



The Totteridge Academy

The best in everyone™

Part of United Learning

Sixth Form

A level Options

for 2024-2025



Winner of TES
Secondary School
of the Year 2023



WELCOME

from the Principal



Dear Students, Parents and Carers,

Welcome to our Sixth Form. We are hugely proud to have recently won Secondary School of the Year at the TES 2023 awards ceremony. Our hugely successful Sixth Form is an integral part of this success. It offers students an exceptional two-year education and is part of what makes this school such a wonderful place where our young people thrive.

Our aim is that all pupils leave us at the end of KS5 able to make informed, ambitious choices about their future. We offer a wide range of A-level courses led by a brilliant team of teachers, as well as programmes and opportunities to enable students to progress both within the classroom and beyond.

This summer, our Year 13s graduated with an excellent set of A Level results and university offers: **32% of students achieved A* or A grades, 54% of entries received A*-B grades and 87% of entries received A*-C grades.** These have allowed our students to move on with fantastic results setting them up for their next steps in life.

It is not just that, however, that makes me proud to be Principal here, it is the culture at TTA. This school community is one that promotes kindness and collaboration, celebrates success, consistently maintains high expectations, and believes in continuous improvement. As I always say, it is vital to work hard, aim high, and be kind. This is what TTA is all about.

This booklet will give you information on our Sixth Form, the A-levels we offer, including course content, entry criteria and career pathways.

We look forward to welcoming you to TTA and please do get in touch if you have any questions.

Best wishes,

A handwritten signature in black ink, appearing to read 'Chris Fairbairn'.

Chris Fairbairn – Principal

The Totteridge Academy – **Winner**

Best Secondary School in the UK 2023 TES Awards



INTRODUCTION

from the Director of Sixth Form

The two years in Sixth Form are the most exciting, yet also challenging period in any student's education. They set the foundation for a successful career, but perhaps more importantly help young people develop the personal skills, knowledge and confidence to thrive in life. The team of Sixth Form leaders, teachers, and tutors at TTA are committed to ensuring we do all we can to help our students blossom. We take huge pride in ensuring our students obtain a truly outstanding education, supporting them in the challenging transition from GCSE to A levels, inspiring them to raise their aspirations, and guiding them to achieve their future dreams.

In the academic realm, we offer a world-class A-level education. Our students achieve outstanding results, receive expert advice on post-18 pathways, and go onto some of the finest universities and apprenticeships in the country. We believe passionately in supporting students' wider personal development. Alongside their studies, TTA Sixth Formers enjoy weekly sport and wellbeing activities, receive a comprehensive tutor time programme, and engage in a range of inspiring extra-curricular trips, as well as visits from inspiring speakers and workshops. We hope you are inspired to apply and join our thriving community of brilliant young people.

Jeremy Whipp

Director of Sixth Form





WELCOME FROM OUR HEADGIRL AND HEADBOY

"Welcome to our Sixth Form, a place where teachers really know and care about us all. This school has taught us so much about hard work and initiative. We feel the care from the teachers and the high expectations have made us believe we can achieve anything. The quality of teaching is truly amazing, teachers go 'above and beyond' every day. It is no wonder our school was voted the best Secondary School in the UK.

We've had so much fun and had so many experiences outside the classroom that have helped us grow as well. Being at TTA has made us better people in every way. We are truly grateful for TTA and all that this school has done for us! We hope you decide to study here for your A levels. If you do it will be the best decision you ever make."

Funda Mincheva, Head Girl
Cameron Greenley, Head Boy

A LEVEL OPTIONS BOOKLET



A level Subject Options for 2024/25

- ▶ Art, Craft and Design
- ▶ Biology
- ▶ Chemistry
- ▶ Computer Science
- ▶ Drama and Theatre
- ▶ Economics
- ▶ English Literature
- ▶ French
- ▶ Further Maths
- ▶ Geography
- ▶ History
- ▶ Maths
- ▶ Physical Education
- ▶ Physics
- ▶ Politics
- ▶ Product Design
- ▶ Psychology
- ▶ Religious Studies
- ▶ Sociology
- ▶ Spanish

ART, CRAFT & DESIGN



Student Quote: “I love Art, Craft and Design because I have learnt so many new skills that I am able to apply and develop to such a high level. The freedom to explore different methods and materials has really enhanced my portfolio. I am grateful for the expertise and resources at The Totteridge Academy. I have been supported every step of the way,”

Amber, Year 13 student

You will study:

Component 1 – you will be required to conduct a personal investigation into an idea, issue, concept or theme. This work should be a coherent, in-depth study demonstrating your ability to construct and develop a sustained line of reasoning from an initial starting point to a final realisation.

Component 2: External set assignment. From February until June of Year 13, one chosen topic from the given exam paper to create a full and meaningful portfolio of work concluding with a 15hour exam.

Choose Art, Craft and Design ‘A’ Level if you like:

- Expressing yourself creatively through art
- Studying art, craft and design at an advanced level
- Exploring art galleries in your own time

Subjects that go well with Art, Craft and Design include:

- Sociology & Psychology
- Product Design

An A-level in Art, Craft and Design can lead to:

- From advertising to TV production, a wide array of industries select candidates with an advanced Art qualification due to their creativity, mindset, and problem-solving skills. Students with skills in Art are sought after for their ability to adapt as well as produce aesthetically pleasing content.
- The creative arts are required in the following roles:
 - Fine artist, Illustrator, Set design, Graphic designer, Advertising, Photographer, Floristry, Interior designer, Hairdresser, Furniture designer, Ceramicist, Art teacher/lecturer, Curator, Make-up artist

Example exam question: A student reads an article about the plastic waste polluting the world’s oceans and the serious impact it is having on small fishing communities in the Pacific.

Research a wide variety of marine life and the impact plastic pollution has on the world above and below the water’s surface.

Create an artwork that reflects concerns and distress caused by plastic on the world’s oceans and marine life.

Homework:

- Sketchbook work 3 hours a week
- Portfolio work 3 hours a week
- All homework is independent study from gallery trips also taken independently at weekends or holidays
- Written annotations and a 1,000 – 3,000 essay at the end of each component.

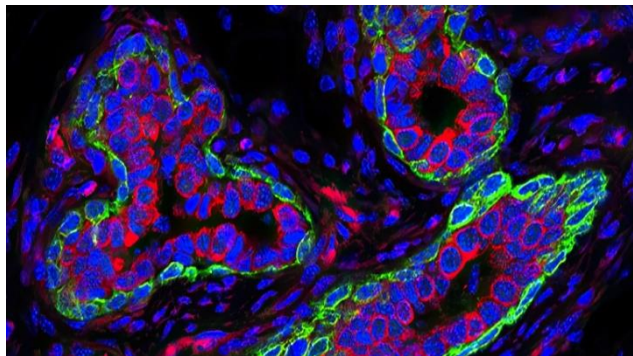
Entry Criteria –

Grade 6 in GCSE Art, Craft and Design or Fine Art AND English Language Grade 6 or above

Biology - AQA

Student Quote: "I love Biology because it enables me to explore further the complexity of living things, from the atomic level to ecosystems, and to investigate the underlying ideas that govern life itself. It provides a deep understanding of the natural events of life and the interconnected nature of all living things."

Utsav, Year 12 student



You will study:

- Biological molecules, and their production in (and interaction with) cells
- Exchange of substances between organisms and their environment
- Genetic information, variation and relationships between organisms
- Energy transfers in and between organisms
- How organisms respond to changes in internal and external environments
- Mechanisms involved in the control of gene expression
- Modern gene technology methods

Choose Biology if you like:

- Learning even more about how living organisms work and interact with each other
- Numerous opportunities to use practical experiences to link theory to reality, and develop essential practical skills
- Developing a deep understanding of fundamental biological processes, far beyond GCSE

Other subjects that go well with Biology include:

- Psychology
- Chemistry
- Maths
- Geography

An A-level in Biology can lead to:

The skills earned by students who study Biology are highly valued by employers. Students with a Biology degree go onto a wide range of careers including: medicine, dentistry, research science, pharmacology, ecology, forensic science, nature conservation, teaching, plus many aspects of healthcare.

Example exam questions:

1. Contrast how an optical microscope and a transmission electron microscope work and contrast the limitations of their use when studying cells.
(6 marks)
2. During the light-independent reaction of photosynthesis, carbon dioxide is converted into organic substances. Describe how.
(6 marks)
3. Write an essay on the importance of diffusion in organisms.
(25 marks)

Homework:

Homework will be based on extensive amounts of practice, including worksheets, knowledge quizzes and past paper questions.

Entry Criteria –

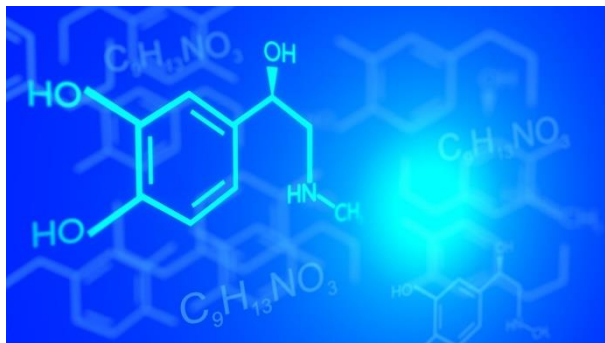
**Grade 7 in Biology GCSE or
7-7 in Combined Science GCSE.
Maths Grade 6 is recommended**



Chemistry - AQA

Student Quote: "I love chemistry because it gives us an insight into how everything around us works at a microscopic level, where molecules cooperate and interact in our daily life. Inorganic and organic chemistry come together to give us the basic theory and knowledge to explore how chemistry is applied to improve the lives of humans the world over."

Sophia F. Year 12 student



You will study:

1. Physical chemistry (atomic structure energetics, kinetics)
2. Inorganic chemistry (groups in the periodic table)
3. Organic chemistry (alkanes, alkenes, alcohols, halogenoalkanes etc.)
4. Quantitative chemistry (moles and amount of substance, ideal gas law, etc)

Choose Chemistry if you like:

Choose Chemistry if you like pushing your understanding of the basic processes that occur all around us everyday.

Chemistry is an incredibly challenging course, but it is also a hugely rewarding one, covering a vast number of topics in its range of content. Substance will vary from the abstractions of Le Chatelier's principles to the concrete realities involved in industrial drug manufacture and atmospheric processes involving ozone and CFCs.

Other subjects that go well with Chemistry include:

- Biology
- Physics
- Maths
- Further Maths

An A-level in Chemistry can lead to:

In addition to being an important prerequisite for medicine, chemistry is a highly sought after A-Level and can lead to a great many options at university and further study. Within chemistry, students often go on to study straight chemistry, chemical engineering or biochemistry. From there, careers in research or industry are an easy step.

Example exam questions:

Some toothpastes contain sodium fluoride. The concentration of sodium fluoride can be expressed in parts per million (ppm). 1 ppm represents a concentration of 1 mg in every 1 kg of toothpaste. A 1.00 g sample of toothpaste was found to contain 2.88×10^{-5} mol of sodium fluoride.

Calculate the concentration of sodium fluoride, in ppm, for the sample of toothpaste.

Homework:

Homework will be based on extensive amounts of practice, including worksheets, knowledge quizzes and past paper questions.

**Entry Criteria –
Grade 7 in Chemistry GCSE
or 7-7 in Combined Science**

Computer Science

Student Quote: "I love Computer Science because it allows you to use a wide range of techniques and tools to solve problems creatively. Learning to program elegant solutions and making them efficient is a unique challenge and provides great skills for a career in STEM."

Hashir, Year 12 student



You will study:

1. Theory – Software and Hardware, Data Representation, Compression, Encryption, Boolean Logic, Classifications of Programming Languages, Compilers.
2. Programming – Procedural, Object-Oriented & Even- Driven Programming.
3. Software Engineering principles and introduction to your NEA project.

Choose Computer Science if you like:

- Learning about the technologies that underpin all modern computers and digital systems.
- Being challenged to constantly use computational thinking to solve problems.
- Apply theory and creativity to create robust programs.
- Analysing technology and how it can impact society.

Other subjects that go well with Computer Science include:

- Maths
- Further Maths
- Physics
- Product Design
- Economics
- Biology
- Chemistry

An A-level in Computer Science can lead to:

Any degree or further study associated with science, technology, engineering, and mathematics (STEM). Computational thinking can apply to all STEM opportunities, and many are increasingly including programming as well. Graduates with computer science skills are highly sought after in many industries, such as finance, aerospace, sport, and the arts.

Example exam question:

1. A company providing a social media service uses algorithms to select news stories for users written by other organisations and individuals.

Discuss:

- how algorithms might determine which current affairs news stories to display to an individual member
- the moral, ethical and legal considerations that the developers of the system and its operators should consider in relation to how the algorithms work and which news stories are displayed. (12 marks)

Homework:

- Regular programming practice, online exam question practice, self-study and research tasks.

**Entry Criteria –
Grade 6 in Computer Science or
Grade 7 Maths GCSE.**



Drama and Theatre - AQA

Student Quote: *“I love studying Drama because it enables me to not only explore topics within the wider world, but also to develop myself and my creativity in an engaging and practical way. It has provided me opportunities to work with industry professionals, explore various practitioners and styles and see lots of live theatre. The transferable skills I have gained are invaluable.”* **Yousef, Year 13 Student**



You will study:

1. Component 1: In this unit you will explore two set texts and how theatre makers use their disciplines to communicate meaning on stage. You will also have the opportunity to see a piece of live theatre.
2. Component 2: devise your own performance using a stimulus. You will have the autonomy to choose a theatre practitioner to be inspired by for your final performance.
3. Component 3: We will study 3 set texts that you will choose as a class, and you will explore and perform them to a visiting examiner. This performance will also be inspired by a practitioner.

Choose Drama and Theatre if you like:

- Discussing issues and ideas concerning the wider world.
- Using your creative instinct to communicate your views.
- Acting, writing or the visual and technical side of theatre.
- Going to the theatre to see plays.
- Developing your ability to analyse performance, develop well thought-out, compelling evaluations linked to the director's intention.
- Stepping out of your comfort zone to perform characters in different styles that are different from yourself.

Other subjects that go well with Drama and Theatre include:

- English literature
- Art
- History
- Politics
- Psychology
- Music

An A-level in Drama and Theatre can lead to:

Drama and Theatre A-level can lead to further study in drama, theatre studies and performing arts in higher education at degree level or drama school. It can be studied in conjunction with a humanities subject such as English or History at degree level and may lead on to a career in the performing arts industries, media, law, journalism, dramatherapy and beyond.

Example exam questions:

1. As a director, or as a costume designer, discuss your ideas for presenting Ismene and Eurydice in their first appearances, in order to achieve your intended dramatic effects. You must make specific reference to the social, cultural and/or historical context of Antigone in your answer. [25 marks]
2. Explain and justify how you would direct the actors from line 1 to line 34 in order to achieve your preferred effects for the audience. [10 marks]

Homework:

- Rehearsals where required.
- Extended reading e.g. contextual information on a set text.
- Research based on a stimulus or practitioner's ideas.

Entry Criteria –

GCSE Grade 6 in Drama OR GCSE Grade 6 in English (with an audition).

Economics – OCR

Student Quote: “I love Economics because it trains me to think more logically about decision-making. I now better understand the complexity of the modern world and the trade-offs that exist in it. I might be learning about why prices are rising so rapidly in the UK, how Brexit has affected workers and businesses in the UK, or why nurses are paid so much more than footballers. I find that really interesting.” **Ellie, Year 13 student**



You will study:

1. Microeconomics: how markets work and fail, why governments provide healthcare for free, tax cigarettes, regulate electricity prices, and set a minimum wage. We study why governments sometimes make things worse, and how this can be avoided

2. Macroeconomics: how we measure a country’s economic performance, the causes and consequences of economic growth, unemployment, and inflation, what drives international trade and how that affects different countries. We study how governments use macroeconomic policy to manage the economy, how the international financial system works and is regulated.

Choose Economics if you like:

- Asking questions to better understand how the modern world works.
- Developing your ability to analyse information, develop well thought-out, compelling arguments linked to current issues
- Investigating contemporary problems from an Economic perspective and discuss and debate solutions in class and developing your written and analytical skills

Other subjects that go well with Economics include:

- Maths (essential if you want to do Economics at university)
- History
- Geography
- Sociology
- Psychology
- Further Maths

An A-level in Economics can lead to:

Economics students are highly valued by employers. Students with an Economics degree go onto a wide range of careers including investment banking, financial management, business consultancy, economic analysis, economic research, journalism, working for the government, the list goes on. Economics graduates average earnings are the third highest on average, just below Dentistry and Medicine.

Example exam questions:

1. In July 2022 Apple’s share of the UK market for smartphones was 35%. Evaluate, with the use of diagrams, whether such a high market share for one company benefits consumers (25).
2. Evaluate the view that a degree of income and wealth inequality benefits an economy (25)

Homework:

- Practice exam questions on topics studied in class
- Weekly reading/video watching and analysis of current economic issues

Entry Criteria –

Grade 6 in both GCSE English (Language or Literature) and Maths

French - AQA

"If you talk to a man in a language he understands, that goes to his head. If you talk to him in his language, that goes to his heart." - **Nelson Mandela**



You will study:

Paper 1 – Listening, Reading, and Writing

- Aspects of French-Speaking Society, Artistic Culture in the French-Speaking World, Multiculturalism in French-Speaking Society, Aspects of political life in French-Speaking Society

Paper 2 – Writing

- A Film: *La Haine* (TBC) – Mathieu Kassovitz & Book: TBC

Paper 3 – Speaking

- Individual Research Project (on a topic of your choice)
- Photo card and discussion on one of the topics from Paper 1

Choose French if you like:

- The idea of speaking another language! The opportunities that this can provide both in terms of job prospects and life opportunities are fantastic.
- Debating and discussing the key issues of the day: eg *Is the traditional family model outdated? What role should religion have in society? What should be done to ensure LGBTQ rights?*
- Film and literature. You will study a film and a book
- Francophone music and cinema

Other subjects that go well with Spanish include:

Anything! A language complements most subjects!!!

An A-level in French can lead to:

All sorts of different careers! Languages are a great skill that are hugely valued by employers. There are a number of careers that are directly linked to language learning, eg becoming a translator, teacher, working in tourism. However, languages can also set you apart from other candidates when applying for a range of other jobs. Many companies now have offices and clients in France so speaking French can make you a very appealing candidate and also potentially provide you with some really exciting opportunities.

Example exam questions:

1. *Dans quelle mesure peut-on dire que L'étranger est un récit philosophique? (40 marks)*
2. « *Les trois jeunes protagonistes de La Haine ne sont que des stéréotypes généraux et le scénario est peu probable.* » *Dans quelle mesure êtes-vous d'accord avec ce jugement? (40 marks)*

Homework:

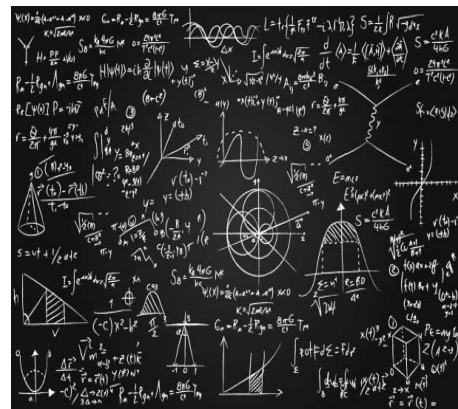
- Vocabulary learning on Memrise
- Reading and listening tasks
- Research tasks
- Creating Mind Maps
- Essay planning and writing

Entry Criteria – Grade 7 in French

Further Maths – Edexcel

Student Quote: "My love for maths stems from being able to solve problems in the way that strives to be the most elegant, using as much creativity as possible. At TTA, the Further Mathematics class only has a few number of students, which allows us to share methods without worrying about other people's opinions – this challenges us and makes us better mathematicians whilst bringing us closer together and there is a real 'family' feel. We're not afraid of making mistakes and realise that this is essential for our learning. I also feel trusted and respected to be part of a class that has chosen democratically the last of our option modules, which I know is not something most other 6th forms do."

Hung-Wen, Year 12



In Y12 you will study: Further Pure Mathematics, and further Mechanics/Statistics or Decision Mathematics

- Complex numbers
- Proof
- Matrices
- Further Calculus
- Hyperbolic functions

- Differential Equations
- Binomial and Poisson Distributions
- Hypothesis Testing
- Elastic collisions in two dimensions
- Circular motion
- Algorithms, linear programming & more

Choose Further Mathematics if you like:

An A level in Further Mathematics will push your mathematics ability further than ever before. There are many mathematics disciplines and this A-level will give you the opportunity to study further pure mathematics, mechanics and statistics, whilst also allowing you to be exposed to decision mathematics and logic, which is essential to understanding how decisions are made and how computers think.

Example exam question:

7.

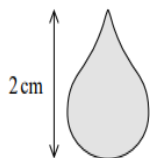


Figure 2

Figure 2 shows the image of a gold pendant which has height 2 cm. The pendant is modelled by a solid of revolution of a curve C about the y -axis. The curve C has parametric equations

$$x = \cos \theta + \frac{1}{2} \sin 2\theta, \quad y = -(1 + \sin \theta) \quad 0 \leq \theta \leq 2\pi$$

(a) Show that a Cartesian equation of the curve C is

$$x^2 = -(y^4 + 2y^3)$$

(b) Hence, using the model, find, in cm^3 , the volume of the pendant.

An A-level in Further Mathematics can lead to:

An A-level in Further Mathematics is designed for pupils wishing to focus on further study at the leading universities for the following disciplines: Mathematics, Physics, Engineering, Computer Science and Economics. This can lead to countless careers such as medical engineering, banking, computer programming and actuary.

Homework will be:

- Practice questions on topics studied in class
- Weekly testing of material
- Exam question practice

Entry Criteria –

Grade 8 in GCSE Mathematics

Geography - AQA

Student Quote: "I love Geography because it provides me with an understanding of the complexity of our world and the different factors that affect it from both a human and physical perspective. Personally, I love learning about the processes and systems that underpin the functioning of our planet."

Timur, Year 12 student



Throughout the entirety of the course, you will study:

- **Physical Geography:** Water & Carbon (Year 12), Coastal Systems and Landscapes (Year 12) and Hazards (Year 13)
- **Human Geography:** Changing Places (Year 12), Global Systems & Governance (Year 12 and Year 13), and Contemporary Urban Environments (Year 13)
- **Fieldwork Investigation (Non-Exam Assessment)** – You will complete a fieldwork investigation either examining an aspect of coastal systems and landscapes or urban regeneration; this is a 3–4000-word independent essay (Year 12 and 13).

Choose Geography if you like:

- Choose Geography if you're interested in the world around you. Geography is the bridge between the natural and social sciences, providing its own specialist knowledge and skills and the valuable interdisciplinary approaches needed to address pressing global issues from climate change and migration, to environmental change and social cohesion.

Other subjects that go well with Geography include:

- Maths (there are lots of statistical skills in geography, you will need to be numerically adept!)
- Biology
- History
- Economics
- Chemistry
- Politics, Sociology, Psychology

An A-level in Geography can lead to:

A Level Geography is a versatile qualification that is well respected by employers and universities alike. Employers highly value Geography qualifications because Geography students can think logically and analytically. They are accurate and objective in collecting, recording, processing, presenting, analysing and interpreting data. Students with a Geography degree go onto a wide range of careers including but not limited to accountancy, consultancy, law, journalism, teaching, and the civil service. The 2019/20 Prospects report on 'What do graduates do?' showed geographers had the joint highest full-time employment rate for social sciences at 54.9% compared to an average rate of 50.1%.

Example exam questions:

1. Assess the potential causes and impacts of changes to the water balance within a box tropical rainforest that you have studied. [20 marks]
1. Using Figure 2 and your own knowledge, assess the challenges associated with reducing greenhouse gas emissions. [6 marks]

Homework:

- Consolidation: Reading to recap taught content
- Application: Exam style questions.
- Wider Reading: Reading to push student knowledge beyond the curriculum.

**Entry Criteria –
GCSE Grade 6 in Geography.**



History

Student Quote: “We love History because we study, for example, the USSR and its influence on the modern period. History has developed our understanding of the world we live in today.”

Louie and Oliver, Year 12 students



You will study:

Paper 1: Russia 1917-91, from Lenin to Yeltsin

From revolution to the collapse of the Soviet Union, you will study Russia's twentieth century and investigate the political, economic and social features of communist rule.

Paper 2: The German Democratic Republic, 1949-90

From its creation to its demise, you will study what life was like 'behind the Berlin Wall', on the frontline of the Cold War, in a country where contrasts between East and West were at their starkest.

Paper 3, Option 36.1: Protest, agitation and parliamentary reform in Britain, c1780–1928

From the emergence of radical reformers to the suffrage movement, you will study how Britain became a modern democracy through the stories of those who campaigned for it.

Choose History if you like:

An A Level in History will equip you to challenge generalised narratives. It will provide you with endless opportunities to handle contemporary evidence critically, using this to corroborate or challenge historians' interpretations of the past and to ask questions about the way that different events have been interpreted. Choose History if you enjoy reading widely, thinking critically and creating your own original arguments.

Other subjects that go well with History include:

- Politics
- English Literature
- Economics

An A-level in History can lead to:

An A Level in History can lead to a range of different careers including law, politics, journalism, teaching, consultancy, accountancy and the media. However, the focus on independent research and extended writing helps History to be considered as a highly academic A Level which equips you with skills that are both useful for further study of any discipline at undergraduate level and which are desired by many employers.

Example exam questions:

How far did the role of the secret police change in the Soviet Union through the period 1953-85? [20]

To what extent was Honecker successful in his attempts to improve the international prestige of the GDR? [20]

Homework:

- Weekly extended reading (often of historians' work) and questions
- Weekly essay

Entry Criteria –

Grade 6 in GCSE History

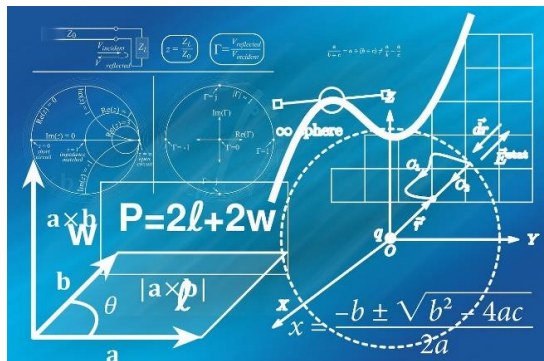
Mathematics

Student Quote: "I love Maths because for every Mathematical fact we are told, we learn how to prove that it must necessarily be the case; from identities to formulae – we can always say **why** these are true. It's very satisfying."

Rubin, Year 12 student

Student Quote: "I love Maths at TTA because we, as students, have a team mentality – no one gets left behind!"

Jaiden, Year 12 student



You will study: Pure Mathematics, Statistics and Mechanics

1. **Pure Maths:** Proof, Algebra and functions, Coordinate geometry, Trigonometry, Exponentials and logarithms, Differentiation, and Integration.
2. **Statistics:** Statistical sampling, Data presentation, Measures of location and spread, Correlation, Probability, Binomial distribution, and Hypothesis testing
3. **Mechanics:** Kinematics, and Forces & Motion

Choose Mathematics if you like:

- Tackling complex problems with logic, creativity and persistence.
- Analysing and interpreting real life data in order to make better informed decisions.
- Simplifying real life situations into clean Mathematical models in order to predict what will happen.
- Stretching your intellect and developing reasoning skills.

Other subjects that go well with Mathematics include:

- Economics
- Physics
- Chemistry
- Biology
- Further Mathematics

An A-level in Mathematics can lead to:

Mathematics is one of the most frequently requested A level subjects by universities and opens doors to a huge range of professions. Careers in finance, medicine, engineering, business and economics are all open to people with a background in Mathematics, not to mention it being at the core of all new technological developments.

Example exam questions:

a) Prove that

$$1 - \cos 2\theta = \tan \theta \sin 2\theta, \quad \theta \neq \frac{(2n+1)\pi}{2}, \quad n \in \mathbb{Z} \quad (3)$$

b) Hence solve for $-\frac{\pi}{2} < x < \frac{\pi}{2}$ the equation

$$(\sec^2 x - 5)(1 - \cos 2x) = 3 \tan^2 x \sin 2x$$

Give any non-exact answer to 3 decimal places where appropriate.

(6)

Homework:

- Practice questions on topics studied in class
- Weekly testing of material
- Exam question practice

Entry Criteria –

Grade 7 in GCSE Mathematics



Music - EDUQAS



Student Quote: "I love music because I enjoy how it allows me to express my thoughts and emotions. I've learned how to develop ideas and compose my own songs, putting theory into practice. Whether it's learning about other musicians and their style or practising my instrument, I constantly feel like I'm being creative and challenged." **Year 12 student**

You will study: Three components: Performing, Composing and Appraising (Listening.) The following chart shows you a summary of what you will complete.

Compulsory area of study

1. **The Western Classical Tradition (The Development of the Symphony 1750-1900)**
2. **Set Works:** Choose one for detailed study, the other for general study: Haydn, Symphony 104 in D major, London. or Mendelssohn, Symphony 4 in A major, Italian.

Optional area of study (choose 1)

Rock and Pop 1960-2000 → Musical Theatre → Jazz 1920 - 1950

Optional area of study (choose 1)

Into the Twentieth century 1895 -1935 → Into the Twenty-first century 1980 – present

Choose Music if you like...

- Developing your creativity and critical listening skills
- Think logically and solve problems through analysis
- Gain experience in software technology and recording skills
- Develop self-confidence through individual and group performance
- Communicate and work as part of a team

Other subjects that go well with Music include:

- English
- Drama
- Art
- History or Languages

An A-level in Music can lead to: The possibilities are endless. Music will enable you to demonstrate many skills which employers, colleges and universities will be looking for. It can also give you opportunities to travel, meet people and get the most out of life. You could go on to take a higher qualification in Music such as a degree in Music, Music Performance, Performing Arts or Music Technology or use it as strong subject for a high grade to get into a different course at University. Studying Music for A level is particularly important in the following career paths:

Performance or Composing in the Music Industry, production and management in the Music Industry, film, video, television and radio, software and computer games, Music and the visual and performing arts (including dance), Education, Community Arts, Music Therapist

Example exam questions:

1. Discuss how elements of dance music influenced the symphonic composers of the Western Classical Tradition. You must refer to both set works and other relevant symphonies, from both the Classical and Romantic eras. [15]

Homework:

- Practice your instrument
- Weekly listening and appraising tasks

Entry Criteria – Grade 5 standard on your instrument

Physical Education AQA

Student Quote: *“I love PE because it offers such a wide variety of topics to learn about. My specialism was anatomy and physiology, but there’s also links to Psychology, History and Sociology. Having developed a strong foundation knowledge in GCSE PE, I’m was able to build on this and stretch my understanding to a higher level on the A-level PE course.”*

Ellen, A-Level PE student



You will study:

- **Section A:** Applied anatomy and physiology / Exercise Physiology
- **Section B:** Skill acquisition / Biomechanical movement
- **Section C:** Sport and society / The role of technology in physical activity and sport

Choose PE if you like:

An A-level in Physical Education will enable you to engage with the most in-depth elements of sport. The practical aspect is suited to students who are driven towards an elite level of performance, while the theory challenges students who enjoy scientific level analysis, interpretation of data and producing detailed evaluations.

Other subjects that go well with PE include:

- Biology
- Chemistry
- Psychology
- Sociology

An A-level in PE can lead to:

An A-level in Physical Education offers students the opportunity to make strides in a wide variety of employment areas as well as higher education. While this list is by no means definitive, career paths could include roles in sports science, health and fitness, physiotherapy and rehabilitation, nutrition or coaching.

Example exam questions:

1. *Analyse how cryotherapy aids recovery from exercise by causing the body to redistribute blood flow. (8 marks)*
2. *Analyse how campaigns such as ‘This Girl Can’ might overcome barriers to female participation in sport and change attitudes. (15 marks)*

Homework:

- Prior reading of key material and planning for presentations
- Knowledge recall tasks
- Exam questions and self-review using mark schemes

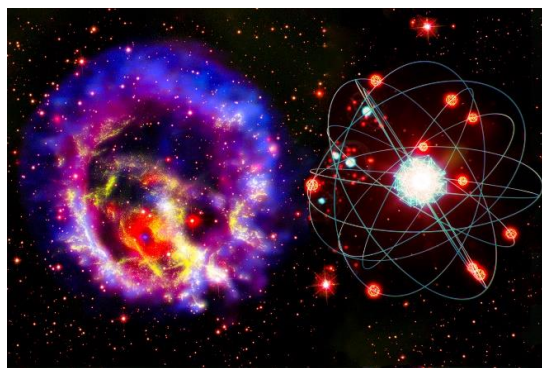
Entry Criteria –

Grade 6 in GCSE PE, alongside teacher review of practical performance

Physics – AQA

Student Quote: “I love Physics because it explains a wide range of phenomena from the quantum weirdness of tiny particles to the mechanics of the largest stars. It has opened my mind to the complexity and beauty in our world”

Luiz ,Year 12 student



You will study:

1. What the universe is made up of through studying waves and particles in topics ranging from the minute world of particles, radiation, quantum mechanics and nuclear physics to the large-scale properties of materials and the interactions between planets and stars.
2. How everything interacts to give us the laws of nature as we know them through studying the mechanics of forces, moments, motion, momentum and thermal physics and then extending your knowledge to electric, gravitational and magnetic fields.
3. Key turning points in the history of physics culminating in Einstein’s special relativity.

Choose physics if you like:

- Studying the fundamental mathematical laws that govern our universe and applying them to new situations.
- Thinking logically and solving problems related to everything from the smallest particle to the largest galaxy.
- Bringing together theoretical and mathematical concepts with experimental evidence to derive laws and discover the origins of our knowledge.
- Learning how the universe works so that you can push our knowledge and technology further in the future.

Other subjects that go well with Physics include:

- Maths (which you must study)
- Further maths
- Computing
- Design and Technology
- Chemistry

An A-level in physics can lead to:

Physics is a highly-regarded course by both employers and universities. Most students go on to study engineering (including mechanical, aerospace, civil and electrical engineering), physics (including astrophysics) or maths. Many pursue computing, finance or other science degrees. Some delve deeper into human understanding by studying philosophy alongside their main course. The maths and problem-solving skills which you acquire through studying physics make you highly employable.

Example exam questions:

1. Derive an expression to show that for satellites in a circular orbit, T^2 is proportional to r^3 where T is the period of the orbit and r is the radius of the orbit. (2)
2. Pluto is a dwarf planet. The orbital radius of Pluto around the Sun is 5.91×10^9 km compared to a mean orbital radius of 1.50×10^8 km for the Earth. Calculate in years the orbital period of Pluto. (2)

Homework:

- Weekly short questions on key concepts and maths skills covering every topic in detail.
- Weekly practise exam questions.
- Required practical write-ups.

Entry Criteria –

Grade 7 in GCSE Physics or 7-7 in GCSE Combined Science.
You must also do Maths A-level.

Politics

Student Quote: "We love Politics because we learn about how our political system functions, so we understand what goes on in society today and we are always up-to-date with current issues."

Korey and Faiza, Year 12 students



You will study:

- 1. UK Politics:** From questions of a participation crisis to the relevancy of minor parties, you will learn about different aspects of current British Politics and become immersed in up-to-date debates.
- 2. UK Government:** From the origins of the British constitution to the role of Parliament today, you will learn how the British political system operates and judge how far calls for change are warranted
- 3. Political Ideologies:** From the emergence of liberalism to the development of socialism, you will learn about the ideologies that underpin modern political thought today
- 4. USA Politics and Government:** From the politicisation of the Supreme Court to presidential campaigns, you will learn about different aspects of current USA Politics and compare them to the UK

Choose Politics if you like:

An A Level in Politics demands that you ask questions about the world around you: *Why did the UK vote to leave the EU? What are the limits on the powers of the US President? How has feminism changed, and influenced politics, over time?* By studying Politics, you will be equipped to tackle these questions directly. It is a subject which is driven by debate and which will develop you into an analytical thinker. Choose A Level Politics if you want to study current affairs as an expert and learn to express your ideas fluently in writing.

Other subjects that go well with Politics include:

- History
- English Literature
- Economics

An A-level in Politics can lead to:

A Level Politics equips you with the analytical skills sought by many academic disciplines and professions including journalism, local and national politics, law, business, consultancy, NGOs and the charity sector.

Example exam questions:

Evaluate the view that the image of the party leader is the most significant factor in determining the result of a general election. [30]

To what extent do feminists agree over the role of the state? [24]

Homework:

- Weekly extended reading on the latest political developments or to consolidate our learning in class
- Weekly essay

Entry Criteria –

Grade 6 in GCSE English Literature or History



Product Design

Student Quote: "I love Product Design because I get to learn how to use my creativity to design beautiful products that solve real world problems. We learn how inventors developed brilliant innovations using cutting edge technology and industrial design. I find that really cool."

Kayleigh, Year 13 student



You will study:

- Paper 1 Theory:** Materials, Testing, Industrial & Commercial Practice, Health and Safety, Protecting Designs and Intellectual Property, Design for Manufacturing, Maintenance, Repair and Disposal, Enterprise and Marketing, Design Communication
- Trial NEA:** You will produce a 30-page portfolio and practical project of your own choice
- Paper 2 Theory :** Design Methods and Processes. Design Theory, Responsible Design, National and International Standards in Product Design
- NEA or Non-Exam Assessment** up to 40 page portfolio and manufactured product in y13

Choose Product Design if you like:

Designing products carefully before you start making them.

Asking questions about the visual world around you.

Not only how things work but what they look like and why they look the way they do.?

If you have an interest in manufacturing, what processes are involved, what materials are used?

Are you surprised at how many products are made using just electric motors?

Other subjects that go well with Product Design include:

- Maths
- Physics
- Economics
- Art

An A-level in Product Design can lead to:

A better understanding of the world around us and the knowledge to make informed decisions about the products we buy.

Careers in Product Design include: A 3D designer, artist, architect, Engineer, film prop maker,

Indirectly, a career such as a surgeon often requires manual skill in using tools as simple as a saw.

Example exam questions:

1. With reference to **two** different technological developments describe in detail how each has impacted on the evolution of modern electronic products. **(Total 14 marks)**

2. Using a range of examples explain how designers use colour, texture and images to improve the usability of products for **all** consumers.

(Total 14 marks)

Homework:

- Portfolio work
- Weekly homework and exam questions
- Reading Textbook and further reading topics

**Entry Criteria –
Level 6 in Design Technology, Maths
and English**

Psychology - AQA

Student Quotes:

"I love Psychology because I want to understand human behavior. Human nature is so complex especially the brain which is a vital part of who we are as a human. The brain is so small yet plays a crucial role in the actions we take as humans. The possibility of learning new things about human behaviour makes psychology interesting.

Jessie, Y12 student



You will study:

The following are the eleven different units across three A 'Level exam papers:

1. Paper 1: Memory, Social Influence, Attachment and Psychopathology

2. Paper 2: Approaches in Psychology, Biopsychology and Research Methods

3. Paper 3: Issues and debates, Schizophrenia, Forensic and Gender

Choose Psychology if you like:

- To develop essential knowledge and understanding of different areas of the subject and how they relate to each other
- To develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods
- To develop competence and confidence in a variety of practical, mathematical and problem-solving skills
- To develop interest in and enthusiasm for the subject, including further study and careers associated with the subject
- To understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society

Other subjects that go well with Psychology include:

- Biology
- English
- Maths
- Sociology
- Chemistry
- Economics

An A-level in Psychology can lead to:

Clinical/Forensic Psychologist, Psychiatrist, Educational Psychologist, High intensity therapist, Occupational Psychologist, Careers advisor, Counsellor, Detective, Mental Health Nurse, Teacher, Police

Example exam questions:

1. *What are the reliability and validity issues in diagnosis and classification of Schizophrenia (4 marks)*
2. *Outline and Evaluate research into the duration of memory (8 marks)*
3. *Discuss research into caregiver-infant interactions (16 marks)*

Homework:

Homework will be based on extensive amounts of written examinations including multiple choice, short answer questions, worksheets, application questions, essays and past paper questions.

Entry Criteria –

6 in GCSE Humanities or 6 in English Language PLUS 2 GCSE Science grade 5s or higher (Biology)

Religious Studies

Student Quote: *“I love the topics we cover in religious studies as it forces me to question my own beliefs. Does God exist? How do we know that we actually exist? Learning the different arguments and debating these abstract ideas has made me realise how complex knowledge really is.”*

Maya Hughes, Former student



You will study

The joint disciplines of Philosophy, Religion and Ethics in equal measure.

- 1. Philosophy:** Topics include Evil and Suffering, The existence of God and the nature of humanity
- 1. Religion:** contemporary issues in Christianity such as Gender and the Church
- 2. Ethics:** You will learn different approaches to thinking ethically such as Utilitarianism and Natural Law in order to evaluate their strengths and weaknesses

Choose Religious Studies if you like:

If you like to learn about the belief systems of others and investigate your own ethical and moral perspectives. If you enjoy exploring the deeper questions such as 'why we exist' and the nature of God. If you have strong opinions and you enjoy forming logical, water-tight arguments that force the opposing side into submission, you will love religious studies.

Other subjects that go well with Religious Studies include:

- Sociology
- Psychology
- History
- English
- Politics
- Maths

An A-level in Religious Studies can lead to:

This course opens up pathways to several different avenues due to the logical and critical thinking skills that are developed. Students often go on to study Philosophy, Sociology, Law and similar humanities based subjects at university. These allow students to go on to professions such as teaching, law enforcement and local government.

Example exam questions:

1. 'Paley's teleological argument successfully defends the existence of God.' Discuss. [40]
2. Evaluate Plato's view on the hierarchy of the Forms, including the Form of the Good. [40]

Homework:

- Weekly quizzes and exam style questions

**Entry Criteria –
Grade 6 and above in English and
Humanities based subjects**



Sociology

Student Quote: "I love sociology because it allows me to see the world from completely new perspective. I have learnt how different factors in society can impact a person's life chances, and how we, as a society, can work together to make our world a better and fairer place."

Diana Saridienne, Former student



You will study:

- **Education and methods in context:** You'll consider the role of education in society. For example, as part of your studies you will investigate gender and ethnic differences in educational achievement and the different explanations of why this exists. You'll also learn how to apply your own sociology research methods to the study of education.
- **Research methods:** You'll learn how to conduct your own sociological research, from interviews to reviewing documents and official statistics.

Choose Sociology if you like:

A Level Sociology gives you the opportunity to question everything about society. As part of your studies, you'll develop your understanding of key issues relating to class, gender, ethnicity, inequality and power. Why are certain groups more likely to commit crime more than others? Why do girls outperform boys in education, yet men still earn more on average than females? These are the questions that sociologists aim to answer.

Other subjects that go well with Sociology include:

- History
- Politics
- English
- Economics
- Geography

An A-level in [insert subject] can lead to:

Sociology is a great choice of subject for people who want a career in social work, nursing or government. The subject is also useful in several other careers, like marketing, politics, advertising, PR, journalism, law or teaching.

Example exam questions:

1. *Outline three reasons for gender differences in educational achievement. [6 marks]*
2. *Applying material from Item B and your knowledge, evaluate sociological explanations of social class differences in educational achievement. [30 marks]*

Homework:

- Weekly reading of primary texts from key thinkers
- Completion of set tasks in homework booklets

Entry Criteria –

Grade 6 and above in English and Humanities based subjects

Spanish - AQA

Student Quote: I love Spanish as I feel like it is a way to not only learn a different language, but also gain an understanding about the historical context of the country and how it has developed culturally, socially as well as economically. **David, Year 12 student**



You will study:

Paper 1 – Listening, Reading, and Writing

- Aspects of Hispanic Society & Artistic Culture in the Hispanic World
- Multiculturalism in Hispanic Society & Aspects of political life in Hispanic Society

Paper 2 – Writing

- Film: El Laberinto del Fauno (Pan's Labyrinth by Guillermo del Toro) & Book: Como Agua Para Chocolate – Laura Esquivel

Paper 3 – Speaking

- Individual Research Project (on a topic of your choice)
- Photo card and discussion on one of the topics from Paper 1

Choose Spanish if you like:

- The idea of speaking another language! The opportunities that this can provide both in terms of job prospects and life opportunities are fantastic.
- Debating and discussing the key issues of the day: eg *Is the traditional family model outdated? What role should religion have in society? What should be done to ensure LGBTQ rights?*
- Film and literature. You will study a film and a book
- Learning about different cultures and traditions eg festivals

Other subjects that go well with Spanish include:

Anything! A foreign language complements most subjects!

An A-level in Spanish can lead to:

All sorts of different careers! Languages are a great skill that are hugely valued by employers. There are a number of careers that are directly linked to language learning, e.g. becoming a translator, teacher, or working in tourism, however, languages can also set you apart from other candidates when applying for a range of other jobs. Many companies now have offices and clients in Spain and across Latin America so speaking Spanish can make you a very appealing candidate and also potentially provide you with some really exciting opportunities for travel and living abroad

Example exam questions:

1. *Analiza el tema de la guerra en la película. ¿Cuáles son las técnicas que utiliza el director para evocar la época en la que transcurre la historia? {40 marks}*
2. *Como Agua Para Chocolate trata fundamentalmente del conflicto entre la tradición y la revolución. ¿Estás de acuerdo? Justifica tu respuesta. (40 marks)*

Homework:

- Vocabulary learning on Memrise
- Reading and listening tasks
- Research tasks
- Creating Mind Maps
- Essay planning and writing

**Entry Criteria –
Grade 7 in Spanish**

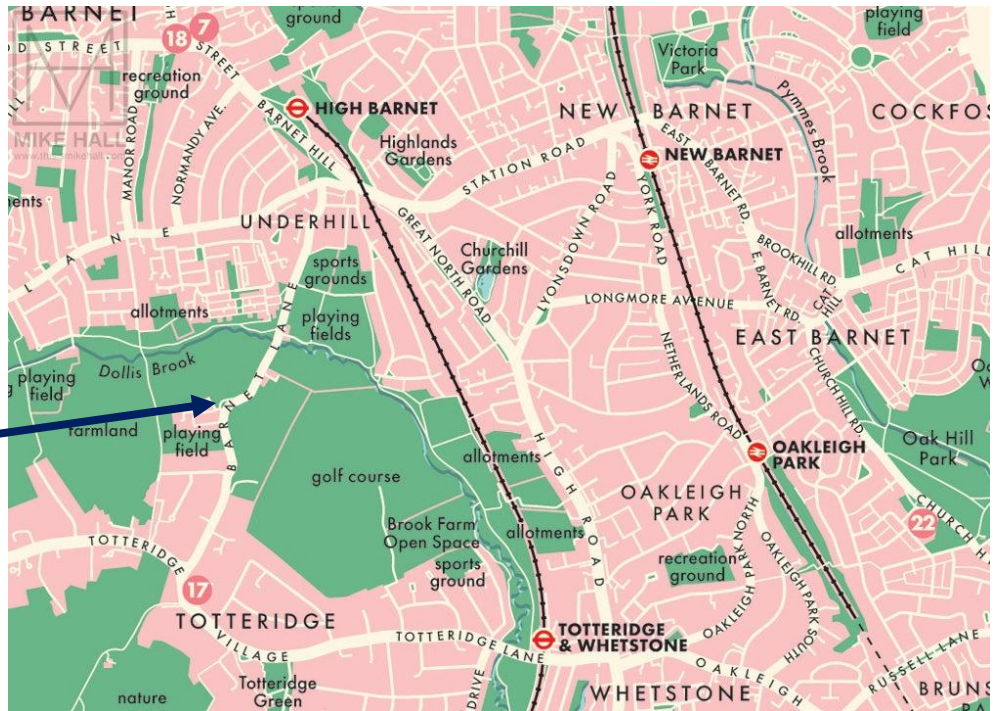


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