

THE HARVEY

# SIXTH FORM



## WELCOME TO THE SIXTH FORM AT THE HARVEY

The Sixth Form experience at The Harvey is an exciting opportunity to learn in a stimulating environment where academic endeavour is celebrated and embraced by all. It is a chance to learn in different ways with the opportunity to take more control of your own learning. The Harvey boasts a teaching staff of the highest quality, to expertly guide and support you through your courses. We offer our students both flexibility and range in their choices for Post-16 study.

Until now, you have had only a limited say in the make-up of your curriculum. You have studied a wide range of subjects, many of them compulsory, having acquired a broad and balanced foundation on which to build your future career. Now you are faced with an exciting prospect; to choose the post-16 courses which interest you most and ensure you make best progress towards making well informed choices for life and learning beyond The Harvey.

We believe that it is important for you to feel well supported when you take the step into post-16 learning and we will do all that we can to help structure and guide you, as you adapt to a system of learning focused on a small number of subjects and with a new and more independent learning approach. Similarly, we want you to continue to feel that you have outstanding pastoral support and even though you will move on from the direct care of your House Team when you join us, the Sixth Form Team will ensure that pastoral support is in place for you.

As well as ensuring that you have the opportunity to thrive academically during your time in the Sixth Form at The Harvey, we are also committed to ensuring that you enjoy a rounded educational experience while you are here with us. Through a wide range of extra-curricular activities, leadership opportunities, visiting outside speakers from all walks of life, the opportunity to complete a work experience placement during Year 12 and the provision of significant support in planning and preparing for life beyond The Harvey, we aim to ensure that you gain as much as you possibly can in the time you spend with us.

In line with these objectives, if you choose to be a part of our Sixth Form at The Harvey, you are expected to show a keen interest in your own learning and to engage positively with the curriculum choices you make. We also hope that you will want to be fully involved in all of the new learning and life-skills opportunities that will open for you throughout the next two years.

The step up to Sixth Form life and learning is a big one and you will undertake new challenges and routines. It may take a little time for you to get used to things but please be assured that we will help you take those steps with surety and confidence.

The Sixth Form is carefully structured to help and guide you through the years ahead and to help you reach your potential in every way.

Please do come along and join us on our Sixth Form Open Evening, which will be held on **Tuesday 4<sup>th</sup> February 2025 from 5pm-7pm**. At this event, you will have the opportunity to speak to subject staff about the A Level and vocational courses that you are interested in pursuing and to seek their advice and guidance. There will also be a presentation in the Main Hall at 6:00pm, which you are all warmly invited to attend.

During the evening, the Sixth Form Centre will be open to you and you will have the opportunity to speak with Miss Bailey (Head of Sixth Form) and Mrs Davis (Sixth Form Manager) in person.

If you are thinking of making an application to join the Sixth Form at The Harvey and have not studied with us before, do please pop in to see us in the Sixth Form Centre during the options evening, so that we can introduce ourselves to you and answer any questions you may have.

The following information, which is also available in more detail in the Sixth Form Guide, provides some more detail about Sixth Form life and daily routine.

## **SUPERVISED STUDY (SPS) AND PERSONAL STUDY (PS)**

All Sixth Form students will have an allocation of **Supervised Study (SPS)** on their timetable. SPS provides regular structured study periods for students to complete some of their homework and independent work during the school day. **SPS is compulsory for all students** and is timetabled to take place in the Library or in the Sixth Form Centre. Students are expected to register for their SPS session and remain in their timetabled location throughout that period of study. Teachers will set specific tasks that they would like to be completed during a set SPS session and students will be required to return completed work to that teacher in line with the deadline set.

In addition, students will have **Personal Study (PS)** periods placed onto their timetable. These sessions are self-regulated and students are not required to register for these sessions. These sessions should be used for the completion of homework, consolidation and revision and extended reading / tasks and are designed to help you move forward in becoming more accomplished independent learners.

## **TUTOR TIME (RSH)**

All Sixth Form students follow a bespoke programme of RSH, which is delivered through a weekly timetabled lesson. Attendance to these sessions is compulsory.

In Year 12 the initial focus of this programme is making the step up to A Level study and developing good independent learning approaches and habits. Students then move on to consider a range of units of study, which include supporting positive mental health and wellbeing, life skills and planning for life beyond The Harvey.

In Year 13 the programme focuses primarily on supporting students as they apply for university, apprenticeships or the world of work. It also includes a continued focus on life skills and preparing for life in the world of work.

## **PROGRESSION EXAMINATIONS**

All Year 12 students will sit a Progression Examination(s) in each subject during Term 6 of Year 12.

It is very much in students' best interests to demonstrate, through their performance in the progression examinations, and in combination with their progress updates each term, that they have a secure enough base from which to effectively access the Year 13 curriculum. If a student **does not** attain results that show they are ready to progress into Year 13 study, they will be provided with the opportunity to start Year 12 again, with a view to ensuring they are well equipped to progress in future. For this reason, students are advised to plan and prepare fully for their Progression Examinations well in advance of the examination week.

## **SIXTH FORM CENTRE**

The Sixth Form Centre is available throughout the day for all students to use to complete their independent work. Facilities are provided in the Sixth Form Centre to allow computer network access and areas for quiet supervised study. Only members of the Sixth Form have access to these facilities. Within the Sixth Form Centre there is a designated area for silent study, a designated area for quiet supervised study as well as a designated area for paired or group work. There is also a common room area that can be used in breaktimes, with sociable seating areas and space to chat and relax.

The Sixth Form centre is available from 08:00 until 16:00 every day and is supervised throughout the day.

## **16-19 BURSARY FUND**

The school provides specific funding to support Sixth Formers with the costs of continuing in fulltime education called the 16-19 Bursary Fund.

This support has two elements:

- A bursary of up to £1,200 a year for students in the following defined vulnerable groups: in care, care leavers, young people in receipt of income support and disabled young people in receipt of Employment Support Allowance who are also in receipt of Disability Living Allowance.
- Discretionary awards made by schools in ways that best fit the needs and circumstances of their students.

Bursary awards are targeted to support those Sixth Formers who face the greatest financial barriers to participation; such as the costs of transport, meals, books and equipment.

Details of how to apply for support from the 16-19 Bursary Fund are available from Mrs Davis, so if you think that you may be eligible to make an application for this additional support, please do pop into the Sixth Form Centre and ask for more details.

**The Sixth Form entry criteria given below reflect what is required to access the Sixth Form and its programmes of study/post-16 courses. Please use these criteria as an indication as to which programmes of study and courses may best suit you based on your aptitude, interests and progress to date. At this stage we are simply looking for an indication from you as to which courses you are most interested in pursuing next year.**

Subject and House Staff will over time, through written reports, parents' evening and one-to-one guidance, support you in making well-informed and appropriate choices to ensure you make best progress in the Sixth Form.

## SIXTH FORM & SUBJECT ENTRY CRITERIA

The Harvey enrolls Sixth Form students (boys only) in accordance with the criteria below.

### ENTRY CRITERIA FOR ADVANCED LEVEL AND/OR COMBINED PROGRAMMES OF STUDY

- GCSE grade 5 in English (Language or Literature) **and** GCSE grade 5 in Mathematics
- **Entry criteria for individual subjects** must be met in order to access those courses

	A Level	A Level	A Level	Applied General	Applied General	Applied General	Double-Award Applied General
Advanced Level Programme of Study	✓	✓	✓				
Combined Programme of Study	✓	✓		✓			
Combined Programme of Study	✓			✓	✓		
Combined Programme of Study	✓						✓
Combined Programme of Study				✓	✓	✓	
Combined Programme of Study				✓			✓

## SIXTH FORM PROGRAMMES OF STUDY

For an **advanced level programme** of study, students choose **three A Level subjects** and must have met the specific entry criteria for each.

A student who has not met the entry criteria for a full academic programme, may access a **combined programme of study** which may include **two A Levels and one single-award Applied General, one A Level and two single award Applied Generals** or **one A Level and a double-award Applied General qualification**, so long as the entry criteria for these courses is met.

## HOW TO APPLY

**If you are a student at The Harvey**, you should complete our Sixth Form Options Form via the school's intranet (Talisman). This will be accessible **from Wednesday 5<sup>th</sup> February 2025**, after the Sixth Form Information Evening,

## EXTERNAL APPLICANTS

If you are applying to join us from another school or college, please complete your application through [Kent Choices](#). You may be contacted and invited to visit the school and meet staff and current students. Places in the Sixth Form are offered according to the Sixth Form Admissions Criteria.

## APPLICANTS FROM OVERSEAS

It should be noted that any student looking to gain entry from overseas must have equivalent qualifications that can be recognised in the UK (see below) and provide an academic reference from someone who has known the applicant, in an educational context, for more than two years.

## APPLICANTS WITHOUT GCSE QUALIFICATIONS

Applicants looking to gain entry to The Harvey without GCSEs must have equivalent qualifications that can be recognised in the UK. In such cases, applicants must present a **'Statement of Comparability'** document from UK ENIC (the designated United Kingdom national agency for the recognition and comparison of international qualifications and skills, on behalf of the UK Government). **The cost of securing this document must be met by the applicant.** Information on how to apply for this document can be found via this [link](#).

## COURSE CAPACITY AND OVERSUBSCRIPTION

We offer as wide a range of subjects as possible and will do all that we can to accommodate your choices but there is clearly a limit to the number and/or possible combinations available each year. **When selecting your subject choices for the Sixth Form we ask you to do so in preference order; 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> preference, followed by a reserve choice.** Applicants' preferences will determine the allocation of places for a particular course. In the event a course is oversubscribed, places will be allocated to applicants in preference order. Where the numbers of applicants with the same declared preference exceeds capacity, we will allocate available/remaining places based on allocating the most appropriate curriculum programme available for the individuals concerned, applying the professional judgement of the senior leader with responsibility for the curriculum.

Option blocks for next September are drawn up based on demand for these choices. You may modify your choices (with due consultation) at any time before next September but may find that not every change can be accommodated once the timetable for next year has been finalised.

## A LEVEL COURSES OFFERED IN THE SIXTH FORM AND THEIR SPECIFIC ENTRY CRITERIA

<b>ART &amp; DESIGN: FINE ART</b>	<b>Entry Criteria:</b> GCSE grade 6 in Art
<b>ART &amp; DESIGN: GRAPHICS</b>	<b>Entry Criteria:</b> GCSE grade 6 in Art
<b>BIOLOGY</b>	<b>Entry Criteria:</b> GCSE grade 6 in Biology. <b>In addition</b> , you must have scored a grade 7 in either of the <b>Biology</b> papers. Or GCSE grades <b>77</b> in Combined Science (Trilogy).
<b>CHEMISTRY</b>	<b>Entry Criteria:</b> GCSE grade 6 in Chemistry. <b>In addition</b> , you must have scored a grade 7 in either of the Chemistry papers. Or GCSE grades <b>77</b> in Combined Science (Trilogy).
<b>DESIGN TECHNOLOGY</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>Design Technology</b>
<b>ECONOMICS</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>Economics</b> . If you have not studied Economics at GCSE, a GCSE <b>grade 7 in Mathematics</b> .
<b>ENGLISH LANGUAGE &amp; LITERATURE</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>both GCSE English Language and English Literature</b>
<b>FILM STUDIES</b>	<b>Entry Criteria:</b> GCSE grade 5 in <b>English</b> (Language or Literature).
<b>FRENCH</b>	<b>Entry Criteria:</b> GCSE grade 6 in French
<b>FURTHER MATHS</b>	<b>Entry Criteria:</b> GCSE grade 8 in <b>Mathematics</b>
<b>GEOGRAPHY</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>Geography</b>
<b>HISTORY</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>History</b>
<b>MATHEMATICS</b>	<b>Entry Criteria:</b> GCSE grade 7 in <b>Mathematics</b>
<b>MUSIC</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>Music</b> or have significant musical experience that is of a similar standard. <b>Performance skills of at least grade 5 ABRSM (or equivalent) standard are required, and receiving professional tuition on your chosen performance instrument</b>
<b>PHYSICS</b>	<b>Entry Criteria:</b> GCSE grade 6 in Physics. <b>In addition</b> , you must have scored a grade 7 in either of the Physics papers. Or GCSE grades <b>77</b> in Combined Science (Trilogy).
<b>POLITICS</b>	<b>Entry Criteria:</b> GCSE grade 5 in <b>English</b> (Language or Literature).
<b>PSYCHOLOGY</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>Psychology</b> . Alternatively, if you have not studied Psychology at GCSE, a GCSE <b>grade 6 in a Separate Science qualification or Combined Science (Trilogy) and a grade 6 in English (Language or Literature)</b>
<b>PHILOSOPHY AND ETHICS</b>	<b>Entry Criteria:</b> GCSE grade 6 in Religious Education Short or Long Course or a GCSE <b>grade 6 in English</b> (Language or Literature).
<b>SPANISH</b>	<b>Entry Criteria:</b> GCSE grade 6 in <b>Spanish</b>

## APPLIED GENERAL COURSES OFFERED IN THE SIXTH FORM AND THEIR SPECIFIC ENTRY CRITERIA

BTEC NATIONAL EXTENDED CERTIFICATE IN <b>BUSINESS</b> (EQUIVALENT TO <b>ONE A LEVEL</b> )	<b>Entry Criteria:</b> <b>Distinction at Level 2 Cambridge National in Enterprise &amp; Marketing</b> (if this course has been taken in Key Stage 4) <b>and GCSE grade 5 in English</b> (Language or Literature) <b>and Maths</b>
CAMBRIDGE ADVANCED NATIONAL EXTENDED CERTIFICATE IN <b>INFORMATION TECHNOLOGY</b> (EQUIVALENT TO <b>ONE A LEVEL</b> )	<b>Entry Criteria:</b> <b>Distinction at Level 2 in ICT</b> (if this course has been taken in Key Stage 4) <b>and GCSE grade 5 in English</b> (Language or Literature) <b>and Maths</b>
BTEC EXTENDED CERTIFICATE IN <b>SPORT</b> (EQUIVALENT TO <b>ONE A LEVEL</b> )	<b>Entry Criteria:</b> GCSE <b>grade 5 in English</b> (Language or Literature) <b>and Maths</b>
BTEC NATIONAL DIPLOMA IN <b>SPORT</b> (EQUIVALENT TO <b>TWO A LEVELS</b> )	<b>Entry Criteria:</b> GCSE <b>grade 5 in English</b> (Language or Literature) <b>and Maths</b>

### SOME USEFUL GUIDANCE

We appreciate that for many students, they remain unsure about future plans for Life Beyond the Harvey, when they are selecting their Sixth Form options. This is perfectly understandable (and normal!) and for this reason we encourage students to ensure that they are selecting subjects to study that they have an aptitude for and an enjoyment of.

We would encourage students to consider taking one of the **facilitating subjects**, which are the subjects most commonly required by universities to get on to a range of degree courses. They can help students to keep their options open when choosing a degree or an apprenticeship and many of the top universities and employers will ask that you have at least one A Level facilitating subject, when you apply.

#### Facilitating subjects are:

- Biology
- Chemistry
- English
- Geography
- History
- Maths
- Modern and Classical Languages
- Physics

In some cases, some universities and employers do discourage students from taking certain combinations of subjects, particularly if they are very similar e.g. Business Studies and Economics.

A useful tool, if you are considering applying for university in future, can be accessed at [Uni Guide](#). All you need to do is create a log-in and then you can type in different combinations of A Level and BTEC subjects, to reveal examples of where those subjects could lead to.

There are some routes that require very specific academic qualifications. These include:

- **Art** – requires A level art, as this will provide you with the complex portfolio of work that would be expected as a part of any application.
- **Biochemistry** – requires chemistry and often one from biology, maths or physics.
- **Dentistry** – chemistry, biology and either maths or physics.
- **Engineering** – this is subject where a science is generally seen as a necessity and you should consider taking maths with physics. It is also considered valuable to have studied design technology, as this is seen to aid the development of specialist literacy and design.

- **Medicine** – chemistry is a must have for any application to study medicine at university. Other non-negotiables tend to depend on the university but you should assume that you will need to have studied a second science. Chemistry, biology and either maths, psychology or physics will keep all of the medical schools open to you – please note that Further Maths is not necessarily an expectation for all universities offering medicine. If you don't take maths or physics but do take chemistry and biology, the vast majority of courses will be open to you. If this is a career path that you feel you will take, it is worth looking at the expectations of different universities before selecting your options – try using [Medicine](#)
- **Physiotherapy** – Biology is usually preferred but you could also study chemistry or physics instead and still keep most options open. Again, if this is a route you are thinking of, it's worth looking at the expectations of different universities before selecting your options – try using [Physiotherapy](#)
- **Veterinary Sciences** – chemistry is usually a must have and to keep as many options open to you as possible, you should consider combining it with biology and either maths or physics. Again, if this is route you are thinking of, it's worth looking at the expectations of different universities before selecting your options – try using [Veterinary Science](#)

If you are considering studying A Level Mathematics and Further Mathematics, please be aware that this is the equivalent of two A Levels being completed across two years. It is a very challenging programme of study and only a small number of degree programmes list it as essential.

If you are considering a career or further studies in the following areas at a very top university (such as Oxford, Cambridge, Kings, UCL, Imperial or Durham) , taking maths with further maths might be considered.

- |  |  |                          |
|--|--|--------------------------|
| • Actuarial Science                                  | • Civil Engineering  | • Mechanical Engineering |
| • Aeronautical Engineering                           | • Dentistry  | • Medicine               |
| • Biochemistry                                       | • Engineering  | • Optometry              |
| • Biomedical Sciences<br>(including Medical Science) | • Materials Science<br>(including Biomedical<br>Materials Science) | • Physics                |
| • Chemical Engineering                               | • Pure Mathematics   | • Veterinary Science     |
| • Chemistry  |  |                          |

In general terms, we would not advise students to undertake Mathematics with Further Mathematics, unless they envisage a career pathway that would make this a necessity. In the case of most universities and apprenticeships, a very strong grade in mathematics is considered to be worthy.

You might like to know what some of our Sixth Formers have studied during their time with us and the kinds of subjects that they have gone on to study at university.

Here are some recent examples, which show the value of considering a facilitating subject and that you select subjects that you have an aptitude for and really enjoy. In some cases, you might be surprised to see the range of subjects that can be taken to gain access to lots of different types of courses.



**Further Maths, Physics, English** – Maths degree at Cambridge University



**Biology, History, Physics** – Biological Sciences with professional placement at Reading University



**Maths, Chemistry, Spanish** – Chemistry at York University, with a Master's year in Spain



**Maths, Physics, Psychology** – Astrophysics degree at Kent University



**Psychology, Biology, Maths** – Criminology at Loughborough University



**Spanish, History, Geography** - Law degree at Queen Mary London



**Art, English, Philosophy and Ethics** - Architecture degree at UCL



**ICT, Politics, Geography** - Management & Digital Innovation at Royal Holloway



**Double Sport and Philosophy and Ethics** - Sport coaching at Brighton University



**ICT, French, History** - Primary Education at Derby University



**Biology, History, Physics** – Biological Sciences with professional placement at Reading University



**Maths, Politics, Economics** - masters in Economics at Southampton University



**Biology, Psychology, Chemistry** – Degree apprenticeship with Pfizer



**Maths, Physics, Art** – Aerospace Engineering at Liverpool University

Here are a few words from members of Year 13. As they draw towards the end of their time with us here at HGS and prepare in earnest for their final A level and BTEC examinations, they are perhaps best placed to share their experiences with you.

*"Sixth Form at the Harvey has been two of the best years of my school life, especially studying new subjects that I couldn't study before. Sixth Form has been a time where I have found that I can really develop my potential and I feel that I have flourished, achieving more than I have ever achieved before. I have worked hard and made the most of all of my opportunities and have benefited from the help and support of the Sixth Form team and my teachers."*

*"As a prefect, I have had a great time working together with people I had never really worked with before. I have had the opportunity to make an impact at school by representing the school. Sometimes this is in smaller ways, where I contribute by helping the diner staff manage the lunch queues or help with assemblies, and at other times this is in a much bigger way, representing the school at events and open evenings. I feel that my contributions are appreciated by staff and students and I have taken a lot of confidence as I have grown into this role."*

*"I have thoroughly enjoyed my time as a prefect, and an A-level student at the Harvey. Sixth Form is a great option to continue your further education, with the ability to take control of your own learning. Private study time, work experience, and coursework, which all allow you to fully immerse yourself in your favourite subjects!*

*Also, new extra-curricular activities, societies and the EPQ, are a great way to extend your wider interests and hobbies. Not to mention the opportunity to go on local and overseas trips too! "*

*"After completing GCSEs, it's a big step into A-Level but it's also a time when you can take advantage of lots of new opportunities. There are a huge range of trips and visits that you can be involved with, as well as opportunities to represent the school. We also have a superb range of assemblies, with some incredible speakers; many of them having attended the Harvey themselves and gone on to do amazing things. It's great to be able to hear about how they have moved on from HGS and that they want to take the time to come in and meet us and share their experiences."*

## **ART & DESIGN: FINE ART or GRAPHIC COMMUNICATION**

**Examining Board: OCR**

**Head of Department: Mr J Collins**

### **[Unifrog: Careers Information for Art](#)**

This subject aims to allow you to extend and further develop your abilities gained through GCSE Art and Design and encourages you to experiment with a variety of different processes and methods. It also asks you to consider the work of professional artists in relation to your own work, and to form an understanding of the nature of art and design by developing a body of work that is personal and expressive.

The Art department at The Harvey Grammar School offers the opportunity to study in one of two areas: **Fine Art** or **Graphic Communication**. Either of these courses will give you a foundation of skills and experiences that will prepare you for a future in art and design.

If you are aiming to go on to Art College after A levels, you can choose your other subjects with comparative freedom – your portfolio of work will be the deciding factor. The best arts-based degree courses normally expect students to have studied Art at A level and have completed a Foundation Course.

Arts based degree courses include: Graphic Communication, Illustration, Web Design, Fine Art, History of Art, Architecture, Ceramics, 3-D and Product Design, Fashion, Textiles, Furniture Design, Glass Design, Graphic Fine Art, Industrial Design, Jewellery, Photography, Film Studies and Animation. Whether you choose **Fine Art** or **Graphic Communication**, you will acquire a range of skills and experiences that could lead to one of an ever-increasing number of career opportunities in a widening spectrum of fields from Fine Art and Design to TV/Film and Theatre.

### **Fine Art**

The course is project based and will encompass a wide range of media, including Drawing and Painting, Printing, Sculpture, Ceramics and 3-D Design and computer based Graphic Fine Arts. We do not seek to impose a particular dogma of practice or house style but aim to enable the development of an individual approach in an atmosphere of ambitious expectation. Drawing, in its broadest sense, forms the foundation or departure point for most work. After this initial reinforcement of the basic language and technical skills, you will be expected to work with a high degree of self-direction and produce very personal responses. In addition, you will be encouraged to visit exhibitions, work in the local community and spend private study time developing your artwork.

### **Graphic Communication**

The course offers the opportunity to gain a fundamental understanding of visual communication, encouraging you to identify your own strengths and interests in the subject as the course progresses. You will explore a variety of image making techniques, incorporating computer based Graphics, Illustration, Printmaking and Photography. Alongside Drawing you will develop an appreciation of Graphic Arts including Typography, Calligraphy and the use of signs and symbols. Audience and the professional context of Graphic Communication form the focus for the projects. In the Design Studio you will work to strict deadlines and take part in regular group critiques. In addition, you will be encouraged to attend Exhibitions and aim to spend private study time working in the Art department.

### **Further Information**

In both areas of Art and Design trips to galleries and museums form an important part of your project and exam work. Your personal investigation (60%) and externally set task (40%), will be assessed on manipulative and analytical skills, aesthetic qualities, knowledge and critical understanding. There are clearly defined assessment objectives for each of these areas, through which your teacher will guide you.

# BIOLOGY

**Examining Board: AQA**

**Head of Biology: Mrs Barma-Newman**

## [Unifrog: Careers Information for Biology](#)

Biology A-level will give you the skills to make connections and associations with all living things around you. Biology is defined as the study of living organisms; being such a broad topic. Students are able to increase their understanding of the topic and are bound to find a specific area of interest, plus; as a subject it opens the door to a fantastic range of interesting careers.

### **The topics studied in Year 12 consist of:**

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

### **The topics studied in Year 13 consist of:**

- 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

The assessment consists of 3 written examinations each of equal weighting at the end of the course:

**Paper 1:** 2 hour examination. 91 marks (35% of A-Level)

Assessed topics 1,2,3,4, relevant mathematical and practical skills. 76 marks are a mixture of long and short answer questions. 15 marks are extended response questions.

**Paper 2:** 2 hour examination. 91 marks (35% of A-Level)

Assessed topics 5,6,7,8, relevant mathematical and practical skills. 76 marks are a mixture of long and short answer questions. 15 marks are extended response questions.

**Paper 3:** 2 hour examination

Assesses all work undertaken throughout the A level course (topics 1-8) including relevant practical skills. 78 marks (30% of A-Level). 38 marks are structured questions including practical techniques. 15 marks are critical analysis of experimental data and 25 marks are for one essay from a choice of two titles.

### **Science practical endorsement**

There is no coursework on this course, however, practical competency must be demonstrated in a series of 12 core practicals throughout the course and reported to the examination board. This is assessed as a pass or fail.

An enjoyment of the subject is essential; this will aid your motivation valuably as the level of difficulty increases.

Further information about the course, its content and links to other resources can be found at:

<https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content>

Possible career areas that require A-level biology include: biological testing, biotechnology, independent research, food science, nutrition, medicine, veterinary science, zoology, animal care, amongst a huge range of others.

According to bestcourse4me.com, the top 7 degree courses taken by students who have an A-Level in biology are: Biology, psychology, sport and exercise sciences, medicine, anatomy, physiology and pathology pharmacology, toxicology and pharmacy chemistry.

# BUSINESS - BTEC LEVEL 3 NATIONAL EXTENDED CERTIFICATE IN BUSINESS

Examining Board: PEARSON

Head of Department: Mrs L Pawsey-Fish

## Unifrog: Careers Information for Business

A BTEC National Extended Diploma is a level 3 qualification that will provide a vocational approach to studying Business. Through analysing real businesses and applying knowledge to 'real life' scenarios, all students will have the opportunity to learn a huge variety of skills that will form a strong basis for them to either use for their progression into university or into the world of business.

**This qualification is equivalent to one A Level.**

This course provides a natural progression from Business and Economics. Although it would be an advantage to have completed these, they are not essential prerequisites. We would encourage any student to apply for this course due to the 'real life' approach to its units. The assessments are linked to a variety of businesses to support learning and a number of the units require students to experience the topics.

### **What is the course structure?**

The course is made up of 4 units, 3 mandatory units which everyone takes, and 1 optional unit.

#### **Year 1:**

<b>Exploring Business</b>	<b>Developing a Marketing Campaign</b>
In this introductory unit, you study the purposes of different businesses, their structure, the effect of the external environment, and how they need to be dynamic and innovative to survive. Assessment: you will complete this unit as a written assignment.	You will examine the marketing aims and objectives for existing products/services and understand the importance of relevant, valid and appropriate research in relation to customers' needs and wants. Assessment: you will complete this unit as a set task by the exam board under controlled conditions.

#### **Year 2:**

<b>Personal and Business Finance</b>	<b>Work Experience in Business</b>
You will study the purpose and importance of personal and business finance. They will develop the skills and knowledge needed to understand, analyse and prepare financial information. Assessment: you will complete this unit as a written exam.	This unit examines the benefits of work experience in business. They reflect on their practical workplace skills by completing forty hours of appropriate work experience. Assessment: you will complete this unit as a written assignment based on your placement and the arranging of the placement.

# CHEMISTRY

**Examining Board: EDEXCEL**

**Head of Chemistry: Mr R Guck**

## [Unifrog: Careers Information for Chemistry](#)

Chemistry is the study of matter, that encompasses the world around us. This course will allow you to develop your understanding of what makes matter different, while at the same time furthering your knowledge and understanding of core aspects in the subject.

There will be an opportunity to gain an appreciation of the contributions Chemists make through their work via both a direct and independent study pathway. You will learn how to obtain useful materials from naturally occurring substances and see how Chemists use modern advances in Information Communication Technology and Instrumentation. Scientific and practical skills will be developed through regular practical activities throughout the course and there will be potential opportunities for external visits to see Chemistry in action.

There are three externally assessed exam papers as indicated below:

### **Paper 1 Advanced Inorganic and Physical Chemistry 30%**

This unit covers topics ranging from atomic structure and bonding to the study of elements in the periodic table. From a physical chemistry perspective, rates of reaction, equilibrium and energetics are studied. In addition, there is an introduction to organic chemistry which is considered in this unit.

### **Paper 2 Advanced Organic and Physical Chemistry 30 %**

Once again the core aspects of chemistry relating to atomic structure and the periodic table will be considered here but more content focus will be placed upon organic chemistry and related modern analytical techniques. In addition, relevant inorganic chemistry will also be studied and assessed.

### **Paper 3 General and Practical Principles in Chemistry 40%**

This section may draw from any topics studied in the previous units and will have a synoptic nature. It will assess the conceptual and theoretical understanding of experimental methods that will be experienced directly in the practical lessons.

### **Science practical endorsement**

In addition to the formally examined section of the course, this further section will be internally assessed and moderated externally. Students will be required to complete a minimum of 12 identified activities in which they demonstrate practical competence in the skill listed. This may be recorded on the student's examination certificate.

Chemistry links well with Biology, Physics and Mathematics as well as being essential for those that wish to study medicine, dentistry or veterinary science. As a facilitating subject, Chemistry will be viewed favourably by Universities and employers alike as it demonstrates a sound academic ability and is highly valued in many other careers such as law and finance.

## DESIGN & TECHNOLOGY: PRODUCT DESIGN

Examining Board: EDEXCEL

Head of Department: Mr S Bradbeer

### [Unifrog: Careers Information related to Design & Technology](#)

The course reflects the demands of a truly modern and evolving society and aims to equip students with the skills to recognise design needs and develop an understanding of how current global issues, including integrating technology, impacts on today's world. Students who choose 'A' level product design will have the confidence to innovate and produce creative design solutions and develop their own design brief with a client / end user.

**Component 1: Principles of Design and Technology: Written Examination 2 hours 30 minutes 50% of the qualification. This Component covers:**

**Topic 1:** Materials, **Topic 2:** Performance characteristics of materials, **Topic 3:** Processes and techniques, **Topic 4:** Digital technologies, **Topic 5:** Factors influencing the development of products, **Topic 6:** Effects of technological developments, **Topic 7:** Potential hazards and risk assessment, **Topic 8:** Features of manufacturing industries, **Topic 9:** Designing for maintenance and the cleaner environment, **Topic 10:** Current legislation, **Topic 11:** Information handling, Modelling and forward planning, **Topic 12:** Further processes and techniques.

**Component 2: Independent Design and Make Project Coursework Centre assessed 50% of the qualification. This Component covers:**

- Students individually and/or in consultation with a client/end user identify a problem and design context.
- Students will develop a range of potential solutions which include the use of computer aided design and evidence of modelling.
- Students are expected to make decisions about the designing and development of the prototype in conjunction with the opinions of the client/end user.
- Students will realise one potential solution through practical making activities with evidence of project management and plan for production.
- Students will incorporate issues related to sustainability and the impact their prototype may have on the environment
- Students are expected to analyse and evaluate design decisions and outcomes for prototypes/products made by themselves and others
- Students are expected to analyse and evaluate of wider issues in design technology, including social, moral, ethical and environmental impacts.

**Expected outcomes:**

- The investigation report is internally assessed and externally moderated.
- Students will produce a substantial design, make and evaluate a project, which consists of a portfolio and a prototype
- There are four parts to the assessment:

**Part 1: Identifying and outlining possibilities for design:** Identification and investigation of a design possibility, investigation of client/end user needs, wants and values, research and production of a specification.

**Part 2: Designing a prototype:** Design ideas, development of design idea, final design solution, review of development and final design and communication of design ideas.

**Part 3: Making a final prototype:** Design, manufacture and realisation of a final prototype, including tools, equipment, quality & accuracy.

**Part 4: Evaluating own design and prototype:** Testing and evaluation.

# ECONOMICS

**Examining Board: EDEXCEL**

**Subject Leader: Mr N Bristow**

## [Unifrog: Careers Information related to Economics](#)

### **What is Economics?**

Economics is a challenging but fascinating subject. It is a social science; it tries to provide scientific explanations for how economies work and how different approaches can be used to concepts such as how markets work, economic growth, or tackling problems such as recession, scarcity of resources, market failure or poverty and inequality. You will learn how to think like an economist – to analyse real world problems and choices, to test potential solutions and ideas and to constructively criticise the actions of firms, consumers, governments and even economists themselves.

Of course the key aim of the course is for you to develop an interest and enthusiasm for the subject. You will learn to appreciate how an understanding of economics can contribute to your life, whether as a potential route for further study, or in opening up opportunities for employment or to enable you to understand and cope with the challenges of adult life and to approach any of these with a degree of confidence.

### **Theme 1: Competitive Markets**

An introduction to the nature of economics and how markets work. It involves the study of the theory demand and supply and application to a range of markets – for goods and services, commodities, labour and housing. And where markets fail, how governments can deal with the effects of economic activity, such as pollution.

### **Theme 2: Managing the Economy**

An introduction to macroeconomics, or how the whole economy works. It involves study of key measures of economic performance and the main objectives and instruments of economic policy.

### **Theme 3: Business Behaviour and the Labour Market.**

This develops the content of Theme 1 to explore what competitive markets look like, how firms can successfully compete, how labour markets work and how and where government intervention can promote competition or efficiency.

### **Theme 4: A Global Perspective**

This unit develops the knowledge and skills gained in Theme 2 so that they can be applied in a global context to issues such as globalisation, financial economics, developing economies or poverty.

### **Should I study Economics?**

Economics is highly regarded as an A Level because it requires a range of highly developed skills such as theoretical analysis, numerical application and evaluation to be applied to the real world. A certain amount of mathematical ability is required, but this is never beyond that required of a grade 6 GCSE student.

Economics can lead to a wide variety of higher education options and careers. Graduates in economics are commonly found working in the manufacturing, transport, communications, banking, insurance, investment and retailing industries, as well as in government agencies, consulting and charitable organisations. In all these settings, employers value economics graduates' understanding of decision-making, their research and analytical skills, and their experience of viewing problems in their national and international context. Visit <http://whystudyeconomics.ac.uk/> to explore how studying economics may be the right choice for you.

## ENGLISH LANGUAGE AND LITERATURE

**Examining Board: EDEXCEL**

**Head of Department: Mr S Wise**

### [Unifrog: Careers Information for English Language and Literature](#)

English Language and Literature are central to how we communicate and make sense of the world. In an increasingly digital age, the ability to communicate fluently and persuasively in English, whether spoken or written, is an integral part of most professional careers. Areas such as Media, Law, Commerce and Education (amongst many others) all demand a high level of literacy and the ability to work well with others.

The Pearson Edexcel Level 3 Advanced GCE in English Language and Literature is designed to define and assess achievement of the knowledge, skills and understanding that will be needed by students planning to progress to undergraduate study at a UK higher education establishment, particularly (although not only) in the same subject area, English, English Literature and English Language. This course enables students to:

- develop and apply their understanding of the concepts and methods for the analysis and study of language
- develop and apply their knowledge of literary analysis and evaluation
- use linguistic and literary approaches in their reading and interpretation of texts, showing how the two disciplines can relate to each other
- engage creatively and critically with a wide range of texts
- explore the ways in which texts relate to each other and the contexts in which they are produced and received
- develop their skills as producers and interpreters of language
- undertake independent and sustained studies to develop their skills as producers and interpreters of language.

This A-Level aims to give a solid grounding in both English Language and Literature. It examines the wide variety of responses that a piece of writing can evoke and extends the ability to articulate perceptions of, and insights into, a range of texts. To study English in the Sixth Form, you should have a love of reading and creative writing, a willingness to engage in discussion and debate (a key aspect of the course) and the ability to learn independently.

Students analyse an anthology comprising a wide variety of non-fiction texts such as diaries, reviews, travelogues and speeches. In the exam they will be asked to compare one of these anthology texts with an 'unseen' text (also non-fiction). They will also explore a play (drama text) and answer a question on it, starting with a printed extract and then moving to consider the play as a whole. Both questions are equally weighted.

Students also study a theme, 'Society and the Individual', and evaluate unseen prose non-fiction texts which consider it. This theme is also addressed by two further literary texts (one prose and one drama), leading to a comparative essay question.

The final component gives considerable scope for Independent Learning: students choose two texts, one fiction and one non-fiction, on a given area of study, for example travel, relationships or conflict. They produce two pieces of original writing, one fiction, one creative non-fiction, and a short commentary reflecting on their studied texts. This unit is internally marked and externally moderated. The advisory word count is 2500-3250.

This A Level in English Language and Literature meets Pearson's World Class Qualification Principles, which ensure that the qualification is demanding, rigorous, inclusive and empowering through internationally benchmarked standards, encouraging deep learning and measuring higher-order skills and is therefore a valued addition to any university application. Successful completion of the course will equip students with the analytical and communication skills essential for degree-level study and future graduate employment.

# FILM STUDIES

**Examining Board: WJEC**

**Subject Leader: Miss K Middleton**

**[Unifrog: Careers Information for Film Studies](#)**

## Course Content

**Component 1: Varieties of Film and Film-making** including a focus on Hollywood, American film and documentaries. (Examined unit: 35%). Films studied include Joker (Phillips, US, 2019), Shaun of the Dead (Wright, UK, 2004) and This is England (Meadows, UK, 2006)

**Component 2: Global Film-making perspectives**, including modern British Film, Global Film and various film movements. (Examined Unit: 35%). Films studied include Pan's Labyrinth (del Toro, Spain, 2006), Parasite (Bong, South Korea, 2019) and Amy (Kapadia, UK, 2015)

**Component 3: Practical Production** (Coursework) - a creative and task with self-evaluation. (30%). Students will write, direct and produce a short film of their own.

## Why take an A level in Film Studies?

For well over a century, film has represented one of the most powerful global means of communicating the local, national, and transnational stories that matter to humankind. Understanding the power of films to reflect reality is part of being a culturally literate and engaged citizen in the fullest sense. The study of cinema is important on a microcosmic and a macrocosmic scale: it allows you to explore the interconnectedness of personal visions, artistic and technological developments, social changes, as well as processes by which cultures and nations are defined through audio-visual means.

The Film Studies A-Level is designed to develop students' critical thinking, evaluative and analytical skills as well as deepening their understanding of how different cultures express themselves through the medium of film. Students will be exposed to a wide range of film genres and students' understanding, appreciation and enjoyment of film will be greatly enhanced as well as expanding their creativity and practical skills. A variety of forms of assessment are used, with the intention of shaping the students into independent, active learners.

# GEOGRAPHY

Examining Board: EDEXCEL

Head of Department: Miss A Chapman

## [Unifrog: Careers Information for Geography](#)

Geography is the study of the physical and human world. It links these in space and time, helping us to understand how and why the world is changing and to respond to what is happening around us. In a globalised world, geography is a relevant, challenging and topical subject to study, both inside and beyond the classroom.

### **What topics are covered?**

Students will study a total of eight topics – four in Year 12 and four in Year 13. All eight topics will be examined at the end of Year 13 in three papers of varying length and weighting. The final element of assessment will require all students to produce an individual investigation of their choice and design which will be internally marked and externally moderated.

In each area of study candidates will consider the values and attitudes of decision makers, consider their own values and attitudes to the issues being studied and support their learning of ideas through the study of specific case studies. Candidates will also develop a variety of geographical skills, which will broaden and deepen existing knowledge and be employed with a greater degree of independence.

### **Paper 1: Physical Geography (30%)**

In Paper 1, students delve into the physical processes shaping our planet and the interactions between humans and natural systems.

- **Tectonic Processes and Hazards:** This topic examines the causes of tectonic activity, including plate movements and mantle processes. Students explore the characteristics of earthquakes, volcanoes, and tsunamis, as well as their varied impacts on societies and ecosystems. They also study risk management, from prediction and preparation to response and recovery, considering how hazard resilience varies between developed and developing nations.
- **Coastal Landscapes and Change:** This unit investigates the dynamic processes shaping coastlines, including erosion, deposition, and transportation. Students learn about coastal landforms, such as spits, cliffs, and beaches, and how human intervention, like sea defences, impacts coastal systems. Long-term changes, such as sea-level rise due to climate change, are explored alongside sustainable coastal management strategies.
- **The Water Cycle:** This unit focuses on the movement of water through Earth's systems, exploring key processes such as precipitation, infiltration, and evapotranspiration. Students assess the factors influencing river catchments and aquifers, alongside human activities like water abstraction and dam construction. Case studies highlight water scarcity, flooding, and strategies for water resource management in the context of global climate change.
- **The Carbon Cycle:** This topic examines the role of carbon in Earth's systems and its significance in regulating the global climate. Students explore the processes of carbon storage and transfer, including photosynthesis, combustion, and decomposition, alongside human influences such as deforestation and fossil fuel combustion. The impacts of disrupted carbon cycles on climate systems, ecosystems, and global policies, like carbon trading and afforestation, are also considered.

## **Paper 2: Human Geography (30%)**

Paper 2 explores the human dimensions of geography, focusing on global interconnectivity, economic development, and social change.

- **Globalisation:** This topic investigates the drivers of global interconnectedness, such as trade, technology, and international organisations. Students assess the benefits and challenges of globalisation, including its impacts on economies, cultures, and the environment, and explore issues such as outsourcing, inequality, and environmental degradation.
- **Regenerating Places:** Students study how urban and rural areas adapt to social and economic changes. They examine the causes and consequences of deprivation, the role of stakeholders in regeneration projects, and how these efforts aim to improve quality of life, attract investment, and create sustainable communities. Case studies highlight regeneration in different contexts, from city centres to rural communities.
- **Superpowers:** This unit focuses on the rise and dominance of global powers, including historical empires and contemporary superpowers like the USA and China. Students examine the influence of these powers on global politics, economics, and the environment, alongside emerging powers and challenges to dominance, such as shifting alliances and resource conflicts.
- **Migration, Identity, and Sovereignty:** This topic explores the movement of people across borders and its implications for cultural identity, economic development, and political sovereignty. Students study the causes and consequences of migration, debates around multiculturalism, and the impact of globalisation on national borders, sovereignty, and international relations.

### **Interconnections Across Papers:**

The topics in both papers are deeply interconnected. For instance, globalisation fuels migration and influences the challenges of regenerating places, while the water and carbon cycles impact global climate systems that shape responses to coastal change and tectonic hazards. Understanding these links enables students to critically analyse the complex relationships between physical and human processes.

**Paper 3 (20%)** will be based on a resource booklet and will test students synoptic understanding of all aspects of the course (using key topics from papers 1 and 2) through the use of contemporary material and examples.

**Paper 4 (20%)** an individual investigation of between 3000 - 4000 words based on the student's own data collection. A reminder letter detailing this investigation will be sent home before its commencement.

Students are required to participate in **four days of fieldwork**, which we will carry out in Year 12.

### **Why choose Geography?**

In addition to more traditional Geography, you will also study contemporary issues which involve every level of society; locally, nationally and globally. You will develop many key, transferable skills, which are not only useful in the wider world, but are highly regarded by universities and employers. It is expected that you will demonstrate an active interest in the topics studied by reading and carrying out further research outside of lessons.

### **What goes well with Geography?**

An A Level in Geography is valued by universities and employers alike due to the skills it develops such as the ability to synthesise a wide range of information, evaluate issues from different perspectives and essay writing. Geography is a popular subject with good results; it links well with many subjects including the Sciences, Maths and other Humanities. Each year several students go on to successfully study Geography at university. Geography is an 'in demand' A level and has been defined as a 'facilitating' subject by the Russell Group (24 leading UK universities) meaning that by choosing it now it will allow you access to a wide range of degree level options and careers including courses such as law, archaeology, environmental science and civil engineering.

# HISTORY

**Examining Board: AQA**

**Head of Department: Miss S Bailey**

[Unifrog: Careers Information for History](#)

In studying history you will learn

- about the significance of events, the role of individuals and importance of issues
- how and why societies have changed over time
- about different interpretations of history and the language used by historians to discuss their ideas
- to understand the nature of historical evidence and the methods used to analyse and evaluate it

As well as studying history to an advanced level, this course will enable you to develop key skills, which will be essential to you whatever you go on to do, including: communication, in particular, presenting a coherent argument and backing it up with relevant evidence; problem solving; working with others; and improving your own learning and performance.

Lessons will involve group discussions, debates and presentations as well as learning to take notes from books and teachers' verbal explanations. Examinations consist of a range of questions, some based on interpretations and others requiring the analysis of causes, change and significance. You should develop the ability to reach independent judgements based on a thorough consideration of the evidence and learn to argue a case convincingly both orally and on paper.

At A-Level, there are three assessment components.

- Component 1 assesses students' understanding of breadth and of historical interpretations.
- Component 2 assesses understanding of depth and of the value of primary sources.
- Component 3 is a Historical Investigation (non-examination assessment).

**The topics you will study for A Level are:**

## **Component 1- Tsarist and Communist Russia, 1855-1964**

This unit explores arguably the most significant event of the Twentieth Century: the rise of Communism in Russia. Students begin by examining Russia under the rule of the Tsars and the development of the long-term causes of the Russian Revolution. Students will study the rise of revolutionary groups and assess whether Lenin was a visionary revolutionary or a brutal dictator. Conclusions will be drawn about the emergence of the Communist dictatorship, starting with Lenin's Russia. Students will then look at the establishment of Stalin as leader and how he transformed Russia from a backwards country into one of the two global superpowers, whilst causing famine and 'purging' his political rivals. The course ends with the rise of Nikita Khrushchev and how events (including the Cuban Missile Crisis) contributed to the plot to remove him from power.

## **Component 2- Wars and Welfare: Britain in Transition, 1906-1957**

This unit studies a transformative period of British history, at a time when British society underwent dramatic change. Students begin by examining the Liberal governments at the start of the 20<sup>th</sup> Century and assessing how divisions in British society required leaders, such as Lloyd George, to propose enormous change. Students will study the impact of World War One on Britain, including the role of women and the impact of Irish Nationalism and the violent suppression of the Easter Rising. They will then look at the 'Hungry Thirties' and how economic crisis led to an unstable country threatened by fascism and communism, before finally investigating World War Two and the role played by Neville Chamberlain, Winston Churchill and Clement Attlee in forming the country we live in today, including the creation of the NHS.

## **Part Two: The Emergence of the Affluent Society, 1929–1957**

Students will cover the leadership of MacDonal, Baldwin and Chamberlain and will trace the course of the depression, the political development and the challenges to political stability. They will also look at the social and cultural impact of total war on Britain during WWII.

### **Component 3- Coursework: Tudor England.**

In this part of the course, students are taught about the Tudor succession and how the House of Tudor saw ground breaking political and religious change across the nation. Students will independently investigate primary and secondary sources to write one extended piece of assessed work, judging the significance of the roles played by different Tudor monarchs in religious change.

History combines well with all other Humanities subjects and is a popular choice at The Harvey, with students achieving excellent results at GCSE and at A Level. Universities and employers recognise History as a rigorous, academic subject that helps to equip students with good writing and research skills and the ability to analyse material critically.

History is a very good choice for anyone considering a career in law, research, archaeology, data analysis and journalism. Many of our stronger science students choose to study History as a third A Level in order to broaden their sixth form studies.

## **INFORMATION TECHNOLOGY - CAMBRIDGE ADVANCED NATIONAL EXTENDED CERTIFICATE IN IT: Data Analytics**

**Examining Board: OCR**

**Head of Department: Mr G J Meers**

### **Why choose this qualification?**

**Practical Application** - Apply your learning to real-life contexts, such as:

- Planning, developing and reviewing spreadsheet data models
- Developing Internet of Everything (IoE) solutions
- Planning and executing digital marketing campaigns

### **Skills Development**

- Independence and Confidence – gaining skills relevant to the IT sector and prepare for higher education courses requiring independent study
- Transferable Skills
  - Communication: Effectively communicating ideas to stakeholders
  - Creativity: Plan creative solutions for different clients or end-users
  - Project Management: Manage different aspects of a project to ensure its success
  - Time Management: Complete projects successfully by managing time effectively
  - Reflective Learning: Reflect on your choices and consider improvements for future tasks
  - Presentation Skills: Present your ideas in various ways to different audiences.

### **Course Breakdown:**

The course comprises of 5 units of work, 2 externally assessed units and 3 NEA units.

### **Exam Units (60marks, 90minutes per paper)**

- **F200 – Fundamentals of Data Analytics**
  - Understanding and managing data, which learning how data can be accessed and managed across platforms. Considering the legality side of things and how specific job roles, skills and attributes correlate to data analytics.
- **F201 – Big Data and Machine Learning**
  - Understanding the concept of Big Data and the infrastructure challenges it holds. Exploring Big Data, Machine Learning and Artificial Intelligence are some of the key focusses for the unit, alongside both legal and ethical issues faced, incorporating environmental and social impact.

### **NEA Units (24marks, 15hours per unit)**

- **F202 – Spreadsheet Data Modelling**
  - Learning the principles of data modelling with spreadsheets, planning and creating workbooks linked to specific scenarios and finally delivering the outcomes. Unit covers simple functions in addition to logical, financial, look ups and mathematical functions.
- **F204 – Data and the Internet of Everything (IoE)**
  - Examining the principles of the Internet of Everything, and the knowledge and skills required to plan, design and present an IoE solution that meets the needs of a specific client. Data collection, processing, connectivity and HCl's are just some of the key topics within the unit.
- **F206: Data & Digital Marketing**
  - Explore digital marketing fundamentals and the data that drives specific marketing strategies. You will be expected to plan and create a digital marketing campaign, communicate with stakeholders and then evaluate working processes adopted.

### **Where will this course lead?**

This qualification offers a comprehensive foundation for students aiming to excel in data analytics and IT, equipping them with the skills needed for higher education and professional success. Through a combination of theoretical study and hands-on experience, you will develop the necessary knowledge and skills that can support progression to higher education information technology study. In the examined unit, you will study key knowledge and understanding relevant to information technology. In the non-examined assessment (NEA) unit, you will demonstrate knowledge and skills you learn by completing an applied assignment. The course compliments higher education focuses within Business Analytics, Information Technology & Digital Marketing.

# MATHEMATICS

Examining Board: AQA

Head of Department: Mr K Hollier

## [Unifrog: Careers Information for Mathematics](#)

This course aims to develop your understanding of mathematical reasoning and the application of mathematics to other subject areas. It builds on the foundation provided by GCSE to introduce more abstract and theoretical concepts, involving a wider range of techniques, and places an emphasis on solving problems that may involve different areas of the subject. Potential students of Mathematics at A Level should ideally enjoy working at the subject and be competent in the Algebraic methods studied as part of the GCSE course. Mathematics is generally considered to be one of the most challenging choices, and without a full commitment, it is all too easy to fall below the necessary level of achievement.

### The A level includes the following Core elements:

Proof	Sequences and Series	Differentiation
Algebra and Functions	Trigonometry	Integration
Co-ordinate Geometry	Exponentials and logarithms	Numerical Methods

### The following applied elements are also included:

Vectors	Moments	Statistical distributions
Quantities and Units in Mechanics	Statistical sampling	Statistical hypothesis testing
Kinematics	Data presentation and Interpretation	
Forces and Newton's Laws	Probability	

The traditional combination of Mathematics, with **either** Physics **or** Chemistry forms a good, coherent pair of subjects which involve similar skills and abilities and which leaves many options open in the Sciences or Engineering. Also, taking Mathematics and certain Humanities courses such as Economics, History or Geography can be a strong basis for a wide range of non-scientific HE courses.

## FURTHER MATHS

This course is available if you wish to study Mathematics in more detail and is taken in addition to and at the same time an A Level in Mathematics. It may be useful if you intend to study Mathematics or Computing to degree level. (It may be necessary for entry onto a small number of Mathematics degree courses at some of the more prestigious universities; guidance will be given as to which courses/universities this applies).

### The core content includes the following

Proof	Further Calculus	Differential Equations
Complex Numbers	Further Vectors	Trigonometry
Matrices	Polar Co-ordinates	Co-ordinate geometry
Further Algebra and Functions	Hyperbolic functions	

Additional content covers Discrete Mathematics/Statistics/Mechanics

The course is really only suitable for the most talented Mathematics students and you should only consider it if you are aiming to study Mathematics or Science at one of the top universities, or you are certain that your career will have a heavy mathematical bias.

## MODERN FOREIGN LANGUAGES (FRENCH & SPANISH)

**Examining Board: AQA**

**Head of Department: Mrs H Wyllie**

### [Unifrog: Careers Information for Modern Foreign Languages](#)

**Aim:** to further develop your proficiency in the language.

Modern Foreign Languages complement most other subjects well. They can be an excellent addition to other A Levels, such as the Sciences, Business, Media, English or Computer Science.

Universities very much welcome students who have linguistic skills and indeed offer opportunities to develop your study of a languages alongside most other degree disciplines

**Career Paths:** A language degree can open doors to a whole range of careers

These days, a further qualification in a foreign language is an asset to almost any career. Studying languages teaches you more than just how to communicate. The skills you gain from your course, such as presenting, team work, researching and structuring an argument lend themselves to careers in a range of sectors such as journalism, media, business, travel & tourism, politics, teaching etc.

Whether it be working for MI5, the police force, a travel agency or working for an international company in finance or imports, you do not have to move abroad to find a career that will allow you use what you've learned. Did you know people who use a language in their work earn on average 8% more than those who do not!

**Course:** The four skill areas of GCSE - listening, speaking, reading and writing - are refined and developed to improve fluency, spontaneity and accuracy.

The lessons are conducted in the target language as much as is appropriate. You will practise all skills using current materials and resources based on the varied themes. These materials will include film, television, podcasts as well as literature,

**The A Level course is divided into three assessed units:**

**Paper 1:** Listening, Reading and Writing to include translation (50% of total GCE)

**Paper 2:** A written paper responding to questions on a prescribed text and film studied in class (20% of total GCE)

**Paper 3:** Speaking Examination largely based on a project that the student has researched independently and coming from the themes listed below (30% of total GCE)

Papers 1 and 3 are based on the study of four themes. The themes address a range of social issues and trends, as well as the political and artistic culture of France/Spain and French/Spanish-speaking countries:

1. Aspects of French / Spanish - speaking society: current trends (family structure, cyber society, charity work)
2. Artistic culture in French / Spanish-speaking countries (music, media, festivals & traditions)
3. Aspects of French / Spanish - speaking society: current issues (multiculturalism, crime, exclusion, positive features of a diverse society)
4. Aspects of political life & artistic culture in French / Spanish speaking countries (political engagement, immigration, strikes, cinema & art)

# MUSIC

**Examining Board: EDUQAS**

**Head of Department: Mr S J Barker**

## [Unifrog: Careers Information for Music](#)

A Level Music is a course for those who have a passion for music. It aims to build upon skills that you have learnt through Key Stage 4 and/or through experiences away from the classroom that you may wish to cement with a good academic grounding. The course is excellent preparation for higher education courses in music but is equally valuable for non-specialists as a second or third area of study.

In order to succeed, you will need to have a passion for music and be keen to develop your performance, composition, listening and analysis skills. You are expected to have achieved at least a grade B in Music at GCSE, **or** a Level 2 Distinction in Music BTEC, **or** have significant musical experience that is of a similar standard. Performance skills of at least grade 5 ABRSM (or equivalent) standard are required, and you will need to be receiving professional tuition on your chosen performance instrument.

### **Areas of Study**

There are three areas of study which run through the different components of the A level course:

- The Western Classical Tradition – the development of the symphony 1750-1900, including **one** set work
- One area from
  - Rock and Pop
  - Musical Theatre
  - Jazz
- Into the Twentieth Century, including **two** set works

### **Performance** (35% of total A level)

A performance consisting of a **minimum of three** pieces and lasting between 8 and 10 minutes. At least **one** of these pieces must be as a soloist. The other pieces may be either as a soloist or as part of an ensemble or a combination of both. One piece must reflect the musical characteristics of one area of study. At least one other piece must reflect the musical characteristics of one other, different area of study.

### **Composition** (25% of total A level)

**Two** compositions, one of which must reflect the musical techniques and conventions associated with the Western Classical Tradition and be in response to a brief set by the exam board. The second composition is a free composition.

### **Listening and appraising** (40% of total A level)

Through the investigation and in-depth study of the large variety of music contained in the areas of study, you will further develop your knowledge and understanding of the musical elements, contexts and language. This will be assessed through one exam lasting two and a half hours, in which you'll answer questions on familiar and unfamiliar pieces; some questions will be in response to listening to extracts of music, and others will require longer essay answers.

### **More information?**

Full specification online: <https://www.eduqas.co.uk/media/bwjls2p4/eduqas-a-level-music-spec-from-2016-d.pdf>

### **Where will this course lead me?**

Music helps you to develop a variety of skills such as analysis, dedication, group skills, self-confidence and self-reliance, as well as providing a means of artistic expression and relaxation. Plus it stretches your imagination and playing an instrument also makes you think and react quickly. Skills such as these are not just prized within music careers, they are valuable to all types of employers. Music is a highly regarded academic subject and whether you

take it with a view to a career in music or as an additional A level subject, it is held in high esteem by universities and other institutions of higher education.

*Jobs directly related to music (but would usually require further study at degree level):*

- Music therapist
- Musician
- Private music teacher
- Secondary school teacher
- Sound technician, broadcasting/film/video
- Arts administrator
- Broadcast engineer
- Community arts worker
- Event organiser
- Radio broadcast assistant
- Radio producer
- Theatre stage manager

## PHILOSOPHY AND ETHICS (RELIGIOUS STUDIES)

**Examining Board: OCR**

**Head of Department: Mr M Platt**

[Unifrog: Careers Information related to Philosophy & Ethics](#)

This course is for those who enjoy abstract thought and intellectual reasoning. It involves serious thinking of a reflective and critical nature about questions asked by almost every human being at some point in their lives. These questions have to do with the meaning and purpose of life, how we define truth and respond to ultimate questions. To embark on such a course is to 'do philosophy'. You do not have to be religious to do this course, but do need to be able to accept that some questions can be answered from more than one view point. The A-Level will develop the candidate's skills of research, interpretation, critical thinking, reasoning, analysis and debate.

The course is essay based and consists of three modules that are assessed purely by examination:

- **Module 1: H573/01 Philosophy of Religion** - students will be assessed by their knowledge of the Ancient Greek philosophers; the Judaeo Christian influences on Religious Philosophy. Students will engage in the debate that surrounds the mind/body problem and assess arguments for and against the belief in life after death. The course develops students' knowledge and understanding of the philosophical arguments for the existence of God, the challenges to religious belief, including the problem of evil and suffering, and philosophical debates from psychological and sociological perspectives. It arms candidates with the necessary tools to discuss critically traditional views on religious belief as well as the status of religious and philosophical debate in the 21<sup>st</sup> Century.
- **Module 2: H573/02 Religion and Ethics** - studies the ethical theories of Absolute and Relativist morality. Candidates will develop a knowledge and understanding of Natural Law, Kantian Ethics, Utilitarianism, including the classical forms from Bentham and Mill. Students will also critique of the links between religion and morality, ethical theories including Meta Ethics and the Nature and Role of Conscience. They will learn how we may apply these ethical theories to complex issues such as sex and sexuality, euthanasia and business ethics.
- **Module 3: H573/03 Developments in Christian Thought** – this module develops students' ability to systematically study religious thought both ancient and modern. Students will engage in debates that have shaped Christianity and Christian practice throughout the centuries and continue to challenge Christians and Christian thinkers today. Students will have the opportunity to study and critique Christian responses to the questions of human nature, the self, immortality and the possibility of divine revelation. Students will critique the nature of the Bible and assess modern approaches to Bible study. Students will also be assessing the depiction of Jesus in different cultural and denominational communities and the development of the theology surrounding the status of Jesus. The module also allows students to engage in the most challenging and flourishing debates in modern British society. Students will critique the role Christianity plays in modern British life, the rise of secularism and pluralism within British life, the changing gender roles both within the Church and in wider society.

This course is essential for anyone with a conscience about the future which is influenced by the past. This course discusses the morality of issues that are at the core of many modern debates in the UK and around the world. Along with the art of debate, it develops "essay-based" skills which will enhance a wide range of other subjects. With this course you could go on to higher education and university. R.S. Philosophy and Ethics will compliment many other courses including English, History, Geography, Sociology, Psychology, Science, Medicine, Law and Politics. The skills developed would be particularly useful for careers in law, education, social work, politics, medicine, administration or the media. It is taught with a variety of media which includes film, radio, newspapers and topical debating programmes that compliment a thorough knowledge of the recommended reading text.

The exam specification can be found here: <https://www.ocr.org.uk/images/242913-specification-accredited-a-level-gce-religious-studies-h573.pdf>

## PHYSICS

**Examining Board: AQA**

**Head of Department: Mr N Lyng**

[Unifrog: Careers Information for Physics](#)

**It would be beneficial to be studying A Level Mathematics if opting for A Level Physics.**

### **What is Physics?**

Simply put, it's the study of the forces, particles, interactions and types of energy in the Universe. This sounds rather grand! In fact, A Level Physics involves studying phenomena from the very smallest fundamental particles to the nature of stars.

### **What sort of student does it suit and what will you get out of the course?**

A Level Physics is suitable for students who:

- have an interest in, and enjoy Physics
- wish to pursue a career in the sciences, engineering, medicine, architecture etc.
- enjoy solving logical problems and carrying out investigations

### **Paper 1: Measurements and their errors, Particles and Radiation, Waves, Mechanics, Materials and Electricity (34% full A level)**

- The nucleus including particles, antiparticles and photons; hadrons and leptons; the quark model
- Quantum phenomena including photoelectricity, energy levels and photon emission, wave particle duality
- Electricity including electrical quantities, resistivity, circuits and components, alternating current
- Mechanics, including motion along a straight line, projectile motion, Newton's laws, energy and power
- Properties of materials, including density and the Young modulus
- Waves, including longitudinal and transverse waves, progressive and stationary waves, refraction, diffraction and interference
- Further mechanics, including momentum, circular motion and simple harmonic motion

This unit is assessed by a 2 hr written paper comprising of 60 marks of short and long structured questions and 25 marks worth of multiple choice questions.

### **Paper 2: Thermal Physics, Fields and their consequences and nuclear Physics (34% of full A level)**

- Probing the nucleus, radioactivity, nuclear instability and nuclear energy
- Thermal properties of materials, ideal gases and the kinetic theory of gases
- Fields, including gravitational fields, electric fields, capacitors, magnetic fields, electromagnetic induction

This unit is assessed by a 2-hr written paper comprising of 60 marks of short and long structured questions and 25 marks of multiple choice questions. (Knowledge of material covered in Paper 1 will be assumed in Paper 2)

### **Paper 3: Practical Skills and Data Analysis, Optional Units (32%)**

- Selection and use of various equipment
- Processing data
- Making observations and measurements
- Analysing and evaluation of results
- For the list of options please see specification for more details.

This unit is assessed in two sections over 2hr comprising 45 marks of short and long questions on practical skills and data analysis, and 35 marks of short and long structured questions on the optional topic.

## **POLITICS**

**Examining Board: EDEXCEL**

**Head of Department: Ms C Anckorn**

### **[Unifrog: Careers Information related to Politics](#)**

Politics at the Harvey Grammar School has historically been a very popular subject with boys wishing to study an array of subjects at university and combines an understanding of the fabric of both the UK and US political systems, with deep rooted political ideologies and current affairs. If you are looking for a subject which presents a different academic challenge to that of English, History, Geography, Sociology and Psychology but still carries strong academic credibility as other traditional 'essay based' subjects among universities, then Politics is the course for you. Politics is especially relevant in this modern era and covers some of the big issues and breaking stories from both the UK and the USA.

The course is assessed by way of three examinations sat at the end of Year 13, each lasting two hours. The examinations contain a mix of extended and short answer essay questions which are designed to test a student's ability to critically analyse, interpret and evaluate political information and to make relevant and justified arguments and judgements about political events. There is no coursework in A Level Politics.

The Politics course fits particularly well with students studying a variety of different subjects such as History, English, Languages, Geography, Sociology, Psychology and Economics. It has in the past, also formed a useful part of Maths/Science-based courses for many students, adding variety to an otherwise taxing academic portfolio of subjects. Studying Government and Politics at A Level is an excellent choice for anyone considering further education at university and supports a variety of interesting degree options including (but not exclusive to) Law, Criminology, Global challenges, Urban Studies, Journalism and International Relations.

### **What will you be studying in A Level Politics?**

#### **Paper 1: UK Politics**

- Direct and representative democracy.
- The expansion of suffrage in the 19th and 20th centuries, including the work of the suffragettes, pressure groups and other influences, and the development of rights in Britain.
- Political parties, and the development of the UK's multi-party system.
- Different electoral systems, and the impact of referendums.
- Voting behaviour and the influence of the media.

#### **Paper 2: UK Government**

- UK Constitution, the impact of devolution, and debates on further reform.
- UK Parliament, the role of the House of Commons and the House of Lords.
- The role and powers of the Prime Minister and the Cabinet.
- The role and powers of the Supreme Court.
- The impact of the European Union.

## Political Ideologies (Paper 1 and 2)

You will study 4 Political Ideologies as part of your Politics Unit: Liberalism, Conservatism, Socialism and Feminism. Understanding Political Theory is an important part of the course.

### Paper 3: US Politics and comparative theories

- US Constitution and the main characteristics of US federalism.
- The structure of Congress (House and Senate) and how far it adequately fulfils its representative role.
- The US presidency and the extent of presidential power and accountability.
- The nature and role of the US Supreme Court, the protection of civil liberties and rights and the extent of the Court's power.
- The US electoral system, the key ideas and principles of the Democratic and Republican parties, and the importance of interest groups.
- Comparison of the UK and USA constitutions, legislative branches, executive branches, judicial branches, and party systems

## PSYCHOLOGY

**Examining Board: AQA**

**Head of Department: Mr M Stevenson**

[Unifrog: Careers Information for Psychology](#)

Psychology is the scientific study of the human mind, behaviour and experience. This course is designed to develop your basic understanding of the different areas of Psychology and the scientific research methods applied to studying human behaviour. You will learn to design, analyse and evaluate research and will need to learn particular key research studies for the different topic areas.

You will learn a variety of skills including analytical thinking, improved communication, problem solving and many more that will prepare you for an exciting future with the possibility of a range of degree courses and careers.

**Assessment is entirely by examination.** The examination consists of three 2 hour written papers consisting of multiple choice, short answer and extended writing questions.

- **PAPER 1: Introductory topics in Psychology – Social Influence, Memory, Attachment and Psychopathology.**
- **PAPER 2 – Psychology in Context - Approaches in Psychology, Biopsychology and Research Methods**
- **PAPER 3 – Issues and Option in Psychology – Issues and debates, Relationships, Schizophrenia and Forensic Psychology/Aggression.**

In **Year 1** students will study **Social Influence, Memory, Attachment, Approaches, Psychopathology and Research Methods.**

In **Year 2** students will study **Biopsychology and Issues and debates + optional topics for paper 3 which include Relationships, Schizophrenia and Forensic Psychology or Aggression.**

See <http://www.aqa.org.uk/subjects/psychology/as-and-a-level/psychology-7181-7182/specification-at-a-glance> for more information on these topics.

**Psychology** is an exciting and interesting subject for those who seek to understand why human beings behave the way they do. This is not only advantageous in your personal life but is useful in any career in which you need an understanding of people, including medicine and health careers, the police and criminal justice system, management, business, sport, social work and education. A level Psychology involves a significant amount of independent study and a high level of commitment to achieve a good grade. It is a rigorous, academic A level, and to succeed students need a good memory and a liking for science, as well as a high level of literacy to tackle extended essays. It combines well with other sciences, arts and humanities subjects. Many students go on to study Psychology at University with great success.

## **SPORT - BTEC LEVEL 3 NATIONAL EXTENDED CERTIFICATE IN SPORT - BTEC LEVEL 3 NATIONAL DIPLOMA IN SPORT**

**Examining Board: PEARSON**

**Head of Department: Mr S Cowling**

[Unifrog: Careers Information for Sport](#)

Sport in the Sixth Form is available as a single or double award, equivalent to 1 or 2 A-Levels respectively. Both the BTEC National Extended Certificate and BTEC National Diploma in Sport are Level 3 practical and work-related courses, completed by studying a variety of units. These have specific sport-based focusses working on assignments, projects and practical work looking at realistic workplace situations, activities and demands. They support you in developing the essential skills needed for heading to university or a career related to sport.

**How are the courses structured?**

### **BTEC LEVEL 3 NATIONAL EXTENDED CERTIFICATE IN SPORT (Equivalent to 1 A Level)**

Students complete 4 Units across Year 12 and Year 13

<b>Unit title</b>	<b>Content</b>	<b>Assessment</b>
<b>Anatomy and Physiology</b>	Learners explore how the skeletal, muscular, cardiovascular and respiratory systems function and the fundamentals of the energy systems.	Traditional Written Exam 90 minutes long with a range of short and long answer questions
<b>Fitness Training and Programming for Health, Sport and Well-being</b>	Learners explore client screening and lifestyle assessment, fitness training methods and fitness programming to support improvements in a client's health and well-being.	A case study is given in advance for students to prepare notes and then sit an assessment
<b>Professional Development in the Sports Industry</b>	Learners explore the knowledge and skills required for different career pathways in the sports industry. Learners will take part in, and reflect on, a personal skills audit, career action plan and practical interview assessment activities.	Assignment set and marked internally
<b>Practical Sports Performance</b>	Learners study the skills, techniques, tactics and rules of selected sports through active participation in individual/team sports.	Assignment set and marked internally

## **BTEC LEVEL 3 NATIONAL DIPLOMA IN SPORT (Equivalent to 2 A Levels)**

Students complete 9 Units across Year 12 and Year 13

<b>Unit title</b>	<b>Content</b>	<b>Assessment</b>
<b>Anatomy and Physiology</b>	Learners explore how the skeletal, muscular, cardiovascular and respiratory systems function and the fundamentals of the energy systems.	Traditional Written Exam 90 minutes long with a range of short and long answer questions
<b>Fitness Training and Programming for Health, Sport and Well-being</b>	Learners explore client screening and lifestyle assessment, fitness training methods and fitness programming to support improvements in a client's health and well-being.	A case study is given in advance for students to prepare notes and then sit an assessment
<b>Professional Development in the Sports Industry</b>	Learners explore the knowledge and skills required for different career pathways in the sports industry. Learners will take part in, and reflect on, a personal skills audit, career action plan and practical interview assessment activities.	Assignment set and marked internally
<b>Sports Leadership</b>	Learners study what makes a good leader, the different capacities of this role, and the leadership skills and techniques necessary when leading activities in different roles.	Assignment set and marked internally
<b>Practical Sports Performance</b>	Learners study the skills, techniques, tactics and rules of selected sports through active participation in individual/team sports.	Assignment set and marked internally
<b>Skill Acquisition in Sport</b>	Learners study the factors that contribute to a skilled performance in sport and examine how sports performers learn and develop their skills.	Assignment set and marked internally.
<b>Coaching for Performance</b>	Learners will develop the techniques, personal knowledge and ability to deliver coaching sessions.	Assignment set and marked internally
<b>Work Experience in Active Leisure</b>	Learners prepare for, undertake and reflect on a work placement in the sports industry.	Assignment set and marked internally
<b>Investigating Business for Sport and the Active Leisure Industry</b>	Learners investigate how business operates in the sport and active leisure industry and how it responds to trends and other influences to meet the needs of clients and to benefit the business.	A 2 week case study is provided to research, learn and take notes followed by a 3hr written exam.

	Traditional Exam
	Controlled Assessment
	Coursework / Projects

***(N.B. The National Diploma will take up two subject option choices, allowing the student to study it alongside one other A Level/Level 3 course. The Extended Certificate can be taken alongside two further A Levels, or their equivalents).***

### **What can I do at the end of the course?**

BTEC National in Sport is valued highly by employers and higher education (Universities and Colleges). Previous students have gone onto University to complete a variety of different degrees including: Sports Studies, Leisure Management, Sports Coaching, Teacher Training, Sports Rehabilitation, Sports Development, Sports Science, Physiotherapy, Sports Psychology, Sports Business and Management.



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