

CSMS

CORNWALL SCHOOL OF
MATHEMATICS AND SCIENCE



EXCELLENCE
IN MATHS &
SCIENCE



FUTUROS PRINCIPES EXCOLIMUS

WELCOME TO CSMS

It gives us great pleasure to welcome you to Cornwall School of Mathematics and Science. CSMS is a part of the VI Form Academy at Camborne Science and International Academy, which is the top state-funded Post-16 STEM provider in Cornwall (Future Finders Stem Schools) and rated as Outstanding by OFSTED in January 2024.

At CSMS we believe in a traditional approach to teaching and learning. Brilliant specialist teachers and attentive, ambitious learners come together to achieve exceptional results.

But we also believe in the modern, the cutting edge and the innovative.

Our students carry out their own scientific and academic research, take part in an outstanding international programme and meet visiting academics who provide a series of lectures and seminars showcasing their current research.

These experiences inspire and prepare students at CSMS for university life.

At CSMS you will be challenged to think way beyond the curriculum, providing a unique opportunity for incisive and creative thought. As a result, students choose to attend CSMS from all across Cornwall and beyond. Our proximity to the train station in Camborne means that transport links are excellent from anywhere in the county.

If your A-Level choices include any combination of Maths, Further Maths, Computer Science or the Sciences, and you are an able student likely to achieve mainly 7's, 8's and 9's at GCSE, then CSMS is the natural choice for your VI Form studies. You will also have the flexibility to combine these A Levels with the many other subjects at The VI Form Academy campus, which is five minutes away.

We urge you to read this prospectus and learn about the incredible programme on offer here. If you are inspired to find out more then please sign up to one of our open events, or book a tour of the CSMS campus on our website: www.csms.co.uk



Rachel Trevarthen
Head of CSMS



Vicky Holland-Lloyd
Director of CSMS

CSMS

CORNWALL SCHOOL OF
MATHEMATICS AND SCIENCE

EXCELLENCE IN MATHS & SCIENCE

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EXCELLENCE IN MATHS & SCIENCE

OUR STATS

In top 10%
of all UK schools for
A Level
performance

CSMS
average A Level
grade of **A**

100%
of students
attending top
universities

100%
A-Level
pass rate

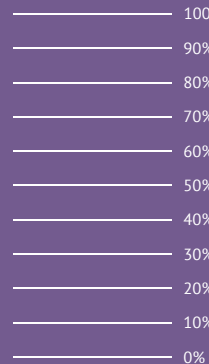
Rated 'Outstanding' by
OFSTED in Jan 2024



Consecutively
in top 10% of
UK for progress
for the last
6 years

Best
STEM
A Level
results
in
Cornwall

Ranked **Best**
place to
study STEM
A Levels
in Cornwall



STEM PATHWAY

All students at CSMS are part of the STEM Pathway.

OUTSTANDING TEACHING, OUTSTANDING LEARNERS

Lessons at CSMS are taught by specialist teachers who are experts in their fields. You are taught with other very able students and, as a result, the repetition of basic skills is compacted so that more time can be spent learning the higher level concepts and practising the skills needed to achieve top A and A* grades.

All CSMS students complete an Extended Project, working on their own independent research. A number of students have actually published real scientific papers!

AN UNPARALLELED ENRICHMENT PROGRAMME

Alongside lessons there is a rich co-curricular programme of lectures, seminars, workshops, additional tutoring and individualised support to assist CSMS students in achieving a place at their chosen top university.

Academic lectures

Visiting academics from universities around the country come to CSMS to provide an ongoing programme of lectures and seminars showcasing their current research, as well as stretching and challenging CSMS students to think way beyond the curriculum. These experiences inspire and prepare our students for life at university. Previous visiting academics include; Professor Jonathon Sherrat from Heriot-Watt University who spoke about mathematical modelling of wound repair, Dr Declan Vogt who researches the use of robotics in mining; and Molly Kressler, a PhD student, who is studying the movement of blue sharks in Cornish waters.

Advanced maths workshops

We offer students the chance to take part in advanced mathematics sessions, targeted at preparing students for Oxford and Cambridge mathematics entrance exams. These are open to all CSMS students who have an interest in developing their mathematical knowledge and problem solving abilities beyond the Further Maths curriculum.



Research placements, summer schools and opportunities

There are many opportunities for students in Year 12 to get real-life experiences of their studies. At CSMS we support our students to take up these opportunities when they are available. Previous CSMS students have: applied successfully for The VI Form Academy Scholarships to travel to Africa for a veterinary experience programme; won the Kelvin Science Prize for an essay on the cosmological constant; and visited Bristol University to use advanced scientific equipment such as an NMR machine to support their own research. Students are also encouraged to apply for incredible super-curricular opportunities which will really help to stand them apart in their UCAS application, such as Sutton Trust summer school, Exeter Scholars, Pathway to Bath, Nuffield Research Projects and University summer school opportunities at Oxford, Cambridge and Imperial College.

The CSMS award

The CSMS award recognises students who engage thoroughly in the CSMS programme. Students are encouraged to document all of the activities and opportunities that they have completed over the two years and add them to their Personal Development Portfolio. Students will then graduate at the end of year 13 with Honours or Distinction. The CSMS award provides students with the tools and content to write an exceptional UCAS personal statement.

THE VI FORM ACADEMY

CSMS is part of The VI Form Academy, the sixth form of Camborne Science and International Academy. This means you can choose from a wide range of A Level choices at the CSIA main campus to complement your CSMS studies. Students at CSMS must take a minimum of two CSMS subjects (Maths, Further Maths, Biology, Chemistry, Physics and Computer Science), other A Level options can be selected from the full range of subjects offered by the VI Form. The VI Form Academy boasts excellent A Level results in its own right, placing it in the top 10% of the country. In 2019, it was the top state-funded provider for A Levels in Cornwall, including all the colleges and in 2024 it was assessed as 'Outstanding' by OFSTED.

MEET THE STUDENTS



“Due to the STEM pathway, I was able to apply for many opportunities throughout my time at CSMS. When opportunities were posted as part of the tutorial programme, I applied for as many as possible. The access to these opportunities enabled me to: Study for a week at the University of Oxford and a week at Imperial College London; which is my top choice of university. I also completed many research projects to improve my UCAS application and CV; I did a research project with the University of Bath on antimicrobial resistance, a project for site water management with Saputo Dairy Works and an International exchange project into algae biofuel with a college in Singapore. I also spent a week at the Biomedical Ward in Derriford Hospital, which inspired me to apply for my degree reading Biomedical Sciences. All of these experiences were introduced through the STEM pathway and I am so grateful for this.”

Peyton Jackson Student Yr 13

THE CSMS INTERNATIONAL PROGRAMME

STEM is a global, collaborative field and we want to give our students the chance to experience this.

CSMS offers unique opportunities for students to engage and work with young people from other top schools from around the world.

Research exchange visits:

- Complete an original academic research project with guidance from subject specialists.
- Experience a new culture by staying with a host family.

Science fairs and competitions:

- Undertake original research in the UK, individually or as a team.

- Prepare academic posters and presentations.
- Travel to international competitions and compete against top students from around the world.

Singapore International Maths Challenge:

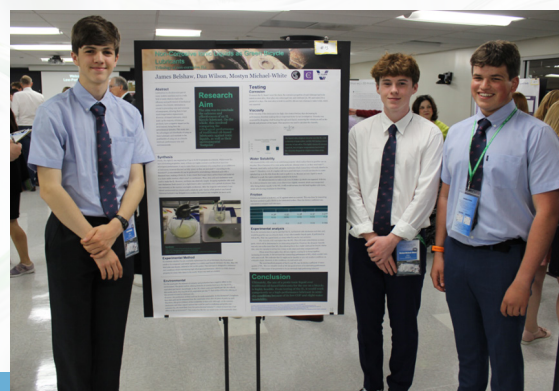
- Compete in the most prestigious maths competition for pre-university students.
- Demonstrate creativity and mathematical skills in a mathematical modelling challenge.
- Take part in a cultural exchange, exploring and immersing yourself in Singaporean culture.

RESEARCH

Imagine an environment where you are granted the time, space, and resources to conduct genuine scientific research on your terms. At the Cornwall School of Maths and Science (CSMS), we prioritise research as the cornerstone of our academic pursuits.

We actively encourage all our students to embark on their individual research projects in tandem with their A-Levels, receiving dedicated support from a team of expert educators. This research endeavour not only fosters a deeper understanding of scientific principles but can also serve as the foundation for an Extended Project Qualification.

CSMS students have engaged in a myriad of impactful research projects, such as utilising data from satellites to monitor populations of penguins in Antarctica. They have also employed a university-grade particle detector, akin to those used at CERN, to explore the properties of background radiation. Other projects include investigating the effect of vape liquid on water invertebrates and testing biodegradable alternatives to plastic packaging. Our commitment to hands-on scientific inquiry empowers students to make meaningful contributions to the field whilst enhancing their academic journey.

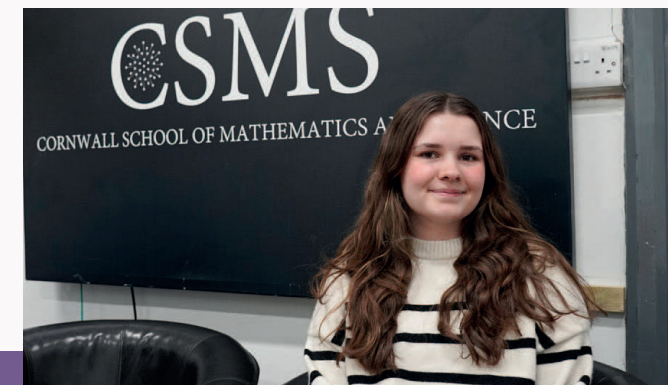


“Carrying out a collaborative research project at CSMS on tribology and taking it to the ISSF in America, was one of the experiences that inspired me to study Mechanical Engineering and also helped my university application greatly. This, along with the amazing support given in all my classes, the excellent learning environment are some of the best things CSMS provided me with.”

James B studying Mechanical Engineering at Imperial College London

STUDENT LEADERSHIP

In Year 12 students are given the opportunity to apply to be part of the CSMS Student Leadership Team. Students are appointed through application and interview. Students form our four committees that are led by CSMS leaders: Charity and Kindness; Whizz Bang Wallop (social events, House competitions, fun activities); Positive Action Student Forum and finally CSMS Social Leaders who arrange social events for CSMS students. Past events include Halloween Film nights, Summer Fairs, karaoke nights and even a giant game of Hide and Seek in the OGS building! At the end of Year 12 we appoint 2 Head Students who oversee the Student Leadership team during their time in Year 13. Our Head Students represent Nexus and CSMS at formal events.



“Working in the student leadership team has helped me develop key skills. The aspect I am most proud of was setting up a buddy programme between year 12 and 13 students. I did this as I knew personally the fears of joining a completely new college and I wanted to give the year 12s peace of mind when they started. I feel I helped the community at CSMS to form, but I also impressed university admissions teams with my interest in building a friendly and welcoming environment.”

Peyton Jackson - Yr 13 Student Leader

VI FORM COMMUNITY

The VI Form Academy is committed to supporting students to develop into well rounded individuals. CSMS students are able to take advantage of all the opportunities provided by The VI Form Academy, including PSHE lessons on learning, health and well-being; international and local trips; Gold Duke of Edinburgh award; Ten Tors; theatre visits; higher education conventions; Sport Academies and fixtures; and social events such as the Christmas and Summer Balls.



PASTORAL CARE

We are committed to providing the very highest standard of pastoral care to our students. CSMS students are assigned a tutor who is responsible for their social, emotional and educational wellbeing.

Tutorial takes place every day which provides a valuable opportunity for tutors to check in and provide support for our students. In addition, at CSMS there is an experienced and dedicated non teaching pastoral team who are always available to provide support.

SCHOLARSHIPS

CSMS and The VI Form Academy recognise the value of independence and in raising aspirations and outcomes for students. We have a limited number of Scholarships available to support students with ambitious enrichment and academic plans. Students can apply for financial support to allow an exceptional challenge to take place. As well as being a life-enhancing experience, these can add to the quality of their CVs and personal statements. CSMS students have been awarded scholarships for a huge variety of activities, from flying lessons for aspiring pilots and turtle conservation in the Maldives to attending summer schools in top universities around the UK.



MEET THE STUDENTS



MEDICAL PATHWAY

Medicine and Dentistry are very competitive courses. At CSMS, we aim to support aspiring doctors and dentists to be successful in their applications.

Future medics will find all the support they need in the Medical Pathway, with regular workshops carefully tailored to provide the knowledge and skills needed to prepare for the competitive application process.

Medical workshops focus on:

- Finding and securing outstanding work experience placements
- Exploring the role of medical ethics in modern medicine
- Developing interview technique
- Preparing for UCAT and other entrance exams
- Preparing an outstanding personal statement



“At CSMS I have found a community of like-minded people, who support and motivate one another. The students here are the groundbreakers of the future, which makes for an interesting and exciting place to study. I started Yr 12 with a dream of becoming a doctor and thanks to the support of the Medical Pathway and my subject teachers, who give up their time to help with interview practise, I have managed to secure an offer from all of my medical school choices! CSMS has given me the opportunity to dream big and aim high.”

Freya G – Head Girl at CSMS, Year 13 student applying for Medicine

VETERINARY PATHWAY

Veterinary Medicine is one of the most competitive courses in the UK.

At CSMS we want to ensure that future vets are fully supported while working to achieve their ambitions.

Students on the Veterinary Pathway attend regular workshops with experienced staff who can provide invaluable advice and guidance on the competitive application process.

Veterinary workshops focus on:

- Finding and securing outstanding work experience placements
- Exploring the role of veterinary ethics in animal care
- Developing interview technique
- Personal statement writing support



MEET THE STUDENTS



“For an application to vet school, it is essential to get a broad range of work experience and be prepared for interviews to ensure you stand out from the crowd. At CSMS the vet pathway provides regular support from an experienced teacher in vet school applications, helping you to find work experience, prepare for interviews, apply to summer school and participate in workshops. This pathway provides endless support to enable you to have the best chance of receiving an offer to vet school.”

Seb Parkyn– Year 12 student on the Veterinary Pathway



MEET THE STUDENTS



OXBRIDGE PATHWAY

Oxford and Cambridge universities have the most competitive courses in the UK.

Over 30,000 students apply for around 7,000 places at these institutions every year. This means an average acceptance rate of 16%.

Students on the Oxbridge Pathway receive an intensive package of support, including specialist mentoring, interview preparation and tutorials for the entrance assessments. There is also an opportunity to visit both Oxford and Cambridge universities during Year 12.



“When applying to Oxford both the Oxbridge and Medical Pathways here at CSMS offered me invaluable guidance and support though the whole process. The most useful aspect was the practice interviews in order to perfect my skills. Moreover, a number of teachers who were undoubtedly essential to my success provided me with additional interview opportunities targeted towards the specific interviews I was practising for alongside any weaknesses we identified. This is a unique opportunity that you can only find in such a small, specialised Sixth Form, and one that definitely contributed to me being ranked very highly at interview. Additionally, I was given the opportunity to present my own independent research and win first place in two different categories of the International Student Science Fair, something which I was able to reflect upon and use in both my Personal Statement and Interviews. Finally, the small student population allowed me to form strong relationships with my teachers, this provided me with detailed support, criticism, and more targeted advice along with allowing me to participate in volunteer opportunities that would not have been possible otherwise.”

Faith W, studying Medicine at the University of Oxford

STUDYING AT CSMS

If you are choosing to study Science and Maths A Levels in Cornwall, we believe you cannot choose a better place to study than Cornwall School of Mathematics and Science. Here is some more information about the courses on offer.

As we are part of The VI Form Academy, you also have access to a wide range of A Levels and other qualifications which can complement your studies at CSMS. For the full list of available subjects you can take, check out The VI Form Academy website – www.theviformacademy.co.uk

MATHEMATICS AND FURTHER MATHS

At CSMS, Maths is one of the most popular subjects to choose as an A Level.

Results are exceptional: 85 % of students achieved A*-B in Further Maths A Level, and 78% of students achieved A*-B in Maths A Level in 2023.

The qualifications offered are:

- A Level Mathematics – this includes work on the core ideas of algebra, trigonometry and calculus as well as mechanics and statistics.
- A Level Further Mathematics – this includes work on the core ideas of matrices and complex numbers as well as the study of decision mathematics and further mechanics or statistics.



COMPUTER SCIENCE

This modern qualification gives an insight into a range of computing systems, including an understanding of the principles of programming and the solving of problems.

The course will prepare students for university courses in computing /computer science, or for work in the ICT industry. Many researchers in top universities benefit from advanced coding skills.



BIOLOGY

Biology at CSMS gives students the opportunity to develop a deep knowledge and understanding of the interconnectedness of life, bringing together ideas from different areas of Biology to explore big ideas.

We nurture our students' natural interest in the world around them and support them to develop the skills needed to succeed in further study and careers in associated fields. Students also gain an awareness of the ethical, technological and economic aspects of Biology.

The course prepares students who wish to progress into higher education to follow courses in varied areas of Biology and related subjects such as Veterinary sciences, Oceanography, Biochemistry, Biomedical sciences and all medicine related fields.



CHEMISTRY

Chemistry is the study of substances and how they interact. It touches every single part of our lives.

Chemistry holds the key to solving the biggest challenges currently facing humanity, such as global warming, human health and energy. Chemists have already given the world such vital and diverse discoveries as penicillin and lithium ion batteries, and will continue to work at the forefront of human development.

A Level Chemistry is an exciting and varied course, covering all three of the main strands in chemical science, namely Inorganic Chemistry, Physical Chemistry and Organic Chemistry. Over the two-year course, students will gain accreditation in practical skills, as well as developing a deep and quantitative knowledge of one of the most wide-reaching subjects.

PHYSICS

Physics is a fascinating A Level, often seen as the most fundamental of the natural sciences.

The topics range from the study of the sub-atomic particles of the quantum world to the massive stars in the universe. Principally, the course researches the interaction of matter and energy, and predicting how they control the world we live in.

Studying Physics A Level gives students the knowledge and understanding to begin seeing and interpreting the daily influence of complex forces and phenomena and would complement other studies in the fields of science and medicine, along with demonstrating a breadth of interest and ability to succeed in the most demanding higher education courses or careers.

EXTENDED PROJECT QUALIFICATION (EPQ)

All CSMS students undertake the Extended Project Qualification in Year 12.

The EPQ is a standalone qualification designed to extend and develop skills in independent research and project management. It is a well-recognised and highly regarded qualification by universities. It is self-directed and requires students to take responsibility for the choice, design, planning and completion of an individual project. The skills acquired in the EPQ are unrivalled when it comes to preparation for higher education.

The Extended Project gives students the chance to study an area of interest in great depth and is a fantastic opportunity to incorporate passions and interests into studies. Many CSMS students choose to carry out original scientific research, producing academic papers and even having the opportunity to have them published in peer reviewed journals.

MISSION STATEMENT

Our motto is '*Futuros Principes Excolimus*', which means 'Inspiring Future leaders'. At CSMS we are preparing our students to become the future solution finders to some of the most pressing problems in the world today. We want our students to be scholars, to have the highest aspirations, and to leave us ready to become the next generation of leaders in industry, science and culture.

OUR CORE VALUES

1. ACADEMIC

With a focus on traditional learning and excellent results, our academic programme is designed to challenge and excite the most ambitious students.

2. DETERMINED

We are persistent in our approach; driven to deliver the very best teaching and achieve the very best results.

3. INSPIRATIONAL

With an outstanding curriculum, guidance and academic opportunities, we're committed to inspiring our students, teachers and community to be the leaders of tomorrow. **Futuros Principes Excolimus.**

4. TRAILBLAZING

We are at the very cutting-edge of academia. With a research-based focus, experimental ideas and next-level studies, we're inspiring our students to find solutions to problems that aren't even conceivable yet.

5. GLOBAL

Everything we do leads to something bigger than ourselves. We pride ourselves on thoroughly preparing students for global careers through an unparalleled international programme.

6. EXCELLENCE

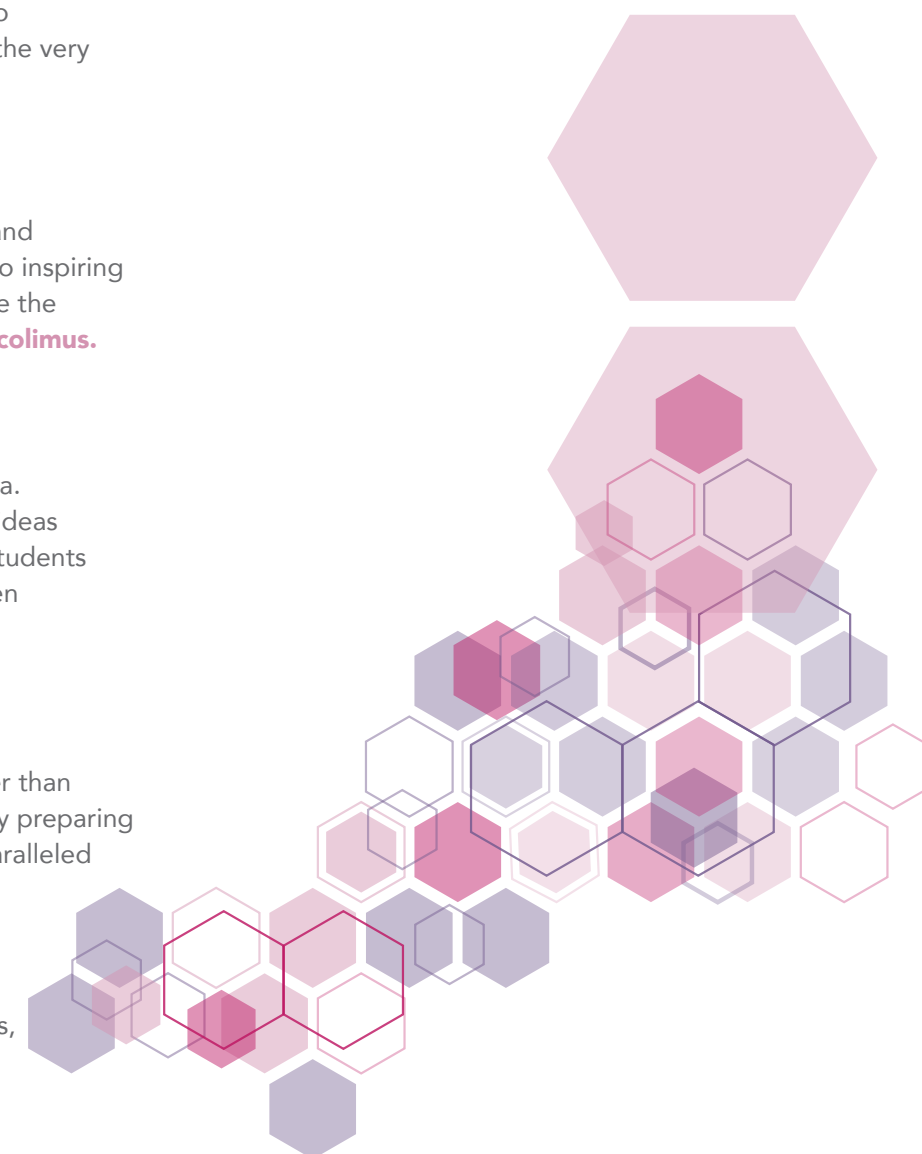
It's in our DNA. Always striving for greatness, always striving to achieve the very best.

ENTRANCE PROCESS

We'd be delighted to meet you and tell you more about the incredible opportunities on offer at CSMS. To find out more about visiting us for a tour, please fill in the online form on our website or email us on reception@csms.co.uk

Once you have decided to apply to CSMS you will need to complete an application form which can be found on our website. Applicants will be invited to an interview which will give you a chance to ask questions about the CSMS programme and to discuss subject choices for your A Levels.

Following a successful interview you will be given a conditional offer, which usually requires you to achieve a minimum of grade 8s in the subjects you intend to take at CSMS as well as an additional four GCSEs at grade 6 or above. You will also have to meet the minimum entry requirements for The VI Form Academy.



ALUMNI STORIES

Life at CSMS goes way beyond the curriculum. We're proud that our students are amongst the most gifted and dedicated in the country, and we are committed to creating experiences that will inspire and prepare them for university and beyond. Here are some stories from our Alumni.



Gaby A

Studying Chemical Engineering at University of Bath.

“ If it wasn't for CSMS I wouldn't be where I am now. I was presented with many amazing opportunities including a trip to Australia, my research project being presented in America and a wide variety of co-curricular activities to widen my knowledge and understanding of different aspects of life. The support at CSMS is incredible, the smaller class sizes allow for more personal one-to-one support and opportunities to make great friends. The way that Maths and Chemistry were taught inspired me to continue my studies further and eventually gave me the ability to apply to a top league university. ”



Ben W

Studying Physics with International Experience at University of Bristol

“ CSMS offered me so many opportunities, and I would not be where I am today without it. Due to CSMS, I was able to do things such as attend talks from field specialists, lead a team research group, and go to Brisbane Australia for an academic exchange! Thanks to the amazing staff, teachers and opportunities at CSMS, I was given the confidence, means, and abilities to aim high. Many of my experiences and taught skills are still invaluable to me in University and the wider professional world. ”



Ali A

Studying Medicine at Exeter University

“ CSMS excels in delivering high-quality education at an advanced level, similar to university standards. The teachers, who are specialists in their fields, create an enriching learning environment during lessons, challenging students to explore their subjects beyond the syllabus. We were encouraged to work together, and being around like-minded peers that are also passionate about the subject meant that we pushed each other further. CSMS also extends valuable support for students pursuing competitive courses at university. As part of the Medical Pathway, my teachers organised mock multiple mini interviews (MMIs), effectively preparing me for my daunting yet crucial medical school interviews. ”



James G

Studying Civil Engineering at University of Bath

“ During my time at CSMS, I was able to visit Exeter College Oxford. I greatly enjoyed experiencing both the university and the city firsthand and this was powerful in motivating me to continue to study hard and to build a strong personal statement. Although I did not go on to study at the University of Oxford, the support provided through the Oxbridge Pathway nevertheless was vital to my successful application to the University of Bath. Alongside my studies and UCAS applications, I was able to go on a history trip to Berlin which I loved and where I will definitely visit again one day! I would not be where I am today without the incredible support of CSMS and the VI Form Academy. ”



Betty C

First cohort of the CSMS medical pathway and graduate of Guys, Kings and St Thomas medical school 2024

“ During my time at secondary school I was inspired to pursue a career in medicine. I was encouraged to reach my potential - no ambition was too great. CSMS is an incredible place, and I was fortunate enough to travel to places such as Japan, Australia, Singapore and Switzerland for science and cultural exploration. I am also so grateful to have been one of the first students on the Medical pathway. I was supported in my application to medical school and was accepted to two prestigious medical schools. I have spent the last 6 years studying in top London Hospitals, learning from world renowned doctors and surgeons. I'm now graduating from Guys, Kings and St Thomas' medical school to work as a NHS doctor in London. ”



CONTACT US

CSMS is located in Camborne right next to the train station, making us easy to get to from across the county.

**CSMS, Nexus Campus,
Trevu Road, Camborne, TR14 7AD**

  @cornwallschoolmathsandscience

 reception@csms.co.uk

www.csms.co.uk