SURREY
MATHS SCHOOL

Prospectus

A specialist Maths School for 16-19 year olds based in central Guildford

"Science doesn't always go forwards. It's a bit like doing a Rubik's cube. You sometimes have to make more of a mess with a Rubik's cube before you can get it to go right."

Physicist Jocelyn Bell Burnell

Contents

Welcome to Surrey Maths School

Many thanks for your interest in Surrey Maths School (SuMS). Surrey Maths School is a new state-funded specialist 16-19 Maths School based in a state-of-the-art building in central Guildford.

Sahar Shillabeer

Nora Kettleborough

As a school within Learning Partners Academy Trust and working in partnership with the University of Surrey, the school will become a centre of excellence for the delivery of mathematics and further mathematics at A level for students from across Surrey and beyond.

Alongside mathematics-based A Level courses, all students will explore other STEM subjects and take the SuMS Project Qualification which will provide group and individual problem-solving opportunities.
It is expected that students of SuMS will progress to world class universities or degree level apprenticeships based on high-quality teaching and the unique opportunities available to them.

Our school is an innovative environment where every individual can thrive. We provide unrivalled opportunities to learn, to collaborate, to work and to grow, for students from across Surrey and neighbouring counties, from Guildford to Portsmouth, London and Reading.

We are excited to bring this unique opportunity to Guildford, and for you to start your journey with us. Please read on, and get in touch if you have any questions or queries!

SURREY MATHS SCHOOL

Learning Partners academy trust

Welcome from the University of Surrey

As Chief Student Officer at the University of Surrey, I am proud to say that we are a passionate partner of the Surrey Maths School initiative.

Inspiring young minds to explore and excel at maths is not only good for a student's progression, but it's good for society too. Quite simply, mathematics is fundamental to the world we live in, and we need more people with the analytical and problem-solving skills that an education founded on maths can bring.

We have seen the success of such schools elsewhere in the UK and recognise the opportunities that Surrey Maths School will bring to teenagers from any background. We believe it will be a catalyst to enlighten and excite more young people into the wonders of maths and science not only at this school, but across the region.

Our university staff and students will be working closely with Surrey Maths School, sharing their passion for maths and science, and helping to design and deliver an innovative, stimulating and world-class curriculum. We are excited to help realise the potential that Surrey Maths School promises.

Kerry Matthews
Chief Student Officer

About Surrey Maths School

Surrey Maths School is a dynamic and vibrant community, dedicated to fostering inclusivity and diversity, ensuring every individual can thrive. It is a home for inquisitive mathematicians, driven by a love for learning and an affinity for adventure.

Our Mission:

We will inspire exceptional young mathematicians of all backgrounds into high-potential STEM pathways by providing an innovative education that supports exploration beyond A Levels into real world applications.

Our Vision:

Through their engagement in the mathmatical sciences, our students will have a tangible impact on society, cultivating a brighter future for all.

INTEGRITY

We are honest, we are transparent, and we treat each other fairly.

ASPIRATION

We strive for excellence, we work hard, and we challenge ourselves to be the best we can be.

COLLABORATION

We work together, we appreciate the value of learning from each other, and we support one another.

COMPASSION

We act with kindness, and we treat all members of our community with respect.

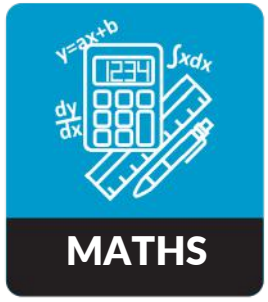
INNOVATION

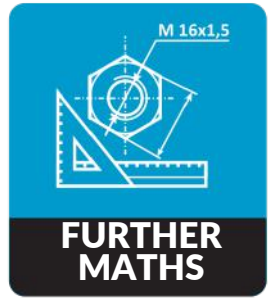
We believe in doing things differently, and we inspire through our creative and unique approach to teaching and learning.

The Curriculum

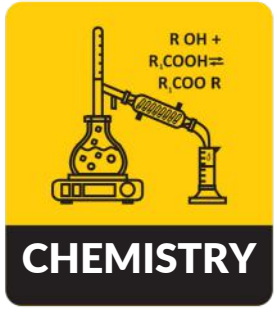
At Surrey Maths School all students study Mathematics and Further Mathematics A Level.

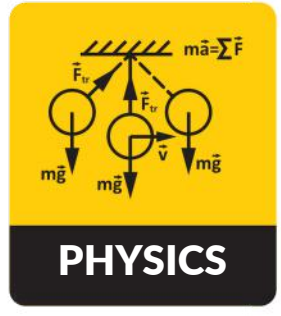
They then choose two subjects from Chemistry, Computer Science, Economics and Physics. Whichever subjects are chosen, the experience is truly special; learning with peers who are all studying Mathematics and Further Mathematics enables teachers to really extend, challenge and deepen their subject understanding.





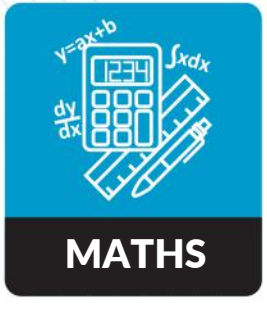
They also take A Levels in **TWO** of the following subjects:

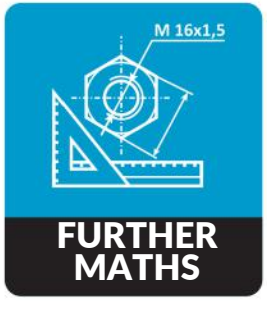




Mathematics & Further Mathematics

A Level Mathematics provides students with a thorough grounding in key mathematical principles and the tools to access a wide variety of courses in the mathematical sciences.





Exam board: OCR A

A Level maths has 3 key components: Pure Maths, Mechanics and Statistics

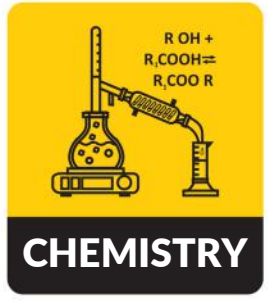
A Level Mathematics focuses on the building blocks such as algebra, geometry, trigonometry and calculus. Mechanics and Statistics enable students to apply their core skills to a broad range of contexts from probability distributions or projectile pathways, showcasing the mathematics underpinning so much of the modelling in mathematical sciences.

A Level Further Mathematics enables students to deepen and extend their understanding by introducing them to new areas of mathematics such as complex numbers and matrices. Students will develop the problem-solving skills, mathematical fundamentals and study habits that will serve them will in higher education. Further Mathematics is made up of Pure Mathematics which makes up 50% of the final A Level. The remaining half is made up optional modules. Our students take the Mechanics and Discrete options.

Chemistry

Chemistry A Level is a versatile course opening many doors for future study from Natural Sciences to biomedical Engineering. Students will study a combination of Physical Chemistry, Organic Chemistry, and Inorganic Chemistry.

From exploring atomic structures and bonding to applications of Chemistry in NMR Spectroscopy, students will develop their practical skills as well as their understanding of the subject at this level. A perfect vehicle to develop problem-solving skills, analytical thinking and practical know-how, students studying Chemistry will be well placed to continue their curiosity in higher education.



Exam board: AQA

Computer Science

Computer Science is rapidly becoming one of the most popular subjects to study both at A Level and beyond.

Computer science is the perfect blend of creativity and technical know-how. Through studying the A Level, students will learn to think outside of the box and to grapple with challenging problems. They will also learn to develop their programming skills to be able to tackle such problems.

A combination of theoretical content and practical applications, Computer Science is perfect for students to develop the skills needed for an increasingly digital world. Combined with Mathematics and Further Mathematics, it provides a perfect foundation for a Mathematics and Computer Science degree, one of the most sought after and competitive degrees on the market.

Exam board: OCR

Economics

Economics A Level is an excellent opportunity to explore some of the wider themes in society and application to current-affairs and world events.

Themes covered in the A Level include understanding markets and market failures, understanding the UK economy and policies, businesses and the labour market and global perspectives.

A unique A Level, Economics provides a space to consider immediate applications in the world around us and to analyse policies, government planning and international economics in detail through a new lens. Considering developing economies, poverty and inequality, students will be able to deepen their understanding of the world as well as systems in the UK.

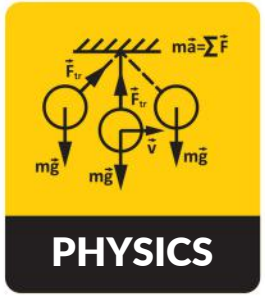
Exam board: AQA

Physics

Physics A Level covers so many areas, giving students a preview of the topics that can be studied in greater depth at university.

From particles to waves, electricity to thermodynamics, no other subject covers such a wonderful array of topics. Since all students will also be studying mathematics, we will focus more deeply on the concepts and core ideas in physics lessons. Physics will provide students with the opportunity to develop their practical skills alongside more analytical thinking.

There will be ample opportunity to refine problem-solving skills and to engage in debate and discussion about the materials presented. Students studying physics will be well placed to embark on a variety of degrees from physics to engineering to natural sciences.



Exam board: OCR A

Extended Curriculum

At Surrey Maths School students do more than just study for A Levels. We extend and challenge all of our students so that they develop the right skills for future study and reach their potential.

We help them to engage with experts from both the academic and working worlds giving them the opportunity to expand their horizons, meet people of all different backgrounds and to see where mathematical sciences can take them.

Problem Solving

All students have two lessons of problem solving a week. This is a chance to explore problems that are not on the curriculum, to develop and hone problem solving skills in contexts which are unfamiliar and more challenging. This is designed to extend all of our students and to prepare them for university style learning.

The SuMS Project Qualification

Guided by a mentor from academia or industry partners, students work in groups to complete an extended research project. The SPQ develops students' academic literacy skills and gives them the chance to engage with research in a new way. Groups produce an extended written piece meeting rigorous academic standards and they present their projects in a celebration event at the end of the year.

Competitions

Students are encouraged to participate in a variety of competitions in mathematical sciences such as the UKMT Maths Challenges and Olympiads, Physics and Astrophysics Olympiads, The Bebras Computing Challenge, The UK Chemistry Challenge and C3L6 and Economics Monetary Policy Essay Prize.

External experts and speakers

We work with the University of Surrey and local business to give our students the opportunity to hear from experts in their fields throughout the school year.

Pastoral Care

House System

Students are assigned a tutor group and a House.

The four Houses are named after:

Jocelyn Bell Burnell

Caucher Birkar

Emmy Murphy

Margaret Hamilton

Tutors are the first port of call for student support. All students have weekly tutor sessions in their form group as well as regular 1-1 meetings with their tutor to support their academic and personal progression.

Personal Development (PD) is a key part of our Personal and Pastoral Education Programme (PPEP). As well as supporting our students to navigate the real word, our PD sessions give students a key opportunity to develop their soft skills through exploring areas such as diversity and racism, mental health and wellbeing, being a global citizen, finances and the future. PD provides opportunities for debate and reflection, for independent research and a space in which we can all learn to listen carefully, respond thoughtfully and learn from each other. We also explore and practise essential employment skills including debating, presenting, formal writing and collaboration.

Special Educational Needs & Disabilities

Surrey Maths School is equipped to support students with a variety of Special Educational Needs and Disabilities. We are open, inclusive and accessible to all.

Our only requirement is an aptitude for and a love of maths. Beyond that, we are keen to work with parents and students to support our young people to settle into life here at SuMS, and we have a dedicated SENDCo.

Sports

Our programme of sports, in collaboration with Surrey Sports Park, provides students with a chance to engage in an afternoon of sports once a week. We want our students to appreciate the importance of being fit and healthy and encourage them all to find something to excite them!

Duke of Edinburgh

All of our students will have the opportunity to complete their Silver or Gold DoE Award with us, as we are a DoE licenced centre. We encourage everyone to participate as we believe in the values of the award and the skills gained by each individual participant.

“I read all these books and I had the feeling that just reading things is not enough. I also wanted to create my own stuff, to create something new.”

Mathematician Caucher Birkar

Careers, UCAS and Future Pathways

Surrey Maths School prepares each student for their future pathway, be that an internship, apprenticeship or university. This is more than just fantastic teaching and a carefully planned curriculum.

Our careers programme offers our students advice and support so that they are able to research their options and find the right next steps for them. All of our students have 1-1 guidance from a qualified Careers Advisor, as well as opportunities to experience a variety of workplaces.

Our UCAS programme begins in the spring term of Y12, through which our tutors provide 1-1 support, with personal statement writing from the end of Y12.

Our Y13 Extension program includes weekly timetabled sessions designed to prepare students for university entrance exams such as the TMUA, MAT or PAT as well as bespoke support in preparing for admissions interviews at Oxford and Cambridge.

Students will also wish to explore alternative pathways such as internships and degree apprenticeships and we support them in making the right choices and submitting outstanding applications to the programs of their choice.

School Life

The school day begins at 9:25. Each day consists of 6 x 50 minute periods. A typical Y12 timetable will look something like this – with physics and computer science as the two options. The flexible tutor time at the beginning of the afternoon may be used for assemblies, Personal Development lessons or tutor 1-1s, for example.

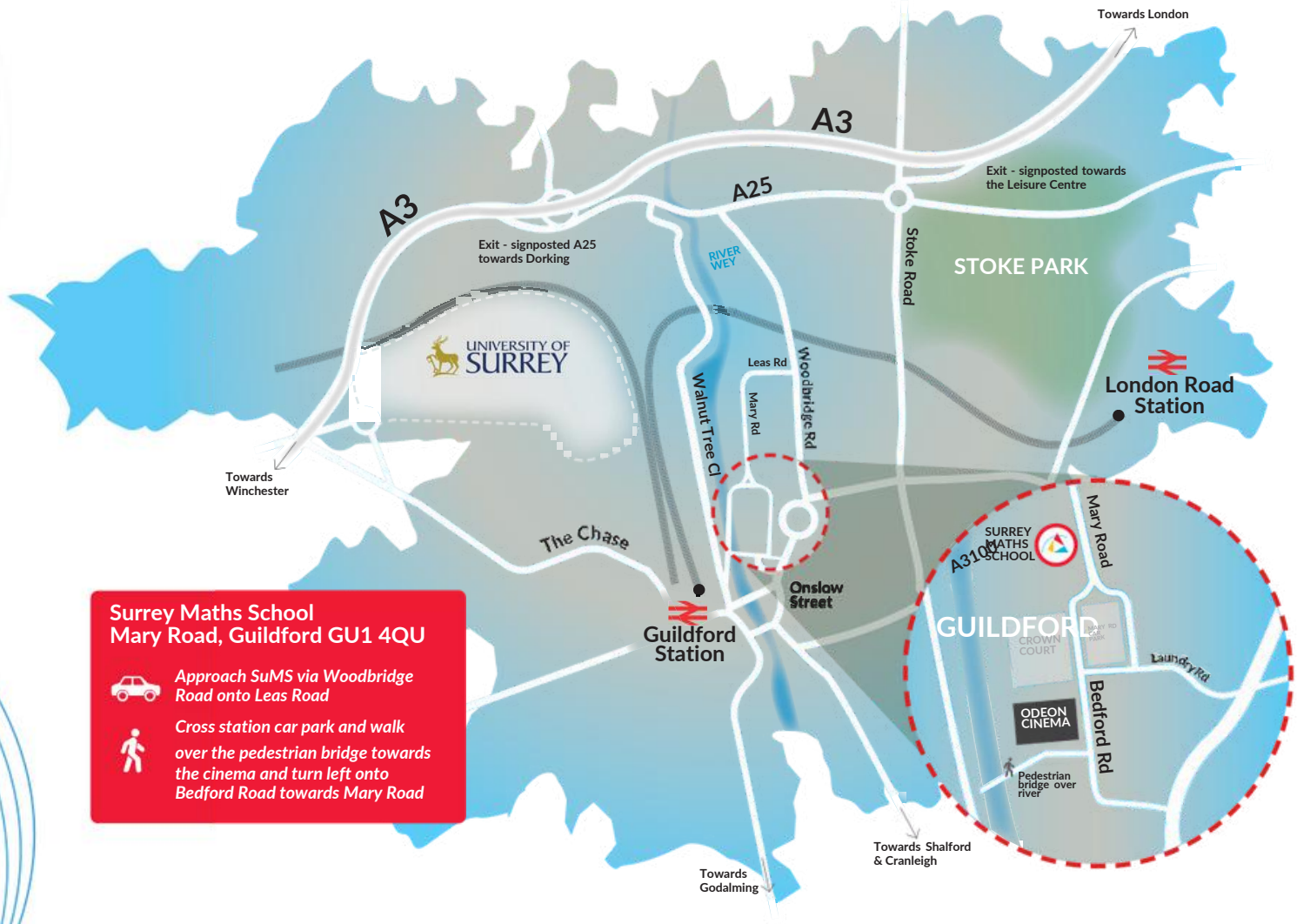
	9.25-10.15	10.15-11.00	11.00-11.20	11.20-12.10	12.10-13.00	13.00-13.50	13.50-14.20	14.20-15.10	15.10-16.00
	Period 1	Period 2		Period 3	Period 4		TUTOR	Period 5	Period 6
MONDAY	Maths	Physics		Physics	Problem Solving		Tutor Time	Problem Solving	Computer Science
TUESDAY	Study	Maths		Maths	Computer Science		Assembly	Study	Physics
WEDNESDAY	Computer Science	Study	BREAK	Maths	Sport	LUNCH	Sport	Sport	Sport
THURSDAY	Maths	SPQ		Maths	Computer Science		Personal Dev't	Computer Science	Maths
FRIDAY	Study	Physics		Physics	Maths		Read or Journal	Maths	Study

The school building is open to students at the end of the school day so that they can use the space for study, collaboration and clubs and societies.

Clubs and Societies

These are led by students to encompass all our students' areas of interest: from Dungeons and Dragons to Robotics, basketball and netball to football, chess to FemSoc – Surrey Maths School students have the opportunity to create their own societies, try something new and find others who share their interests. Clubs run during lunchtimes and after school.

Location



Surrey Maths School
Mary Road, Guildford GU1 4QU

Approach SuMS via Woodbridge Road onto Leas Road

Cross station car park and walk over the pedestrian bridge towards the cinema and turn left onto Bedford Road towards Mary Road

The Admissions Process

APPLICATION FORM	Completing and submitting an application from is the first stage of the application process. You will also be asked to name a teacher who can provide a reference for you. Please look at the school website for up-to-date information about the application process including key dates. Some questions will be assessed as part of the admissions process; these will be clearly indicated.
APTITUDE TEST	All suitable applicants are invited to sit our aptitude test. Whilst the test does not require any mathematics beyond the usual KS4 specification, students will need to think outside the box and use the mathematics they know in unfamiliar and more complex situations. *Sample tests are available on the school website.*
INTERVIEWS	After the aptitude test has been scored, some applicants are invited to interview. This comprises a maths interview which gives you a chance to learn something new and to develop your problem-solving skills with the guidance of a teacher, and a pastoral interview so we can learn a little more about you, why you love maths and what you want to gain from being part of Surrey Maths School. This takes place early in the Spring term.
CONDITIONAL OFFERS	Successful students are made a conditional offer based on achieving the following GCSE grades. There is also be a waiting list.

Admissions Criteria

- **Criterion 1**
  Performance in the SuMS Aptitude Test and interview process which suggests the student will thrive in the educational environment at SuMS
- **Criterion 2**
  Grade 8 or above in GCSE Mathematics
- **Criterion 3**
  Grade 7 or above in GCSE Physics or grades 7-7 or above in GCSE Combined Science (if taking Physics)
  Grade 7 or above in GCSE Chemistry or grades 7-7 or above in GCSE Combined Science (if taking chemistry)
  Grade 6 or above in a subject with a substantial written component if taking Economics
- **Criterion 4**
  Grade 5 or above in GCSE English Language or in GCSE English Literature
- **Criterion 5**
  At least 4 further GCSEs at grade 5 or above

This application process is designed to support you in making an application and showing us what you know and can do in order to ensure that SuMS will be the right school for you.

SURREY MATHS SCHOOL

Please do not hesitate to contact us at
admissions@surreymathsschool.co.uk
should you have any queries or questions

Current Umaths network {u}maths


“For me, mathematics exists in the space between us, in conversation and collaboration.”
Mathematician Emmy Murphy

SURREY
MATHS SCHOOL

If you have any queries about admissions, please contact us at:

E: **admissions@surreymathsschool.co.uk**

T: **01483 974211**

SCAN ME

Surrey Maths School
Mary Road, Guildford, GU1 4QU

a member of

Learning Partners
academy trust