

A Level Options Subject Guide

2020/21

Art & Design



Head of Department: Mrs V. Margerison

Why study art?

- Critical Thinking and Analysis art students are trained to think
 creatively and to move beyond the superficial. They learn to
 make sound conclusions based on carefully gathered evidence.
 As critical thinkers they are able to process abstract ideas, and
 can examine issues from many different perspectives. Hence,
 they are master problem solvers and decision makers.
- Communication because much of their learning is based on understanding and conveying complex ideas and diverse points of view, arts students become skilled writers and articulate speakers.
- Research Students are trained in the techniques of information gathering, Arts students gain research skills they can apply to any issue or problem. Not only do they learn how to find information, they also learn how to assess its quality.
- Creativity their creativity makes them innovators independent thinkers with the motivation to develop new solutions to old problems, and who view challenges as opportunities for personal and professional growth.



- A Global Perspective through their study of diverse cultural and intellectual traditions, arts students learn that there are many different ways of seeing the world.
- Interpersonal Abilities because they learn to be both self-sufficient thinkers and informed collaborators, arts students are equally skilled at working independently and as part of a team. Their self-reliance, thoroughness, and strong work ethic makes them valued co-workers in whatever careers they choose.

At Birkenhead School we follow the 2 year A Level course (AQA Art & Design; Fine Art 7202). The course builds on skills acquired at GCSE with students exploring and creating personal work using a range of 2D and/or 3D art, craft and design processes. Individual responses could take the form of drawing, painting, printmaking, photography, mixed media (including textiles) and sculpture. Students' work is informed and enriched by critical and contextual studies; this is important in establishing good analytical skills and use of appropriate terminology ready for the written element of the Personal Investigation in Year 13.

Year 12 is structured to encourage students to experiment with different techniques and approaches while incorporating existing skills at a higher level than previously. At the beginning of the course students work on teacher led projects before moving onto an extended project based on their own interests.

Students choose their Personal Investigation theme in the summer term of Year 12, focusing on this throughout the autumn until they receive their exam paper at the start of February in Year 13.

Component 1: Personal Investigation – practical investigation supported by written material

Students will conduct a practical investigation into an idea, issue, concept or theme which is supported by written material (3000 words max). The focus of the investigation will be chosen independently by the student and will lead to a finished outcome (or a series of related finished outcomes). The A Level is supported with visits to galleries or other places of relevance to the personal investigation.

- No time limit
- 96 marks
- 60% of A Level

Non-exam assessment set and marked by thecentre and moderated by AQA.

Component 2: Externally set assignment

Students receive their exam paper on 1st February. They select one starting point from the eight provided.

- Preparatory period + 15 hour supervised time
- 96 marks
- 40% of A Level

Non-exam assessment set by AQA, marked by the centre and moderated by AQA.

The 15-hour exam is normally timetabled to take place close to the start of Study Leave. All prep work must be submitted at the start of the exam period.

The A Level marks come through the Personal Investigation (60%) and the exam component (40%). All work is marked according to Assessment Objectives, similar to those at GCSE. Each AO represents 25% of each Unit's mark. This is marked in School and then moderated by AQA.

Throughout the course itself students are set individual tasks and graded as they develop work in class and at home. Specific tasks are set for homework, however, it is important that students take an independent approach to their learning, and take ownership of their own progress. Students who embrace this way of working are those who inevitably achieve the highest grades.

Students will be expected to use free period and afterschool as well as lesson time.



Biology



Head of Department: Mr P. Armstrong

Why Biology?

The Biological Sciences are the most diverse of subjects involving the study of a wide variety of exciting topics, from molecular biology to ecosystems and from microorganisms to mammoths. Biology is highly relevant to everyday life and biologists have many career opportunities in today's world.

Getting into A Level

To have a foundation for success at A Level you will need grade 7 to 9 GCSE Biology. If you do Combined Science, you will need 7-7 to 9-9 with a very strong Biology component. Most of our students also study A Level Chemistry and you might struggle if you are not a confident chemist. Also, due to the substantial mathematical content of the course, you also need to be a competent mathematician.

The A Level course

Lower Sixth:

- 1. Biological molecules
- 2. Cells
- 3. Organisms exchange substances with their environment
- 4. Genetic information, variation and relationships between organisms

Upper Sixth:

- 5. Energy transfers in and between organisms
- 6. Organisms respond to changes in their internal and external environments
- 7. Genetics, populations, evolution and ecosystems
- 8. The control of gene expression



What have our students done after A Level?

Biology is one of the most popular A Level subjects in the country, attracting students studying a wide range of other subjects. Many eventually choose a Biology-related degree, but whatever field you will eventually work in, you will find Biology a very rewarding and challenging course, which will develop many of the skills essential for a successful career.

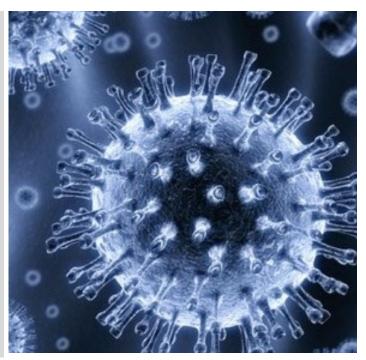
If you plan to do Biology beyond A Level, you will almost certainly need A Level Chemistry too.

The graphic below shows, proportionately, what most of our students have gone on to study in recent years.



Why so many of our Sixth Form study Biology:

- Approachable teachers
- Fully printed notes
- Cutting-edge practicals
- Lots of exam practice
- Individual support
- Links with universities



Business



Head of Department: Mr R. Rule

What is Business?

Business is about the day to day decisions made within a firm to make it run in an efficient and profitable fashion. But, much more than that, it is about the decisions that affect the long run, for example, whether to expand or shrink, move abroad or stay in the UK, invest in technology or retrain staff, slash prices or advertise. It is these bigger decisions that all businesses have to consider if they are to survive in the tough economic climate.

All of this and much more is covered in the A Level Business course.

Success in business requires training and discipline and hard work.

But if you're not frightened by these things, the opportunities are just as great today as they ever were."

David Rockefeller

Why Study Business?

Business is an A Level that allows you to expand your understanding of the financial and business world. It is relevant to the modern world around us and whatever career students choose to enter into in the future it is likely they will have to have some understanding of the way a business functions.

It requires many different skill sets and will complement a whole range of other A Levels. Students who study the subject are encouraged to be creative in their thinking and apply themselves to case study based problem solving. By the end of two years, students will know the ins and outs of creating, managing and expanding a business. They will know all about profit, and how best to make more of it!

"Business has to be involving, it has to be fun, and it has to exercise your creative instincts."

Richard Branson



Course Structure: Edexcel Board

Lower Sixth

Marketing and HR:

This section covers the issues involved in a business start-up.

Its main focus is on the following topics:

- Market Research
- Demand and Supply
- Pricing
- Recruitment
- Motivation
- Entrepreneurship



Managing Business Activities:

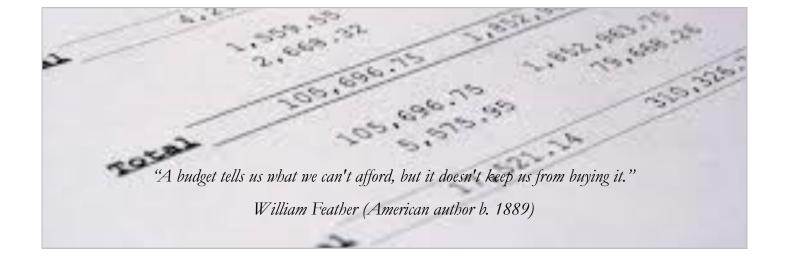
This section covers the issues involved in improving a business's efficiency. Its main focus is on the following topics:

- Raising Finance
- Financial Planning
- Profitability
- Operations Management
- The External Environment

Upper Sixth

Business Decisions, Strategy and the Global Environment

The Upper Sixth course looks at how to manage your growing business strategically. It will consider issues such as investment appraisal, analysing a set of accounts, developing and implementing a new product and human resource management. It will also consider how to expand a business into a global context.



Chemistry



Head of Department: Mr P. Lindberg

Why Study A Level Chemistry?

- It is a lively and interesting subject which is both challenging and enjoyable.
- It is important to understand and control those things which shape our lives.
- It will train you to think logically, analytically and creatively.
- It is essential for a wide range of careers such as Medicine, Chemical Engineering, Dentistry, Veterinary Science, Pharmacy, Forensics, etc.
- The skills developed are valued in other areas such as Law, Politics, Finance, Research, etc.

Chemistry at Birkenhead School

- A natural progression from AQA GCSE Chemistry. Many topics revisited but covered in greater depth.
- An increased emphasis on explanation and understanding. A reduced focus on simply learning facts, with more time spent on analysis and application.
- More sophisticated and interesting practical tasks. Students' competence in this area will be assessed by completing 12-15 'required practicals'.
- There is no coursework. As with the GCSE Specification, knowledge and understanding of practical work will be tested within the written papers.
- The Department has a well-established record of success, with most L6 students continuing on to A Level. The majority of the School's successful Oxbridge applicants have studied Chemistry to A Level.
- Extension classes are available for the most able in the Upper Sixth. These students have the opportunity to enter the Chemistry Olympiad Competition.
- A very popular Senior Science Club, with a number of students involved in industry linked projects.



Course Content

(tested by three 2 hour exams at the end of the Upper Sixth)

Lower Sixth Units:

Physical/Inorganic Chemistry

- Atomic Structure
- Amount of Substance
- Bonding
- Energetics
- Kinetics
- Chemical Equilibria
- Redox Equations
- Periodicity
- Groups 2 and 7

Organic Chemistry

- Nomenclature
- Isomerism
- Alkanes
- Alkenes
- Haloalkanes
- Alcohols
- Analytical Techniques

Upper Sixth Units:

Physical Chemistry

- Kinetics: Rate Equations
- Equilibria: Kp Calculations
- Acids and Bases
- Thermodynamics
- Electrode Potentials

Organic Chemistry

- Carbonyl Chemistry
- Aromatic Chemistry
- Amines, Amino Acids, Polymers and Proteins
- Synthesis and Analysis
- N.M.R and Chromatography

Inorganic Chemistry

- Periodicity: Period 3
- Transition Metal Chemistry
- Reactions of Ions in Aqueous Solution



Royal Society of Chemistry Analytical Competition

A Lower Sixth team is selected each year to take part in the RSC Analytical Competition. We have been **regional winners 3 times** in the last 15 years.

Classical Civilisation



Head of Department: Mrs T. Washington

What is Classical Civilisation?

- The study of the civilisation, literature, art and history of ancient Greece and Rome.
- The appreciation of ways in which our language, literature, architecture, art, drama, philosophy, political and legal systems derive from Greece and Rome.

Studying Classical Civilisation will help you understand the legacy of the classical world and the origins of our own culture, whilst equipping you with critical and evaluative skills.

Course Content

- Learn about the influence of Greece and Rome
- Understand the foundations of our society
- Work with others on your specialist interests
- Study fascinating topics in detail
- Gain a valuable and respected A Level

Is Classical Civilisation suitable for you?

Ask yourself whether you:

- Have enthusiasm and an interest in the Ancient World. (You need no prior knowledge of the Classical Languages or the Classical World). **Classics is accessible!**
- Are curious to discover how the ancient world throws new light onto today's society, politics, drama, literature, sport, art, architecture and religions. Classics gives perspectives and is culturally diverse!
- Enjoy challenging questions and being intellectually stretched, whether this means reading Homer, making sense of Roman architecture, or thinking about how ancient empires operated and how they were justified. Classics is rewarding!
- Would like to develop your critical and evaluative ability by combining skills derived from many disciplines, such as history, art, literature, archaeology and philosophy (employers like those skills too). Classics is useful and all-encompassing!
- Think studying some of the best-known people, images, literature and theories in cultural history worthwhile. Classics is exciting!

If the answer is YES - then: consider exploring the classical world as you will find it to be a most enjoyable experience.

It won't be all Greek to you!

You may be intimidated by the idea of Classics at A Level, but you need not be; it is not a requirement to have studied the subject before or to have any knowledge of Latin or Greek.

If you haven't studied Classical Civilisation before, you will no doubt already have met some aspects of the ancient world and acquired most of the skills that you'll need for successful study. You have passed GCSE English, so you'll be familiar with writing in accurate and appropriate English to express your ideas.

What does the course involve and what will you learn?

The course focuses on three significant aspects of the classical world: socio-political, artistic, and literary. A variety of approaches will be adopted in the study of those areas: You will have to work through a number of primary sources and texts.

The 'beliefs and ideas' component would, for example, involve a critical study of politics and propaganda imagery of the beginning of the Roman Imperial period, i.e. the Augustan Golden Era, through the eyes of thought-provoking writers of the time, as well as archaeological evidence of the period. We could, alternatively, study some of the most powerful Greek tragedies and comedies composed in the ancient wold, which have had a profound and wide-reaching influence on modern literature. We will study these plays in their political, historical and artistic context, also looking at ancient theatres, vases and other Greek archaeological evidence of the time.

In the 'world of the hero' component, for instance, you could read Greek Epic: Homer's Iliad or Odyssey and Virgil's Aeneid. These poems are considered by many scholars as the cornerstone and landmarks in Western literature. You will tackle literary aspects of one of these texts. A synoptic element is introduced by discussing the religious, cultural and social values of both Greek and Roman civilisations.

In the 'culture and the arts' component we shall be looking at Greek Religion and analysing a number of the best known Greek believes and places of worship, as well as thought provoking Greek philosophical ideas ever written.

How will you be assessed?

There will be three examinations externally assessed. Each paper will consist of content and appreciation questions taken from the studied texts, as well as an essay from a choice of two. You will be expected to make use of secondary sources and academic views to support your argument.

Where will success take me?

An A Level in Classical Civilisation will enhance your chances of being accepted into University. There you can choose to specialise in the Classics, or to use your classical grounding as the foundation for subjects like history, archaeology and anthropology. It really depends on your own dream. Whether you see yourself diving for artefacts in the sunny Aegean Sea or addressing the speaker as a Member of Parliament, the Classics are a wonderful foundation.



Design and Technology



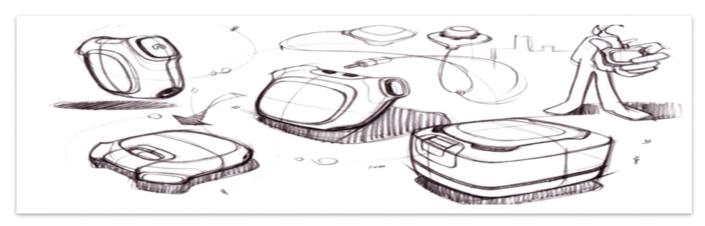
Head of Department: Mrs D. Dean

Design and Technology:

EDUQAS Product Design

This specification is designed to encourage candidates to:

- Develop a broad view of design and technology
- Develop their capacity to design and make products
- Appreciate the complex relations between design, materials, manufacture and marketing.



GCSE Course Requirements: Grade 6 or above in Design and Technology at GCSE is required for entry to the A Level Course in Product Design.

In the **Lower Sixth**, candidates develop an understanding of a broad range of materials, with emphasis on the life cycle of products, manufacture and final disposal. This specification also considers the broader issues for the designer including the environmental sustainability of products and consumer safety:

Exam Topics

- Designing and Innovation
- Materials and Components
- Processes
- Industrial and Commercial Practice
- Product Analysis and Systems
- Human Responsibility
- Public Interaction

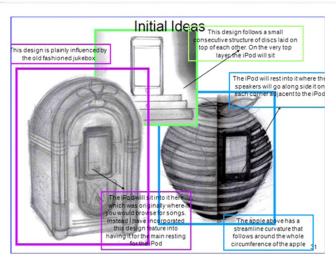
At **Upper Sixth**, the specification offers candidates the opportunity to further develop the knowledge and practical skills. Candidates will continue to develop a body of coursework alongside an understanding of the processes and procedures of commercial production and manufacture:

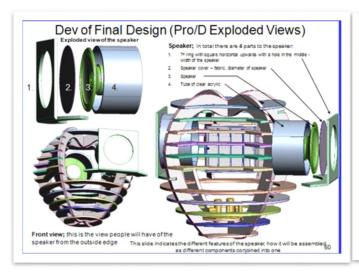
Students produce an extensive design and make project. In completing the project the design and make project the students will be required to produce the following evidence:

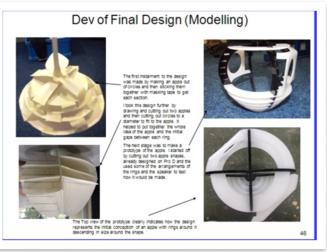
- A design brief developed by the students that challenges design ideas
- A professional prototype is manufactured that fits the chosen brief
- A design portfolio containing fully documented research and planning for all stages of the project
- Market and user research with ergonomics and anthropometric studies
- Full testing strategy of the final product.
- Computer Aided Design and Virtual Reality modelling to support the final design

Below are some example pages from an A Level coursework project.









Economics



Head of Department: Mr R. Rule

What is Economics?

Economics is all around us, all the time. It is the only subject that is on the front page of every newspaper every week and has a very real application in everyday lives.

Economics is concerned with matters which will affect all of us at some time in our lives. Inflation, unemployment, interest rates, taxes, the value of the pound, house prices and recessions are all matters that we study in A Level Economics.

FINANCIAL TIMES

"Without economy none can be rich, and with it few will be poor." Samuel Johnson (British author b. 1709)

Bank of England forecasts 33% chance of economy shrinking

• Carney cites Brexit uncertainty • Sterling at 30-month low

Most general elections are fought on the relative merits of the parties' economic policies and these are things which all members of society ought to know about.

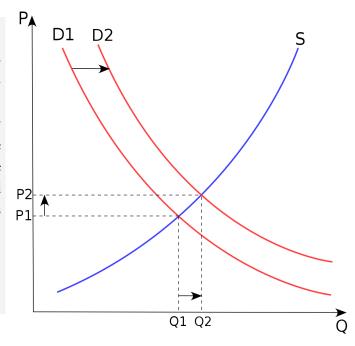
"Government's view of the economy could be summed up in a few short phrases:

If it moves, tax it. If it keeps moving, regulate it. And if it stops moving, subsidise it"

Ronald Reagan (American 40th US President 1981-89)

Where does it fit in?

Economics has the advantage of being suitable for combining with both arts and science subjects. It can be studied by somebody wishing to prepare for an Economics/ based course at university Business somebody who simply wishes to know more about the world around them. A Level Economics involves the learning of many transferable skills, and is well respected by any university in the world because of its academic rigour.



Course Structure: OCR Board

The Economics course is linear and will be examined at the end of two years of study. It is split into two clear parts Microeconomics and Macroeconomics.

Lower Sixth

Introduction to Microeconomics:

This topic provides an introduction into the nature of Economics. It uses economic theory to ask the important microeconomic questions. For example:

- "Why is Wayne Rooney paid so much?"
- "How can the government place so much tax on fuel?"
- "What happens when oil resources run out?"
- "Should the government let people drink alcohol?"

Introduction to Macroeconomics:

This topic provides an introduction to the key measures of macroeconomic performance and the main objectives and instruments of economic policy. The questions we ask this time are about the whole economy. For example:

- "Why has the Bank of England slashed interest rates?"
- "What is Quantitative Easing?"
- "To tax or not to tax?"

Upper Sixth

Complex Microeconomics and Macroeconomics

In the Upper Sixth we look to develop more detailed knowledge and skills and apply them in a wider global context. It will deal with important international issues like the EU, the expansion of China and India, pollution, the credit crunch, trade and inequality in developing countries.

There are three exams at the end of the Upper Sixth: Microeconomics, Macroeconomics and Themes in Economics, which is entirely synoptic and tests students' broad understanding of the course.



English Literature



Head of Department: Mrs H. Ballantyne

Why Study English Literature at A Level?

English Literature is the perfect choice for students who want to keep their options for further study open, as well as those who are already committed to the study of English at university. English Literature is a popular qualification for a wide range of courses in higher education and is useful in all careers. Journalism, creative writing, teaching, drama, law and publishing are some of the possible career opportunities.



Specifically, it encourages students:

- To develop their interest in, and enjoyment of, literature;
- To gain an insight into the traditions of English Literature, works written outside the UK and literature in translation;
- To become independent and reflective readers, expressing their ideas accurately and persuasively in writing and speaking;
- To use critical concepts and terminology with understanding and discrimination;
- To reflect on their own responses to texts, informed by other readers' interpretations, with an awareness of the contexts in which texts were written;
- To use their detailed knowledge and understanding of individual texts to explore comparisons and connections between them, and to appreciate the significance of cultural and historical influences upon readers and writers.



A Level Specification

The English Literature A Level consists of three components: two externally assessed examinations and one non-examined assessment component that is internally assessed by the centre and externally moderated by OCR.

Students are required to study a minimum of 8 texts at A Level, including at least two examples of each of the genres of poetry, prose and drama.

Exam 1:		
Drama and Poetry Pre-1900	2 hours, 30 minutes	
-Shakespeare	(60 marks)	40% of total A Level
-Drama and Poetry Pre-1900		
-(Closed text)		
Exam 2:		
Comparative and Contextual Study	2 hours, 30 minutes	
-Close reading (unseen)	(60 marks)	40% of total A Level
-Comparative and Contextual essay		
-(Closed text)		
Non-Examined Assessment Component: Literature Post-1900	One critical or re-creative piece with commentary based on one text	20% of total A Level
-Critical piece OR re-creative writing	One essay based on two linked texts	
piece with commentary	(40 marks)	
-Comparative essay		

Geography



Head of Department: Miss Barsoum

The Course:

The AQA Specification provides the opportunity to study contemporary geographical events which students can relate to the everyday world in which they live. The subject content follows an issues and impacts approach. The teaching of Geographical Skills is integrated within the core components and is designed to teach students how to collect, interpret and analyse a wide range of different types of data.

A Level Geography will not offer an AS Level exam at the end of the Lower Sixth year.

Topics

The A Level specification covers a diverse range of 'physical' and 'human' topics.

Physical Geography

Preparation for the Physical Geography paper will include the study of 'Water and Carbon Cycles', 'Coastal Systems and Landscapes' and 'Hazards'.

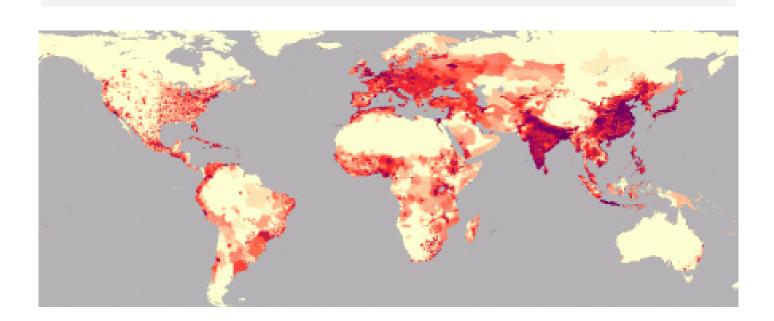
The study of hazards covers case studies of volcanic eruptions, earthquakes, tsunamis and storm events and focuses upon evaluating the success of attempts by humans to mitigate against the impacts of the hazards.

Human Geography

Human Geography topics will include 'Global Systems and Global Governance', 'Changing Places' and 'Contemporary Urban Environments'.

Examinations

Each of these two sections will be examined by a written paper of **2 hours 30 minutes** duration, which will include a variety of question styles including both short answers and extended prose.



Fieldwork

Fieldwork is an important component of this subject and it is compulsory to complete a minimum of four days of fieldwork which will be undertaken during the two-year course.

A significant change from the present specification is the requirement for students to undertake an individual investigation, involving the collection of primary data which will then be presented and analysed.

The Independent Investigation will account for 20% of the total A Level marks.

Where can Geography take me?

Geography provides a natural bridge between Arts and Science subjects and is therefore suitable for a wide variety of subject combinations.

It may be chosen by students with a desire to follow a Geography degree course at university, or a course with a wider link to Geography, such as Biology, Economics, International Relations or even Law.

It is often studied as a non-vocational subject, however, and previous A Level students have gone on to follow a very varied range of degree courses and to apply their skills and knowledge in many different careers.



History



Head of Department: Mr C. D. McKie

Course Breakdown

There are four units in total, two to be studied during Lower Sixth (40%) and a further two in the Upper Sixth (60%). This is an A Level linear subject and all units will be sat in the Upper Sixth. The main countries under consideration are Britain, South Africa, Russia and Germany.

Lower Sixth Units:

Unit 1 - From Pitt to Peel: Britain 1783-1853 25%

An examination of 1 hour 30 minutes.

Unit 2 – Apartheid and Reconciliation: South African Politics 1948-1999 15%

An examination of 1 hour.









Upper Sixth Units:

Unit 3 – Russia and its Rulers 1855-1964 40%

An examination of 2 hours 30 minutes.









Unit 4 – Coursework 20%

A topic based essay of 3000 - 4000 words (Nazi Germany, 1933-1945).

Coursework

Unit 4 (the topic based essay) is the traditional coursework module. The purpose of this unit is to enable candidates to assess different **historical interpretations** and to carry out an **historical investigation** of their own choosing.

One piece of work, of between 3000 - 4000 words, will be submitted to OCR. A choice of questions will be available and there is ample opportunity for students to pursue an area that grabs their attention.

Possibilities include the nature of Nazi government, its impact on German society, opposition to Nazism and racial aims and policies.

It will be internally assessed, but moderated by the board.

Requirements

A minimum of grade 7 at GCSE is required to study A Level History.

Rationale

"Only strong personalities can endure history, the weak ones are extinguished by it."

Friedrich Nietzsche (1844-1900)

The A Level course deals in 'strong personalities' with the likes of William Pitt the Younger, Robert Peel, Peter the Great, Lenin, Stalin and Hitler all playing prominent roles. The ability of individuals to influence events and motivate others to take action makes History a fascinating option at A Level.

Qualities needed to study History

An open and enquiring mind is an essential attribute of a good historian.

A Level historians will be able to:

- Evaluate competing interpretations and arrive at secure judgements
- Absorb and manage a good deal of information
- Order and analyse information
- Reason with clarity and cogency
- Use and refine their judgements based on the evidence
- Express an argument persuasively and with clarity.

Given these skills, an A Level in History is a much prized asset, both by universities and employers. It is these developed capacities which prepare students for successful careers in areas in finance, management, law, administration, the media and many others.

The bottom line is that history is interesting; it deals with human beings and the human story, our past. It helps toward a perspective on, and understanding of, the present and satisfies a basic human trait, our curiosity about our world.



ICT



Head of Department: Mr D. Bell

A Level Information and Communication Technology

Board: Cambridge International Specification code 9626

This A Level uses a task driven approach to solving problems using Information Communication Technology. Students will be expected to use the full facilities of various packages and bring together their knowledge and skills to solve real and realistic problems.

The course also extends the students' conception of the effects and limitations of Information Communication Technology and understanding of new opportunities it provides within organisations and society.

Students must have a wide knowledge of various software packages prior to the course or be able to demonstrate their ability within the subject.

Course Outline:

AS ICT

Course content:

- Data, information and knowledge
- Hardware and software
- Monitoring and control
- E-safety and health and safety
- The digital divide
- Using networks
- Expert systems
- Spreadsheets
- Database and file concepts
- Sound and video editing

Assessment:

Paper 1

Time: 1 hour 45 minutes

Marks: 90 (50%)

This written paper test sections 1-10 of the syllabus content.

Each examination paper consists of short-answer and structured questions of variable mark value.

Paper 2

Time: 2 hours 30 minutes

Marks: 110 (50%)

This paper tests sections 8-10 of the syllabus content. Candidates perform practical tasks within a structured problem solving context and submit their work electronically. They must use the most appropriate software and appropriate methods to solve these tasks.

A Level ICT

Course content:

- Emerging technologies
- Role and impact of IT in society
- Networks
- Project management
- System life cycle
- Graphics creation
- Animation
- Mail merge
- Programming for the web

Assessment

Paper 3

Time: 1 hour 45 minutes

Marks: 110 (50%)

This paper tests sections 11-19 of the syllabus content. Each examination paper consists of short-answer and structured questions of variable mark value.

Paper 4 (Advanced Practical)

Time: 2 hours 30 minutes

Marks: 110 (50%)

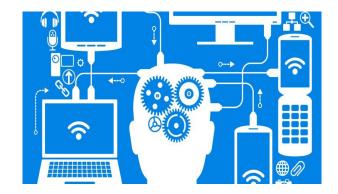
This paper tests sections 16-19 and 8-9 of the syllabus content. Candidates perform practical tasks within a structured problem solving context and submit their work electronically. They must use the most appropriate software and appropriate methods to solve these tasks.

Progression opportunities

In today's world, individuals will increasingly need technological and information literacy skills that include the ability to gather, process, and manipulate data. These skills are now as essential as the traditional skills of numeracy and literacy. The impact of ICT on society is enormous and as the percentage of businesses and households connected to communication networks such as the Internet grows, so does the need for individuals who can master and manipulate these new technologies.

As well as the rapid development of new technologies that gather, organise, and share information, familiar technologies like television, telephone, and computers are evolving and being expanded by digitised information, causing a convergence of technologies. ICT provides new opportunities for learning as well as changing the way in which we work. Traditional unskilled jobs are disappearing, while new areas of economic activity, such as multimedia production, are growing rapidly. Also, how and where we work continues to evolve as technology impacts on the workplace.

In today's workplace, those with the knowledge and skills to use ICT creatively have the opportunity to pursue new and exciting careers, with whole industries emerging around the ICT revolution. To meet these career challenges, students must be self-reliant as well as good communicators and problem solvers. They require interpersonal, academic, and technical skills, and must demonstrate an ability to work independently and as part of a team. They also need to develop an ethical approach to the use of information. This course provides a focus to develop these skills while ensuring that students acquire a sound knowledge of ICT.





Latin



Head of Department: Mrs T. Washington

Why should you consider studying Latin at A Level?

- Latin is an enjoyable and challenging language
- It is a highly regarded academic subject



Just think about the opportunities the study of Latin can offer:

- You will read some of the greatest literature, historiography and political speeches ever written
- It will give you the chance to explore how the Romans lived and the legacy that they left to our modern world
- Latin will help with your development of a range of **highly valued academic skills and personal** qualities:
- ⇒ The study of the Latin language forms an excellent linguistic foundation, as well as providing a mental and intellectual challenge. As a Latin student you will be able to absorb, retain and critically analyse texts from a variety of genres, historical periods and styles.
- The understanding of the elaborate linguistic structure and syntax of Latin could enable you to grasp, appreciate, and indeed to learn rhetoric and communication skills from the first rhetoricians, as well as the rechniques of persuasion from politicians and lawyers of the earliest lawcourts. These techniques are still used by writers, lawyers and politicians of today: The ability to use English well and to communicate effectively are possibly the two primary skills that prepare students to compete successfully in the job market at home and abroad.
- ⇒ Studying Latin will help you gain <u>historical perspective</u> through direct access to a classical civilisation and culture that influenced the world in our own time. Students learn ways of life, types of government, politics, legal systems, commerce and values that have similarities to and differences from our own. Therefore, they develop their <u>analytical thinking</u>.



What will be the structure and content of the course?

Unit 1: Unseen Translation: 1 hour 45 minutes (100 marks) 33% of the total A Level.

You will read a selection of historic and literary extracts in order to tackle the two unseen passages in the examination. All we know is the authors, but not the exact texts, which makes it all the more interesting.

One passage will be taken from the Roman historiographer Livy (who wrote a vast history from the foundation of Rome to his day, including Hannibal's crossing of the Alps in his elephants!); the other one will be a piece of poetry from a very prolific and thought-provoking Augustan poet: Ovid. You will also learn about Roman poetic rhythm and how to scan verse.

Unit 2: Comprehension; 1 hour 15 minutes (50 marks) – 17% of the total A Level

You will have to demonstrate your understanding of a passage of unseen prose text through some translation, comprehension, translation and questions on syntax and grammar.

Unit 3: Prose Literature; 2 hours (75 marks) – 25% of the total A Level

In this paper, you will be required to demonstrate knowledge and understanding of a set text in its wider context. This will involve the translation of a section of the passages of the given set text into English; answer comprehension questions and answer a 15-mark questin analysing literary style, characterisation, argument and literary meaning.

For examination in 2022 and 2023, the prose set texts will be taken from: Cicero, *Murder at Larinum* or Tacitus, *Annals IV* (a selection of extracts).

Unit 4: Verse Literature; 2 hours (75 marks) – 25% of the total A Level

For examination in 2022 and 2023 the texts will be taken from: Virgil, Anenid XII

What other subjects combine successfully with Latin?

The subject has very obvious connections with English Literature, Modern Languages and History. Studying Latin will complement and strengthen your study of any of these A Level courses.

Latin also combines well with Maths and Science subjects to create an attractive and complementary portfolio of subjects for a student to move on to a science based course.

The Russell Group universities regard Latin as a facilitating subject. They expect applicants to study at least one facilitating subject.

What career options might this course lead to?

You can progress to higher education courses such as honours degrees in Classics (Latin, Greek and / or Classical Civilisation, or all three), or to degrees in related subjects such as History, English Literature, Modern Languages, Archaeology and Religious Studies, for example.

An Advanced GCE in Latin will give you a number of highly valued skills relevant to many types of employment, such as intellectual rigour and the ability to challenge and extend yourself and solve problems. An eye for detail and a focus on accuracy and precision, combined with careful thought and powers of analysis, are invaluable for success in so many fields.

Students with qualifications in Classics (Latin, Greek and Classical Civilisation) go into a variety of professional careers. The skills that you will obtain through studying Latin will be useful and highly valued in a number of careers, either directly related to Latin and the Classical world (e.g. teaching, working in museums, galleries, heritage sites, record offices and archives), or in areas such as journalism, the law, national and local government, the civil and diplomatic and intelligence services.

What co-curricular activities support this course?

Students will be encouraged to participate in visits to museums, to university Classics departments, to study days, seminars and lectures and on trips to Classical sites.

Maths and Further Maths



Head of Department: Mr S. Hope

Why Study Maths or Further Maths at A Level?

An A Level in Mathematics is universally recognised as being an extremely valuable qualification both by universities and employers. This is particularly true if you aim to study Maths or a course which uses Maths significantly at university.

You should also consider Further Maths if you are keen to study Maths or a subject which relies heavily on Maths at university. Of course, you can also take Further Maths A Level just because you enjoy Maths!

As well as some natural flair for mathematics, you will be required to work hard throughout the course (10% inspiration, 90% perspiration!) and should expect to encounter frustration and anger as well as discovery and joy!

Be prepared to see some differences between your A Level and GCSE Mathematics. You will meet new concepts at a much faster rate and be expected to exhibit considerable determination and self-discipline in order to develop fluency in the techniques you learn.

"The universe cannot be read until we have learnt the language and become familiar with the characters in which it is written. It is written in mathematical language...."

Bertrand Russell claimed that "mathematics, rightly viewed, contains supreme beauty," and at A Level we begin to see some of the power and elegance which has inspired great minds throughout history.



Requirements:

You need to have achieved a minimum of grade 7 at GCSE if you want to study Mathematics A Level.

If you are keen to also study Further Mathematics you must speak to the Head of Mathematics, Mr Hope, in the first instance.

The Mathematics A Level consists of topics in Pure Mathematics, Statistics and Mechanics. We study all three areas in both year12 and year 13.

The Further Mathematics A Level consists of more Pure Mathematics, Statistics and Mechanics spread throughout the two years of the course.

- In Pure Mathematics, we develop the algebraic techniques begun at GCSE and are introduced to Calculus the mathematics of change.
- In Mechanics we learn how Pure Mathematics can be applied to physical systems such as bouncy balls, projectiles, trains and space rockets.
- The study of Statistics allows us to present data in meaningful ways, test hypotheses and win at gambling (probably).

The Further Mathematicians take their study of Pure Mathematics, Statistics and Mechanics much further, taking them into areas which provide an excellent basis for the study of Mathematics, Engineering, Physics and many other subjects at university.

Further Mathematicians are taught in a separate group for most topics but will join the Mathematicians for some topics.

How Will I Be Examined in A Level Mathematics?

We follow the Edexcel examination board A Level syllabus.

There is no coursework in A Level Mathematics or Further Mathematics.

At the end of Year 13 there will be A Level examinations consisting of two 2-hour Pure Mathematics examinations and a 2-hour Mechanics and Statistics examination.

In Further Mathematics there will be two 1½ hour Further Pure Mathematics examinations, a 1½ hour Further Mechanics examinations and a 1½ hour Further Statistics examination.

Modern Foreign Languages



Head of Department: Mrs M. Holgate

Language Options: French / Spanish

A Level Course Content:

Areas of Study:

- Social Issues and Current Trends (e.g. techno-age, changing family structure)
- Ethical Debates (e.g. euthanasia, the death penalty, nuclear energy)
- Current Affairs and Politics (e.g. immigration, freedom of speech)
- Artistic Culture and Heritage (e.g. music, cinema, festivals and traditions)
- Film / Book
- Grammar

Skills tested:

- Listening and Reading identifying main points, gist and detail
- Translation (both ways)
- Analysis of film / book
- Oral Communication
- Understanding written sources and summarising
- Manipulating language accurately
- Showing knowledge and understanding about the culture and society where the language is spoken
- Independent research of theme to present in oral at end of course

What other A Level subject allows you to explore views on such a wide range of topics relevant in today's society, from racism to genetic engineering, and from equality issues to film studies?

Learning a Language develops key skills

- Debating / arguing and persuading
- Attention to detail
- Personal confidence and independence
- Listening and responding to others
- Problem solving
- Researching, evaluating and interpreting information
- Presentation skills

Cultural Awareness and Research Skills

At A Level you have the chance to delve more deeply into the culture and society of the countries where the language is spoken. You could choose to find out more about Spain's return to democracy or the events leading up to the fall of the Berlin Wall. You could study important works of literature or international cinema. Of course there is no substitute for spending time independently in a country where your chosen language or languages are spoken, and your teachers can advise you on arranging trips abroad.



Why Study Languages?

"Employers in almost all sectors – including law, accountancy, retail and media, to name just a few – value applicants with a foreign language. Research by CILT into the job market has shown language graduates entering a range of careers. Analysis of job specifications in advertisements shows the strongest demand remains for French and German. But proficiency in Spanish, Mandarin, Portuguese, Russian and other non-European languages can also be immensely useful."

(The Independent, 13th April 2011)

"The words "graduate with a foreign language" on your CV will have many recruiters going back for another look. That's because a relatively small pool of Brits have foreign language credentials, so they **stand out from the crowd** and, consequently, have far **healthier career options**." (The Guardian, 27th June 2011)

- French and Spanish are both facilitating A Level subjects: the ones the most competitive universities in the UK look for in prospective students.
- The current decline in numbers taking modern language A Levels nationally has meant that good universities are keener than ever to attract students onto their language courses.

Employability

Of the 291 companies surveyed in the annual education and skills survey conducted by the Confederation of British Industry (CBI), 41 percent said they believed knowledge of a foreign language would be beneficial to their business, while 65 percent identified a need for foreign language skills.

Future-proof Your Career

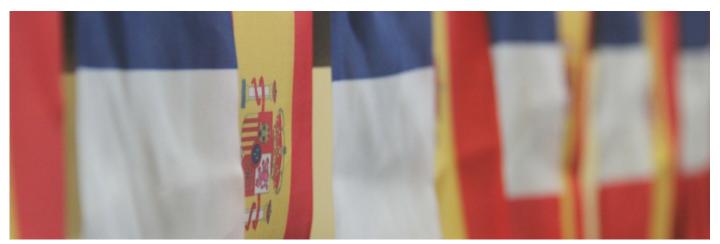
"As British businesses work further beyond our shores, foreign language skills are becoming increasingly important," says Dr Adam Marshall, executive director of policy and external affairs at the British Chambers of Commerce. [...] "If I were a student all over again, I'd be thinking hard about the opportunities that language learning could create for my future career."

The UK has long been criticised on the European and international stage for a perceived reluctance to learn foreign languages or promote their learning in schools. Now this apathetic approach to language learning has created a skills gap British businesses are desperately trying to fill.

(Linguistica, 7th July 2015)

Joint and Combined Degrees

Universities offer a diverse range of courses combining language study with other disciplines including Law, History, Sciences, Engineering, Business and Economics, many of which include a year studying or working overseas.



Music



Head of Department: Mr P. Robinson

AQA AS and A Level Music: at a glance

There are three components for A Level Music, which follow the same pattern as at GCSE:

Unit 1: Appraising music

There are seven areas of study from which to choose:

- 1. Western classical tradition 1650-1910 (compulsory)
- 2. Pop music
- 3. Music for media
- 4. Music for theatre
- 5. Jazz
- 6. Contemporary traditional music
- 7. Art music since 1910

Students must study area of study 1 and choose two from areas of study 2–7, one of which is studied in Y12 and the other the following year.

What's assessed

- Listening
- Analysis
- Contextual understanding

How it's assessed

Exam paper with listening and written questions using excerpts of music.

Questions

- Section A: Listening
- Section B: Analysis
- Section C: Essay

This component is 40% of your total marks at A Level.



Unit 2: Performance

What's assessed

Music performance

How it's assessed

Solo and/or ensemble performing as an instrumentalist, or vocalist and/or music production (via technology).

Requirement

A minimum of ten minutes of performance in total is required.

This component makes up 35% of A Level marks.

This work will be externally marked by AQA examiners.

Unit 3: Composition

What's assessed

Composition

How it's assessed

- Composition 1: Composition to a brief
- Composition 2: Free composition

Requirement

A minimum of four and a half minutes of music in total is required.

This component is worth 25% of A Level marks.

This work will be externally marked by AQA examiners.

Requirements

If you've already done GCSE the course will come as no surprise because it has similar components and expectations except at a higher level. If you've not previously done GCSE it is still perfectly possible to attempt AS but you'll need to have a good theory base already and be prepared to do some catching up. You will need, however, to be a performer of not less than Grade 5/6 standard to achieve a reasonable mark in the performance units and if you're Grades 7/8 these units should not cause you any problems.

The Future

Although it is true to say that the majority of Music A Level students go on to read this subject at university, many have gone on to read other subjects and music is generally regarded very favourably in applications, it being an Arts subject that requires a high degree of personal discipline, practical skill and academic rigour. And did you know that ABRSM and Trinity Guildhall Graded Examinations now give you valuable UCAS points? Past students have gone on to be performers, recording engineers, composers and teachers, not to mention lawyers and various other non-musical professions, so this qualification is not limiting.

Physical Education



Head of Department: Mr K Fowles

What kind of student is this course suitable for?

The course will appeal to those students who:

- Have a keen interest in sport and the science of exercise
- Want to maintain and develop their involvement and effectiveness in physical activity
- Want to learn about healthy lifestyles, fitness and training, and preparation for sports performance
- Play at least one sport at a high standard, ideally school or club 1st team, regional or national level
- Be knowledgeable and interested in your chosen sport, be able to discuss the technical aspects involved
- Would like to identify opportunities locally, nationally and internationally for them to advance their participation in physical activity
- Want to know more about sport, from grass roots to the elite level, and the development of competitive sport
- Want to study a course that is active and that they will enjoy
- May want to move on to a related career or higher education course

What do I need to know or be able to do before taking this course?

Students will have the chance to take on the roles of 'performer' or 'coach' at A Level

The course involves both theoretical and practical components. Assessment includes oral and practical coursework tasks, and written examination papers

Students will maintain their own coursework portfolio and training/playing logbook

The most important requirements are a lively and enquiring mind, an interest in physical education, a willingness to explore new ideas and an ability to communicate your ideas effectively

We expect students to have a minimum of a grade 6 in at least one science at GCSE.

What could I go on to do at the end of my course?

Students with A Level PE have access to a wide range of possible career and higher education opportunities. You will learn skills such as collecting, analysing and interpreting data, communicating your findings in different ways, and identifying and developing the links between different parts of the subject. These skills are in great demand by employers, universities and colleges

A Level PE supports applications for a wide range of university courses like sports sciences, physiotherapy, recreational and leisure studies and there are many new and exciting courses related to sport throughout higher education

An ever expanding leisure industry has led to an increase in careers and opportunities in this sector

What does the course consist of?

The new A Level Physical Education course is linear and it's composition is as below:

	Component Name	Content	% of A Level
01	Physiological factors affecting performance	Applied A and P Ex Physiology Biomechanics	30%
02	Psychological factors affecting performance	2.1 Skill acquisition2.2 Sports Psychology	20%
03	Socio-cultural issues in physical activity and sport	3.1 Sport & Society 3.2 Contemporary issues in PA and sport	20%
04	Performance in physical education	4.1 Performance OR coaching4.2 Evaluation & analysis of performance for improvement	30% (15%/15%)

Physics



Head of Department: Mr P Webster

Why Study A Level Physics?

- You will explore in depth concepts of introduced at GCSE: forces, energy, waves, radioactivity, electricity and magnetism
- It is important to understand and control those things which shape our lives.
- It will develop your mathematical ability using real life situations.
- It is the gateway to careers such as Medicine, Engineering and Science.
- The ability to think mathematically is valued in areas such as finance.

Physics at Birkenhead School

- The course follows on from AQA GCSE Physics but will allow you to cover topics in greater depth.
- You will be introduced to new areas such as Particle Physics
- There is increased scope for practical work each of the required practical's spanning several lessons.
- There is no coursework. As with the GCSE Specification, **knowledge and understanding of practical** work will be tested within the written papers.
- The Department is successful achieving some of the best results in the school at A Level and GCSE.
- This subject attracts the best pupils in the school although any hardworking pupils are welcome.

Course Requirements at A Level

- You will need grade 7 to 9 GCSE Physics and Maths.
- If you do Combined Science, you will need 7-7 to 9-9 in the Physics section of the Course and a grade 7 -9 in maths.
- Ideally you should also be studying A level maths.



Expand your: knowledge - options - thinking - skills - horizons Physics at A Level: the logical choice

Psychology



Head of Department: Ms S. Hadley

Why Study A Level Psychology?

Psychology is the scientific study of behaviour and mental processes with a goal to describe, predict and explain behaviour.

While Psychology literally translates as 'the study of the human mind' – it is more than this.

Psychology is everywhere around us. It is intriguing, it is emotional, it is scientific and above all it is thought provoking.

A Level Psychology will give you an understanding of the way people think and why people behave in certain ways. Your study of Psychology will develop a variety of skills including analytical thinking, improved communication and problem solving.

Where will A Level Psychology take you?

The top seven degree courses taken by students who have an A Level in Psychology are:

- Psychology Sociology Teaching Law
- English Business studies Sport Science

A strong background in Maths is a requirement for Psychology A Level. Students who do not achieve a grade 6 in both Maths and English GCSE will be admitted to the course at the Head of Department's discretion.



AQA AS and A Level Psychology Specification

Lower Sixth:

During the first year you will study the compulsory content:

- Social influence
- Memory
- Attachment
- Approaches in psychology
- Biopsychology
- Psychopathology
- Research methods



Upper Sixth:

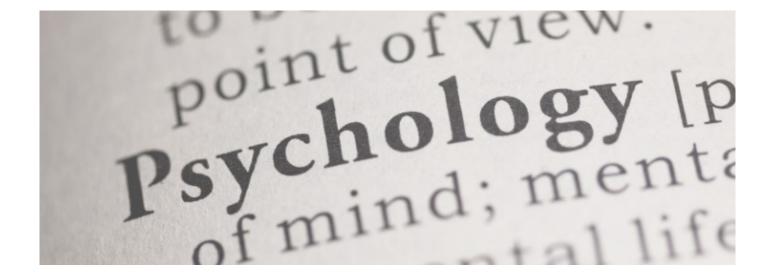
During the second year you will deepen your understanding of human behaviour by studying:

- Issues and debates in Psychology
- Relationships
- Schizophrenia
- Forensic psychology

Assessment

There are three exams where each account for one third of your A Level.

Each exam is 2 hours and consists of multiple choice, short answer and extended writing questions.



Religious Studies



Head of Department: Ms E Grey

Religious Studies Course Components:

- Ethics
- Textual Studies
- Study of a World Religion

There is no coursework.

At the end of Upper Sixth there will be three 2 hour written examinations, each worth 33.33% of the A Level.

Ethics:

Ethical debates on **environmental issues**; conservation, animal rights, climate change and issues of gender, race and disability **equality**.

Ethical theories such as **Situation Ethics**...how could a priest justify attempting to murder Hitler?

Application of ethical theories to issues involving **peace and conflict**; just war theory, pacifism and **sexual ethics**; legal changes and social attitudes.

Ethical Language...how can emotive words be used to persuade?...religion and terrorism.

Medical Ethics; medical research, abortion, euthanasia, palliative care, personhood, legal and social

changes.



In Ethics, we look at Christianity and other world religions as well as secular thinkers such as Richard Dawkins and Stephen Hawking.

Textual studies:

- Prophecies regarding the Messiah
- Life in the time of Jesus; Roman occupation, work, religion, cultural context
- Prologue of John; meaning and significance
- Titles of Jesus; 'I am' sayings
- Miracles and signs
- Interpreting the texts as a scholar; sources and authorship; strengths and weaknesses of the different arguments

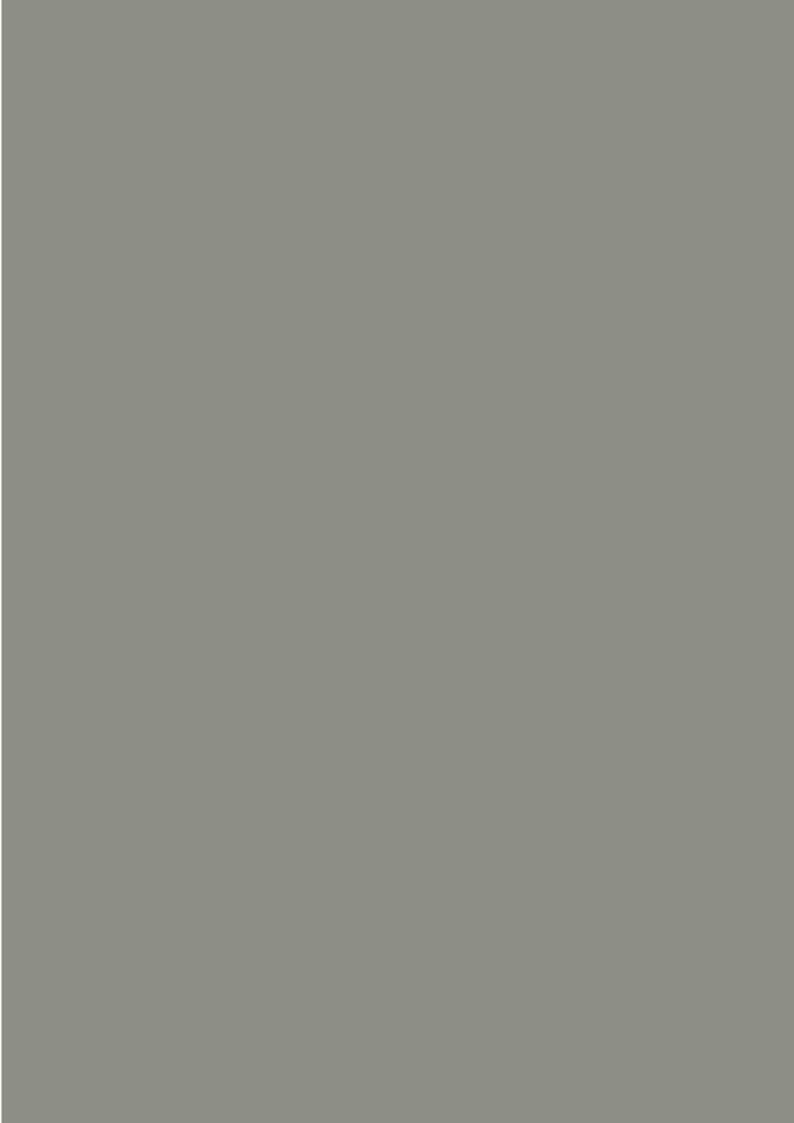


- Interpreting the texts in religion; literal, allegorical, rational, historical, sociological, literary; strengths and weaknesses of the different positions
- Ethics; how should we live? Ethical teachings of Jesus and comparison with Judaism at the time, religious and secular responses

Study of a World Religion: Buddhism:

- Beliefs; The 4 Noble Truths, The Eightfold Path, The 3 marks of existence
- The life and work of the Buddha
- Theravada Buddhism
- Mahayana Buddhism
- Meditation; types and purposes
- The development of Buddhism in China and Japan; Pure Land and Zen
- Triratna Buddhism in The West
- The role of women in different forms of Buddhism
- The ideas of modern scholars on Buddhism







For more information, please contact the Head of Sixth Form, Ms L Smeaton, at ls@birkenheadschool.co.uk

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