

**TIANJIN YINGHUA CAMBRIDGE
INTERNATIONAL SCHOOL**

**AS / A LEVEL
CURRICULUM
BOOKLET**

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PRINCIPAL MESSAGE

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John P Evans • Principal
Tianjin Yinghua Cambridge International
School

We are proud to present the subject information booklet for Year 12 joining our Senior Studies programmes for the academic year 2018 - 19. This booklet contains a full description of the courses available and the subject choice list. Please read this booklet carefully and make sure that you have a clear understanding of the journey that is ahead of you over the next two years

To give you the opportunity to fully understand the structure of the Senior Studies Programme, the individual courses offered and the application process for universities in the UK and USA, a presentation will be given at the school before you begin the course.

This presentation will provide you with information to allow you to choose your subjects in an informed manner. Please remember that the Senior Studies Programme is made up of AS courses

that usually run for 1 year and are followed by the A2 courses in the second year. This means that once you begin the course, changes can be difficult or impossible and are generally not advised.

We will do our best to accommodate each student's subject choice. Classes will have a minimum and a maximum number to be able to operate and also must be arranged within a timetable structure. Therefore we cannot guarantee that every student will get to choose the exact subjects they want to study but we will guide and advise each student carefully and individually.

If you have studied with us for Year 11 then you will have already received information and advice to guide you. If you are joining our school for the Senior Studies Programme then this booklet will provide you with very useful information.

The subjects that you choose will be dependent on many factors such as:

- ◆ Where do you want to go to university?
- ◆ What subject would you like to study at university?
- ◆ What career are you thinking of?
- ◆ What subjects would be useful to you in your chosen career?
- ◆ What subjects are you good at?
- ◆ What subjects do you enjoy?
- ◆ What subject do the universities require for your area of study?
- ◆ How many and what combination of AS and A Levels should I choose?

Other points to consider are:

- ◆ Do not choose a subject because you like the teacher or because your friends have chosen it!
- ◆ Just because your parents studied this subject or did well at it does not mean you will!
- ◆ What if you are not exactly sure what you want to study at university?

Each and every student over the years that has studied at A Level has been faced with similar questions and predicaments. We have highly experienced and well trained staff who will help guide you. The secret is to plan ahead and talk with the subject teachers, your tutor, or the university guidance counsellor.

Please remember to be realistic in your university choices. There are many excellent universities around the world offering thousands of different courses. Choose a course that you can access with the grades you are likely to achieve. Also pay attention to the English language requirements of each university as they can vary significantly. However one thing is certain, each university will require you to be able to demonstrate your English language ability and competence with some form of qualification such as IGCSE, IELTS, Pearson, TOEIC, TOEFL etc.

Do not worry and feel that you are alone; all of the staff at TYCIS are here to help you and support you through this important stage of your life. Our students have already achieved truly world class results in IGCSE, AS and A Level and these results place us amongst the highest achieving schools in the world. We have already guided students into securing university places at the top universities in the US and UK and our excellent track record and growing reputation as a centre of academic excellence will enhance your application.

GUIDANCE

STAFF AND FACILITIES

As a Year 12 or 13 student you are our Senior Students and as such receive additional privileges. We provide you with a study room that is available for you to use during your study periods and at lunch and break times. We also provide you with social areas where you can study in a more relaxed environment should you so wish.

We have a highly experienced University and Guidance Counsellor who is available to meet with you and discuss your academic and other concerns in a well equipped and private suite.

All subject teachers have access to the best resources and facilities and we are continually extending and developing our resourcing to improve and enhance the learning experience for each individual student. We are a school that will never become complacent and will always strive to maintain the best programme of study, to help to prepare our students for the demanding learning styles encountered at university.

YOUR ACADEMIC JOURNEY

A key role of our Staff is to prepare you successfully for the transition to university and to help equip you for the competitive global environment thereafter. You will have access to a wide range of careers and higher education resources and will be supported in the application process by a highly experienced team of staff who have specialist knowledge of the UK and USA university systems. They also have extensive experience of managing applications to many other countries. Representatives from many of the world's leading universities visit the school each year to provide an insight into their campus and courses and how to process high quality applications. We will also arrange for you to visit careers and university fairs in Beijing and nearby areas.

MOTIVATION AND MANAGEMENT

As you enter Year 12 you will be immediately aware of the expectation for Senior Students to acquire and develop the motivation and skills required to learn independently. They will be given regular guidance and support to manage and balance your studies with various activities and enrichment programmes in an effective way. This will be achieved by working closely with your personal tutor who will monitor your academic progress and pastoral well being.

ENRICH AND ENHANCE YOUR PROFILE

Universities and global employers are increasingly focussing on the extensive skill base and leadership qualities that applicants are able to demonstrate. Within school there are opportunities to become involved in a wide range of enrichment activities both inside and outside of school. These will allow you to demonstrate clear leadership skills. Our Senior Students are by definition, school leaders and are active role models for younger students throughout the school. The School Union and The TYCIS School Union help to shape the development of the school and define what makes TYCIS so special. Furthermore, we look to our Senior Students to give back to the community and become involved in the School's many charitable activities

ASPIRATION

Above all, the Senior Studies programme provides an intellectually challenging and stimulating environment that prepares you for the global stage.

WHAT DO I NEED?

You will normally need to have passed, with at least a Grade C or above, at minimum of six subjects, excluding Chinese, at IGCSE extended level, or equivalent. We would normally expect two of those subjects to be Mathematics and English. You will also need to satisfy the individual entry requirements for subjects you wish to study at A Level; an A grade at IGCSE would indicate that you are probably suitable for an A Level course in that subject. It is sometimes possible to take an A Level in a subject where you obtained a B grade at IGCSE but you should seek advice before selecting such subjects. Alternatively, the school can arrange entry tests to assess your suitability to begin a course. In some cases it is possible to begin an A Level course with no previous experience of that subject, although discussion would need to take place before this happens.

WHAT ARE AS AND A LEVELS?

AS and A Levels are British qualifications taken when students are normally aged 16-18 before they go to university. AS stands for Advanced Subsidiary. An AS Level is a qualification normally

obtained after a one-year course. It constitutes the first half of an A Level course, but is a qualification in its own right. A stands for Advanced. An A Level is a qualification normally obtained after two years of study. Modules studied in the second year of A Level study are referred to as A2 modules. Normally three good grades at A-Level are required for university, although four, or in some cases five, A Levels will increase the likelihood of a student gaining entry to a top university or a course for which there is a high demand. A* grades are necessary for the very best universities.

ARE THEY SUITABLE FOR ME?

A Levels are a "gold standard" qualification, recognised around the world and currency for entry into major universities or employment. You will need to study very hard for two years. A Level courses are best suited to students with an academic focus.

HOW MANY SHOULD I TAKE?

At TYCIS we would normally expect you to take five subjects at AS Level and continue to study four of them to A Level standard.

However in special circumstances it might be possible to discontinue studying one subject after one year, to devote more time to the remaining three subjects. Some students may elect to take different combinations of subjects and levels although this should only happen after discussion with the Principal and the University and Guidance Counsellor.

WHAT COMBINATION

It is vital that you choose your subjects with care. Talk to your parents, teachers and the University Guidance Counsellor about the courses you are interested in. Talk to students already studying for A Levels about the subjects. Read this booklet carefully. Think about your future plans. There are common combinations of subjects, that often complement each other, and the option blocks from which you choose will have been based around these. Find out as much as you can.

ASSESSMENT AND REPORTING

You will be assessed regularly in a variety of different ways, depending on what is appropriate to the subject and the type of work being undertaken. For example, you will regularly sit end-of-topic tests, complete extended written assignments or be observed preparing creative work. The way in which your work is marked varies from subject to subject. This means that we are continually assessing you in each of your classes and using the results of those assessments to identify routes for you to improve and develop.

In both Year 12 and 13 you will sit exams in the subjects that you have been studying. The exams assess what they have learnt throughout the year, so it is important that you revise all the work they have covered. These exams usually take place during January. Details of the assessment structure for the individual subjects are provided in this booklet. You will also be informed at the beginning of every year so that you understand the various procedures that apply.

A report is produced at least twice a year which contains an attainment grade and an effort/engagement grade for every subject studied. The grades are an aggregate of your performance over the year to that date and are calculated using the marks or grades gained throughout the preceding months from their tests, homework and other assessments.

Students will be graded from A*-U for A Level and A- U for AS Level for attainment and from 1-5 for effort/engagement. The attainment grades are based on assessment criteria produced by CIE and the criteria printed on the reports.

TUTOR GROUPS

All students are placed in a group which is overseen by a tutor. Students meet their tutors every day at morning registration. Tutors are the first point of contact for students experiencing difficulties. They also monitor the use of the Student Planner which is used for recording homework and provides a means for staff and parents to communicate with one another.

HOMEWORK

Homework is seen as an important aspect of the curriculum and you are expected to complete tasks by the specified date and to the best of your ability. The time frame for homework given here is only a guide. Many assignments given are long term and require you to develop good time-management skills.

Students studying AS and A Level should expect to spend 2.5 to 3.5 hours each night on homework and study consolidation, you should record the homework set in their your Handbook. Experience has shown that students respond well to parental interest in their work and we encourage parents to monitor their child's homework habits and take an interest in what is being studied at school.

THE SCHOOL DAY

There are five 70 minutes lessons per day. There is a tutorial for no more than 10 minutes each day and time for daily activities at the end of each day. You will also have a 30 minute break and a lunch of, normally, 110 minutes.

ABOUT

Universities value learners who have a thorough understanding of key concepts in biology, an in-depth knowledge of biology's most important themes and strong practical skills. Cambridge International AS and A Level Biology helps learners develop the knowledge and skills that will prepare them for successful university study.

Our learners also develop lifelong skills of scientific enquiry, confidence in technology, and communication and teamwork skills.

ASSESSMENT



■ Multiple Choice AS

■ Structured Questions AS

■ Practical AS

TOPICS

- Cell structure
- Biological molecules
- Enzymes
- Cell membranes and transport
- The mitotic cell cycle
- Nucleic acids and protein synthesis
- Transport in plants
- Transport in mammals
- Gas exchange and smoking

SKILLS

- Cells as the units of life

A cell is the basic unit of life and all organisms are composed of one or more cells. There are two fundamental types of cell: prokaryotic and eukaryotic.

- Biochemical processes

Cells are dynamic: biochemistry and molecular biology help to explain how and why cells function as they do.

- DNA, the molecule of heredity

Cells contain the molecule of heredity, DNA. Heredity is based on the inheritance of genes.

- Natural selection

Natural selection is the major mechanism to explain the theory of evolution.

- Organisms in their environment

All organisms interact with their biotic and abiotic environment.

- Observation and experiment

The different fields of biology are intertwined and cannot be studied in isolation: observation and

enquiry, experimentation and fieldwork are fundamental to biology.

Biology is a wonderful subject. You are going to know that all the living organisms are marvellous and they are the reflection of how great nature is. And you are also able to enrich yourself while learning biology. However, it's a little challenging for you and you will work hard if you choose it. - William

Biology is a useful subject. It can let us understand how the organ working and as well as the mystery of the ecosystem. And the most important for me is that Biology can train practical skills. It is relative to our daily life - Melissa & Lancelot

WHY

Biology covers a wide array of topics spanning ecology, anatomy, physiology, microbiology, and biotechnology. The fields of genetic engineering, microbiology, and biotechnology are burgeoning and demand for skills in those areas is high. Cambridge A level Biology serves as a great introduction to the subject for students to discover which topics interest them the most, and positions them for further study in university.

Biology is an interesting science subject which is different from others. Students can further learn the structure, function, origination, development and relationship of creatures. It seems that we are much closer to the unknown world we puzzled and desired in childhood. Moreover, we think you can do very well if you have enough passion, otherwise it is not easy to keep going. On the other hand, we suggest you remember the vocabulary as much as possible because this can reduce your pressure. Gloria & Summer

ABOUT

Universities value learners who have a thorough understanding of key concepts in biology, an in-depth knowledge of biology's most important themes and strong practical skills. Cambridge International AS and A Level Biology helps learners develop the knowledge and skills that will prepare them for successful university study.

Our learners also develop lifelong skills of scientific enquiry, confidence in technology, and communication and teamwork skills.

ASSESSMENT



TOPICS

- Energy and respiration
- Photosynthesis
- Homeostasis
- Control and co-ordination
- Inherited change
- Selection and evolution
- Biodiversity, classification and conservation
- Genetic technology

WHY CHOOSE

Biology covers a wide array of topics spanning ecology, anatomy, physiology, microbiology, and biotechnology. The fields of genetic engineering, microbiology, and biotechnology are burgeoning and demand for skills in those areas is high. Cambridge A level Biology serves as a great introduction to the subject for students to discover which topics interest them the most, and positions them for further study in

A level Biology is a more detailed study of the topics compared to IGCSE Biology. If you were capable and had lots of interest in your IGCSE Biology, you would find A level Biology is right for you. From simple topics such as enzyme activities to the more difficult stuff such as homeostasis and coordination, the book with the aid of your teacher will introduce you to a micro-world of how cells in your body fit together to form a single entity. - Crystal

Biology is a subject that relates to every little movement of body and every little change of environment around you. After you learn biology, you will survey this world in an interesting aspect, you will realise there is an entirely new world, a micro world running secretly under everything our eyes can see. - Violet

A cell is the basic unit of life and all organisms are composed of one or more cells. There are two fundamental types of cell: prokaryotic and eukaryotic.

Cells are dynamic: biochemistry and molecular biology help to explain how and why cells function as they do.

Cells contain the molecule of heredity, DNA. Heredity is based on the inheritance of genes.

Natural selection is the major mechanism to explain the theory of evolution.

All organisms interact with their biotic and abiotic environment.

The different fields of biology are intertwined and cannot be studied in isolation: observation and

Although biology is regarded as one of the most difficult subjects among all the students, there are still many chasers of Biology. For me, I do not plan to learn Biology in my graduate study, but I still develop a strong enthusiasm to the subject.

Hence I think interest will be the most important factor in determining whether to choose this subject. - Jennifer

SKILLS

ABOUT

The course considers the types of business organisations present in the global community and how these organisations meet their objectives through making strategic decisions. External influences on businesses are analysed and students consider real world case-studies to apply theory.

ASSESSMENT



TOPICS

The course is split over 6 main areas that are studied for several weeks at a time:

- business environment,
- human resources,
- marketing
- finance
- operations management
- strategic management.

WHY CHOOSE

The course will provide students with a broad foundation in understanding business theory and processes found in a workplace. Students can build subject knowledge and approaches to case-study analysis that will prepare them for entry to a business- related degree course at university. Students also learn transferrable academic skills such as researching and organising data, critical thinking and summarising information.

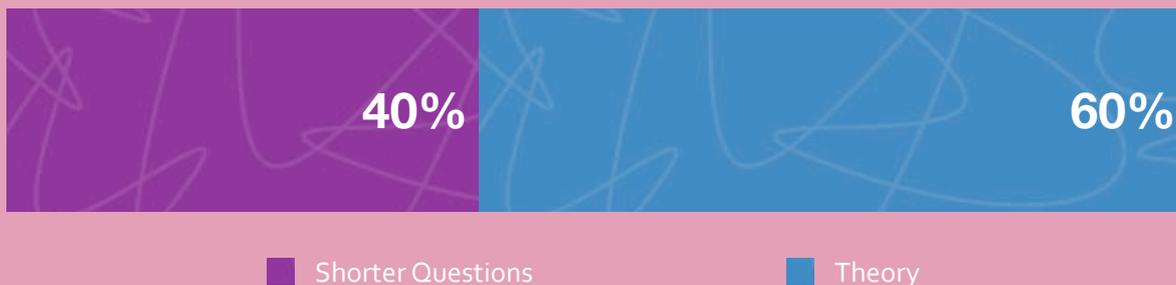
SKILLS

Students will have an understanding of how commercial entities operate internally and the purpose and activities of different functions across business organisations. They will develop business English where they are able to use the right grammar and vocabulary to explain and analyse business operations. Students will be able to develop skills in numeracy, literacy, develop approaches to finding sources of information and present data effectively.

ABOUT

Cambridge International A- Level Economics encourages learners to explore their subject in depth. The syllabus has been designed, in consultation with teachers and universities, to help learners develop not only subject knowledge, but also a strong understanding of some of the key concepts that are critical to mastering the subject

ASSESSMENT



TOPICS

Year 13 Economics students learn- learning the content of (A-Level) Papers 3 & 4 which includes chapters on:

Basic Economic Ideas and Resources Allocation- the Price System and the Micro Economy;

Government Micro-economic Intervention; the Macro-economy and Government Macro intervention.

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Violet Yr13-Economics is an indispensable subject which can, potentially, lead you to run the world. As an adolescent, it is essential for us to get to know the principles of Economics as early as possible; for example, how government control the money supply in the economy; why shopping malls discount goods; and questions like; is inflation always damaging to economic growth. My advice to you is to join economics and find out for yourself.

WHY

Every day, economists collect data to improve our understanding of economic trends; moreover, economists study and try to explain a wide and expanding array of activities, ranging from international trade to unemployment and inflation, from investing retirement funds to controlling pollution. Economic analysis, both theoretical and empirical, can generate important insights into individual and aggregate behaviour and relationships, and help in society's efforts to use scarce resources in a more efficient manner.

The study of Cambridge International A Level Economics allows learners to explore concepts and theories which can be applied to the way that modern economies work. Cambridge learners develop the ability to explain, evaluate and analyse economic issues and arguments. They gain lifelong skills and a solid foundation for further study

SKILLS

Universities and employers accept Cambridge International AS Level Chemistry as proof of essential knowledge and ability. This syllabus is designed to stimulate and sustain students' interest in Chemistry, and understand its relevance to society.

ABOUT

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ASSESSMENT



TOPICS

The subject content of the syllabus is divided into AS and A2. The A2 section includes a 'Core' and an 'Applications of Chemistry' section, both of which are studied by all A2 candidates. These are shown in bold type in the subject content, which is listed according to learning outcomes. The exam is designed to assess the candidate's knowledge and understanding of these outcomes.

Syllabus Content:

1. Atoms, molecules and stoichiometry
2. Atomic structure
3. Chemical bonding
4. States of matter
5. Chemical energetics
6. Electrochemistry
7. Equilibria
8. Reaction kinetics
9. Inorganic chemistry (Group II, VII, Nitrogen & Sulphur)
10. Organic chemistry (Hydrocarbons, Halogens, Hydroxyl, Carbonyl, Carboxylic Acids & Derivatives)
11. Analytical Techniques (Infra Red Spectroscopy)

WHY CHOOSE

AS Chemistry is a challenging programme for my students that helps to cultivate their confidence in a technological world and to take an informed interest in matters of scientific importance.

It's an excellent subject! If you learn chemistry, you are going to know much more about all the materials, molecules, and reactions, which can form a foundation for your understanding of the world! However, the best part of the subject is the experiments, You will be fascinated by the engaging experience. However it is a demanding subject. To do well, you should have a passion for chemistry to motivate you in your studies. - William, Y12

The first word that comes to mind when I think about chemistry is "practical". In AS & A2 chemistry we get to carry out a lot of experiments. In these you can see just how amazing the chemical world is! However, in order to be sure of success in your experiments you need to understand and use your theoretical chemistry knowledge. If you can do this, you feel such a sense of accomplishment when you achieve great results! - Janice, y12

Chemistry is everywhere around you! It's in the food you eat, the clothes you wear, the water you drink, the medicines you consumed, the air you inhale..... Chemistry has been long called the "central science" because it allows you to relate to just about anything, such as biology, physics, geology and environmental science. New breakthroughs in fields such as genetics, biochemistry, medicine, materials science, are all driven by chemistry. If you want to understand the workings of the world around you - then chemistry is for you! -Carol

SKILLS

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

Many universities accept Cambridge International AS Levels in their own right as qualifications counting towards entry to courses in the same or other related subjects. Nonetheless, many learners who take Cambridge International AS Levels also choose to progress to Cambridge International A Level.

ABOUT

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ASSESSMENT



■ From AS Level ■ Structured Questions ■ Planning, Analysis and Evaluation

TOPICS

Syllabus Content:

1. Atomic structure
2. Chemical energetics
3. Electrochemistry
4. Equilibria
5. Reaction kinetics
6. Inorganic chemistry (Group II, Transition Elements)
7. Organic chemistry (Hydrocarbons, Hydroxyl, Carboxylic acids & Derivatives, Nitrogen Compounds, Polymerisation)
8. Analytical Techniques (Chromatography, Proton & Carbon NMR, Mass Spectroscopy)
9. Organic Synthesis

The overall proportion of marks allocated to physical, inorganic and organic chemistry in Papers 1 and 2, taken together, and in Paper 4 will be in the approximate ratio 3:2:3.

Learning chemistry is a little like being a ship on the open ocean. While both chemistry and the ocean have the potential to take you anywhere you dream, if you aren't careful, you might instead be overwhelmed by it, and sink. Think carefully before choosing chemistry, but if you choose it and work hard, it is a great experience. Jennifer, Y13

Chemistry stands out from the other science subjects to me, in that I like to think of chemistry as a language. Each fragment of knowledge on the subject will only show its true value when you put them together to form a greater whole, with its overall meaning and purpose then becoming clear. - Leo

Chemistry is at the foundation of so much modern technology and issues. A knowledge of the fundamentals of chemistry lets you better understand the basis of both the materials & technology you encounter every day, as well as issues relevant to the world today, like the environment and energy. Lancelot, Y12

WHY CHOOSE

Cambridge International A Level Chemistry provides a suitable foundation for the study of chemistry or related courses in higher education.

SKILLS

To provide, through well designed studies of experimental and practical chemistry, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to take or develop an informed interest in scientific matters.

Students will learn the fundamental principles of Computer Science. There is a mixture of theory and practical aspects including learning programming code with Visual Basic, PHP, Java, CSS and HTML. Website design, how images, sound, video work and also how humans can communicate with machines are all explored in this course. You will be tested both on theory and the application of your theory. 50% of the course is done as AS level with that making up 50% of your A2 assessment.

ABOUT

ASSESSMENT



AS Theory AS Programming A2 Theory A2 Programming

TOPICS

For AS level you will learn about:

- 1.Binary and Hexadecimal
- 2.Images
- 3.Sound
- 4.Video
- 5.Compression
- 6.Networks and IP addressing
- 7.Client and Server Scripting
- 8.Input, Output and Storage devices
- 9.Memory
- 10.Logic gates
- 11.CPU and Fetch Execute Cycle
- 12.Assembly Language
- 13.Operating Systems and Translators
- 14.Security and Integrity
- 15.Databases
- 16.Algorithms
- 17.Programming
- 18.Testing Programs

For A2 you will build upon AS level and learn about:

- 1.Data Representation
- 2.Protocols
- 3.Circuit switching, Packet switching and Routers
- 4.Local Area Networks
- 5.Booleen Algebra
- 6.Parallel Processing
- 7.Virtual Machines
- 8.Translation
- 9.Encryption
- 10.Malware
- 11.Control Systems
- 12.Abstraction
- 13.Abstract Data Types
- 14.Decision Tables
- 15.File Processing
- 16.Exception Handling
- 17.Testing
- 18.Project Management

Computer science is fun subject with a fun teacher, at least until test time. It trains you to develop a good habit of learning, which includes keeping in track of your own progress and overcoming any difficulties you might encounter. And you always have a really helpful teacher with extensive subject knowledge to help out. Claire/Yr12-A

This is a subject that requires a logical mind and a good memory. Algorithm is quite a fun part actually. Some practice that student would be doing on class are different from that of the subjects that I have ever come across. Crystal

This subject is an advanced version of ICT but more focus on the processing mechanism behind both hardware and software. Programming and algorithm is something that would be a confusion to you, since they are totally new for you guys. It will be fine if you are interested in coding. Eric

Students will learn how data is represented in binary and other number systems. How internet technology works, security aspects along with creating your own computer program. The main skills you will have when you finish is a strong understanding of how computers work and how to use programming code to make a computer do what you want.

SKILLS

You will learn to work independently and gain huge amount of leadership skills with the project management topic and throughout the course.

A huge advantage is that the skills you learn can directly help you to make a program or app and you are free to make and sell your own program.

WHY CHOOSE

It's a huge amount of new skills and knowledge you will learn. There is a mix of theory and practical within lessons and unlike most other subjects all the knowledge will be new to you. That means its very challenging but rewarding and its one of the few subjects that you can create something useful and tangible at the end of it.

Cambridge International AS Level Economics encourages learners to explore their subject in depth. The syllabus has been designed, in consultation with teachers and universities, to help learners develop not only subject knowledge, but also a strong understanding of some of the key concepts that are critical to mastering the subject

ABOUT

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ASSESSMENT



TOPICS

Year 12 Economics curriculum covers-The Basic economic ideas and resource allocation; the Price System and the Micro-economy; Government microeconomic intervention, The Macro economy and Government Macro Intervention.

WHY CHOOSE

Every day, economists collect data to improve our understanding of economic trends; moreover, economists study and try to explain a wide and expanding array of activities, ranging from international trade to unemployment and inflation, from investing retirement funds to controlling pollution. Economic analysis, both theoretical and empirical, can generate important insights into individual and aggregate behaviour and relationships, and help in society's efforts to use scarce resources in a more efficient manner.

Allen Yr12-The economics course is made easier because there are lots of resources available, other than the course-book. You soon realise that what you learn is quite closely related to daily life; therefore, very useful.

Hellen Yr12-The Economics subject knowledge is very practical. Studying Economics can provide many job prospects; for example Accounting, Finance, Banking Lecturing/teaching etc.

Candice Yr12- By learning Economics, you will get to know how consumers make rational decisions about money; whether it is for Consumption, Investment in share, business or Saving. It will be a good opportunity for students to link themselves with the outside world; by the way, you will have to write pages and pages of notes; so don't consider it as hard, regard it as a chance to enhance writing skills

SKILLS

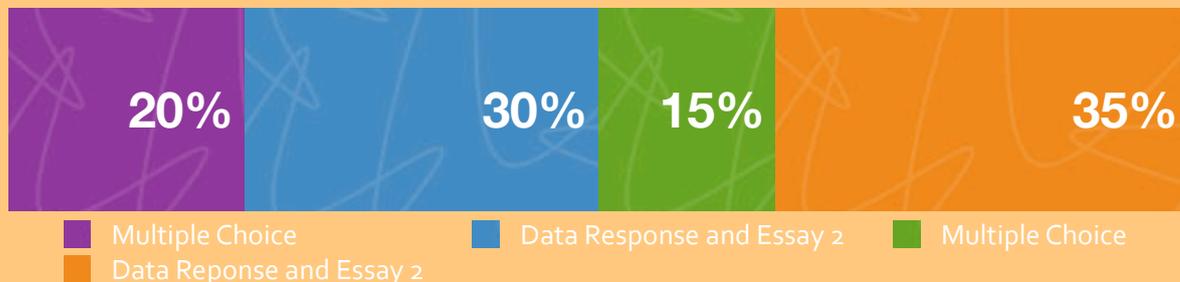
The study of Cambridge International AS and A Level Economics allows learners to explore concepts and theories which can be applied to the way that modern economies work. Cambridge learners develop the ability to explain, evaluate and analyse economic issues and arguments. They gain lifelong skills and a solid foundation for further study

Cambridge International A- Level Economics encourages learners to explore their subject

ABOUT

in depth. The syllabus has been designed, in consultation with teachers and universities, to help learners develop not only subject knowledge, but also a strong understanding of some of the key concepts that are critical to mastering the subject

ASSESSMENT



TOPICS

Year 13 Economics students learn- learning the content of (A-Level) Papers 3 & 4 which includes chapters on: Basic Economic Ideas and Resources Allocation- the Price System and the Micro Economy; Government Micro-economic Intervention; the Macro-economy and Government Macro intervention.

Violet Yr13- Economics is an indispensable subject which can, potentially, lead you to run the world. As an adolescent, it is essential for us to get to know the principles of Economics as early as possible; for example, how government control the money supply in the economy; why shopping malls discount goods; and questions like; is inflation always damaging to economic growth. My advice to you is to join economics and find out for yourself.

Percy Yr13- If money is the most amazing and important creation of humans, we will be entitled to say that Economics, the study and investigation of 'money' in our society, is the best choice for the ones

Natalie Yr13- I know exactly what I will study at university and Economics can give me some understanding of it. Learning Economics can help you understand how people, businesses and government interact in an intricate world pattern; it is very interesting when you find out how a single policy can have some many different results.

WHY CHOOSE

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SKILLS

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ABOUT

AS Level English General Studies is designed and offered exclusively by the English Department of TYCIS to provide additional English lessons to support students who will take IGCSE Second Language exams at AS Level and students who have successfully completed the IGCSE Second Language Programme at the end of G2/YR11. This course will run on a reduced timetable of 6 periods per fortnight.

ASSESSMENT

100%

Internal Assessment

TOPICS

- Polishing English speaking skills
- Polishing English writing skills
- Polishing English reading skills
- Polishing English writing skills

WHY CHOOSE

AS Level English General Studies helps students build up their confidence in using English as a tool of communication. As this programme is not externally assessed, students will be able to enjoy their studies of English in a less stressful environment.

This course helps students improve their speaking, listening, reading and writing skills required to successfully and skilfully communicate in an English-speaking environment.

SKILLS

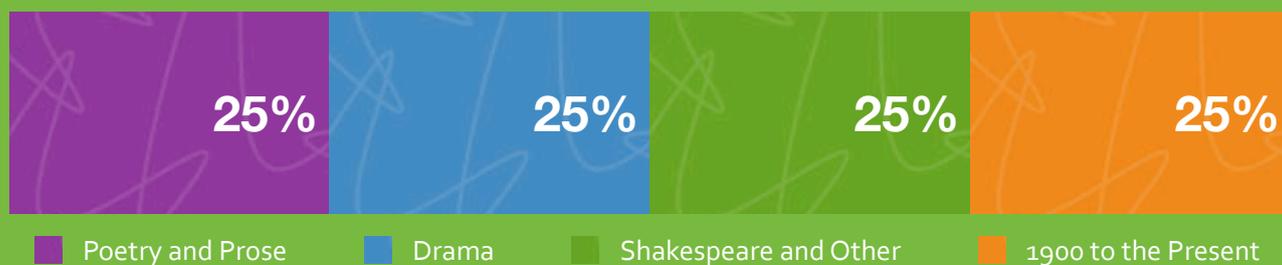
ABOUT

Cambridge International AS Level Literature in English requires candidates to answer two compulsory papers: Paper 3 Poetry and Prose, and Paper 4 Drama. Overall, candidates are required to study four set texts. In each paper candidates answer two questions, each on a different text. Candidates are required to answer questions on a range of poems, prose and plays, with options from the canon of English Literature and modern texts in English. Close study of all the texts chosen is needed in preparation for a choice of essay and passage-based questions.

Cambridge International A Level Literature in English requires candidates to answer three compulsory papers and one from a choice of optional paper. The compulsory papers are: Paper 3 Poetry and Prose, Paper 4 Drama, and Paper 5 Shakespeare and other pre-20th Century Texts. The optional papers are: Paper 6 1900 to the Present, Paper 7 Comment and Appreciation, and Component 8 Coursework. For the purposes of this course, Paper 6 is selected. Overall, at A Level, candidates are required to study eight set texts. In each paper, candidates answer two questions, each on a different text. Candidates are required to answer questions from a range of poems, prose and plays, with options from the canon of English Literature and modern texts in English. Close study of all the texts chosen is needed in preparation for a choice of essay and passage-based questions. In Paper 5 only, candidates must answer on at least one passage-based question.

In order for this course to be made available, a minimum of 4 students is required.

ASSESSMENT



TOPICS

Cambridge International AS Level Literature in English explores the following texts:

- Poetry – Selected Poems (Robert Frost)
- Prose - Selected Stories (Stories of Ourselves)
- Drama – Philadelphia, Here I come (Brian Friel)
- Drama – Sweet Bird of Youth (Tennessee Williams)

Cambridge International A Level Literature in English explores the following texts:

WHY CHOOSE

Cambridge International AS and A Level Literature in English not only helps students develop sophistication in the written expressions of the English language but also leads them to discover the realm and power of the canon of English literature. This programme is well accepted by prestigious universities and employers as proof of knowledge and understanding.

SKILLS

Successful Cambridge International AS and A Level Literature in English learners develop a lifelong understanding and enjoyment of literary texts, and importantly, gain a range of essential skills, including the ability to write clearly and effectively, skills in developing arguments, skills in researching and managing information, and the ability to analyse complex texts in different forms and styles.

ABOUT

Learners study for the AS Level before studying for the A Level. They build on their work in Cambridge International AS Level Global Perspectives & Research through carrying out research in an academic topic of their choice. The course is based on the premise that developing skills of independent enquiry and research methodology will help learners, both in their current development and in their preparation for higher education, employment and lifelong learning.

ASSESSMENT

- Written Exam questions
- Essay
- Team Project
- Research



TOPICS

Cambridge International A Level Global Perspectives & Research emphasises the development and application of skills rather than the acquisition of knowledge. Candidates develop transferable skills that will be useful for further study and for young people as active citizens of the future.

The syllabus aims to encourage learners to develop by:

- providing opportunities to acquire disciplined and scholarly research skills
- promoting a critical, questioning approach to information using the language of reasoning
- prompting self-reflection and independence of thought
- creating opportunities to understand and engage with key global issues wherever they live and work
- nurturing an awareness and understanding of, and respect for, the diversity of perspectives on global issues
- offering an interdisciplinary approach to global issues
- encouraging development of independent learning skills in preparation for study in higher education and lifelong learning
- promoting an understanding of appropriate research skills
- engaging in the research process on an academic topic of their own choice which reflects their interest
- providing opportunities for the exercise of the higher-order thinking skills of analysis, synthesis and evaluation
- providing opportunities to develop oral presentation and communication skills.

WHY CHOOSE

Cambridge International A Level Global Perspectives & Research develops, in candidates, the ability in learning how to learn. It provides them with tools and aptitudes for independent, proactive, interdisciplinary study. The syllabus will equip candidates with a coherent theoretical and practical basis of transferable skills and key knowledge suitable for future careers, including law, scientific research, medicine and academic research. As a curriculum subject, Cambridge International A Level Global Perspectives & Research enables candidates to reason critically and creatively and to communicate effectively.

SKILLS

Learners begin Cambridge International A Level Global Perspectives & Research from the point of a general awareness of the issues involved in setting up a research proposal, identifying an appropriate question and undertaking a literature review or its equivalent. By giving learners the opportunity to apply the skills acquired through the Critical Path to an extended piece of writing, they are well positioned to develop skills of argumentation and oral justification of their work. Cambridge International A Level Global Perspectives & Research enables learners to develop and apply practical skills in research methodology, critical thinking, reasoning and the skills to manage a sustained piece of academic work. Importantly, it seeks to deepen the academic experience.

Cambridge International AS Level History constitutes the first half of the Cambridge International A Level course in History and therefore provides a suitable foundation for the study of History at Cambridge International A Level and for related courses in higher education.

ABOUT

The course covers the major events of the 20th Century. It's aimed at teaching the skills necessary to take a critical look at the major events of the 20th century giving you the opportunity to judge why the 20th century witnessed such massive changes and judge amongst other things who or what was to blame for the horrors of two world wars, the dropping of the first atomic bombs, the cold war and the growth of Communism.

ASSESSMENT

- Paper 1 Exam
- Paper 2 Exam



TOPICS

The course covers the rise of Hitler and Nazi Germany, Stalin's Russia,

The correlation between historical events is intriguing enough for me to spend hours and hours doing in-depth analysis of the subject without ever getting bored. Fun as it may sound, A Level History is also a highly demanding course. A prerequisite is the ability to convey ideas clearly in written English, which is a skill you can improve in writing history essays but it is more preferable to be equipped in advance. Another skill needed for this course is critical thinking. If you have a little debate going on in your head all the time, you are the right person for this course. -
 Claire Yr12-A

If you are interested in historical events or famous people who played an important part in the events, such as Hitler and Lenin, you must choose history, as you can find out the historical facts which may be showed from a different side in the way that you learnt from the Chinese historical books. What's more, history will help you with your reading and writing skills which are still useful in the university. Don't worry about the difficulties in getting an A or A, because we have a patient and experienced teacher, Mr Dylan, who can tell you how to get high mark in history.Heidi Yr 12*

Using history as a mirror to reflect the vicissitudes of life. By learning First World War, for instance, we might find solutions to avoid future war. Besides, you will practice your analysis skill as well as writing skill when you write the essays.
 Candice Yr 12

Apart from studying some of the most interesting and bloody events of the 20th century, the course shows students how to take a critical view of the past and form their own opinions of why events in the past unfolded as they did. Once you've studied this course you will never view the past, or the present in the same way.

It is also seen by all leading universities as a relevant and valuable qualification for all courses.

SKILLS

Cambridge International AS/A Level History is accepted by universities and employers as proof of knowledge and understanding of History. Successful candidates 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 and change.

Cambridge International A2 Level History constitutes the second half of the Cambridge International A Level course in History and therefore provides a suitable qualification for any university to study most course.

ABOUT

The course covers the major events of the 20th Century. It's aimed at teaching the skills necessary to take a critical look at the major events of the 20th century giving you the opportunity to judge why the 20th century witnessed such massive changes and judge amongst other things who or what was to blame for the horrors of two world wars, the dropping of the first atomic bombs, the cold war and the growth of Communism.

ASSESSMENT

- Paper 1 Exam
- Paper 2 Exam



TOPICS

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SKILLS

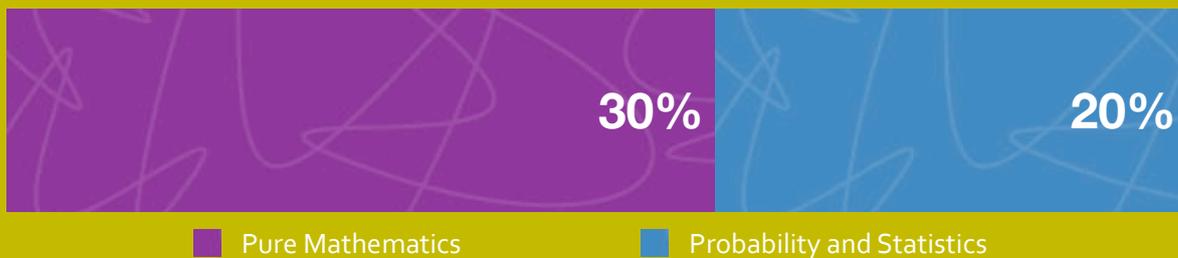
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Cambridge International A Level Mathematics provides a suitable foundation for the study of Mathematics or related courses in higher education. Students who have studied AS Level Mathematics in Year 11 will have completed the final exams in Pure Mathematics 1 (P1) and Mechanics 1 (M1). In Year 12, students will study A Level Mathematics which is the second year of the two-year course where students will sit Pure Mathematics 3 (P3) and Probability & Statistics 1 (S1). Unit P3 is also sequential to unit P1. The subject content of unit P2 is a subset of the subject content of unit P3. For a detailed syllabus of the course see www.cie.org.uk/alevel and please contact Mr Bobby Son, Head of Mathematics, at bobby.son@yinghua-school.com for further information.

ABOUT



ASSESSMENT



TOPICS

The mathematical content for each unit in the scheme is detailed below. The order in which topics are listed is not intended to imply anything about the order in which they might be taught. For all units, knowledge of the content of Cambridge IGCSE Mathematics is assumed. Students will be expected to be familiar with scientific notation for the expression

of compound units.

Unit P3_Pure Mathematics 3 (Paper 3): This course covers Polynomials and Functions, Calculus – further techniques of differentiation, parametric equations and implicit differentiation, integration and differential equations, Trigonometry and differentiation of trig functions, Vectors – vector lines and planes, Complex numbers, and Numerical analysis – solving equations numerically and the Trapezium rule. Knowledge of the content of unit P1 is assumed, and candidates may be required to demonstrate such knowledge in answering questions.

Unit S1_Probability & Statistics 1 (Paper 6): This course covers Representation of data including stem-and-leaf diagrams, box-and-whisker plots, histograms and cumulative frequency graphs, Permutations and combinations, Probability, Discrete random variables including binomial distribution, and The normal distribution.

A Level Mathematics is a subject that need you to work hard. However, after enough practice, you may find it is not that much difficult since most papers have similar structure and knowledge needed is in a small range. As long as you get familiar with them, you can totally handle maths! Have fun and love maths, good luck! (Summerie, Y12B)

A Level Maths provides you a broader vision, allowing you to use more methods to solve problems. This time you need not only your brain to process and remember these mathematical concepts, but also 'your body' to memory them, which means constantly and repeatedly doing questions now becomes the first priority. With a large amount of problem solving skills, you will perform well in A Level Mathematics. (Eiffel, Y12B)

The aims are to enable candidates to:

SKILLS

- develop their mathematical knowledge and skills in a way which encourages confidence and provides satisfaction and enjoyment
- develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject
- acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying
- develop the ability to analyse problems logically, recognise when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem
- use mathematics as a means of communication with emphasis on the use of clear expression
- acquire the mathematical background necessary for further study in this or related subjects.]]

WHY CHOOSE

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

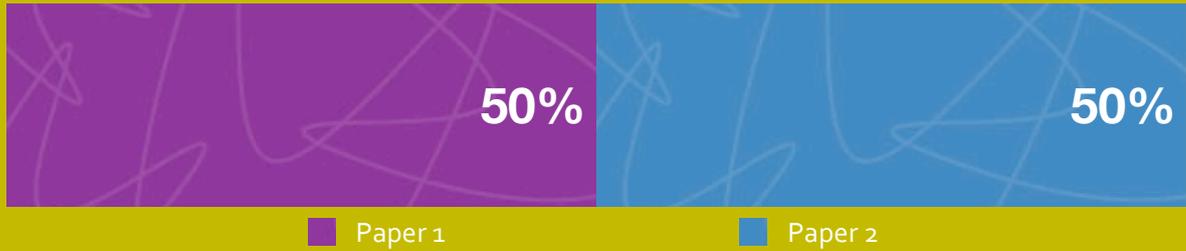
- deeper understanding of mathematical principles
- the further development of mathematical skills including the use of applications of mathematics in the context of everyday situations and in other subjects that they may be studying
- the ability to analyse problems logically, recognising when and how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

Knowledge of the syllabus for Pure Mathematics (units P1 and P3) in Mathematics 9709 is assumed for Paper 1, and knowledge of the syllabus for Mechanics units (M1 and M2) and Probability and Statistics units (S1 and S2) in Mathematics 9709 is assumed for Paper 2. Students may need to apply such knowledge in answering questions in addition to harder questions on those units. Further Mathematics is a very demanding course. This course is not part of A Level Mathematics and is designed for those students who wish to pursue university degrees or majors in Pure Mathematics, Applied Mathematics, Engineering, Computer Science or any course where Further Mathematics is a prerequisite. Those students who wish to study Further Mathematics are expected to achieve an A or A* in A Level Mathematics. For a detailed syllabus of the course see www.cie.org.uk/alevel and please contact Mr Bobby Son, Head of Mathematics, at bobby.son@yinghua-school.com for further information.

ABOUT



ASSESSMENT



TOPICS

Further Pure Mathematics: Polynomials and rational functions, Polar coordinates, Summation of series, Mathematical induction, Differentiation and integration, Differential equations, Complex numbers, Vectors, Matrices and linear spaces.

Further Mechanics: Momentum and impulse, Circular motion, Equilibrium of a rigid body under coplanar forces, Rotation of a rigid body, Simple harmonic motion.

Further Statistics: Further work on distributions, Inference using normal and t-distributions, 2-tests, Bivariate data.

The aims are to enable candidates to:

WHY CHOOSE

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ABOUT

Models of physical systems

Physics is the science that seeks to understand the behaviour of the Universe. The development of models of physical systems is central to physics. Models simplify, explain and predict how physical systems behave.

- Testing predictions against evidence

Physical models are usually based on prior observations, and their predictions are tested to check that they are consistent with the behaviour of the real world. This testing requires evidence, often obtained from experiments.

- Mathematics as a language and problem-solving tool

Mathematics is integral to physics, as it is the language that is used to express physical principles

and models. It is also a tool to analyse theoretical models, solve quantitative problems and produce predictions.

- Matter, energy and waves

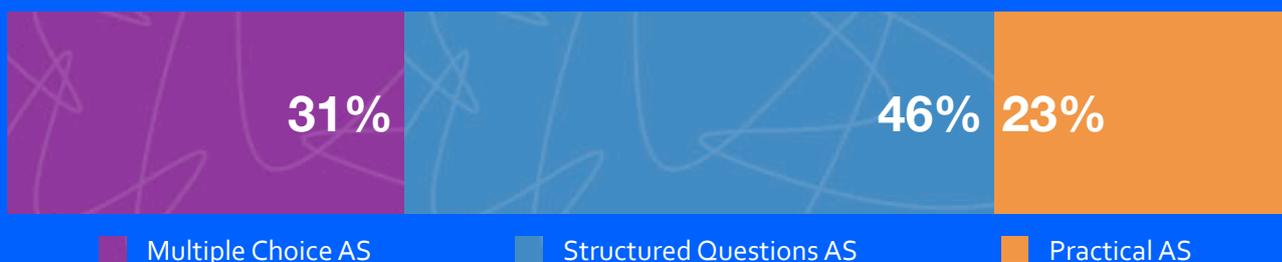
Everything in the Universe comprises matter and/or energy. Waves are a key mechanism for the transfer of energy and are essential to many modern applications of physics.

- Forces and fields

The way that matter and energy interact is through forces and fields. The behaviour of the Universe is governed by fundamental forces that act over different length scales and magnitudes. These include the gravitational force and the electromagnetic force.

Physics is a great subject which can not only obtain scientific knowledge, but also train your logical thinking. Learning it can expand your

ASSESSMENT



TOPICS

Candidates for Cambridge International AS Level Physics study the following topics:

- Physical quantities and units
- Measurement techniques
- Kinematics
- Dynamics
- Forces, density and pressure
- Work, energy and power
- Deformation of solids
- Waves
- Superposition
- Electric fields
- Current of electricity
- D.C. circuits
- Particle and nuclear physics

To learn Physics is to learn about a theory of everything, is to explore the beauty of the universe and find the purpose of your life. Physics helps us to understand how the world around us works, it helps us to see the connections between seemingly disparate phenomena. – Sherry 12B

This is an extremely interesting and useful subject! I can learn useful knowledge and apply to life every day. – Sue 12B

WHY CHOOSE

This course enables students with in-depth knowledge in Physics with quite a big coverage. It paves a solid pathway to college level Physics as well as help students to understand the current development in technology.

SKILLS

Universities value learners who have a thorough understanding of key concepts in physics, an in-depth knowledge of the most important themes in physics and strong practical skills.

Cambridge International AS and A Level Physics helps learners develop the knowledge and skills that will prepare them for successful university study.

Our learners also develop lifelong skills of scientific enquiry, confidence in technology, and communication and teamwork skills.

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ABOUT

Physics is an interesting subject. In the lab you can try or even design experiments by yourself to observe the "magic" result. – Lisa 13A

ASSESSMENT



TOPICS

Candidates for Cambridge International A Level Physics study the AS Level topics, including some topics in further detail, and additionally study the following topics:

- Motion in a circle
- Gravitational fields
- Ideal gases
- Temperature
- Thermal properties of materials
- Oscillations
- Communication
- Capacitance
- Electronics
- Magnetic fields
- Electromagnetic induction
- Alternating currents
- Quantum physics

A level Physics involves lots of useful theories for real life, so that you can explain some interesting phenomena using your physics knowledge. Also, there is less to memorise and more application so it fits the student who doesn't want to memorise lots of knowledge such as Chemistry and Biology. – Frank 13A

First of all, there are many experiments in the process of studying which is quite interesting. What's more, the knowledge is quite related to real life and can combine with the reality. This helps to have a better understanding. – Janice

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