction to the study of chemistry and scientific methods
- to develop skills and abilities that are relevant to the safe practice of science and to everyday life:  
concern for accuracy and precision, objectivity, integrity, the skills of enquiry, initiative and insight
- to enable candidates to become confident citizens in a technological world and to take an informed interest in matters of scientific importance
- to stimulate interest in, and care for, the environment.

In year 12 you will study the following topics:

- Moles and equations
- Atomic structure
- Electrons in atoms
- Chemical bonding
- States of matter
- Enthalpy changes
- Equilibrium
- Rates of reaction
- Groups 2 & 17
- Nitrogen & Sulfur Chemistry
- Periodicity
- Organic chemistry

In year 13 you will study the additional topics of:

- Lattice energy
- Electrode potentials
- Reaction kinetics
- Transition elements
- Polymerisation
- The chemistry of life
- Analytical chemistry
- Design and materials

## Assessment

For the Advanced Subsidiary A Levels in Chemistry there are 3 examination papers sat in the May/June examination session in year 12.

Paper 1 – Multiple choice  
Paper 2 – AS structured questions  
Paper 3 – Advanced practical skills

To continue on to the Advanced Level there are 2 more examination papers sat in the May/June examination session in year 13

Paper 4 – A2 structured questions  
Paper 5 – Planning, analysis and evaluation





# Physics

## Why study Physics?

*“Not only is the Universe stranger than we think, it is stranger than we can think.” - Werner Heisenberg*

We'd be lost without physics! All the gadgets that we take for granted like laptops and mobile phones wouldn't be here. Nor would the electricity supply that charges them and powers so many other things we use every day. Did you know that a physicist invented the World Wide Web? It's hard to imagine a world without the Internet, but when you were born almost no one had heard of it. Physicists are constantly finding new things. They have recently shown that teleportation is possible – who knows what that will lead to in a few years' time?

The Cambridge International AS and A Levels in Physics is suitable for students who are looking at careers in engineering, medicine, communications and even law. The course requires students to develop their problem solving and analytical skills and not just their knowledge of the subject. These skills are highly transferable and desirable in any future career.

If you take the course, which is most suitable for those who have gained grade B or above at IGCSE level Science (or equivalent), you begin by studying the Advanced Subsidiary Level in Year 12. Once the Advanced Subsidiary A Levels in Physics is achieved, you can continue to take the Advanced Level qualification in Year 13.

## What will you learn as part of your course?

Cambridge International AS and A Levels Physics qualifications are accepted by universities and employers as proof of essential knowledge and ability.

This syllabus is designed:

- to give a thorough introduction to the study of Physics and scientific methods
- to develop skills and abilities that are relevant to the safe practice of science and to everyday life: concern for accuracy and precision, objectivity, integrity, the skills of enquiry, initiative and inventiveness
- to emphasise the understanding and application of scientific concepts and principles, rather than the recall of factual material





- to enable candidates to become confident citizens in a technological world and to take an informed interest in matters of scientific importance
- to promote the use of IT as an aid to experiments and as a tool for the interpretation of experimental and theoretical results.

In year 12 and 13 you will study the following topics

- General physics and measurements
- Newtonian mechanics
- States of matter
- Oscillations and waves
- Electricity

In year 13 you will study the additional topics of

- Thermal physics
- Electromagnetism
- Particle physics
- Quantum physics
- Direct sensing
- Remote sensing
- Communication technology

## Assessment

For the Advanced Subsidiary A Levels in Physics there are 3 examination papers sat in the May/June examination session in year 12.

Paper 1 – Multiple choice

Paper 2 – AS structured questions

Paper 3 – Advanced practical skills

To continue on to the Advanced Level there are 2 more examination papers sat in the May/June examination session in year 13

Paper 4 – A2 structured questions

Paper 5 – Planning, analysis and evaluation



# Psychology

## Aims and Objectives:

The course aims to develop the skills and the necessary conceptual knowledge to engage with current psychological research and debate. Students will be required to draw on a broad understanding of psychological theory, concepts and research methodology. Student will learn how to conduct research and how to apply findings to novel situations.

### Key Skills:

- Knowledge and understanding - Demonstrate their knowledge and understanding
- Applying knowledge and understanding - Apply their knowledge to familiar and unfamiliar situations and real life and theoretical contexts
- Analysis and evaluation - Analyse, interpret and evaluate psychological information, ideas and evidence.





## Course Content:

### Year 12:

#### *Research Methods*

This covers all aspects of how to conduct psychological research. This includes features of experimental design and requires students to conduct & evaluate psychological research.

#### *Core Studies*

Different research studies from social, cognitive, biological and behavioural psychology are learned in detail, evaluated, and linked to issues and debates.

### Year 13:

#### *Psychology and Abnormality*

This covers mental health issues such as schizophrenia, obsessive compulsive disorder & depression. Students will look at how different approaches to psychology address symptoms, explain the causes, and how they are treated and managed.

#### *Psychology and Consumer Behaviour*

This aspect of the course focuses how physical and psychological environments, features of products, advertising and the consumer themselves affect consumer behaviour and decision-making.

#### **Useful Resources:** (including text book)

##### *Further reading through:*

- “Cambridge International AS and AL Psychology Coursebook” – Cambridge University Press
- “Psychology for Cambridge international AS & A Level” – Oxford University Press
- <https://blogpsychology.wordpress.com/>
- <http://psychtutor.weebly.com/as-level.html>
- <http://www.physicsandmathstutor.com/psychology-revision/a-level-cie>

