

North Bridge House Senior Canonbury

Sixth Form Options Guide



Contents





Introduction	1
Choosing your subjects	2
How do I decide what to study?	2
Art	3
Biology	4
Chemistry	6
Economics	7
Extended Project Qualification	8
English Literature	
Further Mathematics	10
Geography	11
Government and Politics	12
History	13
Mathematics	15
Modern Foreign Languages: French/Spanish	16
Modern Foreign Languages: Mandarin	18
Physics	19
Psychology	20

Introduction



Alex Margerison, Head of Sixth Form



It gives me huge pleasure to introduce you to the North Bridge House Sixth Form. Your two years in the Sixth Form are the culmination of your school career and a hugely important transitional step as you prepare for life beyond school.

The Sixth Form at North Bridge House is an academically stimulating and friendly environment. You are here because you choose to be, studying subjects that you have selected. You will be studying these subjects in much more depth, and you will be required to work much more independently, than you will have been used to.

As well as striving for the best possible A-level grades, we want you to develop a much wider set of skills. To this end, all Sixth Formers are expected to take place in a range of activities beyond their studies (more details of which are contained in this handbook).

Mr Alex Margerison

Head of Sixth Form, Teacher of Mathematics

Choosing your subjects

Typically, pupils will study three A-levels and the Extended Project Qualification (EPQ). You will need to choose three subjects from the list below.

The Extended Project Qualification is an open ended project which is equivalent to an AS-level. It is an excellent opportunity for students to learn new study and research skills as well as investigate a topic area which fascinates them. You can find out more about the EPQ later in this guide.

Art	Biology
Chemistry	Economics
English Literature	Further Mathematics
Geography	Government and Politics
History	Mathematics
Modern Foreign Languages: French & Spanish	Modern Foreign Languages: Mandarin
Physics	Psychology

As well as your three and EPQ subjects, you will also do:

- Games (Physical Education): two lessons per week
- PSHE: one lesson per fortnight
- Enrichment (typical choices include: Football, Mandarin, Gold DofE, Sports Leaders Award, LAMDA, Band): one double lesson per week

You will also meet with your tutor three times per week. S/he will be your first point of call if there are any problems. Your tutor will also monitor your academic progress.

The information contained in this booklet will give you more information about the subjects available. Please read this information carefully, and do get in touch with us if you would like additional advice on subject options.

HOW DO I DECIDE WHAT TO STUDY?

The choice of subjects to be taken in Year 12 should be determined by your academic potential to succeed and a real enthusiasm to study that subject. If both of these are present it is entirely possible for you to do well in that subject. If either is absent it is unlikely that you will enjoy the course or make a success of it. Option blocks are prepared after students have provided their initial interests in subjects and these can help you build your desired portfolio of subjects.

Mr Margerison is more than happy to meet with prospective pupils and parents to discuss options.

Exam Board: Pearson

INTRODUCTION

This course is designed to build on skills and knowledge from GCSE and encourage an adventurous and enquiring approach to Art and Design. Successful students should be able to demonstrate an understanding of past and contemporary Art and Design practice and be able to produce artwork that embraces a wide range of ideas and materials.

COURSE OUTLINE

Year 12 (Component 1 – 60%):

This component allows you to generate and develop ideas, research primary and contextual sources, record practical and written observations, experiment with media and processes, and refine ideas towards producing personal resolved outcome(s). Final piece(s) will be presented for an end of year exhibition.

Year 13:

You will continue with your coursework based on themes and subject matter developed from personal starting points that require you to communicate your understanding through integrated images and texts that includes a written element of no less than 1000 words. The Exam Project comprises an externally set assignment.

Methods of Assessment:

Your work will be judged against four criteria: Planning (developing ideas through sustained and focused investigations), Experimenting (selecting appropriate resources, media, materials, techniques and processes, reviewing and refining ideas as work develops), Recording (Record ideas, observations and insights relevant to intentions, reflecting critically on work and progress) and Presenting (Present a personal, and meaningful response that realises intentions and, where appropriate, making connections between visual, and other elements).

WHAT SKILLS DO I NEED?

You will need to display investigative, analytical and experimental skills. You will also need an understanding of the interrelationships between art and design and an awareness of the contexts in which they operate.

WHERE COULD THIS COURSE LEAD?

Many pupils go on to do a Foundation or a Degree, which can lead to careers in design, advertising, fashion, film and television.

Biology

Exam Board: OCR

INTRODUCTION

Studying Biology helps to satisfy one's natural curiosity for the human body and the natural world. Biology plays an ever increasing and relevant part in a wide range of agricultural, environmental, medical and industrial problems. A-level Biology covers a wide array of topics, ranging from global ecological and environmental issues to anatomy and physiology. Students are encouraged to relate what they are taught to current biological issues and also to the other sciences.

Biology is taught in a well-equipped laboratory and a large proportion of the course is taught through experimental work. ICT is used widely for tasks such as data-logging and analysis. The department encourages fieldwork, visiting various ecosystems as well as utilising the natural environment of North Bridge House Canonbury and the local surroundings.

COURSE OUTLINE

Module 1: Biological Molecules

Module 2: Cells

- Module 3: Organisms Exchange Substances with their Environment
- Module 4: Genetic Information, Variation, and Relationships between Organisms
- Module 5: Energy Transfers In and Between Organisms
- Module 6: Organisms Respond to Changes in their Internal and External Environments
- Module 7: Genetics, Populations, Evolution, and Ecosystems
- Module 8: The Control of Gene Expression

WHAT SKILLS DO I NEED?

You need an ability to think logically and analytically and demonstrate strong literacy and numeracy skills.

POPULAR CAREER PATHS FOR BIOLOGISTS:

Students should be able to use the knowledge and skills learnt through their study of Biology in the many careers this subject supports such as agriculture, dentistry, medicine, pharmacy, sport sciences and veterinary sciences.

OTHER USEFUL INFORMATION:

Students should read widely across the subject area. Science periodicals, such as *Science* and *New Scientists* are excellent resources.



Chemistry

Exam Board: OCR

INTRODUCTION

Chemistry takes central stage amongst the sciences. It is fundamentally linked with biological and medical sciences and forms pivotal connections with engineering. Chemistry tends to focus on the materials and substances that make up the living and non-living things in our world from the study of the elements and their compounds. Everything we see or touch is made up of chemicals. Understanding the patterns and behaviours of these substances and materials has allowed us to make remarkable transformations in the way we live and will continue to do so in our near and distant future. Students are encouraged to develop an appreciation about how society makes decisions related to Chemistry from climate change, green chemistry and pharmaceuticals. Moreover, students are encouraged to relate what they are taught to the other sciences of Biology and Physics. In this way, students develop an appreciation of the interdisciplinary nature of science and the relevance it has to our everyday life. Chemistry is a practical subject and a large proportion of the course is taught through experimental work. This helps students develop an understanding of the scientific method, bringing with it skills which are transferable to many other situations. ICT is used widely in Chemistry for tasks such as data logging, data analysis and for the delivery of lessons. The department encourages learning beyond the classroom, and this will be fostered through guest lecturers, trips and extracurricular activities.

COURSE OUTLINE

Module 1 (Development of Practical Skills): planning, implementing, analysis and evaluation

Module 2 (Foundations in Chemistry): Atoms, compounds, molecules and equations, acid-case and redox reactions, electrons, bonding and structure

Module 3 (Periodic Table and Energy): Group 2 and the Halogens, Qualitative analysis, enthalpy changes and reaction rates

Module 4 (Core Organic Chemistry): Basic concepts, hydrocarbons, alcohols and halo alkanes, organic synthesis

Module 5 (Physical Chemistry and Transition): Reaction rates, pH and buffers, enthalpy, entropy and free energy and transition elements

Module 6 (Organic Chemistry and Analysis): Aromatic and carbonyl compounds, polymers and organic synthesis

WHAT SKILLS DO I NEED?

You need to be able to think logically and analytically and strong numerical skills.

POPULAR CAREER PATHS FOR CHEMISTS

Students should be able to use the knowledge and skills learned through their study of Chemistry in the many careers this subject supports such as dentistry, engineering, forensic science, medicine, and pharmacy.

OTHER USEFUL INFORMATION:

Students should read widely across the subject area. Science periodicals, such as *Science* and *New Scientists* are excellent resources.

Economics

Exam Board: Pearson

INTRODUCTION

Money. Banking. Finance. You may think you've already got a good understanding of what Economics covers. You may be right. But it is important to note from the outset that Economics is not simply the study of the economy.

So what is Economics? Well, let's come up with some other words. Human behaviour. Sustainable development. Monopoly. In essence, there is no easy 'concise' definition. Textbooks will try defining it as the 'study of the allocation of scarce resources to meet unlimited wants', but this certainly doesn't do the subject justice. Ever wondered why countries continue to spend trillions of pounds on developing nuclear weapons when no country is ever likely to use them? That's economics. Ever wondered why much of Africa is still poor despite decades of aid being donated? That's economics. Ever wondered why corruption exists in organisations such as FIFA? That's economics too.

COURSE OUTLINE

Economics is split into two main sections: microeconomics and macroeconomics. Whereas macro looks at the big issues affecting the economy as a whole (unemployment, inflation, GDP), micro looks at a smaller scale such as the pricing of individual products like oil or gold and the salaries paid to different people.

Year 12:

In Theme 1 (Introduction to Markets and Market Failure you will study the nature of economics, how markets work and why they fail. In Theme 2 (The UK Economy) you will study the different measures of economic performance, aggregate demand and supply and macroeconomic policy objectives.

Year 13:

In Theme 3 (Business behaviour and the Labour Market) you will study topics such as how businesses grow, costs and revenues and government intervention in the labour market. In Theme 4 (A Global Perspective) you will look at international economics such as poverty and inequality and emerging markets.

WHAT SKILLS DO I NEED?

Economists need the ability to think logically and analytically with an interest in current affairs.

POPULAR CAREER PATHS FOR ECONOMISTS:

Economics graduates often go on to work in Government, investment banking and finance.

OTHER USEFUL INFORMATION:

Many top universities require A-level Maths in order to study Economics at university. Try and soak up as much economics as possible, either by reading newspapers, periodicals such as *The Economist* or watching the news!

Extended Project Qualification

Exam Board: AQA

INTRODUCTION

The Extended Project Qualification (EPQ) is a new and exciting qualification which offers pupils the opportunity to produce a single piece of work of their own choosing, showing evidence of planning, preparation, research and independent working. The EPQ offers unrivalled opportunities for academic extension as well as providing evidence of a pupil's readiness for university. It should also be a highly rewarding experience!

COURSE OUTLINE

An EPQ can take several forms:

- an extended essay
- an artefact, model or construction
- a journal of activities or events

A project which consists solely of written work will be approximately 5,000 words, for example an investigation, exploration of a hypothesis or extended essay or academic report. Projects where the majority of the evidence is provided in other formats will include a report or record of work undertaken which is at least 1,000 words. All projects must include a substantial research element.

In the first term of the Sixth Form you will have a number of lessons teaching you the necessary research and presentation skills. After Christmas you will begin working on your projects. Projects are undertaken with the assistance of a supervisor (a member of staff) who guides the student at every level, although they are not allowed to contribute directly to its content.

Because the EPQ requires students to identify and design their own project, adopt a strategic approach to its management, and work independently it is an ideal vehicle for curriculum enrichment and academic extension. All Sixth Form students, but most especially those aspiring to apply to the more competitive universities, should give serious consideration to undertaking an EPQ.

English Literature

Exam Board: OCR

INTRODUCTION

A-level English Literature is an interesting, challenging and popular course at North Bridge House Canonbury, which will enable you to read and study a variety of texts ranging from Chaucer's time in Medieval England to modern day American novels. The coursework unit is completed in Year 12; this unit focusses on literature post-1900 and enables you to learn close reading and comparison skills before you embark on studying the exam texts. The English Department organise a number of trips for A-level students, including cinema and theatre outings, which support our study and work as a team. An outline of the course is provided below.

COURSE OUTLINE Year 12

Literature Post-1900 (coursework)

- · Comparative essay Saved (Edward Bond) and NW (Zadie Smith)
- Close reading Citizen (Claudia Rankine) = 20% of total A-level

Comparative and Contextual Study (exam)

 The Gothic, set texts: The Bloody Chamber, The Italian, The Wasp Factory and a selection of unseen gothic extracts = 40% of total A-level

Year 13

Drama and Poetry pre-1900 (exam)

• A Doll's House (Ibsen) and Selected Poems (Christina Rossetti)

Shakespeare (exam)

• Hamlet = 40% of total A-level

OPPORTUNITIES FOR INDEPENDENT LEARNING:

Students may select their own focus for the close reading part of the coursework section, and can choose which additional texts they focus most closely on for the comparative and contextual study unit. In lessons, students deliver presentations, work in groups and go on several trips over the course to enable independent learning opportunities.

Further Mathematics

Exam Board: Pearson

INTRODUCTION

This course must be studied alongside the initial Mathematics course. Further Mathematics is exceptionally challenging and should only be considered if you have excellent algebraic skills and enjoy solving mathematical problems.

COURSE OUTLINE

Two thirds of the course is pure mathematics. You will study new topics including: imaginary and complex number; matrix algebra and proof by induction. Other areas are an extension to the mathematics A-level, which means you must excel within your mathematics A-level class alongside as studying further maths as an extra class on your timetable.

The remaining third of the course is made up of two applied modules, which are options for the class to decide upon.

For the optional content, there will be eight papers assessing the optional content as shown in the table below and candidates choose two papers, either: any two from column A, or a matching pair from columns A and B.

Column A	Column B
Further Pure Mathematics 3	Further Pure Mathematics 4
Further Statistics 1	Further Statistics 2
Further Mechanics 1	Further Mechanics 2
Decision Mathematics 1	Decision Mathematics 2

WHAT SKILLS DO I NEED?

You need to be able to think logically. And be able to use abstract ideas. An 8 or 9 grade at GCSE is needed.

POPULAR CAREER PATHS FOR MATHEMATICIANS

An understanding of quantitative research is useful in many fields, such as: Advertising & Marketing, Business & Operational Research, Civil Service, Data Science, Education, Engineering, Finance & Banking, Insurance & Risk, Medicine and Health, the Natural and Life Sciences.

OTHER USEFUL INFORMATION:

Further Maths A-level requires dedication to analyse complex information and great attention to detail. It requires the candidate to think logically but also requires a high level of abstract thought. These different skills are highly prized by universities and employers.

Geography

Exam Board: AQA

INTRODUCTION

Geography is the subject which explicitly engages with the relationship of human populations to each other over space and time, and their relationship with their environment at a variety of scales. Interpreting the world from a geographical stance involves challenging assumptions and critiquing evidence from a diverse range of stakeholders and sources.

The new A-level incorporates classic units of study including hazards and hot desert environments, as well as ideas and themes influenced more by undergraduate study including global governance and changing places. The course includes a varied mix of content and skills, including observation, measurement, geospatial mapping skills, data manipulation and statistical tests, and fieldwork skills. The transferrable skills acquired, including technical and interpersonal, are highly desirable and sought after by future employers.

COURSE OUTLINE

Component 1 - Physical Geography

Section A: Water and carbon cycles Section B: Coastal systems and landscapes Section C: Hazards

Component 2 - Human Geography

Section A: Global systems and global governance Section B: Changing places Section C: Resource security

Component 3 – Geographical Investigation

Students complete an individual investigation which must include data collected in the field. The individual investigation must be based on a question or issue defined and developed by the student relating to any part of the specification content. 3,000–4,000 words, 20% of A-level.

POPULAR CAREER PATHS FOR GEOGRAPHERS

Geographers look at wide range of issues spanning the social and physical sciences. By doing so, they develop a breadth of skills which are attractive to a very diverse range of future employers. As a recent article in *The Guardian* highlighted, "if you're not sure what to do, you can't go wrong with geography [...] Geography doesn't have a set career path like the disciplines showing the highest levels of unemployment". As Michel Palin has commented: "[Geography] is a subject that helps young people into work. Many employers prize the knowledge and skills that studying geography can provide and geography in higher education is thriving".

Government and Politics

Exam Board: Pearson

INTRODUCTION

Politics is the study of power: how power is used and abused by our leaders, how power is distributed and amassed, and how decisions by those in power affect our lives. In A-level Government and Politics, you will study the politics of Westminster and Washington as well as developing your own ideas of how society should be run.

To be a successful Politics student:

- · You should have a strong interest in current affairs
- You should be keen to participate in active debate
- You should be able to articulate logical arguments, both when writing and speaking
- You should have the ability to analyse and evaluate both sides of an argument

COURSE OUTLINE

Unit 1: People and Politics will introduce you to an understanding of the concept of democracy before exploring the policies and ideologies of our political parties, examining the electoral systems used in the UK, and investigating the burgeoning role of pressure groups.

Unit 2: Governing the UK focuses on the institutions of British Government: the Prime Minister and Cabinet, the Judiciary, the Civil Service, and Parliament.

Unit 3: Representation in the USA serves a similar purpose to Unit 1 but this time for the USA. In addition, you will also learn about the issues of race and ethnicity in American politics.

Unit 4: Governing the USA likewise mirrors Unit 2 by focusing on the institutional framework of US government. You will consider the interrelationships between its legislative, executive and judicial branches, and the health of US federalism.

Politics lessons will, however, extend beyond these two countries and focus on wider international perspectives wherever possible. For example, current issues such as Brexit, the migration crisis, and the threats posed by ISIS have naturally formed part of our class discussion and analysis.

Politics A-level will not only add considerably to your knowledge of current affairs, but it will also develop your skills of analysis and evaluation, your ability to write well-structured essays, and your capacity to present your arguments in a logical and persuasive fashion.

History

Exam Board: AQA

INTRODUCTION

Our A-level History qualification has been designed to help students understand the significance of historical events, the role of individuals in history and the nature of change over time. The qualification will help students to gain a deeper understanding of the past through political, social, economic and cultural perspectives. The engaging topics available to them throughout the course will provide them with the knowledge and skills they require to succeed as A-level historians.

COURSE OUTLINE

The A-level course is comprised of three components. The exam board provides a range of options for each component (the NBH Canonbury selected option is shown in brackets):

- Component 1: Breadth study (The Quest for political Stability, Germany: 1871-1991)
- Component 2: Depth study (Wars and Welfare: Britain in Transition, 1906-1957)
- Component 3: Historical investigation (Personal study on a subject of their choice)

Method of Assessment:

The examination for component one requires students to write three extended essays over a 2.5 hour period. Component two is also examined by extended essay writing but, unlike component one, incorporates primary source material analysis. The Historical Investigation requires the submission of a 3500 word piece of coursework. The subject is of the students' own choosing but must not overlap with the material studied in either component one or two.

OPPORTUNITIES FOR INDEPENDENT LEARNING:

Historical investigation, visiting lecture programme, Historical Association essay competition.

WHAT SKILLS DO I NEED?

Historians need to display powers of analysis and evaluation. They also need effective written communication and research skills.

POPULAR CAREER PATHS FOR HISTORIANS

Journalism, Law, Politics, Archaeology, and the Civil Service.

OTHER USEFUL INFORMATION:

History incorporates and complements a range of other subjects particularly Economics and Politics.



Mathematics

Exam Board: Edexcel

INTRODUCTION

Mathematics is an A-level which is highly respected and demanded by universities and employers. This is due to its level of detail, rigour and challenge. Although some of the content may be familiar in Core 1 and Statistics 1, there is a big step up in the pace in which concepts must be taught, practised and mastered. To keep up with the course you should expect to do an hour of homework for every hour in class.

COURSE OUTLINE

Two thirds of the course is pure mathematics. Topics will be familiar from GCSE including: algebra, surds, quadratics, and graphs of functions. However the A-level material will be studied in much greater depth. The major new topic is calculus; differentiation and integration. Calculus is the study of how quantities change.

The final third is made up of Statistics and Mechanics. In Statistics you will study different distributions which predict how often random events occur. You will learn about the Normal Distribution which is important in many fields of research, including clinical trials. Probability is essential for many industries from Insurance to gaming.

In Mechanics you will apply Newton's laws and pure maths to model how objects move. This part of the course has many cross-overs with Physics and is excellent preparation for Engineering.

WHAT SKILLS DO I NEED?

You need to be able to think logically and analytically and use abstract ideas. You will need at least a grade 7 at GCSE with strong algebraic skills.

POPULAR CAREER PATHS FOR MATHEMATICIANS

- Engineering
- Finance
- Understanding quantitative research in many fields, including Medicine
- Also refer to Further Mathematics section

OTHER USEFUL INFORMATION:

Many top universities require A-level Maths in order to study other subjects at university. The concepts are applicable in many areas, from computer programming to product design and choosing a mortgage.

Modern Foreign Languages: French/Spanish

Exam Board: AQA

INTRODUCTION

Not only does advanced study of a Modern Language equip you with a life-long skill, you will further come to appreciate the history, culture and customs of the target language culture. The A-level MFL course helps you to consolidate key grammatical structures learnt at GCSE and then apply them in increasingly authentic contexts. The course is delivered through a mixture of debate, contemporary music, literature and film, with the aim of unpicking French and Spanish culture. You will also have the opportunity to explore areas of personal interest through an independent research project in Year 13. An A-level in a Modern Language is highly regarded by the best universities and opens doors to an elite group of native English speakers with proficiency in a second language. Students with an A-level in a Modern Language go on to study a range of subjects at university, and this subject complements arts, humanities and science subjects equally.

COURSE OUTLINE French

1 Social Issues and Trends

- The changing nature of family.
- The 'cyber-society'.
- The place of voluntary work.
- Positive features of a diverse society.
- Life for the marginalised.

2 Contemporary Culture

- Contemporary francophone music.
- French cinema: the 7th Art Form.
- Teenagers, the right to vote and political commitment.
- Demonstrations, strikes who holds the power?
- Politics and immigration.

Spanish

- Modern and traditional values.
- Cyberspace.
- Equal rights.
- Immigration.
- Racism.
- Integration.
- Modern day idols.
- Spanish regional identity.
- Cultural heritage and landscape.
- Today's youth, tomorrow's citizens.
- Monarchies, republics and dictatorships.
- Popular movements.

Modern Foreign Languages: French/Spanish

French

Spanish

3 Literature and Film

- Choice of a text from a list. Current text studied = Voltaire, *Candide ou L'optimisme*.
- Choice of a film from a set list. Current film studied = *La Haîne.*

• Choice of a text from a list. Current text studied = Garbriel Garcia Marquez, *El coronel no tiene a quien le escriba*.

• Choice of a film from a set list. Current text studied = *El Laberinto del fauno*.

4. Independent Research Project

In Year 13, students research an area of interest linked to the target language culture and present their findings during the final speaking exam.

OPPORTUNITIES FOR INDEPENDENT LEARNING:

All sixth formers attend the annual Language Show Live, where they discover the many employment, travel and study opportunities for linguists. Trips to France and Spain are organised annually for the whole school, during which sixth form students have specific work to complete.

WHAT SKILLS DO I NEED?

You need to have the confidence in speaking and discussing controversial issues and the ability to form and articulate an opinion in English.

POPULAR CAREER PATHS FOR LINGUISTS:

Law, Civil Service, Business Consultancy, Journalism and Translation.

OTHER USEFUL INFORMATION

The ability to speak another language is one of the most employable skills you learn at schools. Universities look upon students with an A-level in a modern language favourably.

Modern Foreign Languages: Mandarin

Exam Board: Pearson/Cambridge Pre U

INTRODUCTION

Chinese language is not only one of the most widely spoken languages in the world, but also the oldest written language worldwide with thousands of years of history. Our A-level Mandarin course, thus, enables the learners to discover its historical events and to appreciate the great diversity of a very different culture for their future development. The course also provides those learning Mandarin as a foreign language with the skills to operate in a real Chinese environment. Learners will also be trained to think critically and learn the examination strategies to develop their ability to communicate effectively and confidently in target language, and consider the study of the language in a broader context. In addition, learners will learn about the culture, society and policies of countries where Chinese is spoken, including China, Taiwan, Singapore and etc. An A-level in a Modern Language is highly regarded by the best universities and opens doors to an elite group of native English speakers with proficiency in a second language.

COURSE OUTLINE

Some of the topics you will learn about include: Food, diet and health (how balanced is our diet? How does the Chinese diet compare to western habits?), transport, travel and tourism (do we use our cars too much? Where do Chinese people go on holiday? What's the future of the tourism industry?), education and employment (what is it like to study in China? Are Chinese teenagers optimistic about their future careers?), leisure, youth interests and Chinese festivals (how do Chinese people celebrate Dragon Boat Festival? What is Qing Ming and how do Chinese teenagers spend their time?). The environment (Energy, pollution and environmental campaign) and a literature and film component.

OPPORTUNITIES FOR INDEPENDENT LEARNING:

All sixth form linguists attend the annual Language Show Live, where they discover the many employment, travel and study opportunities for linguists. Students will have the opportunity to attend the annual 'Chinese Bridge' event which will give them the opportunity to apply for internship/ jobs where they can use their Chinese language ability. In 2018 students studying Mandarin visited China, where they were able to practice their Mandarin with locals.

WHAT SKILLS DO I NEED?

You need to pass Chinese GCSE with $A - A^*$ or an equivalent certificate. You must have the confidence in speaking and discussing controversial issues and the ability to form and articulate an opinion in English.

POPULAR CAREER PATHS FOR LINGUISTS:

Law, civil service, business consultancy, journalism, translation.

Physics

Exam Board: Pearson

INTRODUCTION

Physics offers you an opportunity to deepen your understanding of the rules that govern the universe and an insight into how the physical world works. The subject is taught through experimentation and application of basic ideas, ranging from the very small, atoms, to the very large, cosmology. The course develops your critical thinking, creative, analytical and practical skills and provides a firm basis for further study in wide range of disciplines. Physics is an intellectually stimulating and challenging subject which is extremely rewarding to study.

We endeavour to intellectually challenge you in a supportive and developmental way to build your confidence and enjoyment of Physics. You will be encouraged to relate what you are taught in the other Sciences. In this way, students develop an appreciation of the interdisciplinary nature of science and the relevance it has to our everyday life. Physics is a practical subject and a large proportion of the course is taught through experimental work. This helps you develop an understanding of the scientific method, bringing with it skills which are transferable to many other situations. ICT is used widely in Physics for tasks such as data logging, data analysis and for the delivery of lessons. The department encourages learning beyond the classroom, and this will be fostered through guest lecturers, trips and extracurricular activities.

COURSE OUTLINE

Advanced Physics 1: Topics include mechanics, electrical circuits, magnetic fields and nuclear and particle physics.

Advanced Physics 2: Waves and the particle nature of light, thermodynamics, space, nuclear radiation and oscillations.

WHAT SKILLS DO I NEED?

You need to be able to think logically and analytically and demonstrate advanced numeracy skills.

POPULAR CAREER PATHS FOR PHYSICISTS

Many students will go on to study further and higher studies, as the courses support careers such as engineering, geo-sciences, meteorology and space sciences.

OTHER USEFUL INFORMATION

Students should read widely across the subject area. Science periodicals, such as *Science* and *New Scientists* are excellent resources.

Psychology

Exam Board: AQA

INTRODUCTION

Is Psychology an opportunity for some 'me' time, where I can talk about my problems? Can the teacher guess who I am deep down? Students will be disappointed, if they expect this. Psychology is the systematic study of human behaviour. It is a fascinating subject where rigorous scientific processes are used in tandem with philosophy and medicine to explain a wide range of behavioural phenomena, from who are the people most likely to stand in a queue without complaining to jealousy, warfare and crime. Essay writing skills are essential as composing arguments using contradictory scientific evidence or theoretical viewpoints is required. Studying Psychology guarantees excellent transferable skills.

COURSE OUTLINE

Year 1 Psychology:

Approaches in Psychology, Cognitive, Developmental, Social, Biological Psychology and Individual Differences: These units provide an introduction to how human behaviour is explained, the role of personality, how memory works, how we become emotionally attached, how groups of people interact, how our body and brain regulate mood, how mental illnesses are defined, why they develop and ways they are treated.

Research Methods: Terms such as 'independent and dependent variable', 'observational study' and 'stratified sampling' may sound unfamiliar but they are central to how humans are systematically studied, away from anecdotes and armchair intuition. This unit enables students to acquire knowledge of how the science of human behaviour works.

Year 2 Psychology:

Issues and debates in psychology: this chapter presents ongoing debates about human nature and the nature of existence. Are we free to act as we please or we are complex automated machines? Are all individuals different or they are subjected to universal laws that apply to all humans and all cultures? Can everything be explained in terms of our biology?

Psychology

Biopsychology, Relationships and Aggression: These units examine the types and patterns of sleeping and dreaming, the structure of the brain and how certain behaviours correspond to different brain areas, mating behaviour and interpersonal attraction, why aggression escalates and how to reduce its impact.

Psychopathology, Psychology in action and Research methods: This unit explores the aetiology and treatment of depression and schizophrenia, examines how psychology is applied in everyday life and develops further issues in research methodology which were first encountered in the year 1 curriculum.

WHAT SKILLS DO I NEED?

You need to be able to think like a scientist – psychology is not 'touchy-feely'. You also need an interest in human behaviour and the ability to interpret data.

OTHER USEFUL INFORMATION:

Many top companies and organisations require the so-called 'soft' skills such as ability to empathize, ability to resolve conflict and offer creative, innovative solutions. Try and soak up as much psychology as possible by reading *The Psychologist*, *The Scientific American MIND* or visiting www.psychologytoday.com

