



Derby Grammar School

Where you belong

There's a difference between education and truly bringing education to life. And it's this distinction that makes Derby Grammar School unique.

It's built on our blended beliefs in excellence, encouragement, and enrichment. It helps our students to excel through the best education, it supports each individual to grow both personally and academically and ensures their school years create a legacy of life-long skills and lifeaffirming experiences.

Sixth Form Subject Guide



Welcome

Mr James Gibbons Head of 6th Form

Derby Grammar School Sixth Form is a creative and supportive learning environment where independence, individuality, curiosity and debate are encouraged and achieved.

We welcome both girls and boys into our Sixth Form. Students progress from our own Senior School and new students join us from across the region.

As Head of Sixth Form I encourage you to explore the wide range of opportunities we are able to offer. These range from in-depth knowledge and guidance from our dedicated teaching staff who are all passionate about their subject areas, to co-curricular activities such as a wide range of sporting opportunities and participation in The Duke of Edinburgh Gold Award. In addition to this, there are many opportunities to explore your future career, get involved in charity and local community work, and engage in the full social life of Sixth Form.

Ask any Old Derbeian for a highlight of their time here and they will, undoubtedly, mention the Year 12 trip to Tanzania where they spend two weeks working with our partner school, Gedeli, and also volunteer at the Hisani Orphanage on the outskirts of Mwanza. It is an incredible experience for all who venture to Africa and a chance for them to further their social and emotional development.

Your future after Sixth Form matters a great deal to us which is why we have specialists to offer careers guidance and help you prepare your application and interview for university, a higher apprenticeship or employment. This support includes Oxbridge application preparation. Our former students are now enjoying successful careers across the UK and overseas. Aviation, politics, meteorology, engineering, architecture, medicine, dentistry and music are just some of the career paths they have chosen to follow.

I hope that you find the information in this guide useful and that it gives you a taste of Derby Grammar School Sixth Form. If you decide we are the right place for you, I look forward to welcoming you in the future.

"Sixth Form is a really welcoming, warm environment. We're given lots of individual support, but responsibility too. It's up to us to have the passion and drive for our own education, and it works well that way. Teachers make lessons really interesting; learning is always hands-on and trips allow us to experience subjects first hand." Student

Why choose Derby Grammar School

Consistently outstanding A Level results - 50% of grades were A* - B in 2024.

Dedicated university and careers support - our team of advisors work with you as you move through Sixth Form onto your next step.

Individual attention - we limit the size of our Sixth Form classes which means that we get to know you, and you get the individual support and guidance you need throughout your studies.

We reward talent - our scholarship programme recognises those who excel, whilst our bursary scheme promotes accessibility for all and provides financial assistance towards the cost of fees.

Outstanding opportunities involving working with our partner school in Tanzania, you have an abundance of opportunities at your fingertips which help build character, enterprise and leadership skills.

50% of A Level grades were at A*- B in 2024

Derby Grammar School Sixth Form is a dynamic environment for study. It's a place where new friendships are formed, where you are inspired by new knowledge and where you begin your journey to your future career.

Our Sixth Form cohort benefit from both a dedicated study space and a stylish social space. Steeped in tradition, with wood panelling and floor to ceiling windows which bathe the room in light, the Library offers a mezzanine workspace with IT access for pupils to study a 21st century academic curriculum. Our beautiful Sixth Form Common Room provides welcome social and relaxation space, empowering pupils to manage their own time as part of their transition towards higher education and adult life.

Excellence

Our A Level curriculum is rigorous, varied and exciting to ensure we meet your strengths and aspirations. The focus is on academic stretch and support. You are encouraged by your teachers to read widely and to study hard. Your timetable includes private study periods; we offer quiet places to study in the Library and around school. The learning skills you develop during Sixth Form are ideal preparation for later life.

We are a small community, and we believe this is one of our many strengths. So whilst your independent study skills are developed, your subject teachers are also always accessible and will make time for you to offer support in any areas where you need additional explanation and guidance.

Throughout your time in Sixth Form your academic learning will be enhanced by curricular trips and opportunities. The extent will depend on the subjects you choose, but may range from theatre trips and visits to historical sites, to field trips and Olympiad competitions.



Encouragement

We encourage personal growth through academic and pastoral support. Your Sixth Form tutor is your main point of contact throughout your two years of A Level study. As well as helping you develop your study skills, write your CV and prepare your university application, they will also monitor your academic progress and take an interest in your general wellbeing.

You will develop a very close rapport with your tutor who will encourage, help and assist you whenever needed.

"Derby Grammar School has provided an excellent education and unparalleled pastoral support for my son and daughter. The opportunities have been many; the staff work as a team and respect and develop qualities in every child. This is an admirable attribute... it is not just a good school, it is an outstanding school."

Parent

Incredible Opportunities

There is much more to life in the Sixth Form than the academic curriculum. We create opportunities, experiences and skills that will enrich lives and which help shape your character and prepare you for future success.

Whether it's taking part in a House competition or joining a club to learn new skills, or enhance current ones, there are a wide range of opportunities at your fingertips which will enrich your time in Sixth Form.

School Houses

Our House system encourages a sense of unity and healthy competition. Everyone belongs to one of four Houses which bring together students from Year 7 through to Year 13.

Led by Sixth Form House Prefects the Houses compete against one another throughout the academic year in a wide range of competitions, from football, hockey and rowing, to drama, art and debating. There is something for everyone, and the competitions are always keenly contested.

Prefects

The Prefect Team is made up of a group of Sixth Formers who play an active role in school-life.

Being a Prefect can be demanding. It is a role that requires effective communication and the ability to listen, as well as tact, diplomacy and a sense of humour. It can also be incredibly rewarding as you develop leadership and motivational skills that will remain with you for life.

Co-curricular

The opportunities at Derby Grammar School are wide and varied, but all will help you develop new skills. Some examples include:

• Formula 24+ - whether your interest lies in engineering or driving, or both, as part of the F24+ team you will take part in the Greenpower racing series all over the country with our own purpose-built car.

• Duke of Edinburgh's Award – this award helps to develop a range of skills through expeditions, challenges and volunteering. Tremendously beneficial, it sets the tone for a lifetime of achievement, encouraging responsibility, initiative, teamwork and self-confidence – skills that are attractive to universities and employers alike. Sixth Form students benefit from direct entry to the Gold Award.

• Debating – join fellow Sixth Formers as you take part in school, as well the annual House Debating competition.

Volunteering and fundraising

Sixth Formers regularly help out in Derby Grammar Primary School, whether it be working with pupils in lessons, listening to reading, helping with playground supervision or getting involved in Primary School clubs. All agree it's an enjoyable and fun experience.

Many of our Sixth Form also volunteer as mentors to GCSE pupils, drawing upon their own experiences to develop their study skills.

As well as volunteering we support local and international good causes through fundraising. Sixth Formers play a pivotal role in these activities, particularly leading on the organisation of Charities Week which takes place each autumn.

Music

Our thriving music department offers a variety of instrumental ensembles to all levels of musical ability. All Stars Jazz Band is open to all, and Swing Band is open to players of Grade 4 and above.

Through a team of specialist teachers we also offer co-curricular music lessons on an individual basis.

Our Choir performs a wide range of music including pop, jazz, classical and world styles. Concerts are given both in and out of school.

Our award winning Barber Shop Choir is open to our more advanced students. This is often in high demand for out of school performances.

Sport

Sport is an integral part of life at Derby Grammar School. As part of our sports provision, we aim to support and develop independence, resilience and problemsolving skills; inspire creativity and originality; and enhance confidence and communication skills of all our pupils. We encourage pupils to take part in a wide range of sports and activities, and help them to appreciate that sport and physical activity are essential components of leading a healthier, happier and active lifestyle.

Our dedicated sports facility, Rykneld Sports Centre, is located just a short distance away from our main school site and enables our pupils to participate in a wide range of indoor and outdoor sports, such as:

- Rugby
- Hockey
- Cricket
- Badminton
- Short Tennis
- Basketball
- Netball
- Football
- Table tennis
- Ultimate frisbee
- Health related fitness (S&C)

As part of our Sixth Form Games afternoon, we offer both competitive and recreational opportunities. These range from our core sports of rugby, hockey and cricket, where pupils represent the school competitively against other schools in sports fixtures. All core sports are delivered by highly experienced and qualified members of the sports department. Or push themselves recreationally in a variety of additional sports such as basketball, netball, football, badminton, ultimate frisbee, table tennis and health related fitness.

Changing Lives

Prepare yourself for a life-changing journey to Mwanza in Tanzania. "Humbling", "inspiring" and "moving" are just some of the words used to describe the experience by our Sixth Formers.

The Tanzania Project

Our Year 12 students are all offered the opportunity to travel to Tanzania for three weeks to support our partner school, Amani, through teaching, improving the facilities and by supporting community groups.

For everyone taking part it is a year-long project as we encourage you to develop your entrepreneurial skills to raise the money to fund your trip, as well as coordinating whole-school fundraising activities to raise money to invest in projects to support Amani School.

A life-changing experience

Since the project began in 2013 we have raised over £90,000 for our previous partners, Gedeli B School which has enabled us to:

- build four new classrooms and a special needs classroom
- install electricity and running water in to the five original classrooms, as well as the five new ones
- build two new toilet blocks, complete with water supply
- supply classroom equipment and equipment for sports, maths, science and general teaching
- install a 10,000 litre water tower so the children have a regular supply of water.

As well as the school, we support the local orphanage, Hisani, whose children attend Amani School, and Forever Angels Baby Home. For both, we take donations of clothing, shoes and toys each year. We also work with Upendo Daima Street Children's Centre which has benefitted from new sports equipment. Find out more at <u>derbygrammar.org/tanzania-project</u>

'The Tanzania Project was truly the experience of a lifetime, the gratitude and generosity we received from people who have so little was so incredibly heart-warming to witness. It made me realise how we take so much for granted and often fail to appreciate what really matters in life' Matthew, Tanzania 2023 team

Career and University Support

Choosing the next step after Sixth Form is a big decision, which is why we offer continual support throughout your two years to help you come to the right decision for you.

One of our strengths is that our Sixth Form tutors and subject teachers get to know you individually; your character and your academic ability. This helps us to offer the right advice and guidance as you plan where life after A Levels may take you.

Throughout Sixth Form we encourage you to undertake work experience. This is vital for some university subjects such as medicine or dentistry in order to support your application, but also gives you an opportunity to gain insight into the many employment opportunities available.

Applying to university

Your tutor and higher education advisor will spend time with you to guide and support you in identifying potential universities and degree courses, preparing your personal statement, submitting your application and preparing you for interviews.

You will join trips to higher education fairs and listen to speakers from universities at school covering subjects as wide-ranging as personal statement preparation to student finance.

For those looking to apply to Oxbridge or more competitive courses like medicine, dentistry, veterinary science and law we offer dedicated support before and throughout the application process. We regularly welcome back ex-pupils who have been through this process themselves to give advice to our current Sixth Formers.

University destinations

In 2024, 50% of A Level grades were A* – B. The majority of our Sixth Formers went on to university, and a smaller number began apprenticeships with local employers.

Career support & advice

Our careers advisor works with all Sixth Formers to give advice and support on possible careers. We have a varied and active programme of guest speakers from all sorts of industries and organisations. They offer valuable insights into different roles and careers. Our Careers Fair takes place in the spring term each year.

Higher education isn't the only option available after Sixth Form, and if you decide it isn't for you we help you to explore the alternative options available and practise interview techniques with you as you look for employment, a higher apprenticeship or whatever else you may choose.



Where are they now?

After her A Levels, Hannah Prince read German at the University of Exeter, followed by MSc International Business Management at Durham. On graduation she joined Babcock International, before joining 4C Associates as a Procurement Consultant. She is now working for GEP Worldwide as a Senior Associate.

Scholarships and Bursaries

Our careers advisor works with all Sixth Formers to give advice and support on possible careers. We have a varied and active programme of guest speakers from all sorts of industries and organisations. They offer valuable insights into different roles and careers. Our Careers Fair takes place in the spring term each year.

Higher education isn't the only option available after Sixth Form, and if you decide it isn't for you we help you to explore the alternative options available and practise interview techniques with you as you look for employment, a higher apprenticeship or whatever else you may choose.

We award scholarships in the following areas:

- Academic
- Art and Design
- Drama
- Music
- Sport

See more information on scholarships at www.derbygrammar.org/admissions/scholarships-and-bursaries

Bursaries

Our bursary scheme promotes accessibility and entry for pupils from all backgrounds. Bursaries are means-tested and provide financial assistance toward the cost of fees.

How to apply for a scholarship or bursary

To apply for a scholarship, visit our website where you can find full information and application forms. The closing date for scholarship applications is **6 December 2024.** To apply for a bursary, simply indicate on the Registration Form when you begin your application to Sixth Form.

What happens next?

For scholarship applicants we invite you to a scholarship assessment in the spring term.

Bursary applicants will be sent the application form which needs to be completed and returned by **31 January 2025** for students looking to start in the following September.

Applying to Sixth Form

We welcome applications from girls and boys to Sixth Form. Small class sizes, combined with our style of teaching, enable you to confidently air your views, discover your beliefs and form your own personal viewpoints.

Come and meet us

There's nothing like seeing and experiencing Sixth Form for yourself. You can spend a day with us, and other prospective Sixth Form students, at our Sixth Form Experience Day which takes place in November. You will get a taste of different subjects, meet teachers, ask questions and find out what you will gain from joining Derby Grammar School's Sixth Form.

Entry requirements

Applicants should be expecting to pass at least five GCSEs at a good grade, including maths, English language and a science.

Grade 7 at GCSE is a solid foundation for A Level study and typically, a minimum of grade 6 is expected in the subjects chosen for study at A Level.

As well as formal qualifications, we look for motivated, hardworking individuals who are willing to contribute to school-life, want to make a difference to the School and wider community and want to develop the skills needed to ensure success in the future.

When to apply

If you are currently in Year 11 applying for a Sixth Form place, we normally ask for applications by mid-November, as we will set our curriculum by February half term.

Scholarship assessments for a September start take place in January.

We do, however, welcome applications throughout the year.

How to apply...

There are just a few steps to follow in order to complete your application.

1. If you are not currently studying at Derby Grammar School, please complete the enquiry form via our website <u>here</u>. If you haven't already visited the school, you will be able to arrange a personal tour and meeting with the Headteacher or Deputy Head Academic. You will then be invited to complete a registration form and pay the registration fee of £50. On the registration form, please indicate if you wish to apply for a scholarship or bursary. You will then be invited into school to complete a CAT4 assessment and we will contact your current school to request a reference and predicted GCSE grades.

2. We will invite you to an interview with the Head of Sixth Form here at school. This usually lasts around 30 minutes and is an opportunity for you to tell us about yourself, why you want to study A Levels and where you see yourself in the future. It is also an opportunity for you to ask any questions you have about us.

3. If you are applying for a scholarship you will be invited to a scholarship assessment, which usually takes place on the same day as your interview.

4. If you are a current Derby Grammar School pupil, there is no need to apply for a place. You will be sent a form after your mock examinations in January to let us know your preferred subject choices for A Level.

5. We will contact you with the offer of a place. We offer places conditionally, and these are confirmed on receipt of final GCSE results in August.

A Level Options

The range of subjects we offer at Derby Grammar School ensures a wide curriculum to meet your strengths and aspirations, preparing you for undergraduate study at the best universities, or to enter the world of work either through direct employment or through an apprenticeship.

Choosing your options

You will choose three A Levels and have the option to study the Extended Project Qualification (EPQ). Academic Scholars will be offered the opportunity to study four A Levels, and those studying A Level Mathematics who have achieved a Grade 8 or higher in GCSE Mathematics may choose to study Further Mathematics as a fourth A Level.

The following pages give you an overview of each A Level subject we offer, but please note that we are continually reviewing our curriculum. This information was correct at the time of going to print, but for the most up to date list of A Level subjects we offer, please contact Admissions.

"We chose Derby Grammar because it felt like the kind of school that our son, and the rest of the family, would fit in to. They're normal families, similar to our own and the school isn't focused entirely on academic performance but rather a well-rounded development. One of the best things is the personal approach, enabled by its relatively small size."

Parent

A Level Options

Art and Design Biology **Business** Chemistry **Classical Civilisation Computer Science Drama and Theatre* English Literature Extended Project Qualification (EPQ)** French **Further Mathematics** Geography German **History Mathematics Music Music Technology Physical Education Physics Product Design** Psychology **Religious Studies (Philosophy and Ethics) Spanish**

*This is a new subject offered for September 2025. Please let Admissions know if this is a subject you are interested in as a minimum of 3 pupils is needed to meet the course requirements.

Please note that a minimum of 3 pupils is required for most subjects.

"The teachers' confidence in me throughout Sixth Form really made me feel like anything was possible when my mind was put to it" Aruna Bahia

Art and Design

Awarding body: AQA

About the course

On this course you are introduced to a variety of experiences that explore a range of processes and techniques as a foundation to developing your own individual work which will be documented through sketchbooks and digital media.

You will explore images and artefacts from the past and present and influences from the work of others in order to inform your own work. You will produce personal and meaningful responses by realising your intentions and making connections, both visually and written.

The course covers:

- 1. Personal investigation
- 2. Externally set assignment

How you are assessed

Each component is equally weighted at 50%.

• The personal investigation is a practical investigation supported by coherent and structured written material of between 1000 and 3000 words.

• The externally set assignment is one question chosen from the examination paper, covering all four assessment objectives of developing and refining an idea and making reference to appropriate influences and techniques. The examination takes place over three days, totalling 15 hours.

Skills and opportunities

You will develop intellectual, imaginative, creative and intuitive capabilities through investigating and analysing practical skills.

You will learn aesthetic understanding and make critical judgements, and will become independent in refining and communicating your own ideas and outcomes. You will experience working in a broad range of media and develop an enjoyment for art and design. You can experience real world contexts and respond to them through the medium of art, craft and design.

Contact: Ms Wilson

Biology

"Biology is the most powerful technology ever created. DNA is software, proteins are hardware, cells are factories." Arvind Gupta

Awarding body: OCR

About the course

Biology is an exciting, cutting edge science. Not only is it the window into the fascinating world of living things, it is also the door into a lifelong interest in the subjects that are essential to solving the problems of modern day society and shaping the future of our planet.

The course extends the theory taught at GCSE, with an emphasis on how the structure of biological systems and molecules are related to their functions. It examines the role of biology in industry, agriculture and medicine, with the growth and development of the fascinating world of biotechnology and genetic engineering.

The course covers:

- 1. Development of practical skills in biology
- 2. Foundations of biology
- 3. Exchange and transport
- 4. Biodiversity, evolution and disease
- 5. Communication, homeostasis and energy
- 6. Genetics, evolution and ecosystems

How you are assessed

You are assessed in three written examinations and a non-examined assessment. The written papers are:

- Biological processes
 (100 marks, 2¼ hours, 37%)
 Biological diversity
 (100 marks, 2¼ hours, 37%)
 Unified biology
- (70 marks, 1½ hours, 26%)

Biology continued

The Practical Endorsement in Biology is the non-examined assessment. Students will be internally assessed based on direct observation of their competency on a wide range of practical skills. This involves completing 12 required practicals to ensure students have experienced using a variety of apparatus and techniques. Written examinations will assess pupils' understanding and knowledge of these, and the skills exemplified within each practical. These questions will account for at least 15% of the overall marks for the A level qualification.

Skills and opportunities

A Level Biology, as with all the sciences, is not just to do with "knowledge". Students' enthusiasm will be stimulated and independent learning, presentation and research skills, teamwork, critical thinking and practical techniques will be promoted. Students will also develop the ability to apply their knowledge to unfamiliar situations and think synoptically; bringing together knowledge from different parts of the course to promote both depth and breadth of understanding.

Such skills are essential for those who wish to study medicine, veterinary science or biological sciences in general, but they are also attributes highly relevant and valued by a great many other professions.

In Year 13, we undertake a residential field trip to Cranedale Centre in North Yorkshire. This is an essential opportunity to gain invaluable experience of ecology in real ecosystems and to complete several of the required practical activities.

Contact: Mrs Walker-Nixon

'A-level Biology has allowed me to explore and expand on my interests in the science behind life - I have particularly enjoyed the human biology aspects of the course. Support from teachers in providing concise details on topics alongside regular sets of questions has not only helped me to delve further into subjects of interest, but has also ensured that I am practising my own exam technique for answering questions.'

Year 13 Pupil

Business

Awarding body: Edexcel

About the course

"If you are doing things the same way as two years ago, you are almost certainly doing them wrong."

This classic quotation from the celebrated industrialist Sir John Harvey-Jones has a special significance for A level Business students at Derby Grammar. First, we study several of Sir John's case studies from his famous "Troubleshooter" series, each complementing a particular topic under study. Second, our Business course is always adapting. Our resources never stay the same and we make frequent use of current affairs business news items, such as to be found on the BBC News website, and even occasionally some of my own previous experiences from commerce and industry. The result is an enjoyable mix of theory – from our Edexcel textbook – and of real life practical examples. We even find time to play eight rounds of an interactive marketing game, where students compete against each other for market share. The Lower Sixth course comprises two themes; viz:

1. Marketing and people

- meeting customer needs
- the market
- marketing mix and strategy
- managing people
- entrepreneurs and leaders.

2. Managing business activities

- raising finance
- financial planning
- managing finance
- resource management
- external influences.

Business continued

The Upper Sixth course rounds off with the Strategy and International themes, viz;

3. Business decisions and strategy

- business objectives and strategy
- business growth
- decision-making techniques
- influences on business decisions
- assessing competitiveness
- managing change.

4. Global business

- globalisation
- global markets and business expansion
- global marketing
- global industries and companies
- (multinational corporations).

Business continued

The Upper Sixth course rounds off with the Strategy and International themes, viz;

3. Business decisions and strategy

- business objectives and strategy
- business growth
- decision-making techniques
- influences on business decisions
- assessing competitiveness
- managing change.

4. Global business

- globalisation
- global markets and business
- expansion
- global marketing
- global industries and companies
- (multinational corporations).

How you are assessed

You are assessed in three written examinations:

- Marketing, people and global businesses (100 marks, 2 hours, 35%)
- Business activities, decisions and strategy (100 marks, 2 hours, 35%)
- Investigating business in a competitive environment (100 marks, 2 hours, 30%) Skills and opportunities

Since its recent launch, Business A level has enjoyed great popularity with prospective sixth formers, partly because some have had exposure to business fundamentals through family and close contacts and partly because many see it as a launchpad to their future career. Indeed, five of the last Year 13 business cohort went on to study either business or accounting degree courses at university.

However, it is stressed that no prior experience is needed to enrol onto the course. The only prerequisite is a "can-do" mentality and the willingness to get stuck in. After all, as the great Sir John himself said; *"people who don't make mistakes are no bloody good to you at all."*

Contact: Mr Fletcher



About the course

A Level Chemistry is an extremely popular subject and is internationally renowned for its detailed study into the depths of the universe. Chemistry has many diverse applications throughout our lives and is relevant to most job sectors. Here at DGS, we have committed staff to ensure you are supported at every stage during the Chemistry A-Level course. Theory is taught in a lucid and digestible manner, and is consolidated with exam practice to hone your skills. To complement this, practical work is conducted to strengthen your investigative abilities and understanding of each topic. You learn how to use complex apparatus and handle organic chemicals safely; current students have determined the enthalpy of a reaction, made electrochemical cells, and synthesised organic liquids and solids such as aspirin.

The course covers:

- 1. Development of practical skills in chemistry
- 2. Foundations in chemistry
- 3. Periodic table and energy
- 4. Core organic chemistry
- 5. Physical chemistry and transition elements
- 6. Organic chemistry and analysis

How you are assessed

You are assessed in three written examinations at the end of Year 13 and twelve nonexamined practical assessments throughout the course. The written papers are:

- Periodic table, elements and physical chemistry (100 marks, 2¼ hours, 37%)
- Synthesis and analytical techniques (100 marks, 21/4 hours, 37%)
- Unified chemistry (70 marks, 1½ hours, 26%)

The Practical Endorsement in Chemistry is a non-examined assessment, however some undergraduate courses may require this.

Skills and opportunities

Chemistry is an essential A Level subject for anyone hoping to read medicine, veterinary science, pharmacy or dentistry at university. By studying Chemistry you are not limiting yourself to just these careers; the analytical and diagnostic skills acquired are widely valued in many professions including, education, engineering, finance, banking, forensics, pharmaceutical research, law and marketing.

If you are interested in learning about the foundations of the universe, Chemistry is THE subject to study.

Contact: Miss Ayub

Classical Civilisation

Awarding body: OCR

About the course

Although those who have studied Classical Civilisation at GCSE will have just a very slight advantage, it is by no means a prerequisite of studying the subject at A Level. All pupils with an interest in the ancient world are welcome.

You will enjoy a high degree of flexibility and autonomy as you study Classical Civilisation. Whilst close direction will be provided in lessons, the topics themselves are so vast that much additional reading and study will be done independently.

Indeed, many previous students have thrived in this environment and developed a passion to study related classical disciplines at university. Others have used it as a most enjoyable foil to their mainstream subjects, such as, perhaps, the sciences.

The course covers:

1. The literary appreciation of ancient texts

2. Ancient history drawn from the late republic and imperial period of ancient Rome During the first year, you will study the concept of the epic hero as related in Homer's Odyssey and Virgil's Aeneid. The second year could continue the literary theme with a study of Greek tragedians, followed by a study into the fall of the Roman Republic. Alternatively, you may elect to move entirely into ancient history topics: in addition to the fall of the Republic, you can choose to study the image of the emperor in Imperial Rome. Throughout, you will develop your English language, literary criticism and skills in historical analysis.

How you are assessed

You are assessed in three written examinations:

- Assessment of the epic hero module is via an essay based paper. (2 hours 20 minutes, 40%)
- Assessment of the remaining two modules is via an essay based paper. (1³/₄ hours, 30% per paper)

Skills and opportunities

There are a plethora of humanities based degree courses which welcome applications from those with a Classical Civilisation A Level. Potential business, academic and professional careers are equally as varied.

Contact: Mr Fletcher

Computer Science

Awarding body: OCR

About the course

Computer Science is an intensely creative A Level subject that enables you to look at the world through a digital prism. It values computational thinking, helping you to develop the skills to solve problems, design systems and understand the power and limits of human and machine intelligence.

It is designed to help you understand the core academic principles of computer science, and then you will transfer your classroom learning into real-world systems through the creation of an independent programming project. This project can be tailored to fit your individual needs, choices and aspirations.

The course is relevant to the modern and changing world of computing. It is relevant across a tremendously diverse range of sectors. It has an open source ethos which means that any and all software and programming languages that meet the needs of the course can be used.

The course covers:

1. Computer Systems

You are introduced to the internal workings of the CPU, data exchange, software development, data types and legal and ethical issues. The resulting knowledge and understanding will underpin your work in the programming project. It covers:

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

2. Algorithms and Programming

This builds on what is learnt in Computer Systems to include computational thinking and problem-solving. It covers:

• What is meant by computational thinking (thinking abstractly, thinking ahead, thinking procedurally etc.)

• Problem solving and programming – how computers and programs can be used to solve problems

• Algorithms and how they can be used to describe and solve problems.

Computer Science continued

3. Programming Project

You will apply the principles of computational thinking to a practical coding programming project. You will analyse, design, develop, test, evaluate and document a program written in a suitable programming language. We encourage you to choose your own project which gives you the flexibility to investigate projects within the diverse field of computer science. We support a wide and diverse range of languages and tools.

How you are assessed

You are assessed by two examinations and a project:

- Computer systems examination (140 marks, 2½ hours, 40%)
- Algorithms and programming (140 marks, 2½ hours, 40%)
- Programming project (70 marks, 20%)

Skills and opportunities

An A Level in Computer Science enables you to develop your understanding and ability to apply the fundamental principles and concepts of computer science. You will learn how to analyse problems in computational terms through practical experience of solving such problems, including writing programs to do so, ranging from applications to simulations, games and also physical computing with a variety of microcontrollers.

You will have the opportunity to assist with, deliver and design co-curricular activities, which helps tremendously, consolidating learning and building confidence in the subject. We offer help and support to encourage students to build their coding portfolios, enter coding competitions, and participate in code jams.

You will develop the capacity to think creatively, innovatively, analytically, logically and critically; the capacity to see relationships between different aspects of computer science; and you will improve your mathematical skills.

You will also be able to articulate the individual (moral), social (ethical), legal and cultural opportunities and risks of digital technology.

The project approach is a vital component of post-school life and is particularly relevant to higher education and the workplace. Project based study is ever more essential as a means of demonstrating breadth and depth of knowledge when accessing higher education.

Contact: Mr Speight

English Literature

Awarding body: OCR

About the course

The English Literature course we teach here is a literature-lover's dream come true! Incorporating texts which span a range of genre and time periods, you are able to develop an interest in, and enjoyment of, a diverse array of literary texts. You will study at least eight texts in the form of poetry, prose and drama.

You will analyse set texts and explore the context of the writer and the reader; you will also consider how interpretations of the text change through time and according to circumstance. You will be engaged in wider secondary reading, both in and outside of lessons, thus, a love of reading is a must.

Teaching is tutorial or seminar based where you explore the texts with your teacher and with each other, and there will be plenty of opportunity for discussion and debate as well as relevant theatre and workshop visits. You will have individual support in developing your writing and study skills and in the planning and drafting of essays. You will also be expected to make use of ICT facilities in information retrieval, exchange, research and presentation.

The course covers:

Drama and Poetry Pre-1900

The study of at least three texts published before 1900, including at least one text by Shakespeare. The chosen texts on offer include: William Shakespeare's play Hamlet, Christina Rossetti's Selected Poems and Henrik Ibsen's A Doll's House; or alternatively: John Webster's play The Duchess of Malfi and Geoffrey Chaucer's poem The Merchant's Prologue.

Comparative and contextual study

This section of the course has the option of being a Gothic or Dystopian fiction focus. For example, the study of one topic, such as Dystopian fiction, will focus upon texts such as: Margaret Atwood's The Handmaid's Tale and George Orwell's Nineteen Eighty-Four; alternatively, if Gothic fiction sparks your interest, Bram Stoker's Dracula and Angela Carter's The Bloody Chamber and Other Stories are on offer.

Non-examined assessment (NEA)

The study of one prose text, one poetry text and one drama text first published or performed in 1900 or later; at least one of these texts must have been first published or performed in 2000 or later. The texts studied here are inspired by your own interests. There will be two separate essays completed for the NEA: a close analysis and a comparative essay, all equating to 3,000 words. You will receive one-to-one support in shaping your essays and independent reading and critical enquiry beyond lessons is essential.

English Literature

How you are assessed for the A Level:

You are assessed through written examination and a non-examined assessment.

- Examination (80%)
- Non-examined assessment (20%)

Skills and opportunities

During the course, you will develop your ability to think logically and critically; you will be encouraged to think perceptively and to formulate your own argument and interpretations when studying a range of literary works. Overall, A Level English Literature enables students to communicate their ideas effectively and articulately and with confidence. Where can an A Level in English take you?

A Level English Literature is such a versatile subject and an advantageous discipline to have studied when considering university. The study of English has many transferable skills, such as:

- Research skills.
- Critical thinking.
- Discover and synthesise complex information and diverse evidence
- Essay writing
- Analytical skills.
- An attention to detail.
- Initiate ideas and projects
- Crafting arguments.
- An awareness of cultural contexts
- Communication skill, both written and verbal
- To be evaluative and to respond to feedback
- To plan, organise and to report to deadlines

These skills are essential for careers in: law, advertising, management, teaching; careers in media and social marketing, publishing and editorial industries; journalism and broadcasting; archivist and PR and marketing. Even medics, accountants and engineers have pursued an A Level in English due to its academic rigour.

Whatever your career pathway, an A Level in English secures students with the articulation and critical thinking skills that are essential for future success, beyond the classroom. If you love to read, and to challenge – or be challenged by what you are reading – English Literature is the course for you.

Contact: Mrs Wilkinson

Extended Project Qualification

Awarding body: AQA

About the course

The Extended Project Qualification (EPQ) develops your ability to explore a subject or skill you are passionate about; it can take the form of a dissertation (approx. 6000 words), an investigation or field study, a performance or an artefact. An artefact can take many forms, including a finished working prototype, model, artwork or design.

You will work semi-independently on a project or topic of your choosing, this can either be related to something you are currently studying or linked to your future university or career aspirations. You will have the guidance and support of a teacher throughout the project, although the emphasis is on independent learning.

The course covers:

• The selection of a topic or area of interest for an in-depth study that provides opportunities to develop your skills, knowledge and understanding

• identification and drafting of an objective(s) for your project (eg in the form of a question, hypothesis, problem, challenge, outline of proposed performance, issue to be investigated or commission for a client) and the rationale for your choice

• production of a plan for how you will deliver the intended outcome

research

• development of the project using selected tools and techniques, demonstrating your ability to pursue an extended project through to completion

• sharing of the outcome of the project, including an evaluation of the outcome and your own learning and performance.

How you are assessed

You are assessed in four areas:

• Management – identify, design, plan and carry out a project, applying a range of skills, strategies and methods to achieve objectives. (9 marks, 17%)

• Use of resources – research, selection, organisation and use of information and resources. Analysis of data and demonstration of understanding of any links, connections and complexities of the topic. (12 marks, 22%)

• Development and realisation – selection and use of a range of skills, including new technologies (as appropriate) and problem solving, critical decision making and achievement of planned outcomes. (24 marks, 44%)

• Review – evaluation of all aspects of the extended project, including outcomes in relation to objectives, and the presentation of the outcomes. (9 marks, 17%)

Extended Project Qualification

Skills and opportunities

The EPQ helps you to become more independent, reflective, resourceful and resilient as it requires you to be organised and self-motivated, as well as developing and refining your critical thinking skills.

The qualification is valued by universities as it prepares you for the demands of studying a degree, principally by encouraging you to be self-directed in your learning, to learn independently, and to prepare university-style assessments. Some universities also use the EPQ as part of their undergraduate entrance offer.

Contact: Mrs Baker

Geography

Awarding body: EDEXCEL

About the course

"Geography is the subject that holds the key to our future." Michael Palin

Geography is a living, breathing subject, constantly adapting itself to change. It is dynamic and relevant. Geography is a great adventure with a purpose.

So many of the world's current issues – at a global scale and locally – boil down to geography, and need the geographers of the future to help us understand them. Global warming as it affects countries and regions; food and energy security; the degradation of land and soils from overuse and misuse; the spread of disease; the causes and consequences of migration, and the impacts of economic change on places and communities – these are just some of the challenges facing the next generation, which geographers must help solve.

The course covers:

1. Physical geography

- The Water Cycle and Water Insecurity
- The Carbon Cycle and Energy Insecurity
- Coastal Landscapes and Change
- Tectonic processes and Hazards
- 2. Human geography
 - Globalisation
 - Regenerating places
 - Health, Human Rights and Intervention
 - Superpowers
- 3. Geography Fieldwork Investigation
 - Fieldwork requirements: Students can choose any topic area within the Geography specification where they design an enquiry question, collect and analyse primary and secondary data and come to conclusions on the area they studied.

Geography continued

How you are assessed

You are assessed in two written examination papers and a fieldwork investigation:

- Paper 1 Physical geography (2 ¼ hours, 30%)
- Paper 2 Human geography (2 ¼ hours, 30%)
- Geography fieldwork investigation (3000 4000 words, 20%)
- Paper 3 Synoptic paper– combination of Human and Physical Geography (2 ¼ hours, 20%)

Skills and opportunities

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. Geography is a combination of all of the humanities and science subjects, so is the perfect pairing for a range of subjects at A-Level.

Geography students are among those gaining greatest satisfaction from their studies, and geography graduates have a relatively low level of unemployment. It's no wonder there is a growing demand to study the subject at university. This is underlined by the Russell Group of Universities, who recognise geography as one of the key 'facilitating' subjects for entry to degree level study.

Contact: Mr Boddy

History

Awarding body: AQA

About the course

"So why study history? History is not a means for making accurate predictions. We study history not to know the future but to widen our horizons, to understand that our present situation is neither natural nor inevitable and that we consequently have many more possibilities before us than we imagine." Prof. Yuval Noah Harari, historian, philosopher and author.

The study of History is a window into the past that provides understanding of the presentday, and how individuals, nations, and the global community might develop in the future. Historical study instructs how societies came to be and examines cultural, political, social, and economic influences across time and space. It also builds the personal understanding of how we as individuals are the sum of a vast range of past experience and actors ourselves in the process of historical change.

In short, the study of the past helps lead to greater personal insight and comprehension of each person's place in the grand sweep of the human story.

The course covers:

- 1. Tsarist & Communist Russia 1855–1964
- 2. The Wars of the Roses 1450–1499
- 3: Historical Investigation: an independent research study on a topic of your choice.

How you are assessed

You are assessed in three written examination papers and a topic based essay:

- Russia 1855–1964: (80 marks, 2½ hours, 40%)
- England 1450-1499 (80 marks, 2½ hours, 40%)
- Historical Investigation (3500-4500 words, 20%)

History

Skills and opportunities

This qualification is designed to prepare you with strong foundation for study in higher education, not just in history, but a wide range of courses. It fosters the development of critical and reflective thinking with an understanding of historical topics and issues. History provides a fantastic curriculum to ignite and engage your passions and interests. The course creates independent learners, critical thinkers and decision-makers – all personal assets that can make you stand out as you progress to higher education and the workplace.

Contact: Mr Taylor

"The past determines the future, which is why I study history. It also develops skills of analysis and interpretation, which can be transferred to all aspects of life."

Pupil

French, German & Spanish (MFL)

Awarding body: Edexcel

About the course

We live in a multilingual, multicultural world. Our engagement with the non-English speaking world will remain superficial and one-sided unless we develop our capacity in other languages.

The A Level course will help you to develop your general study skills, but most of all you will learn to communicate at a higher level in French, German and/or Spanish. You will also learn much more about a wide range of aspects of the society in which the language is spoken. Whether you want to use language for work, further study, training, or leisure, an A Level in a modern foreign language will equip you with the necessary skills and knowledge.

The FRENCH course covers:

1. Les changements dans la société française (social issues and trends)

2. La culture politique et artistique dans les pays francophones (artistic culture is explored through music, festivals and traditions, and political and artistic culture through media)

3. L'immigration et la société multiculturelle française (social issues and trends)

4. L'Occupation et la Résistance (political culture)

The GERMAN course covers:

 Gesellschaftliche Entwicklung in Deutschland (social issues and trends)
 Politische und künstlerische Kultur im deutschen Sprachraum (artistic culture is explored through music, festivals and traditions, and political and artistic culture through media)
 Immigration und die deutsche multikulturelle Gesellschaft (social issues and trends)
 Die Wiedervereinigung Deutschlands (political culture)

The SPANISH course covers:

1. La evolución de la sociedad española (social issues and trends)

2. La cultura política y artística en el mundo hispanohablante (artistic culture is explored through music, festivals and traditions, and political and artistic culture through media)

3. La inmigración y la sociedad multicultural española (social issues and trends)

4. La dictadura franquista y la transición a la democracia (political culture)

French, German & Spanish (MFL) continued

How you are assessed

You are assessed in two written examination papers and a spoken assessment:

- Listening, reading and translation (80 marks, 2 hours, 40%)
- Written response to works & translation (120 marks, 2 hours 40 minutes, 30%)
- Speaking (72 marks, 21-23 minutes, 30%)

Skills and opportunities

Studying a modern foreign language will enhance your linguistic skills and promote and develop the capacity for critical thinking on the basis of your knowledge and understanding of the language, culture and society of the country or countries where the language is spoken. It will also improve your employability, in particular with international companies. As an end in itself or in combination with other subjects, an A Level in a language is a passport to many degree courses and will also help if you choose to participate in the Turing Scheme of university placements whilst in higher education.

Contact: Mr Thompson Mr Watson Miss Stebbings

Mathematics & Further Mathematics

Awarding body: Pearson Edexcel

About the course

Why study mathematics? Just look around you. Some of civilisation's most prized and proud achievements are wholly reliant on mathematics.

Planes flying seamlessly through the air, the availability of complex medicines, even the smart phone you have in your pocket, all of these increasingly vital commodities rely on the use and study of maths. Mathematics is almost inseparable from life as we know it.

The benefits of learning mathematics extend well beyond the scope of the subject itself. You will develop skills that are easily applied to other situations and areas, such as rational and logical thought – something required in many areas, whether in a moral or career capacity. Furthermore, the high level of cognition required to comprehend complex mathematical theories and rules is an asset which will benefit you in many aspects of your life.

The Mathematics course covers:

1. Pure Mathematics

Proof; algebra and functions; coordinate geometry in the (x,y) plane; sequences and series; trigonometry; exponentials and logarithms; differentiation; integration; numerical methods; vectors

2. Statistics

Statistical sampling; data presentation and interpretation; probability; statistical distributions; statistical hypothesis testing

3. Mechanics

Quantities and units in mechanics; kinematics; forces and Newton's laws; moments

The Further Mathematics course covers:

1. Core Pure Mathematics 1

Complex numbers; Argand Diagrams; Series; Roots of Polynomials; Volumes of Revolution; Matrices; Linear Transformations; Proof by Induction; Vectors.

2. Core Pure Mathematics 2

Complex Numbers; Series; Methods in Calculus; Volumes of revolution; Polar Coordinates; Hyperbolic Functions; Methods in Differential Equations; Modelling with Differential Equations.

3. Decision Mathematics 1:

Algorithms; Graphs and Networks; Algorithms on Graphs; Route Inspection; The travelling Salesman problem; Linear programming; The Simplex Algorithm; Critical path Analysis.

4. Decision Mathematics 2:

Transportation Problems; Allocation Problems; Flows in Networks; Dynamic Programming; Game Theory; Recurrence relations; Decision Analysis.

Mathematics & Further Mathematics

How you are assessed

Mathematics

You are assessed in three written examination papers:

- Pure Mathematics 1 (100 marks, 2 hours, 33.33%)
- Pure Mathematics 2 (100 marks, 2 hours, 33.33%)
- Statistics and Mechanics (100 marks, 2 hours, 33.33%)

Further Mathematics

- Core Pure Mathematics 1 (75 marks, 11/2 hours, 25%)
- Core Pure Mathematics 2 (75 marks, 11/2 hours, 25%)
- Decision Mathematics 1 (75 marks, 11/2 hours, 25%)
- Decision Mathematics 2 (75 marks, 11/2 hours, 25%)

Skills and opportunities

Careers for people with good mathematics skills and qualifications are often well paid, interesting and rewarding. The demand from employers for those with a mathematics qualification remains high.

As a mathematics student you become better at thinking logically and analytically; through solving problems you develop resilience and are able to think creatively and strategically. The writing of structured solutions, proof and justification of results help you to formulate reasoned arguments. And you will have excellent numeracy skills and the ability to process and interpret data.

Contact: Mr Allen

"I was inspired to study aeronautical engineering at university by taking design and technology at GCSE and A Level. My teacher was a strong factor in this." Yusuf Karim Loughborough University studying MEng Aeronautical Engineering

Music

Awarding body: Eduqas

About the course

A Level Music develops your performing, composing and listening skills in a range of styles including classical, jazz, avant-garde and rock.

The course covers:

1. Performing

You will learn how to perform with expression and with an understanding of your music.

You will rehearse and refine your pieces and repertoire and will be able to perform these as a recital towards the end of the course.

2. Composing

You will expand upon your composing techniques to be able to use musical devices that give a convincing sense of style in whichever genre you choose. You will learn essential compositional and arranging techniques such as chorale harmonisation, orchestration for larger ensembles, making use of music technology, and many more.

3. Appraising

You will develop your listening and appraising skills across a variety of styles and genres and learn to evaluate music by both listening and through analysing the





How you are assessed

You will undertake three assessments:

• Performing: a performance to a visiting examiner of one or more pieces performed as a recital. It may be a solo, ensemble or improvisation. The flexible nature of the specification allows you to work to your strengths, with more weight on either performance or composing, therefore the total performance time can either be 6-8 minutes or 10-12 minutes, depending on the option you choose, and should be a minimum of Grade 6 standard. (25%-35%)

• Composing: a non-examined assessment which is a portfolio of two or three compositions (depending on the option you choose), one of which is a free composition in any style and the other(s) are to a brief set by the examination board, in the styles of the areas of study. (25%-35%)

• Appraising: an examination with accompanying CD. (2 1/4 hours, 40%)

Skills and opportunities

A Level Music is essential if you wish to pursue music at university, but it also develops critical thinking skills and creativity. Universities regard the qualification highly, due to the academic depth and understanding required.

If you intend to pursue a career in music, this A Level complements the Music Technology A Level focusing on the performance, formal composition skills and Western art music analysis techniques for an all-round music education.

Contact: Mr Coley

Music Technology

Awarding body: Edexcel

About the course

A Level Music Technology embraces advanced music production through a variety of practical recording and creative composition tasks. It is for those who are interested in pursuing a career or degree in music of any style. The applied elements of the course are consolidated by the theoretical study of the development of technology and the implementation of conventions that have developed within popular music.

The course covers:

1. How to record live music from a variety of instruments using the studio computer, digital mixer and Pro Tools and Logic Pro software in our brand new Apple Mac music technology suite.

2. The creation of a balanced mix of a multitrack recording, subsequently mastering it to sound as dynamic and exciting as a professionally produced track.

3. Extending your composing skills from GCSE music to incorporate techniques such as sampling, FX automation, audio manipulation and virtual instruments.4. The history of music production within the context of the development of

popular music from early jazz recordings to contemporary popular music.

5. Combining physics, mathematics and creative techniques to solve problems such as errors and noise in recordings.

Music Technology continued

How you are assessed

You will undertake four assessments:

• Recording: produce, record, mix and master a studio-based multi-track recording. (20%)

• Music Technology Composition: create an original composition in any style to a set brief, such as composing music for a short film or using given musical samples. (20%)

• Listening and Analysing: a listening exam based on the development of music technology equipment, together with its relationship to the evolution of popular music. (1 hour 30 minutes, 25%)

• Analysing and Producing: a practical and written exam based on the assembly and manipulation of audio and MIDI synthesised material, with the testing of theoretical concepts of music technology. (2 hours 15 minutes, 35%)

Skills and opportunities

A Level Music Technology develops your creativity with writing your own music and will give you a thorough understanding of music production since 1900. It is a well-respected qualification, especially when combined with science and maths A Levels.

If you intend to pursue a career in music, this subject complements A Level Music, giving you a well-rounded knowledge of music and technology throughout history.

Contact: Mr Coley

Philosophy & Ethics

Awarding body: OCR

About the course

When considering the benefits of studying philosophy, the University of Oxford said that it "develops analytical rigour and the ability to criticise and reason logically".

These are vital skills for higher education; several pupils who have studied this subject have gone on to Oxford and Cambridge.

Philosophy and ethics is a unique preparation for all Russell Group universities and in particular the tutorial system used at Oxford and Cambridge where you will be expected to present arguments verbally, in addition to your written work. Ethics is taught as an element of many university degrees; medicine, law and business being just three examples. It requires you to consider the ethical and moral decisions we are required to make in everyday life.

Lessons focus on covering each topic in depth and often involve quite heated debate! You are required to read widely, and to use your private study time in school and at home to take notes and produce essays, usually based on examination style questions.

Attendance at Philosophy and Ethics conferences (usually in Birmingham, Manchester or Oxford) adds a different dimension to the work covered in class. This is an A Level subject which is growing in popularity. It allows you to interpret, debate and evaluate the arguments and ideas of some of the greatest thinkers of all time.

Philosophy & Ethics continued

The course covers:

1. Philosophy of Religion – considers arguments for the existence, and nonexistence, of God, religious language, the problem of evil, religious experience and concepts of mind, body and soul.

2. Religion and Ethics – examines a number of ethical theories, including natural moral law and Kantian ethics. It also considers how these might apply to a number of controversial issues in areas such as medical ethics, business ethics and sexual ethics.

3. Developments in Christian Thought – surveys the religion's origins, its contemporary relevance and the challenges faced by faith in the world today.

How you are assessed

You are assessed in three written examination papers:

- Philosophy (2 hours, 33.3%)
- Ethics (2 hours, 33.3%)
- Developments in Christian Thought (2 hours, 33.3%)

Skills and opportunities

This course will enable you to develop your ability to communicate clearly and effectively, both on paper and in discussion, using reasoned arguments substantiated by analysis and evidence, a particularly important set of skills for anyone planning to work in a number of areas. Past students have achieved success in law, politics, science, education and business.

Contact: Mr Hilliam

"The unexamined life is not worth living" Socrates

Physics

Human curiosity, the urge to know, is a powerful force and is perhaps the best secret weapon of all in the struggle to unravel the workings of the natural world. Aaron Klug

Awarding body: OCR

About the course

At this level of study, physics is much more focused on the development of skills than on the acquisition of knowledge. The primary aim is for you to develop your problem-solving ability.

Examinations generally involve applying your knowledge of the course, via mathematics, to new situations. In order to develop these skills, a lot of lesson time is devoted to practising problem-solving. Groups are usually small enough for you to conduct experiments individually, although working in pairs is sometimes preferable, and the small class sizes mean that individual attention is given whilst you are working on practice problems.

The course covers:

- 1. Development of practical skills in physics
- 2. Foundations of physics
- 3. Forces and motion
- 4. Electrons, waves and photons
- 5. Newtonian world and astrophysics
- 6. Particles and medical physics

How you are assessed

You are assessed in three written examinations and a non-examined assessment. The written papers are:

- Modelling physics (100 marks, 2¼ hours, 37%)
- Exploring physics (100 marks, 2¼ hours, 37%)
- Unified physics (70 marks, 11/2 hours, 26%)

Physics continued

Practical skills are assessed throughout the course with the completion of a minimum of 12 core practicals. This allows students to gain experience in using specialised equipment, develop methods in obtaining precise and accurate data and analysing and evaluating the investigations.

Skills and opportunities

A Level Physics should be considered by anyone with an interest in learning about the world.

It is a highly respected qualification by both universities and employers, thanks to its rigour and the requirement for applying knowledge to solve problems. Although it is highly relevant to subjects such as architecture and engineering as well as the sciences, it is also applicable to other courses which value the skills you develop, such as medicine and economics. The pitch of lessons and pace of the course are designed to provide you with the skills to pursue physics or related courses at a higher level. With this in mind, some topics and techniques are covered in more depth than the core requirements of A Level, and extension opportunities such as the British Physics Olympiad are supported for those who wish to take part.

Contact: Mrs Standing

Physical Education

About the course

A Level is ideally suited to keen participants who want to analyse their own performance in a chosen physical activity, whilst studying a variety of different topics within the world of sport and PE.

This course will appeal to you if you wish to develop your interest in Sport and PE. It provides you with the knowledge and understanding of scientific, psychological and societal factors involved with modern day sport.

The course covers:

- 1. Applied Anatomy and Physiology
- 2. Skill Acquisition
- 3. Sport and Society
- 4. Exercise Physiology
- 5. Biomechanical movement
- 6. Sport Psychology
- 7. Sport and society and the role of technology in physical activity and sport

How you are assessed

You are assessed in two examination papers and a non-examined assessment:

- Papers 1 and 2 test knowledge using multiple choice, short answer and extended writing questions (2 hours, 35% per paper)
- Non-examined assessment you will perform the full version of your chosen activity and prepare a written analysis (30%)

Skills and opportunities

This course develops skills including analysis, application of theory to practical situations and a multi-discipline approach. It can lead to opportunities to further study in Sports Science, Physiotherapy,Sport Rehabilitation and Therapy, Sports Psychology, Sports Medicine, Sport and Business Administration, Sport Coaching and Teaching.

Contact:

Mr Clark

"Studying Physical Education at A Level gives me the opportunity to analyse my own performance and compare and contrast what I can do against the elite of the sporting world. Understanding my performance from a whole range of different perspectives motivates me to get better and realise my full potential." Pupil

Product Design

Awarding body: AQA

About the course

Are you creative? Do you like to think outside the box?

As a Product Design student, you will be encouraged to suggest innovative solutions, propose commercially viable design solutions, develop, test and trial working models and prototypes for a variety of products using innovative concepts and materials.

The course is delivered using a combination of design projects and traditional class-based learning for technical principles. You will learn through a combination of classroom learning, independent study, investigation and presentation, supported study during projects and working with clients or external organisations.

Design projects have been planned to provide strong design and making abilities.

The course covers:

- Sustainable engine manufacture
- Furniture design and modelling
- 3D CAD and printing of automotive components
- Application of computer control in
- a design situation
- Materials exploration and testing

You will learn about the broader issues for the designer including creativity, product manufacture and the application of technical principles. You will also master Computer Aided Design (CAD) and Computer Aided Manufacture (CAM).

Product Design continued

How you are assessed

You are assessed in two examination papers and a non-examined assessment relating to design and making principles:

- Technical principles (2½ hours, 30%)
- Topics relating to design and making principles (1½ hours, 20%)

The non-examined assessment is a major design and make project which carries 50% of the marks. It provides you with the opportunity to explore a design problem of your choice, enabling you to potentially focus on your preferred career route.

Skills and opportunities

Product Design directly leads towards studying design or engineering at university in a wide range of disciplines including architecture, computer science, engineering, mechanical engineering, furniture design, industrial design, manufacturing, marketing and product design.

Contact: Mr Lakritz

"The Product Design course at Derby Grammar School was the launch-pad to my design career that, so far, has led to me working in a top design studio in China. Without their tuition and guidance, I doubt I would've ended up studying at Brunel, the best design university in the UK!"

Mark Mitchell

Psychology

Awarding body: AQA

About the course

Psychology is a fascinating subject, known as the science of mind and behaviour. On this A Level course you will develop subject-specific knowledge that will help you to understand how humans think, feel and act.

You will cover a wide variety of topics to give you a real breadth of psychological knowledge and a sound appreciation of psychology as a discipline.

Psychology is a useful base for so many other subjects, even if you don't think you want to pursue a career in psychology itself. It compliments and informs other professions such as health, education, policing, business and more.

The course covers:

1. Introductory topics in psychology

- Social influence why people conform
- Memory the different types of memory and why memory is sometimes not reliable with eyewitness testimony
- Attachment the impact of childhood experience on later development
- Psychopathology abnormal behaviour including OCD, phobias and depression and the treatment

methods available.

2. Psychology in context

• Approaches in psychology – looking at the origins of psychology beginning with Wilhelm Wundt through to current cognitive/biological approaches

• Biopsychology – how the physical body and the brain influence behaviour

• Research methods – how to obtain empirical evidence through scientific investigation and present in a report.

Psychology continued

3. Issues and options in psychology

• Issues and debates – you will critically evaluate the theories and research you have learned about

• Cognition and development – understanding how our thinking develops from childhood to

adulthood

- Schizophrenia diagnosis and classification
- Forensic Psychology looking at techniques used to identify offenders and modify offending behaviour, and explanations of why people become criminals. How you are assessed

You are assessed in three written examination papers which includes multiple choice, short answer and extended writing:

- Introductory topics in psychology (96 marks, 2 hours, 33.3%)
- Psychology in context (96 marks, 2 hours, 33.3%)
- Issues and options in psychology (96 marks, 2 hours, 33.3%)

Skills and opportunities

You will gain knowledge and understanding of psychological concepts, theories, research

studies and ethical issues.

You will develop useful transferable skills valued by universities and employers, including critical analysis, independent thinking and communication skills. Practical skills will also be demonstrated through the design and implementation of research.

The course will help you to write complete reports and reference books and journals in the correct format, giving you a head start should you go on to complete further studies at university. Collectively all these skills will improve your employability.

Contact: Mrs Baker

Next Steps...

Come and join us for our Sixth Form **Experience Day on Thursday 7th November.**

Any questions? Our Admissions team can guide you through the application process and provide more details on scholarships and bursaries. Call 01332 523027 Email admissions@derbygrammar.org www.derbygrammar.org/admissions

"I made some great friends while at school who I'm still in touch with. We worked well together, pushing each other on to greater academic success." LITTERIS MORS

Jonathan Owen

4

SINE