



Thomas Telford School

Sixth Form Prospectus



2024 Entry

Thomas Telford School has a strong track record of providing opportunities for students to achieve outstanding academic and personal success.

Thomas Telford Sixth Form

Thomas Telford School has a strong track record of providing opportunities for students to achieve outstanding academic and personal success. The average point scores and grades in Sixth Form are higher than both local and national figures and academic progress is deemed to be above average.

The Sixth Form curriculum provides considerable breadth and depth for students through a range of vocational and academic courses. There is something for everyone irrespective of ability.

Students will study three or four A Level or vocational courses. The pathways that a student can take are flexible and all students will receive full support when making decisions.

Pathway 1.

Three A Levels or equivalent. This can be a combination of academic A Levels and vocational courses.

Pathway 2.

Four A Levels or equivalent. This can be a combination of academic A Levels and vocational courses.

Pathway 3.

BTEC Triple Award (i.e. Business, Sports or Performing Arts Academy)

Students are expected to demonstrate a high level of motivation and have the capacity for hard work. Sixth Form work is demanding and students are encouraged to take increased responsibility for their own learning through independent study.

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“ Thomas Telford School not only provides an excellent standard of teaching but also ensures that the support is there for students to know their next steps. I'll always feel organised and know that due to the Careers Team, I will be able to sort my future path with ease. ”

6.2 Student

“ Thomas Telford School is a school that promotes your individual success no matter your chosen A Level. The support given is incredible and vital for your two-year course. ”

6.2 Student

“ Thomas Telford School has helped me to decide what I want to do in the future, I now know what steps I need to take to get there. This was through the Careers Team and the facilities that the School offers to help me for life after Sixth Form. ”

6.1 Student

Welcome from the Head



We are delighted that you have expressed an interest in joining Thomas Telford Sixth Form. This is an exciting time as you take the next step towards achieving your ambitions. I would like to start by giving you a few facts and figures about the School and our achievements:

- Thomas Telford School was the first all ability School in England to achieve 100% 5+ GCSE's A*- C
- We have had more than 70 students gain places at Oxford or Cambridge University
- In the last five years, 34 students have secured places on medicine, dentistry or veterinary science courses
- We have had over 100 students gain places at prestigious Stage Schools and a huge list of former students that have performed in TV, Film and London's West End
- We have had students go on to play professional Football in the Premiership, Championship and Football Leagues and students who have gone on to play for their country
- Thomas Telford School has made it to over 50 National Football Finals and has won more titles than any other School in England
- The School has so far raised over £170,000 for charities, and this amount increases year on year
- We are very proud of ex-student Kim Hughes, who went on to receive the George Cross for an act of bravery whilst serving for his country in Afghanistan
- Over 100 students have represented their country in a variety of sports

Students who study at Thomas Telford benefit from outstanding facilities, which include fully equipped Science Labs, Resource Centres, Computer Suites, a Fitness Centre and new ten classroom Business Academy.

Thomas Telford School provides students with many opportunities: a broad and challenging academic curriculum delivered by experienced staff, and a caring environment which offers excellent support. Our strong Careers Team guide and support students with university applications, summer schools, work experience, UCAS personal statements and a whole host of other skills needed for university and life beyond Sixth Form. On average, over 75% of students go on to study their chosen course at top universities around the country and abroad.

Thomas Telford School has a number of objectives it works towards to ensure all students receive a first class education to prepare them for life in the working world. These include: developing qualities of enterprise, self-reliance and responsibility; operating a longer school day; delivering the National Curriculum with extra Science, Mathematics, Technology and Business Education, providing a safe, secure environment for all students.

I hope that by reading through this Prospectus you will be able to see the array of opportunities that are on offer to you as a potential Sixth Form student and I warmly welcome your application.

Sir Kevin Satchwell
Headmaster



Welcome from Mr Bird, Head of Sixth Form



Our aim at Thomas Telford Sixth Form is to provide students with the means to develop into independent, respectful and knowledgeable adults who contribute positively to the School and wider society. The Sixth Form offers a wide range of academic pathways led by subject specialist teachers who offer incredible support and guidance. Additionally, the School prides itself on the range of extra-curricular opportunities, the outstanding sporting and performing arts facilities and the dedicated pastoral system available to all students who attend the School. Thomas Telford School has a Careers Department that offers bespoke support to students as they progress through their post-16 choices. The Careers Team works closely with students

to help them prepare for UCAS, job and university interviews, application processes and to make informed choices regarding future pathways. This support is available to all and it is important students make the most of the opportunities we provide. During your time with us, we will help you to develop the requisite independent study skills and interpersonal skills required for future success. We encourage all students to take advantage of our Session 3 Programme where there is a vast range of sporting and academic support sessions on offer. This offers students the chance to balance their academic and extra-curricular interests in a meaningful and productive way. I hope you find the information in this prospectus assists you in making the right choice for your future.

Welcome from Mrs Flynn, Head of Careers



I hope our Sixth Form prospectus and website will give you a sense of what a busy, purposeful and ambitious School Thomas Telford is. We try to create a supportive and inclusive community which celebrates individual successes and we work with every student to discover and nurture the passion that will drive whatever career path they may wish to follow.

Our careers programme provides students with access to our in-house Careers Team who, in addition to providing one-to-one advice and guidance, organise a large and varied programme of career talks, workshops, trips and experiences which help students to make well-informed decisions about their future careers. At the end of Year 12, students enjoy a full week off-timetable 'Careers Week' to prepare university and employment applications, which includes input from several universities and local employers who provide mock interviews.

For those applying for the most competitive university courses, including Oxbridge, medicine, dentistry or veterinary science we offer a bespoke programme of enrichment opportunities including MedSoc and Ethical Debating Society, admission test practice, mock 'Multiple Mini- Interviews' and mentoring support from a dedicated member of staff. All students undertake at least one, and usually several work experience placements during their time in Sixth Form and many take advantage of the volunteering opportunities we promote, including the NHS Young Volunteers scheme we organise in partnership with Princess Royal Hospital.

We aim to prepare students for life beyond Thomas Telford and instil in them the self-belief that they can embrace their future with confidence. I encourage you to visit us to find out from our students why it is such an exciting place to be.

Our Subjects

Thomas Telford School has developed a curriculum which offers considerable breadth for students through a range of academic (Advanced General Certificate of Education) and vocational (BTEC and Cambridge National) courses.

A Levels

- Art & Design
- Biology
- Business
- Chemistry
- Computer Science
- Design & Technology
- Economics
- English Language
- English Literature
- French
- Geography
- History
- Mathematics & Further Mathematics
- Music
- Politics
- Physical Education
- Physics
- Psychology
- Religious Studies
- Spanish

Vocational

- Business
- Health & Social Care
- Performing Arts, Drama and Dance
- Sport
- Travel and Tourism

Business, Sports and Performing Arts Academies offer extended courses;

Business Academy

Level 3 Extended Diploma in Business (3 A-Level equivalent) plus:

- Employer Endorsed Thomas Telford Employability Passport
- Wide ranging opportunities to enhance Employability skills and interact with potential employers

Sports Academy

BTEC Extended Diploma in Sport (3 A Level equivalent) plus:

- FA Basic Referee Course
- FA Level 1 in coaching Football
- Level 2 Fitness Instructors Qualification
- Specialist training/coaching to improve performance

Performing Arts Academy

Level 3 Cambridge Technical Extended Diploma in Musical Theatre (3 A Level equivalent) plus:

- Modules in Dance, Drama, Singing
- Wide ranging performance opportunities and professional workshops
- Opportunity to develop skills in technical theatre
- Intense audition preparation



Choosing Courses

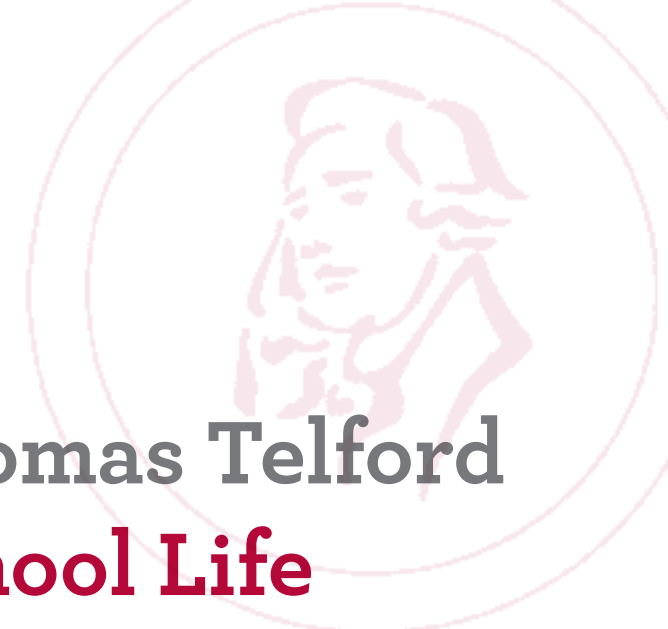
Making the right choices for your advanced level study can be the key to your success and progression to university or employment. As a prospective Sixth Form student, you will receive lots of advice and guidance tailored to you as an individual to help you make these choices. There are also things you can do for yourself to help make informed choices, such as visiting our open evening, carrying out research using our website and prospectus and researching careers you might be interested in pursuing in the future. The services of our Careers Team are available to students who have received their offer for Sixth Form study at Thomas Telford School.



GCSE Results Service

The School will offer comprehensive advice for students in August. Once GCSE results are known, students are required to finalise course choices. For some, it can be an anxious time and help is available. Senior staff will be on hand during this time to answer queries and discuss possible courses with students.





Thomas Telford School Life

Dress and code of **conduct**

The School aims to create the environment of a professional office where practices mirror those found in the world of industry and commerce. Many students will be working alongside employers both in school and on work placements, and they should make the right first impression.

Smart office wear is worn by students at all times. For boys, this is a suit with shirt and tie, and for girls this is smart trousers, skirt or dress with a suit style jacket. Financial support is available to help purchase office dress for those who qualify. For practical sessions such as Sport and Performing Arts, Thomas Telford School kits are available to purchase.

A no smoking/vaping policy operates throughout the School building and grounds. This applies to all personnel.

Excellent working **conditions**

The Sixth Form has specially equipped areas for study. There is easy access to the Library, Careers Resource Centre and Independent Learning Centres, where ample PC access is provided. There are opportunities for all Sixth Form students to use the first class sporting facilities including the Fitness Centre and Swimming Pool.

A self-service restaurant is provided for breakfast and lunch.

The School opens from 7.45am until 5.15pm Monday to Thursday and until 3.15pm on Friday.

Your day at Thomas Telford **Sixth Form**

Life at Thomas Telford is rich and diverse and a student's success will depend on how they manage their time. The School will help them become independent learners and achieve the best grades they can.

Thomas Telford School Life

Leisure and Sport

An important feature of life at Thomas Telford is the Sixth Form options programme. Everyone needs time to relax and develop new hobbies, try new leisure activities or pursue different sports. Students are positively encouraged to 'have a go' at something new or challenging. In previous years we have offered Netball, Hockey, Football, Basketball or Independent study at home.

The School has a 'state of the art' Fitness Centre and Swimming Pool. Students are encouraged to use the facilities to develop their own fitness program under the guidance of experts.

Students have the opportunity to take part in the Duke of Edinburgh Award Scheme while studying at Thomas Telford School.

Each year, eight students have the chance to sail the Tall Ship 'Jolie Brise' as part of an expedition from England to France and Belgium. This is a once in a lifetime experience for students to develop their confidence, communication skills and independence.

Music and performance on the stage

Thomas Telford School has developed an enviable reputation for high quality performances and shows and all students are encouraged to get involved behind the scenes or perform in our School productions. Students applying for the Performing Arts Academy will be invited to audition.

Personal advice and guidance

Each Sixth Form student will have a Personal Tutor. The Personal Tutor is expected to develop a close working relationship with the student and offer support and guidance throughout the course. There are frequent meetings during the week where students can discuss their progress with their Personal Tutor. The Personal Tutor has a full profile on each student and always acts as the first point of contact for parents. Students also have access to the Careers Department, who offer tailored academic guidance regarding current and future pathways.



Social, Cultural and Spiritual Education

Thomas Telford School is committed to providing a well-rounded education for all of its students. The School combines a broad-based curriculum with charity and community liaison. Spiritual education is reinforced through assemblies and weekly whole school broadcasts.

Independent Learning

For a proportion of the week students have the opportunity to work independently as part of their course. This method of learning is part of a strategy to prepare students to be able to cope successfully in higher education, a business environment and adult life.

Bursary

Through the generous support of the Thomas Telford School sponsors, bursaries are available for our students on a termly basis. These bursaries are normally awarded to students who are in need of financial assistance due to circumstances outside of their control. A number of students have also secured Business Sponsorships to help them financially through higher education and training.

Student Lunches and Headship Team

A tradition has emerged within the School where the Headmaster and Head of Sixth Form meet with students for a working lunch. This provides an opportunity to discuss students' views about life and work in the School and for students to make recommendations for improvement. These issues are then discussed at Senior Management meetings and, where appropriate, changes are implemented.

Some Sixth Form students are elected to act as ambassadors and representatives for the students of Thomas Telford School as part of the Headship Team.

Charter for Students and Parents

The Charters for Students and Parents form the basis upon which the School operates and indicate the entitlements, responsibilities and expectations for Sixth Form students and their parents. Students are also expected to sign an Information Technology Acceptable Use Policy.

Preparing for life after Sixth Form

Careers Programme advice and guidance

Thomas Telford School has an in-house careers service with professional Careers Advisers on hand to provide one-to-one interviews, drop-in advice and job seeking support. The Careers Team organise an extensive programme of careers talks, workshops, trips and visits both in and outside of School which support students to find out about the wide range of career, employment and university options available to them. Special events run by the department include the annual Careers and Higher Education Week and The Thomas Telford Careers Fair with over 50 exhibitors from universities and employers.

University applications

With typically around 75% of students progressing on to higher education both in the UK and abroad, great emphasis is placed on supporting and guiding students with their applications. Each student will have one-to-one support from a member of the Careers Team to finalise and submit their university application and support to prepare for interviews and assessments.

Oxbridge support

All students interested in applying to Oxbridge are able to attend talks and conferences with representatives of the universities of Oxford and Cambridge. Oxbridge applicants receive specialist support to prepare their university applications, practise for admissions tests and interviews as well as ongoing mentoring from relevant subject teachers.

Support for entry to competitive degree courses

Students who want to apply for medicine, dentistry and veterinary medicine can access enrichment activities including talks and presentations at MedSoc, visits to medical schools, one-to-one advice on preparing their applications, admissions test support, a mock mini interview and the support of a mentor from the Science Department in the run up to the final examinations.



Work placement opportunities

All students are given the opportunity to complete at least one work experience placement. The School's close links with a wide variety of employers mean that students have access to all industries and occupational areas. With employers actively involved in the life of the School, students have the opportunity to work alongside industry specialists on site and in the workplace. Additionally many of our employers actively choose to recruit Thomas Telford students and on some occasions support them financially through their degree studies. The Sixth Form programme is designed to be flexible so some students also complete ongoing work placements on a weekly basis, alongside their studies.

Apprenticeships and employment

The Careers Team have created a network of contacts within the local business community to enable them to signpost students to the full range of apprenticeship and employment opportunities. Employers are encouraged to contact the School directly for recommendations of students for employment. It is the responsibility of every Sixth Form student to maintain the School's reputation in the business community. Many students secure highly sought-after higher and degree apprenticeships with employers such as EY, KPMG, Deloitte, Mondelez, Unilever, GCHQ and Capgemini.

Thomas Telford Achievements

Academic

2023 marked another incredible year of results for our Sixth Form students with those who followed either an A Level or vocational route achieving great success. Over 48% of Sixth Form results were A*, A or Distinction plus, grades.

Destinations

Once again Thomas Telford's Sixth Form destinations were outstanding in 2023.

71% of students took up University or Stage School places and 47% of students moving on to higher education went to Russell Group, Times Top 25 Universities or US Colleges or very competitive Stage Schools.

In this particular year, seven students achieved places on medicine or veterinary science degrees and four secured places at Oxford and Cambridge.

All of those not attending university gained an apprenticeship or moved directly to employment. Several students were awarded places with high quality apprenticeships and school leaver schemes including Jaguar Land Rover, Mazars, Collins Aerospace, Capgemini and Deloitte.



Enrichment

With competition for the best university places, school leaver schemes and degree apprenticeships so strong, focus is on developing students outside the classroom as well as within. This puts them in the strongest position whether applying to universities, apprenticeships or career-based employment.

Students benefit from a wide range of enrichment activities to give students a wealth of experience and challenge:

- Duke of Edinburgh Scheme
- School Performances
- Work Experience
- Visiting Artists
- University Visits
- Study Trips including Iceland, Berlin, Cern, New York and Paris
- 'Jolie Brise' Tall Ship Expedition
- MedSoc
- Ethical Debating
- Public Speaking
- University Summer Schools and Study Days

Alumni – 6.2 Leavers 2023

This snapshot from the front row of our 6.2 leavers photo will give you a flavour of the career pathways some of our students choose to take when they leave Thomas Telford. These students completed their Sixth Form studies in July 2023.

1. Madiha joined Thomas Telford School in the Sixth Form and quickly established herself as a bright and highly capable economist who benefited from plenty of guided super-curricular reading which helped her to secure a place to read Economics at The London School of Economics.
2. Jack has always been an enthusiastic mathematician who enjoyed being stretched as part of our talented A Level Mathematics and Further Mathematics cohort, supported by highly experienced specialist teaching staff. Jack is progressing to Oxford University to study Mathematics.
3. Ava was a highly talented artist who completed work experience with Historic England and enjoyed taking part in summer schools at both Oxford and Cambridge. She is now reading History of Art at Oxford.
4. Luka was a highly committed student with an excellent work ethic who sought advice and support from the Careers Team to help him find a degree apprenticeship. He is now working at professional services firm Deloitte.
5. Ruby was a talented performer and a member of the School's Performing Arts Academy in the Sixth Form. She thoroughly enjoyed the intensive training she received at Thomas Telford School as well as numerous opportunities to perform in the School show and regular Arts Nights. She is now at Bird College studying Professional Dance and Musical Theatre.
6. Daniel was a committed sportsman and a keen runner who represented Great Britain Under 20s in 1500m and was the Captain of the Shropshire Team in the English Schools Athletics competition. He is now studying Geography at Cardiff University. He took regular advantage of the School's swimming pool and state of the art gym to work on his strength and conditioning.
7. Libby was a talented netballer, captain of the School's successful Sixth Form Netball squad and also part of the Welsh Under 21s Netball club. As Head Girl she helped to organise the 6.2 Leavers' Ball which is always a highlight of the School year and is now at Bristol University reading Law.
8. Sir Kevin Satchwell, Headmaster
9. Oliver was a national swimmer who qualified for commonwealth trials in 2022. The School supported him to manage his intense training alongside his studies and nurtured his leaderships skills in his role as Head Boy. He is now at the University of Liverpool, training to be a Physiotherapist.
10. Alicia joined Thomas Telford School in the Sixth Form, settling in quickly and enjoying the many debates and discussions which take place in both History and Politics A Levels. She benefitted from attending the UNIQ Summer School at Oxford University in the summer of 6.1 and is now at Oxford University reading History.
11. Logan benefited from access to the Thomas Telford School alumni network and received mentoring and practical support which enabled him to make a successful application for Veterinary Science. He is now studying at the new Harper/Keele School for Veterinary Medicine.
12. Jemima is a talented linguist and Francophile who has progressed to the University of London Institute in Paris to study French.
13. Jamie was nominated as an Awkright Scholar and was an active member of the School's Esports team. He is taking a gap year to save some money before progressing to Bath University to study Economics with Politics.
14. Amy was an active member of the School's MedSoc and benefited from the intensive support offered by the School as part of her application for medicine, including UCAT preparation and mock MMIs. She is now at the University of Nottingham studying medicine.
15. Lewis was nominated by the School to benefit from mentoring support as part of the Guild of Mercers Scholars scheme (The Mercers Company was one of the original sponsors of the School). This will be invaluable to him as he moves on to the London School of Economics to study Financial Mathematics and Statistics.



Applied Science

BTEC Level 3 National Extended Certificate

Subject Overview

The area of Applied Science encompasses a range of academic and practical skills, highly applicable to the world of industry. This course encourages students to explore the world around them and use different techniques to analyse biological and physical matter. The qualification is equivalent in size to one A Level. It supports access to a range of higher education courses, if taken alongside further level 3 qualifications

6.1

The first year is made up of two external examinations:

Unit 1: Principles and Applications of Science (externally assessed) Students will develop an understanding of the key concepts in Biology, Chemistry and Physics, which build on those covered in KS4 Science and will learn to apply these concepts to vocational contexts and situations.

Unit 3: Practical Scientific Procedures and Techniques (internally assessed) Students will carry out a range of quantitative laboratory techniques, calibration, chromatography, calorimetry and laboratory safety, which are relevant to the chemical and life science industries.

6.2

In the second year, students will study portfolio units.

Unit 2: Science Investigation Skills (externally assessed) Students will cover the stages involved and the skills needed in planning a scientific investigation: how to record, interpret, draw scientific conclusions and evaluate.

Unit 8: Physiology of Human Body Systems (Internally Assessed) The focus of this unit is to look at the physiological make up of three human body systems (the musculoskeletal, lymphatic and digestive systems). It looks at how the systems function and what occurs during dysfunction.

The unit allows students to understand the impacts of disorders and the associated corrective treatments.

How lessons are taught

Applied Science lessons are taught using a wide range of active learning approaches including practical investigations, skills, independent research and reporting. There is an emphasis on group work alongside formal classroom based activities taught in lesson.

Progression

Applied Science will enable learners to progress to a degree programme chosen from a range of courses in the science sector. The qualification is intended to carry UCAS points and is recognised by higher education institutions as contributing to meeting admission requirements to many relevant courses.

This course brings together knowledge and understanding with practical and technical learning, providing successful students with a wide range of skills that they can then carry forward into a professional environment or higher education. These include problem solving, critical observation, communication, teamwork, research and analysis.

Exam Board Pearsons

Subject Leader Mr S Kettle

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Grade 5 in Science, English Language and Mathematics



Art and Design

Advanced General Certificate of Education

Subject Overview

Students who study Art and Design are able to develop exciting and innovative visual responses to the world around them. This A Level course teaches students to research, analyse, explore, review and develop their own projects. One-to-one tutorials are key to supporting students in the direction and media in which they wish to work, building confidence and opening up creative pathways for them to explore.

6.1

The first year is split into two main sections:

Artist reference:

During the first part of the year, 6.1 students will be able to select their own working theme for their A Level project: the 'Personal investigation'. Using this theme as a starting point, students will study the work of a number of artists whose work links to their topic; carrying out in depth research as well as making comprehensive studies of their work

Skills Workshops

The second part of the year aims to teach students a range of techniques and processes in order to start to explore their ideas; these workshops include drawing with different media, dry point etching, monoprint, cyanotype, charcoal and oil painting.

6.2

The second year also has two main areas of study:

Personal Investigation (60% of A level grade)

During 6.2, students will further develop their 'Personal Investigation' on a chosen theme. Through the support of one to one tutorials, students will produce a portfolio of work which investigates, explores, reviews and concludes their artistic journey through a range of processes. They will select and study a number of artists for their project, make recordings in the form of drawings and photographs, develop ideas in their chosen media and create a final piece for their project. This project will also include an extended essay which analyses the work of their chosen artists in depth.

OCR Set Task (40% of A level grade)

In this examination unit, students will be able to select

their own working title from a selection provided by the examination board. Over a three month period they will construct and develop their project, culminating in a 15 hour practical examination during which they will produce their final piece.

How lessons are taught

Art students are taught using wide range of learning approaches, including whole class teaching, demonstrations of techniques and processes, one to one tutorials, individual enquiry and practical investigation.

Progression

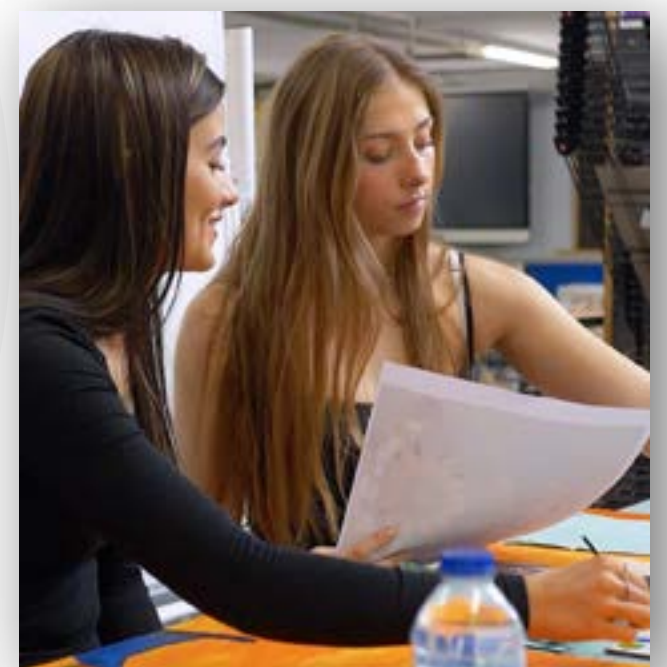
Art students become creative thinkers; they are adept at problem solving, unafraid to take risks, like to challenge perceptions and can produce exciting and thoughtful outcomes. These are skills that are widely sought after in most professions and particularly in those such as architecture, illustration, fashion and textiles, graphic design, web and games design, photography, film and special effects.

Exam Board OCR

Subject Leader Ms M Cameron

Specific Entry Requirements:

6 GCSEs (Grades 9 – 5) Including Grade 5 in English and Grade 6 or above in GCSE Art



Biology

Advanced General Certificate of Education

Subject Overview

Students who study A Level Biology develop a rounded and comprehensive appreciation of the variety of organisms and their attributes. The A Level Biology course covers a broad spectrum of topics, from the central concepts of cell ultrastructure and biochemistry, to the popular units on animal physiology and disease, to more applied topics like gene technologies and ecology.

6.1

In the first year of the course four units are covered:

Development of Practical Skills in Biology

This module is designed to build on planning, analysis and evaluation skills as well as giving practice in data collection, manipulation of apparatus and conducting valid investigations. This module is integrated into the contexts of the other modules rather than being taught as a stand-alone topic.

Foundations in Biology

This module looks at the inner structure of cells and the functions of organelles. Students will also look at membrane structure and the ways in which different molecules are able to enter and leave cells, in addition to considering the process of cell division. Students are also introduced to the structure and functions of a range of biological molecules, including carbohydrates, proteins, lipids and nucleic acids. A good understanding of these fundamental concepts underpins much of the work covered later in the course.

Exchange and Transport

This module looks at how exchange surfaces in animals and plants are adapted for efficient transfer of materials, as well as studying transport systems, including the structure of the mammalian heart and blood vessels.

Biodiversity, Evolution and Disease

This module covers how diseases are spread and how the immune system responds to pathogens. Students also look at how biodiversity can be measured and protected, and how organisms are classified according to their features. Evolution is also considered, with a focus on natural selection and fossils.

6.2

The the second year of the course builds on the knowledge gained and applies key concepts to the following two units:

Communication, Homeostasis and Energy

In this module students will look at the complex series of reactions involved in respiration and photosynthesis.

Students also study kidney and liver physiology and learn how nervous and hormonal control mechanisms regulate the body.

Genetics, Evolution and Ecosystems

This module covers cellular control and how the biotechnology industry can utilise and manipulate biological processes. It studies the basis of genetic disorders and how to use genetic diagrams to predict the inheritance of characteristics. Students will also consider case studies for sustainable development in different ecosystems, recognising conflicts of interest and proposing solutions.

How lessons are taught

Biology lessons cater to a range of learning styles, with a mix of teacher-led tasks, group activities, opportunities for more independent study and a variety of practical activities. A wide range of Biology-specific practical skills are embedded into the course, including dissection, qualitative and quantitative biochemical testing, colorimetry, microscopy and biotechnological processes such as aseptic technique and gel electrophoresis. Emphasis is also placed on the application of knowledge to novel contexts and scenarios to develop skills needed in examinations. In addition to teaching the content outlined in the course specification, A-level Biology students complete a practical skills endorsement, where their practical skills are assessed internally through 12 core practical tasks across two years. Students must demonstrate competency across a range of skills and techniques to pass this element of the course.

Progression

Biology students develop many transferrable skills, including the ability to use a range of practical apparatus to collect valid data, analysis and evaluation skills, independent study skills, the ability to work with others and communicate ideas effectively and the ability to evaluate the validity of experimental data and conclusions. Biology is a key subject for any students interested in studying the following subjects at a higher level or pursuing a career in the following fields: medicine, dentistry, veterinary science, nursing and midwifery, physiotherapy, pharmacy, pharmacology, conservation, forensic science, radiography, pathology, biomedical science and sports science.

Exam Board OCR (Biology A syllabus)

Subject Leader Mrs J Morgan

Specific Entry Requirements:

6 GCSEs at (Grades 9–5), including Grade 5 in English, Grade 6 in Mathematics and Grade 6 in Biology or 6,6 in Combined Science

Business Academy

BTEC National

Subject Overview

The Thomas Telford Business Academy uses its breadth of experienced teachers and experience in the business world to provide a comprehensive and enhanced experience for all students wishing to study Business and Finance. The Business Academy aims to provide students with experiences and opportunities to develop a thorough understanding of the principles behind running a company effectively, whilst enhancing valuable employability skills sought after by employers and higher education providers.

BTEC National Level 3 Extended Certificate – This is equivalent to one A Level and consists of four units, two of which are externally assessed. Students studying this course have the option to increase their qualification to 1.5 or Diploma (2).

BTEC National Level 3 Diploma - This is equivalent to two A Levels and consists of eight units, three of which are externally assessed. Students studying this course have the option to increase their qualification to the Extended Diploma (3).

BTEC National Level 3 Extended Diploma - This is equivalent to three A Levels and consists of 13 units, four of which are externally assessed. Students studying the Extended Diploma will also study the LIBF Certificate in Financial Studies and the TTS Employability Passport.

6.1

The first year of the course introduces students to the world of business. Assessment will be through a mixture of modular internally assessed coursework and externally assessed examinations. Students will complete a mixture of mandatory and optional units:

- Exploring Business
- Developing a Marketing Campaign
- Personal and Business Finance
- Managing an Event
- Pitching for a New Business
- Market Research
- Investigating Customer Service
- Team Building in Business

6.2

Students will complete a mixture of mandatory and optional units:

- Business Decision Making
- Training and Development in Business
- International Business
- Recruitment and Selection
- Principles of Management

How lessons are taught

The Business Academy course is delivered using a variety of learning approaches. The course is practical and work-related allowing students to learn by completing projects and assignments that are based on realistic workplace situations, activities and demands. The course allows students to develop a range of specialist skills and knowledge through classroom learning, case study based investigations and real-life application to a variety of different businesses.

Across the two year course, all students studying within the Business Academy will also have the benefit of:

- Guest speakers
- Visits to industry
- Running their own company
- Building their own portfolio to trade on the London Stock Exchange
- Working on the ICAEW's National Business and Accounting challenge

A wide range of opportunities are provided to enable all students to develop key employability skills and understand what it's like to be in the business world.

Progression

The Business Academy prepares students for further study and employment. The course develops a student's employability skills as it offers the experience of real-life practical tasks. Students studying Business and Finance related courses frequently enter careers such as: International Relations, Banking, Teaching, Event Management, Marketing, E-Commerce, Accountancy and Law.

Exam Board Pearson Edexcel

Subject Leader Mrs A Jones

Specific Entry Requirements:

6 GCSEs (Grade 9-5) including Grade 5 in English Language and Mathematics. Grade 5 or equivalent in Business if studied at GCSE.



Business

Advanced General Certificate of Education

Subject Overview

In Business, students will learn the principles behind how to run a company and manage effectively. This includes how to manage people as well as making strategic decisions in any workplace. Students will also develop the knowledge and skills needed to analyse data, think critically about issues and make informed decisions; all skills that are needed for further study and employment.

6.1

The first year of the course is an introduction to the world of business. The course is split into six topic areas that interlink with one another. Students will investigate the role of managers, leadership and decision-making in a competitive environment. Specifically how decision-making can improve marketing, financial, operational and human resource performance.

- Topic 1 – What is business?
- Topic 2 – Managers, leadership and decision making
- Topic 3 – Marketing Management
- Topic 4 – Operations Management
- Topic 5 – Finance Management
- Topic 6 – Human Resource Management

6.2

The second year of the course builds upon the work done in the first year. Students will develop their knowledge through studying the different business strategies available to business leaders. Students will analyse the strategic position of different businesses, choose the most appropriate strategic direction for different businesses and learn how businesses manage change.

Topic 7 - Analysing the strategic position of a business
Topic 8 - Choosing strategic direction
Topic 9 - Strategic methods: how to pursue strategies
Topic 10 - Managing strategic change

Students are examined through three external examinations in May/June.

Paper 1: Multiple-choice questions, short answer and two essays

Paper 2: Three compulsory data response questions
Paper 3: One compulsory case study consisting of six questions

3 written examinations: 2 hours, 100 marks in total, each worth 33.3% of A Level

How lessons are taught

Business lessons are taught using a variety of learning approaches that include investigations, case studies, group discussions, decision-making, role-plays and data analysis as well as external visits and guest speakers. Learning specialist terms and theory, note taking and question work will be an important feature of most lessons.

Progression

Business Studies is a subject which offers students an insight into the real working world as well as equipping them with a wide and varied knowledge of Marketing, Finance and Accounts, Operations Management, Human Resource Management and the External Environment and Economy. It is a versatile and a constantly changing subject, which promotes independent thinking and creativity amongst students.

Business students develop skills and knowledge very relevant to the modern world so this A Level is worth pursuing for its own sake. It is a useful qualification whether you are hoping to go directly into employment or progress onto higher education. Many employers like students who have studied business as it makes them more immediately employable. In addition, other degree subjects can also draw upon a knowledge of business and is directly relevant to further study of business, accountancy, economics, E-business and commerce, marketing, finance and banking.

Exam Board AQA

Subject Leader Mrs A Jones

Specific Entry Requirements:

6 GCSEs (Grades 9–5) including Grade 6 in English Language and Mathematics and Grade 6 in Business if studied previously



Chemistry

Advanced General Certificate of Education

Subject Overview

The Science courses offered at Thomas Telford School are designed to provide academic and vocational experiences. They will prepare students for their choice of career in both the world of work and higher education.

Students will study six modules cross the two years of A Level study.

Assessment will take place at the end of the second year and will consist of three written papers:

Paper 1 – Periodic table, elements and physical chemistry 2 hours 15 minutes (37% of total A Level)

Paper 2 – Synthesis and analytical techniques 2 hours 15 minutes (37% of total A Level)

Paper 3 – Unified chemistry 1 hour 30 minutes (26% of total A Level)

Practical endorsement in chemistry – (not examined) reported separately.

6.1

Module 1 - Development of practical skills in chemistry
Chemistry is a practical subject and the development of practical skills is fundamental to understanding the nature of chemistry. This module will be completed across the two years of A Level study

Module 2 - Foundations in Chemistry
This module acts as an important bridge into A Level Chemistry from the study of Chemistry within science courses at GCSE level. This module provides students with a knowledge and understanding of the important chemical ideas that underpin the study of A Level Chemistry, such as atomic structure, quantitative chemistry (including formulae, equations, amount of substance and the mole, reactions of acids, oxidation number and redox reactions) and bonding and structure.

Module 3 – Periodic table and energy
The focus of this module is inorganic and physical chemistry, the applications of energy uses in everyday life and industrial processes, and current environmental concerns associated with sustainability. Students will learn about periodic and group properties, enthalpy changes. Students will learn about periodic and group properties, enthalpy changes, reaction rates and equilibrium.

Module 4 – Core organic chemistry
This module introduces organic chemistry and its important applications to everyday life, including current environmental concerns associated with sustainability. Students will learn about nomenclature, functional groups, organic reactions, aliphatic hydrocarbons, alcohols and haloalkanes and instrumental analytical techniques.

6.2

Module 5 – Physical chemistry and transition elements
This module extends the study of energy, reaction rates and equilibria, and the periodic table. Students will learn about rate equations, equilibrium constants, K_c and K_p , acid–base equilibria, lattice enthalpy and Born–Haber cycles, entropy and free energy, electrochemical cells, redox chemistry and transition elements.

Module 6 – Organic chemistry and analysis
This module introduces several new functional groups and emphasises the importance of organic synthesis. This module also adds NMR spectroscopy to the instrumentation techniques used in organic and forensic analysis. Students will learn about aromatic compounds, carboxylic acids and esters, organic nitrogen compounds, polymerisation, synthetic organic chemistry and the importance of modern analytical techniques in organic analysis.

How lessons are taught

Chemistry lessons are taught using a wide range of techniques with a mix of teacher-led tasks, group activities and independent study. Students will carry out experimental work on a regular basis to deepen their understanding of the theoretical concepts and to develop their practical skills. In addition to teaching the content outlined in the course specification, A Level Chemistry students complete a practical skills endorsement, where their practical skills are assessed internally through 12 core practical tasks across two years. Students must demonstrate competency across a range of skills and techniques to pass the element of the course.

Progression

The opportunities for students of Chemistry, on completion of full-time education, are enormous. There are many possible careers within the scientific world and qualifications in Science subjects are acceptable as an entry into many other careers. Science students at Thomas Telford School are currently preparing to move into higher education Courses and careers in the following fields:

Engineering	Forensic Science
Pharmacy	Medicine
Dentistry	Nursing
Biological Sciences	Chemical Engineering
Veterinary Medicine	

Exam Board OCR Specification: H432

Subject Leader Miss L Foulkes

Specific Entry Requirements:

6 GCSEs at (Grades 9–5), including Grade 5 in English, Grade 6 in Mathematics and Grade 6 in Chemistry or 6,6 in Combined Science

Computer Science

Advanced General Certificate of Education

Subject Overview

Computer Science is an exciting subject that has a perfect balance of the latest theoretical content alongside excellent opportunities to learn to program using current and relevant programming languages that are sought after in industry and commerce.

A natural progression from GCSE Computer Science, it provides the perfect springboard for students looking at specialising in a computing-based career.

6.1

The first year splits learning into two sections:

Component 1 - Computer Fundamentals, and

Component 2 - Programming Techniques and Logical Methods.

Within the first year, students study a range of theory topics, which include the principles and understanding linked to programming, as well as topics such as hardware and software, networks, systems development life cycles and implications of computer use.

6.2

The second year splits learning into three sections:

Component 1 - Computer Fundamentals,

Component 2 - Programming Techniques and Logical Methods,

Component 3 - Programming Project.

Within the second year of the course, students will study further theory topics, as well as completing the Component 3 Programming Project. This is a substantial programming activity that will allow the students to investigate a problem of their choice, then plan and create a computational solution for that problem.

How lessons are taught

All lessons are taught in Computer classrooms, with one computer per student.

Computer facilities are up-to-date, including workstations which have all necessary programs installed.

Using net support software, lessons are interactive and student focused. Lessons will involve both theory elements, which will involve formal classroom based activities, alongside practical programming topics.

Progression

Computer Scientists are analytical, with strong problem solving and decision making skills, which will prepare them well for higher education courses or a wide range of career choices such as: Applications developer, Data analyst, Database administrator, Games developer, IT consultant, Web designer, Web developer.

Past Computer Science students at Thomas Telford School already have a track record for securing excellent positions in competitive apprenticeships, often those which are tied into a degree course and post-degree employment.

Exam Board OCR

Subject Leader Mr C Murray

Specific Entry Requirements:

6 GCSEs (Grades 9 – 5) including Grade 6 in Science, Mathematics and Computer Science.

If GCSE Computer Science not studied, GCSE Mathematics at Grade 7 is required.



Design & Technology: Product Design

Advanced General Certificate of Education

Subject Overview

Design and Technology is about making things that people want and that work well. Creating things is hugely exciting: it is an inventive, fun activity.' James Dyson

So why study Product Design? Transferrable skills that you will develop include:

- Independent learning
- The ability to work with others and share ideas
- Strong research and analytical skills
- The ability to resolve a problem – to think outside the box!
- Communication skills – a variety of media
- Practical skills and techniques
- Strong observational skills- looking at the world around you to inspire!
- Entrepreneurial skills – You will need to cost your product and consider commercial production techniques
- Excellent evaluation

6.1

The first year of the course has been designed to introduce students to the Non Exam Assessment and enhance knowledge and understanding of key topics required for the external examinations.

Students will be required to undertake a small-scale design and make task and produce a final prototype. The context of the task will be set for them. Students will develop the product through in-depth and comprehensive research and investigation, concept creation, design development, final models and thorough testing and evaluation. A professional e-portfolio will be completed to support the project. This project will form the majority of the year's focus, together with the theory element required for the examinations. The assessments throughout the year will include the NEA and internal End of Unit tests and mock examinations. Mathematics and Science contribute 15% of the examination and therefore a good knowledge of these areas would be required.

Written Exam:

Students will sit two mock examinations at the end of the course. These will assess technical principles, designing and making principles and specialist knowledge. Mathematics and Science contribute 15% of the examination and therefore a good knowledge of these areas would be required.

6.2

Non-Exam Assessment

Students will be required to complete a substantial design and make task. The context of the task will be set by the student. Students will develop the product through in-depth and comprehensive research and

investigation, concept creation, design development, final models and thorough testing and evaluation. A professional e-portfolio will be completed to support the project. This project will form the majority of the year's focus. This will contribute towards 50% of the A Level final grade.

Written Examination: Paper 1 – Technical Principles and Paper 2 – Design and Make Principles

Students will sit two papers at the end of the course. Paper 1 is 2 ½ hours and will be worth 30% of the final A Level. Paper 2 is 1 ½ hours and is worth 20% of the final A Level grade. The first paper will test core technical principles and core designing and making principles whilst the second paper will focus on specialist knowledge. The examinations will contribute to 50% of the A Level final grade. Mathematics and Science contribute 15% of the examination and therefore a good knowledge of these areas would be required.

How lessons are taught

Design and Technology lessons are taught using a variety of resources. Students will be expected to work independently to lead their own projects. Students will complete an e-portfolio, which will evidence all research, designing, making evidence and testing & evaluation. This will be accompanied by a high quality manufactured product that will satisfy the design brief set. Sessions will also include the theory element of the course, which will support the content required for the examinations.

Progression

The skills with which Design and Technology will equip students are highly sought after in the world of work and university. The Course will prepare students for opportunities in:

All Engineering courses	Architecture
Product Design	Cybernetics
Manufacturing	Furniture Design
Vehicle Design	Computer games design
Prosthetics	Structural engineering
Printing	Education

Exam Board AQA

Subject Leader Mrs J Tarr

Specific Entry Requirements:

6 GCSEs (Grade 9-5) including Grade 5 in English and Science and a Grade 6 in GCSE Design & Technology and Mathematics

Economics

Advanced General Certificate of Education

Subject Overview

Economics is a thought-provoking course which offers the opportunity to learn about the latest economic theories and practice in the context of different economic issues both nationally and internationally. It explores the role of government, producers and consumers and explains many of the issues and debates that feature in today's news and society in general.

6.1

Theme 1: Introduction to markets and market failure

Students will develop an understanding of:

- nature of economics
- how markets work
- market failure
- government intervention

Theme 2: The UK economy – performance and policies

This theme focuses on macroeconomic concepts. Students will develop an understanding of:

- measures of economic performance
- aggregate demand
- aggregate supply
- national income
- economic growth
- macroeconomic objectives and policy.

6.2

Theme 3: Business behaviour and the labour market

This theme develops the microeconomic concepts introduced in Theme 1 and focuses on business economics. Students will develop an understanding of:

- business growth
- business objectives
- revenues, costs and profits
- market structures
- labour market
- government intervention.

Theme 4: A global perspective

This theme develops the macroeconomic concepts introduced in Theme 2 and applies these concepts in a global context. Students will develop an understanding of:

- international economics
- poverty and inequality
- emerging and developing economies
- the financial sector
- role of the state in the macroeconomy.

How lessons are taught

Students are encouraged to make use of the Internet, newspapers, magazines and television programmes as Economics focuses on topical issues and events. Lessons will utilise the ICT facilities in the classrooms, discussions, presentations, small group activities and independent research.

Assessment

A Level Economics is assessed via 100% external examination at the end of 6.2

Paper 1: Markets and business behaviour (35% of the qualification)

Paper 1 will assess microeconomics and questions will be drawn from Themes 1 and 3.

Paper 2: The national and global economy (35% of the qualification)

Paper 2 will assess macroeconomics and questions will be drawn from Themes 2 and 4.

Paper 3: Microeconomics and macroeconomics (30% of the qualification)

Paper 3 will assess content across all four themes. Students are required to apply their knowledge and understanding, make connections and transfer higher-order skills across all four themes.

Progression

Economics is a rigorous academic subject which is well respected by both universities and employers. The combination of analytical, numerate and literate skills developed in A Level Economics means it is a valuable preparation for a variety of university courses. However, many of our students choose to study Economics at degree level.

Exam Board – Edexcel "A" specification

Exam Board Edexcel

Subject Leader Mr G Collins

Specific Entry Requirements:

6 GCSEs (Grade 9 – 5) including Grade 6 in English Language and Grade 7 in Mathematics. Language and Grade 7 in Mathematics

English Language

Advanced General Certificate of Education

English Language Subject Overview

'Language has no independent existence apart from the people who use it'. - David Crystal.

Students of English Language are embarking on a course of study to explore where the English language began, how language is acquired by children and the ways in which language has adapted to suit the needs of users over time. From exploring concepts related to language and gender and language and power, to analysing spoken varieties, the English Language course will allow students to decode, analyse and evaluate the conventions of those all-important people who use language.

6.1

You will learn the fundamental parts of the English Language, developing your grasp of lexis, semantics, morphology and grammar; you will also gain an insight into how language is used in different written and spoken contexts.

6.2

You will study three units as follows:

Dimensions of Linguistic Variation (Externally assessed)

This is an exploration of how language is constructed. Students compare language and speech and consider attitudes towards language with regard to power, gender and technology.

This is an appreciation of how language changes according to users, how children acquire and develop language and how language changes over time. Students will also consider language in the media.

Independent Language Investigation (Internally assessed)

You will select your own topic for research, and explore how language is used within this topic area through the writing of an essay and the creation of an academic poster. Previous investigations have explored the language of terrorism, gender representations in hip-hop music and the language of Disney.

How lessons are taught

English Language lessons are taught using a wide range of active learning approaches including personal research, group activities and debate as well as formal classroom based activities.

Progression

English students develop their analytical and critical skills through the study of a range of texts and language. Students will gain valuable independent study skills which are useful in a range of further education, higher education and employment settings. An English A level is recognised as a facilitating A Level by most Universities including the Russell Group.

Exam Board OCR
Subject Leader Mr M Harper
Specific Entry Requirements:
6 GCSEs (Grades 9-5) including Grade 5 in Mathematics and Grade 6 in GCSE English Language



English Literature

Advanced General Certificate of Education

English Literature Subject Overview

The Sixth Form course will build on the skills acquired at GCSE, and will explore rich variety of novels, poetry and drama that make up the English Literary canon - The Sixth Form course will build on the knowledge and skills acquired at GCSE, and will explore the rich variety of novels, poetry and drama that make up the English literary canon.

6.1

You will gain an understanding of a range of poetry, drama and fiction and explore the contextual factors influencing writers.

6.2

Drama and Poetry Pre 1900 (Externally assessed)

You will study a Shakespeare play using whole text and extract based approaches. You will also study poetry and a further drama text.

Comparative and Contextual Study (Externally assessed)

This is an exploration of a specific genre of writing comparing two novels within the genre. Students will develop critical appreciation skills through exploring a range of texts.

Literature Post-1900 (Internally assessed)

This coursework project will require students to produce two pieces of work: one a close reading, and the other a comparative essay. Students will develop their appreciation of poetry, prose and drama.

How lessons are taught

English Literature lessons are taught using a wide range of active learning approaches including personal research, group activities and debate as well as formal classroom based activities.

Progression

English students develop their analytical and critical skills through the study of a range of texts and language. Students will gain valuable independent study skills which are useful in a range of further education, higher education and employment settings. An English A level is recognised as a facilitating A Level by most Universities including the Russell Group.

Exam Board OCR

Subject Leader Mr T Painter

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Grade 5 Mathematics and Grade 6 in GCSE English Literature and English Language



French

Advanced General Certificate of Education

Subject Overview

With 220 million French speakers worldwide, and ranked the sixth most widely spoken language, fluency in French provides students with invaluable travel and work opportunities. The AGCE Level course builds on the knowledge, understanding and skills gained at GCSE and aims to inspire students to further their appreciation of the language, literature, film and culture of the French-speaking world. Students will enhance their linguistic skills and their capacity for critical thinking; develop their ability to interact effectively with users of the language in speech and in writing, and engage critically with texts, music and films.

6.1

The first year of the course has three main areas of study, which centre on the social and cultural aspects of France and the French-speaking world.

- Thème 1: Les changements dans la société française : La famille, L'éducation, Le travail
- Thème 2: La culture politique et artistique: La musique, Les médias, Les traditions
- Study of the Film: Intouchables

Within these areas of study students will develop the complexity and range of their language, improve their ability to discuss issues and present ideas and develop comprehension skills. They will also become more familiar with the culture and traditions of French speaking countries.

6.2

The second year of the course has three main areas of study, which centre on France during World War 2 and current issues linked to immigration. Assessments include comprehension tasks, an oral examination and critical essays on the set film La Touchables and the novel Un Sac de Billes.

- Thème 3: L'immigration et la société multiculturelle française et l'extrême droite
- Thème 4: L'Occupation et la Résistance; La France occupée; Le régime de Vichy
- Study of the novel : Un Sac de Billes

Within these areas of study students will continue to develop the complexity and range of their language, improve their ability to discuss issues, present ideas, develop comprehension skills, and become more familiar with the history of France. Students must also research an area of study of personal interest, which forms part of the speaking examination (Independent Research Project).

Assessments include comprehension tasks, an oral examination and two critical essays one on the set film and one on the novel.

How lessons are taught

Teachers aim to develop spontaneous use of the target language during lessons and students are encouraged to use the target language as part of group and paired activities. Teachers make use of a wide range of authentic source materials and language learning websites to support students. Learners are encouraged to immerse themselves in the language as much as possible.

Progression

Most universities, including the Russell Group universities, consider French A Level as a facilitating subject. An AGCE in French prepares students for a number of higher education courses and a wide range of career choices. Language skills are in demand and can be required in almost any career: business services with trade abroad, journalism, engineering, diplomatic services, international aid worker, logistics and distribution, marketing executive, law, teaching and lecturing.

Exam Board Edexcel

Subject Leader Ms S Evans

Specific Entry Requirements:

6 GCSEs (Grades 9 – 5) including Grade 5 in English and Mathematics and Grade 7 in French



Further Mathematics

Advanced General Certificate of Education

Subject Overview

The Further Mathematics AGCE course is studied alongside A Level Mathematics at Thomas Telford School. It will prepare students for their choice of degree in higher education.

6.1

In the first year, students study the content of A Level Mathematics.

Students will recap GCSE algebra skills and will then study coordinate geometry including the equations of circles and lines and extend their knowledge of polynomials and shapes of graphs. They will also study the language of mathematics.

Ever wondered how to calculate the gradient of a curve or the area underneath it? Students will be introduced to calculus and the uses of differentiation and integration. Students will have the opportunity to extend their ability to manipulate trigonometric functions and identities.

How do you solve an equation of order 5? Students will look at three numerical methods that can find solutions to an appropriate degree of accuracy and will then further their calculus skills and look into exponential growth and decay.

What is the vector equation of a plane? How do you expand brackets to a negative power? These are just two of the questions you will study during the latter part of the course. You will also look at waves and how to avoid another Tacoma Narrows Bridge disaster – those trigonometric curves are really important!

6.2

In the second year students will study the content of A Level Further Mathematics.

Further Pure Mathematics

What happens if you need to square root a negative number? Students will meet a solution to this problem which opens up a whole new world of mathematics. Students will also study matrices, vectors and proof and will become very competent with a graphical calculator as they explore a range of curves and functions, Maclaurin's Theorem, the Taylor Expansion and the Cayley-Hamilton Theory.

Further Statistics

How do you decide if a component is substandard? – Testing for quality control is covered by using the Chi squared, Poisson and Normal distributions. Students will also look in depth at the strength of a relationship between two variables.

Further Mechanics

Students will look at work, energy and power, centre of mass and moments. Further Mechanics covers the theory behind circular motion, elastic strings and oscillations.

Differential Equations

Students will look at several ways to solve differential equations.

Progression

A Level Mathematics and Further Mathematics are required at the top universities to study Mathematics. Mathematics A Level is required and Further Mathematics is desirable for any Engineering or Physics course at university. A Level Mathematics is required to study Economics at university and Further Mathematics is required to study Economics at Cambridge.

Further Mathematics students at Thomas Telford School are currently preparing to move into higher education courses and careers in the following fields:

Electronic Engineering	Research Chemistry
Computer Science	Pharmacy
Medicine	Forensic Science
Business Administration	Aeronautics
Accountancy	Mechanical Engineering
Civil Engineering	Actuarial Work

Exam Board OCR A Level in Further Mathematics B (MEI) (H645)

Subject Leader Mrs C Dean

Specific Entry Requirements:
6 GCSEs (Grades 9-5) including Grade 8 Mathematics

Geography

Advanced General Certificate of Education

Subject Overview

Students who study Geography possess an extremely marketable and sought after range of knowledge and understanding of the world around them. This AGCE course will teach students exciting topics to understand the nature of physical and human geography whilst unpicking the debates surrounding contemporary challenges facing the world today.

6.1

The first year has two broad areas of study.

a) Coastal Landscapes – This unit focuses on the relationship between the land, oceans and atmosphere, students will study coastal landscapes, processes, landforms and management.

b) Earth's Life Support Systems – this unit focuses on the importance of carbon and water cycles to life on earth in places such as the tropical rainforest and the Arctic.

c) Human Rights and Immigration – this is a study of global connections examining the dynamic flows of people between countries with migration and the global variation of human rights.

d) Changing Spaces, Making Places – Students study the characteristics of cities and the inter-connections between different cities. This covers how our living spaces have changed and how they can be improved.

6.2

The second year also has the two broad areas of study along with an independent investigation.

e) Investigative Geography - an independent investigation which is of particular interest will be undertaken, this can be related to any area of the specification. A wide range of skills and abilities will be developed which are applicable not only to study in higher education but also within the world of work and life.

f) Tectonic Hazards – The topics covered in this unit are current issues that the planet faces and students will be encouraged to engage with the issues, reflect on and think critically about them. Students will investigate what the future might hold and how this could be managed. The unit also examines the cause of volcanoes and earthquakes, their impacts and the strategies used to manage them.

g) Disease Dilemmas – this unit focuses on the geographical variation of disease.

How lessons are taught

Geography lessons are taught using a wide range of active learning approaches including personal enquiry, group activities and fieldwork, as well as formal classroom based activities.

Progression

Geographers develop enquiry, decision making, fieldwork and research skills, which will prepare them well for higher education courses or a wide range of career choices, such as environmental science, consultancy, surveying, town planning, travel and tourism, meteorology, architecture and teaching. Geography A Level is recognised as a facilitating A Level by most universities including the Russell Group.

Exam Board OCR

Subject Leader Miss N Roberts

Specific Entry Requirements:
6 GCSEs (Grades 9-5) including Mathematics
Grade 6 in GCSE Geography and English



Health and Social Care

Pearson BTEC Level 3 National

Subject Overview

This qualification aims to provide an introduction to study of the sector. It supports access to a range of higher education courses, possibly in the health and social care sector or teaching.

Level 3 National Extended Certificate in Health & Social Care. This is the equivalent of 1 A Level

Level 3 National Diploma in Health & Social Care. This is the equivalent of 2 A Levels

6.1

The first year covers the following areas of study:

Human Lifespan Development - Learners cover physical, intellectual, emotional and social development across the human lifespan, and the factors affecting development and the effects of ageing.

Meeting Individual Care and Support Needs - Learners will demonstrate an understanding of the ways that current research is used in health and social care, and the appropriateness of different types of research related to specific issues and enquiries.

6.2

The second year covers the following areas of study:

Working in Health and Social Care - Learners explore what it is like to work in the health and social care sector, including the roles and responsibilities of workers and organisations.

Supporting Individuals with Additional Needs - Learners will explore the range of additional needs that are faced by individuals, considering the effects these needs have on their wellbeing, rights and access.

The National Diploma in Health and Social Care has four further broad areas of study in addition to the units described above.

Enquiries into Current Research in Health and Social Care - Learners explore the methodologies of contemporary research and investigate the implications for health and social care practice and services.

Physiological Disorders and their Care - Learners will learn about the signs and symptoms if physiological disorders and how they are investigated and diagnosed. They will also learn about the different types of treatment and support available for individual service users.

Public Health and Principles of Safe Practice in Health and Social Care - Learners will learn about the professional responsibilities for maintaining safe practice. Learners will also explore how patterns of health and ill health of the population are monitored and how this leads to the development of public health policy.

How lessons are taught

Health and Social Care lessons are taught using a wide range of active learning approaches including independent research and reporting, group activities and class discussion, as well as formal classroom-based activities and enrichment opportunities.

Progression

This will enable learners to progress to a degree programme chosen from a range of programmes in the health and social care sector. The qualification is intended to carry UCAS points and is recognised by higher education institutions as contributing to meeting admission requirements to many relevant courses.

This BTEC course gives learners practice in developing employability skills including:

- Cognitive and problem-solving skills: use critical thinking, approach non-routine problems applying expert and creative solutions
- Interpersonal skills: self-management, adaptability and resilience, self-monitoring and development

Exam Board Pearson

Subject Leader Mrs C Nock

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Grade 5 in any Science subject and English Language

History

Advanced General Certificate of Education

Subject Overview

It is difficult to avoid the impact of History in our modern world. We are living with the consequences of past events every day. A good historical education is essential to understand the world.

6.1

Unit 1: Y107 England 1547 – 1603: the Later Tudors:

This covers the stability of the monarchy during the reigns of Edward VI, Mary Tudor and Elizabeth I, including the issue of religious disputes between Catholic and Protestant and the causes and nature of rebellion and unrest.

Unit 2: Y223 – the Cold war in Europe 1941 to 1995:

Students will study the causes of the Cold War and how it developed up to 1955, including the wartime tensions, Iron Curtain speech, Soviet actions in Eastern Europe, Truman Doctrine and Marshall Plan. Students will also study the impact of key events such as the Hungarian and Czech uprisings in the 1950s and 60s. Finally students will examine the collapse of communism in USSR in 1991 and the war in Bosnia.

6.2

Unit 3: Y318 Russia and its Rulers 1855–1964: This theme focuses on the nature of Russian government and its impact on the Russian people and society. Students should understand the similarities and differences between the autocratic rule of the tsars to 1917 and the subsequent Communist dictatorship to 1964.

Unit 4: Y100 Independent Historical Investigation: This is a coursework unit of a 4000 word essay. Students have a free choice of what they wish to study. In the past many students have been very successful with the following: 1. Oliver Cromwell 1599-1658 2. British India 1815-78 3. Napoleon I 1795-1815 4. America between the wars 1918-41 5. The Cold War and its leaders 1940 to 1989 6. The War in Vietnam 1955-75 7. The Development of Rights for Women in Great Britain 1867-1918 8. Nazi Germany and the Holocaust 1933-45.

How lessons are taught

History lessons are taught using a wide range of active learning approaches including personal enquiry, group activities and fieldwork, as well as formal classroom based activities. We also include a trip to Berlin to study the Cold War and origins of the Holocaust at the end of Y12

Progression

Historians develop enquiry, decision-making and research skills, which will prepare them well for higher education courses or a wide range of career choices, such as the legal profession, journalism and the media, research, the police, teaching, advertising and marketing. History A Level is recognised as a facilitating A Level by most universities including the Russell Group. Equally, employers and universities know that students of History have a huge amount of transferable skills. The research, analytical and presentational skills you learn in History, to be able to interrogate and challenge different arguments whilst substantiating your own, are precisely the skills you need to operate in the world of work.

Exam Board OCR

Subject Leader Mr R Furlong

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Mathematics Grade 6 in GCSE History and English



History Trip to Berlin

Mathematics

Advanced General Certificate of Education

Subject Overview

The opportunities for students of Mathematics, on completion of full-time education, are enormous. It complements and supports other courses, for example, Physics, Chemistry, Design Technology and Business Studies. Qualifications in Mathematics are acceptable as an entry to many different careers.

The Mathematics AGCE course offered at Thomas Telford School is designed to provide academic and vocational experiences. It will prepare students for their choice in both the world of work and higher education.

6.1

Pure Mathematics
Students will recap GCSE algebra skills and will then study coordinate geometry including the equations of circles and lines and extend their knowledge of polynomials and shapes of graphs and will also study the language of mathematics.

Ever wondered how to calculate the gradient of a curve or the area underneath it? Students will be introduced to calculus and the uses of differentiation and integration and will have the opportunity to extend their ability to manipulate trigonometric functions and identities.

Statistics
In Statistics students will study the importance of statistics in the media by looking at day to day events through the eyes of a journalist for a fictional newspaper. How is data presented and what does it mean? How can a hypothesis be tested using probability?

Mechanics
Ever wondered why your stomach feels strange in a fast moving lift? In Mechanics students will look at forces moving on bodies both still and in motion. Students will also answer such questions as 'what is the best angle to release a projectile at for maximum distance to be travelled?'

6.2

Pure Mathematics
How do you solve an equation of order 5? Students will look at three numerical methods that can find solutions to an appropriate degree of accuracy and then further their calculus skills and look into exponential growth and decay.

What is the vector equation of a plane? How do you expand brackets to a negative power? These are just two of the questions students will study during the latter part of the course. They will also look at waves and how to avoid another Tacoma Narrows Bridge disaster – those trigonometric curves are really important!

Statistics
How do you decide if a component is substandard? – Testing for quality control is covered by using the Binomial and Normal distributions. Students will also look in depth at the strength of a relationship between two variables.

Mechanics
If you were in charge of a racing car and had to decide which tyres to use – depending on the weather – coefficients of friction would dictate your choice. Students will look at coefficients of friction along with work, energy and power.

How lessons are taught

Mathematics lessons are taught using a range of learning approaches including group activities, as well as formal classroom based activities.

Progression

Mathematics A Level is required for any Engineering or Physics course at university. A Level Mathematics is required to study Economics at university

Mathematics students at Thomas Telford School are currently preparing to move into higher education courses and careers in the following fields:

Electronic Engineering	Research Chemistry
Computer Science	Pharmacy
Medicine	Forensic Science
Business Administration	Aeronautics
Accountancy	Mechanical Engineering
Civil Engineering	Actuarial Work

Exam Board	OCR A Level in Mathematics B (MEI) (H640)
Subject Leader	Mrs C Dean
Specific Entry Requirements:	6 GCSEs (Grades 9-5) including Grade 7 in GCSE Mathematics.

Music

Advanced General Certificate of Education

Subject Overview

The opportunities for students of Music have continued to develop over the past decade, perhaps nowhere more so than in the Midlands. As Birmingham continues to be promoted as the nation's "Second City" and attracts major Arts organisations to the area, so the West Midlands is becoming recognised as a centre for Culture and the Arts.

The Music course offered at Thomas Telford School is designed to provide students with a wide range of skills and experiences. Practically, students will improve their performance to Grade 7 (ABRSM/Trinity/LCM/RGT) standard or higher, which could allow more able students' entry to Music College. All students will study composition from traditional harmony through to the more modern styles of popular music with possibilities opening up for gifted composers to take this further at Music College or University.

Opportunities to develop performance skills and contribute to the musical ethos of the School are plentiful and students are invited to join the instrumental ensembles or Choir, in addition to participating in bespoke chamber ensembles and taking part in trips to experience live music. Performance Tours to European destinations (France, Germany, Holland, Belgium) are organised.

6.1

- **Component 1 – Performing.** This unit enables students to develop their skills in performing. Students will perform one or more pieces as a soloist and/or as part of an ensemble as part of a minimum of six minute performance. It is recommended that students perform at Grade 6 + standard for this unit.
- **Component 2 – Composing.** In this unit, students are studying the art of composition. Students will explore ideas or a free brief composition which will be completed for assessment.
- **Component 3 – Appraising.** Unit 3 will be examined in the summer term and there will be one 90-minute examination. The examination will assess students' aural understanding of studied set works of differing musical styles and contexts, and will also assess their understanding of musical language.

6.2

- **Component 1 – Extended Performance.** All students are required to submit an 8-10 minute recording which may comprise solos and/or ensemble performances. The performances are recorded with

a small audience present. It is recommended that students perform at Grade 7 standard or higher for this unit.

- **Component 2 - Composition and Technical Study.** In the second year students will complete two compositions resulting in a minimum submission of six minutes of music. One of these compositions can be a free brief composition or a composition in response to a brief set by the examination board. The other composition will assess composition technique skills developed throughout the course
- **Component 3 - Appraising.** Assessment is through a two-hour examination paper comprising three sections. Students will be assessed on their aural analysis skills and their understanding of set works, analysing works from a written score.

How lessons are taught

Students are taught through a mixture of theory based and practical sessions. Students will have access to digital audio workstations with the latest musical software including Cubase and Sibelius to develop and record their composition work. In addition, students are able to access a range of one-to-one instrumental and vocal lessons as part of our Thomas Telford Music School provision, which is delivered during Session 3.

Progression

The Music Industry is vast and needs talented performers, composers and technicians to support it. Job opportunities exist in all spheres of Music from classical to contemporary popular Music and as a result a wide variety of university courses are on offer depending on individuals strengths.

Composer/Arranger (film, video games, orchestral etc), Performer/Musical Director (classical, theatre, rock/pop etc), Music Writer/Journalist, Music Teacher, Arts Administration, Music Administration, Sound Engineering, Recording.

Exam Board	Edexcel
Subject Leader	Mrs H Shaw
Specific Entry Requirements:	6 GCSEs (Grades 9-5), including English and Mathematics, Grade 6 in GCSE Music, good keyboard or guitar skills or Grade 5 (ABRSM/Trinity/LCM/RGT) standard (practical and Theory of Music) on another instrument.

Performing Arts (Dance/Drama)

Level 3 Cambridge Technical Extended Certificate in Performing Arts (Combined Arts)

Subject Overview

The Level 3 Cambridge Technical Extended Certificate in Performing Arts is equivalent in size to one A Level. It will provide learners with the opportunity, through applied learning, to develop the core specialist knowledge, skills and understanding required in the performing arts sector.

6.1

- Unit 2 - Proposal for a Commissioning Brief (Externally Assessed).

Students are equipped with the range of skills to be able to set out proposals as a response to a given brief and then set up and pilot performances and/or workshops. It will also provide a set of transferable skills that will underpin freelance work in the chosen artistic field.

- Unit 3 - Influential Performance Practice (Externally Assessed). Students will learn about genres, styles and periods, social, cultural and historical influences and significant theatrical/performance developments and practitioners. To help understand the demands of performing a piece of repertoire, students will become familiar with a range of different styles and periods, e.g. Classical, Modern and Postmodern, within their social, cultural and historical contexts and will be able to select, adapt and apply elements of their research into their performance concept and practical performance.

6.2

- Unit 1 - Prepare to Work in the Performing Arts Sector (Externally Assessed).

This unit will give students strategies, attitudes and survival skills for sustaining a career in the performing arts industry. Students will learn to self-promote and respond to current employment opportunities as well as learning when and how to adapt to a quickly changing economic landscape. It will also give an understanding of the expectations of potential employers.

- Unit 4 - Combined Arts (Internally Assessed). Some contemporary performance companies do not want to be categorised. These companies don't want to be solely defined as 'theatre' or 'dance' companies, but would prefer to be known for the barriers they cross and for the integrated nature of the work that they do. This unit will give students the opportunity

to create new performance by reinterpreting an existing piece of repertoire.

Further units will be taught and selected from the following options:

- Performing Repertoire
- Improvisation
- Current Issues in Performing Arts

How lessons are taught

Students are taught through a mixture of theory based and practical sessions.

Progression

The Performing Arts will prepare students for their choice of career in both the world of work and higher education. This qualification will also develop transferable skills such as: self-confidence, self-presentation and communication, collaboration and problem-solving, time management and organisational skills which are highly regarded by higher education and employers in the UK and United States.

Exam Board Cambridge Technical

Subject Leader Miss E Burns

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Grade 5 in English.

GCSE or equivalent course in Dance or Drama or Music or Expressive Arts to Grade 6.

Some practical experience in Dance and Drama is required for this course.



Performing Arts Academy

Level 3 Cambridge Technical Extended Diploma in Performing Arts (Musical Theatre Pathway)

Subject Overview

Thomas Telford School has an established 30 year reputation for excellence in Musical Theatre. Many students have acquired prestigious places at higher education establishments and Stage Schools and several of our past students are now working professionally.

The emphasis of this course is to develop skills in all areas of musical theatre and to develop students as all round performers.

The Level 3 Cambridge Technical Extended Diploma is equivalent to 3 A Levels.

6.1

Proposal for a Commissioning Brief (Externally Assessed). Students are equipped with the range of skills to be able to set out proposals as a response to a given brief and then set up and pilot performances and/or workshops. It will also provide a set of transferable skills that will underpin freelance work in the chosen artistic field.

Influential Performance Practice (Externally Assessed). Students are given the framework that will stay with them for their entire career, placing them in the optimum position for employment and further training and providing the attitude and professional perspective to build a firm foundation in the changing and dynamic working environment that is the Performing Arts.

Arts Administration (Externally Assessed). Students will gain a greater knowledge of the broader supporting functions of the sector which facilitate performance work.

Acting Technique (Internally Assessed). Students will explore acting techniques in practical workshops and classes and begin to understand how some texts demand particular ways of performing and how some remain open to the unique approach of the actor. Students will also need to perform with reference to a specific technique, responding to direction and keeping detailed documentation of the process of performance and the subsequent development of the relationship with the technique being applied.

Dance Technique (Internally Assessed). Students are inspired to understand the value, process and importance of Dance Technique and will encourage the development of technical and performance skills in a minimum of two dance styles. It will focus discipline and a commitment to regular practice whilst allowing for the development of creativity and self-expression.

Singing Technique (Internally Assessed). Students will learn how they can care for their voice for frequent use and how their singing skills and techniques can be developed and enhanced with exercises and practice.

6.2

Preparing to work in the Performing Arts Sector (Externally Assessed). Students learn research, critical analysis and extended writing skills that will support their progress to higher education.

Original performance (Externally Assessed). Students are required to pull together the knowledge, understanding and skills they have learnt from taking other units. Students will respond to a given performance stimulus, explore ideas practically and develop performance skills and techniques. The stimulus will act as a starting point for the creative journey, and be an inspiration to generate ideas and interpretations.

Dance Performance (Internally Assessed). This gives students the opportunity to experience the demands and exhilaration of showcasing live dance performance and produce an audition solo piece.

Singing Performance (Internally Assessed). Students will apply singing skills and techniques in different performance genres.

The skills required for these units are developed throughout 6.1 and 6.2'

How lessons are taught

Students are taught through a mixture of theory based and practical sessions.

Progression

The Musical Theatre course offered at Thomas Telford School provides a wide range of vocational experiences, audition workshops and many performance opportunities both inside and outside the School environment. It prepares students for their chosen career paths, in both the world of work and higher education and Stage School courses.

Exam Board Cambridge Technical

Subject Leader Miss E Burns

Specific Entry Requirements:

6 GCSEs (Grades 9-4) including Mathematics and English and a Performing Arts discipline. Experience in two areas of performance work (music, dance or drama) either at GCSE level or equivalent, or through outside agencies, such as dancing schools or amateur theatre is desirable.

External entrants will be required to audition for a place.

Physical Education

Advanced General Certificate of Education

Subject Overview

Students who study PE are able to enhance their knowledge and increase their understanding of the factors that affect performance and participation in Physical Education. The AGCE course addresses contemporary topics in sport, such as the impact in the use of ergogenic aids, technology and the increasing commercialisation of sport.

6.1

The first year has three broad areas of study, alongside coursework and practical elements:

- Applied Physiology – Students develop knowledge and understanding of the changes within the body systems prior to exercise, during exercise of differing intensities and during recovery. Students interpret data and graphs relating to changes within the musculo-skeletal, cardio-respiratory and neuro-muscular systems, and the use of energy systems during different types of physical activity and sport, and the recovery process.
- Skill Acquisition - This section focuses on how skill is acquired and the impact of psychological factors on performance. Students should develop knowledge and understanding of the principles required to optimise learning of new, and the development of existing, skills in a range of physical activities.
- Sport and Society and Technology in Sport – The focus in this section is on developing knowledge and understanding of the interaction between, and the evolution of, sport and society.

Students are taught to be able to understand, interpret and analyse data and graphs relating to participation in physical activity and sport.

6.2

The second year also has three broad areas of study alongside coursework and practical elements:

- Exercise Physiology & Biomechanics – Students understand the adaptations to the body systems through training or lifestyle, and how these changes affect the efficiency of those systems. They will also develop knowledge and understanding of motion and forces, and their relevance to performance in physical activity and sport. This includes the use of biomechanical definitions, equations, formulae and units of measurement and demonstrate the ability to plot, label and interpret biomechanical graphs and diagrams.

- Sports Psychology - This section focuses on developing knowledge and understanding of the role of sport psychology in optimising performance in physical activity and sport.
- Sport and Society and Technology in Sport – The focus in this section is on developing knowledge and understanding of the interaction between, and the evolution of, sport and society and the technological developments in physical activity and sport.

Practical Sport

Students are assessed as a performer or coach in one activity. They are required to gather video evidence to show their ability across three assessment areas and MUST be competing for a club or school at a competitive level. Students also complete a written analysis of performance.

How lessons are taught

PE lessons are taught using a wide range of active learning approaches, including practical, group activities and computer based coursework, as well as formal classroom based activities.

Progression

The qualification will equip students with skills and knowledge required for higher education or the world of work, as well as giving them the opportunity to experience and develop their ability as a performer. The physical fitness and teamwork which come from an interest in physical education and playing sports can be useful in many different careers including leisure, sport and tourism, construction, education and training, armed forces, security and uniformed services.

Exam Board AQA

Subject Leader Mr D Howells

Specific Entry Requirements:

6 GCSEs (Grades 9 – 5) including Grade 5 in English and Mathematics and Grade 6 in GCSE PE and Science, County Level representation or above is recommended



Physics

Advanced General Certificate of Education

Subject Overview

Students who study Physics will excel in numerical reasoning and will have the ability to provide evidence for their understanding. This A Level course will encourage students to problem solve across a variety of topics, allowing them to transfer this valuable skill in to further education and employment. The wide selection of topics taught will give students an understanding in classic physics such as Newton's laws and motion whilst also studying more modern ideas about astrophysics and quantum physics.

6.1

The first year has three broad areas of study:

- Foundations of physics – this unit aims to introduce the important conventions and ideas that flow throughout all of physics. Understanding of physical quantities, S.I. units, scalars and vectors helps physicists to effectively communicate their ideas.
- Forces and motion – students will learn how to model the motion of objects using mathematics, appreciate how forces cause deformation and understand the importance of Newton's laws of motion. Students will have the opportunity to investigate the motion of objects and also analyse and interpret experimental data.
- Electrons, waves and photons – this unit aims to introduce the idea of quantum physics. Students will study electromagnetic waves that exhibit both wave and particle-like behaviour. Students will also learn about electrons, electric current, electrical circuits and complete required practical's using electrical circuits.

6.2

The second year has two broad areas of study:

- Newtonian world and astrophysics – the aim of this module is to show the impact Newtonian mechanics has on physics. Students will study the microscopic motion of atoms and how it can be modelled using Newton's laws through to predicting the motion of planets and distant galaxies. In the final section students will explore the intricacies of stars and the expansion of the Universe by analysing the electromagnetic radiation from space.
- Particles and medical physics – in this module students will learn about many different particles in the context of capacitors, electric fields, electromagnetism, particle physics and nuclear physics. At the end of this section, they will explore how physics is used in medicine through the use of medical imaging.

How lessons are taught

Physics lessons are taught using a wide range of techniques. Students will carry out experimental work on a regular basis in order to deepen their understanding of the theoretical concepts. Lessons will involve group work, individual work, interactive simulations and you will have access to video lessons outside the classroom.

Progression

Studying A-Level Physics provides skills that can be transferred to many different areas of work. Solving problems, analysing data and drawing connections that are not obvious to others. Physics will not give all the answers, but it will teach how to ask the right questions. It will prepare students for a wide range of future careers including: astrophysics, engineering, banking, software development, nuclear energy, optometry, architect, plus many more. Physics A Level is recognised as a facilitating A Level by most universities, including the Russell Group.

Exam Board OCR A Physics

Subject Leader Mr S Kettle

Specific Entry Requirements:

6 GCSEs at (Grades 9–5), including Grade 5 in English, Grade 6 in Mathematics and Grade 7 in Physics or 7,7 in Combined Science



Politics

Advanced General Certificate of Education

Subject Overview

An understanding of politics and how government works is not only an interesting and stimulating academic issue but arguably is vital in a modern world where democracy and democratic values are being challenged in all corners of the world. The rise of populism and support for ‘strong’ leaders often leads to large swathes of people abandoning democratic values or supporting more extreme and radical ideas. Even a cursory understanding of current affairs illustrates this well.

The A Level is taught over two years and consists of three components:

UK Politics and Government

- Political Participation. Students will study: democracy and participation, political parties, electoral systems, voting behaviour and the media.
- UK Government. Students will study: the constitution, parliament, Prime Minister and executive, relationships between the branches.

US Government and Politics and Comparative Politics

- For Comparative USA. Students will study: the US Constitution and federalism, US Congress, US presidency, US Supreme Court and civil rights, democracy and participation, comparative theories.

Political Ideas

- Core Political Ideas. Students will study: conservatism, liberalism and socialism.
- Non-core Political Ideas. Students will study: one idea from the following: anarchism, ecologism, feminism, multiculturalism, nationalism.

How lessons are taught

Politics lessons will be taught using a wide range of active learning approaches including personal enquiry, debate, group activities and fieldwork, as well as formal classroom based activities. We will also invite guest speakers from a local/regional and national level as well looking at the feasibility of visits to Parliament.

Progression

Studying A Level Politics will equip students with a number of skills including a questioning and critical thinking approach to research enquiry, which in turn will prepare them well for higher education courses or a wide range of career choices, such as Law, political journalism the business world and media. Politics A Level is recognised as a facilitating A Level by most universities including the Russell Group. Equally, employers and universities know that students of Politics have a great understanding of the world around them and how it works. Politics affects all aspects of society including the economy and business, making it applicable to virtually all types of jobs. The research, analytical and presentational skills you learn and how to recognise and assess different arguments are precisely the skills you need to operate in the world of work, as well as equipping students with the knowledge of how to navigate this increasingly complex world.

Exam Board AQA

Subject Leader Mr J Wrenshall-Jones

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Mathematics

Grade 6 in a Humanities subject and in English Language or Literature



Psychology

Advanced General Certificate of Education

Subject Overview

Psychology is the scientific study of the mind and human behaviour. Psychologists observe and conduct experiments to find out more about the way people act and interact. They try to understand what motivates or challenges us and use this understanding to help tackle personal and social problems.

6.1

The first year has two areas of study

Introductory topics in Psychology

Social Influence – the study of how people’s behaviour is affected by others.

Memory – the study of how our memory works and how this links to eye-witness testimony.

Attachment – the study of how a bond is formed between a child and their care-giver.

Psychology in Context

Approaches – the different ways that behaviour can be explained by psychologists.

Psychopathology – the study of anxiety disorders and how they are treated.

Research methods – the methods used by psychologists to study human behaviour.

6.2

The second year continues to build on the concepts covered in 6.1.

Issues and Debates – students look at a range of debates in psychology that help us understand behaviour. This includes nature-nurture, freewill and determinism. Students will also look at how research is affected by cultural and gender bias.

Biopsychology – the study of the brain and nervous system and how this links to behaviour.

Optional topics – the students will study a range of contemporary topics such as Gender, Schizophrenia and Forensic Psychology.

How lessons are taught

Psychology lessons are taught using a variety of styles integrating research methods into each topic. Students develop a range of skills to improve essay writing and learn how to present a balanced argument.

Progression

A career in psychology has the potential to make a huge impact on society and on many different areas of life, from education and health to the economy and crime. Some of the most notable achievements of British psychologists include CS Myers’ introduction of the term ‘shell-shock’ during World War One (now widely known as post-traumatic stress disorder) and research on interviewing which led to the use of video recordings of child witnesses in court. The broader skills learned – such as critical thinking, communication, teamwork and research skills – are all desirable for employers in a wide range of sectors.

Exam Board AQA

Subject Leader Mrs R Price

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including Grade 6 in English Language, Mathematics and Science or 6.6 in Combined Science



Religious Studies

Advanced General Certificate of Education

Subject Overview

The study of religion is increasingly important in a world where religious belief is a driving force behind social and political events. The Religious Studies A Level course meets with up-to-date ideas in the popular areas of Philosophy of Religion, Religious Ethics and Developments in Christian thought. Students develop their understanding and appreciation of religious beliefs and teachings, as well as the disciplines of ethics and the philosophy of religion.

6.1

Students will be provided with the exciting opportunity to gain a deeper understanding of Christianity, and to explore the philosophy of religion, and religious ethics. The course aims to inspire students to engage in relevant topics and acquire knowledge and a critical understanding of major issues relevant to learners in the twenty-first century. It provides a coherent and thought-provoking programme of study including, for example ethical theories, ethical issues in business and euthanasia, arguments for the existence and non-existence of God, and varying Christian teachings that exist within the contemporary world.

6.2

The A Level specification further explores the study of Christianity, ethical issues and debates, and the study of philosophical questions raised by religion and belief. Additional topics are studied such as the conscience sexual ethics, religious language, and the relationship between Christianity and society, including for example gender and theology.

How lessons are taught

Religious Studies lessons use a wide range of active learning approaches including discussion and group activities as well as formal classroom based activities and independent learning. Tasks will develop the skills of debate, investigation, analysis, interpretation, communication and evaluation.

Progression

Students acquire skills that will prepare them for higher education and the world of work. They have the opportunity to develop transferable skills that will be of benefit across all areas of study. Russell Group universities state that Religious Studies A Level is

suitable preparation for university generally. Religious Studies thus provides a suitable foundation for the higher education courses which use the same skills of analysis, evaluation and extended written argument. The ability to employ these skills effectively equips students to embark on a wide range of careers e.g. law, teaching, medicine, youth work, journalism, civil service or government.

Exam Board OCR Specification:
Religious Studies (H573).

Subject Leader Mrs M Antwi

Specific Entry Requirements:

6 GCSEs (Grades 9-5) including English and Mathematics. A grade 6 at GCSE in Religious Studies (or English Literature or English Language if the student did not take GCSE Religious Studies) is required. The subject is for people of any faith or none.



Spanish

Advanced General Certificate of Education

Subject Overview

Spanish is spoken all over the world and is ranked the second most widely spoken language. With over 500 million Spanish speakers worldwide, fluency in Spanish provides students with invaluable travel and work opportunities. The AGCE Level course builds on the knowledge, understanding and skills gained at GCSE and aims to inspire students to further their appreciation of the language, literature, film and culture of the Spanish-speaking world. Students will enhance their linguistic skills and their capacity for critical thinking; develop their ability to interact effectively with users of the language in speech and writing, and engage critically with texts, music and films.

6.1

The first year of the course has three main areas of study, which centre on the social and cultural aspects of Spain and the Spanish-speaking world.

- Tema 1: La evolución de la sociedad española: la estructura familiar, el mundo laboral y el turismo
- Tema 2: La cultura en el mundo de habla española: la música, los medios de comunicación, las fiestas y tradiciones.
- Study of the Film: El laberinto del fauno

Within these areas of study students will develop the complexity and range of their language, improve their ability to discuss issues, present ideas and develop comprehension skills. They will also become more familiar with the culture and traditions of Spanish speaking countries.

6.2

The second year of the course has three main areas of study, which centre on the Spanish Civil War and current issues linked to immigration. Assessments include comprehension tasks, an oral examination, and a critical essay on the set film and novel.

- Tema 3: La inmigración y la sociedad multicultural española
- Tema 4: La dictadura franquista y la transición a la democracia

Students will continue to develop the complexity and range of their language, improve their ability to

discuss issues, present ideas, develop comprehension skills, and become more familiar with the history of Spain. Students must also research an area of study of personal interest, which forms part of the speaking examination (Independent Research Project).

Assessments include comprehension tasks, an oral examination and two critical essays one on the set film and one on the novel.

How lessons are taught

Teachers aim to develop spontaneous use of the target language during lessons and students are encouraged to use the target language as part of group and paired activities. Teachers make use of a wide range of authentic source materials and language learning websites to support students. Learners are encouraged to immerse themselves in the language as much as possible.

Progression

Most universities, including the Russell Group universities, consider Spanish A Level as a facilitating subject. An AGCE in Spanish prepares students for a number of higher education courses and a wide range of career choices. Language skills are in demand and can be required in almost any career: business services with trade abroad, journalism, engineering, diplomatic services, international aid worker, logistics and distribution, marketing executive, law, teaching and lecturing.

Exam Board Edexcel

Subject Leader Ms S Evans

Specific Entry Requirements:

6 GCSEs (Grades 9 – 5) including Grade 5 in English and Mathematics and Grade 7 in Spanish higher tier

Sports Academy and BTEC Sport

BTEC National

Subject Overview

The BTEC Sport course is an active and enjoyable way to study Sport and gain an understanding of the sport industry. The course aims to provide students with opportunities to carry out practical work and develop skills and appropriate knowledge to enable progression to both higher education, apprenticeships and employment in the sports and active leisure industry.

Students can opt for Single (S), Double (D), or Triple (T) Sport:

Single – BTEC Level 3 National Extended Certificate
This is equivalent to 1 A Level and consists of four units of study, two of which are externally assessed

Double – BTEC Level 3 National Diploma
This is equivalent to 2 A Levels and consists of nine units of study, three of which are externally assessed

Triple – BTEC Level 3 National Extended Diploma (Football Academy)
This is equivalent to 3 A Levels and consists of 14 units of study, four of which are externally assessed

6.1

The first year of the course consists of a mixture of modular internal coursework and two external assessments. Students complete a mixture of mandatory and optional units:

- Anatomy and Physiology (S,D,T) - Exam
- Fitness Training and Programming for Health, Sport and Well-being (S,D,T) - Exam
- Professional Development in the Sports Industry (S,D,T)
- Sports Leadership (D,T)
- Practical Sports Performance (D,T)
- Work Experience in Active Leisure (A&B) (T)
- Rules and Regulations in Sport (D,T)
- Research Methods of Sport (T)

6.2

Students will complete a mixture of mandatory and optional units:

- Work Experience in Active Leisure (C&D) (T)
- Application of Fitness Testing (S,D,T)
- Coaching for Sports Performance (D,T)
- Sports Injury Management (T)
- Development and Provision of Sport and Physical Activity (T) - Exam
- Investigating Business in Sport and the Active (D,T) - Exam
- Skill Acquisition in Sport (D,T)

How lessons are taught

BTEC Sport lessons are taught through a mixture of theory based and practical sessions. Students are required to research topic areas and produce assessment tasks independently in the internally assessed units. Formal classroom based activities are the basis for delivery in the externally assessed units. There is a heavy reliance on practical performance across many units.

Progression

The course aims to provide students with skills and knowledge to pursue a successful career within a broad range of sports and leisure occupations. BTEC Sport will not only lead to employment within the sports industry but can open the door to university, studying sports related degrees.

New for 2023-24 USA Scholarship Tour to New York City. Opening up opportunities for Soccer Scholarships across the US.

Exam Board EDEXCEL

Subject Leader Mr M Lowe

Specific Entry Requirements:

Extended Certificate and Diploma (Single): 6 GCSEs (Grades 9-5) including Grade 5 in English and Mathematics. Grade 4 or above in GCSE PE (or equivalent vocational) is desirable. Grade 4 or above in Biology is desirable.

Diploma (Double): 6 GCSEs (Grades 9-5) including Grade 5 in English and Mathematics. Grade 4 or above in GCSE PE (Or equivalent vocational) is desirable. Grade 4 or above in Biology is desirable.

Extended Diploma (Triple): 6 GCSEs (Grades 9-4) including Grade 4 or above in English, Mathematics. Grade 4 or above in GCSE PE (Or equivalent vocational) is highly desirable. Grade 4 or above in Biology is desirable. For the Extended Diploma a high ability in our focus sport of football is required (District / County Level or above preferably).



Travel and Tourism

BTEC National Extended Certificate

Subject Overview

The travel and tourism industry in the UK is of major importance to the economy. This qualification gives a broad introduction to the travel and tourism industry with an emphasis on core knowledge for students who are interested in learning about the industry and fundamental skills that are transferable to other employment sectors and higher education. The course is assessed by both internally assessed assignments (42%) and written external examinations (58%)

6.1

The first year has two broad areas of study.

The world of travel and tourism: This introductory unit provides the foundation to study the other units in Travel and Tourism. The unit focuses the scope of the industry, its terminology and its key components and the importance to the UK. Students will study how the industry is changing and how organisations react to those changes.

Principles of Marketing in Travel and tourism: in this unit students will learn about the importance of focusing on meeting customer needs, the impact that marketing activities have on the success of different travel and tourism organisations, and will develop a marketing plan using research data

6.2

The second year also has the two broad areas of study.

Global Destinations: this unit focuses on the location and features of global destinations and the reasons why popularity may change. Evaluation of the suitability of travel plans/routes/itineraries will be carried out to meet customer's needs.

Visitor attractions: Visits will be made to two attractions to investigate the nature, role and appeal of them, how they meet the diverse expectations of visitors, and how they respond to competition and measure their success and appeal.

How lessons are taught

The BTEC level 3 National Extended Certificate in Travel and Tourism is a work-related course. Students learn by completing projects and assignments. Lessons are taught using a wide range of active learning approaches including personal enquiry, group activities and visits to key travel and tourism businesses and attractions, as well as formal classroom based activities. Guest speakers who are involved in the industry are also invited into School

Progression

The BTEC course provides learners with transferable skills which are highly regarded by employers and support progression to higher education. The requirements of the qualification will mean that learners develop employability skills such as communicating and presenting ideas. Learners will practice problem-solving skills and develop inter-personal skills through collaborative learning. Skills that universities value include independent learning and methodical research, as well as effective report writing. The qualification carries UCAS points and is recognised by higher education providers as contributing to meeting admission requirements for many courses. It combines well with a range of other subjects whether academic or vocational such as business or modern foreign languages.

Exam Board Pearson

Subject Leader Mrs K Midha

Specific Entry Requirements:

6 GCSEs (Grades 9 – 4) including Grade 4 in English and Mathematics



The Application Process

Apply

Please complete an application form, which is available on our website www.ttsonline.net, and return it to the Admissions Office along with a photocopy of the latest report from your current school and a record of school attendance during the last academic year.

If you are interested in applying for the Sports, Business or Performing Arts Academies, you will need to complete a separate application form. Please note that you are able to apply for both the Sixth Form and one of our Academies but you must complete separate application forms.

Reference

On receipt of your application we will contact your current school for a confidential reference.

Offer

Offers will be made on an ongoing basis when we have received all of the documentation. All offers will be conditional on you achieving the minimum entry requirements for your chosen courses.

If you are unsuccessful in receiving an offer you will remain on our reserve list and we may be able to make a late offer to you.

Course Confirmation

We will invite you to confirm your final chosen courses and offer you the opportunity to discuss this with senior staff.

Induction Day

Successful applicants will be invited to attend an Induction Day to enable them to meet their peer group and sample a day in the School, prior to starting their course in September.

GCSE Results Service

You are required to bring your GCSE results during the afternoon of Results Day and register for your courses.

Please check our website for the latest information regarding Sixth Form Admissions



We **look forward**
to seeing **you.**