



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 is the best place to study STEM A Levels in Cornwall

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 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: csms.co.uk



Sarah Belshaw
Head of CSMS




Dan Chapman
Deputy Head of CSMS



CSMS

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OUR STATS

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

CSMS
Average grade
of A+ (52.7)

100%
of students
attending top
universities

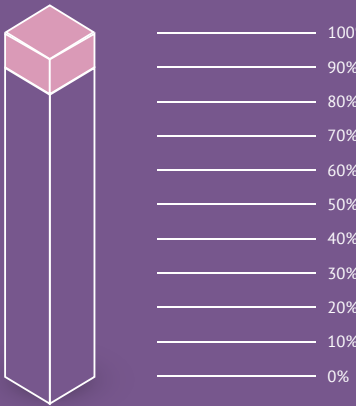
Top
state-funded
Post-16
STEM
provider in
Cornwall

The best
place to
study
STEM
A Levels
in Cornwall

100%
A-Level
pass rate

86.8% | achieved (compared to
A*-A grades | 44.3% nationally in 2021)

**Consecutively in
top 10% of UK
for progress
since 2015**





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.

STEP 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.

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 over the last 4 years for progress made by students. In 2019, it was the top state-funded provider for A Levels in Cornwall, including all the colleges.

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:

- Visit Singapore and work with students from the National Junior College.
- 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 a place where you are given the time, space and resources to carry out your own authentic scientific research.

Here at Cornwall School of Maths and Science we place research at the heart of our work.

All our students are strongly encouraged to undertake their own research project alongside their A Levels, supported by a team of specialist teachers. This research can also be used as the basis for an Extended Project Qualification.

Some examples of the research that students from CSMS have been part of include: using data from

the International Space Station to discover and predict background radiation at different locations on the globe; using a university-grade particle detector of the type used at CERN to investigate the properties of background radiation; using a carbon monoxide detector to map the distribution of the deadly gas around Cornwall; and mapping the genome of the Human Whipworm through the Genome Decoders project.

MEET THE STUDENTS

“ I travelled to Thailand to present my research modelling the impact of climate change on glacial calving at the Asian Pacific Conference of Young Scientists, winning an award for most innovative research. After the success of this conference I was also invited to present the research at a European Space Agency Conference, making me the first VI Former invited to this event in Europe. ”

Alfie B – studying Mathematics at the University of Oxford

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 pastoral team who are always available to provide support.

STUDENT LEADERSHIP

CSMS students are inspirational, representing the most able and passionate STEM students in Cornwall. As such they are role models for the members of the Nexus gifted programme in the lower school.

CSMS students are given the opportunity to become STEM Leaders, working closely with students in Nexus 7 and 8 to enthuse and inspire them. This also counts towards the volunteering section of the Duke of Edinburgh award or the VInspired award. We also appoint a head boy and girl, alongside a Student Leadership Team, who have the opportunity to shape the VI Form.

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.

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 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/BMAT entrance exams



“CSMS has a great support network as you get to know the teachers very well and you know they are always there to talk to about anything. When I leave CSMS, I hope to study Dentistry at university and I know I am being given every possible opportunity to achieve this.”

Molly C – Head Girl at CSMS, Year 13 student applying for Dentistry

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



“ In the veterinary pathway, we are provided with regular support from a teacher who is very experienced in the process of applying to vet school. She helps us with finding work experience, applying for placements on summer schools, and preparing for the university interviews. We are given so much support to prepare for our applications that we are confident that we have the best chance at getting an offer. ”

Ugnė G-C – Year 12 student on the Veterinary Pathway



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. As a result, there is an additional application process for students who wish to join the Oxbridge Pathway at CSMS.

To join the Oxbridge pathway students must achieve at least five GCSE grades of 8+, including in the subjects to be studied at A Level. Applicants for the Oxbridge Pathway will also be invited to attend an interview at CSMS.

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.



MEET THE STUDENTS



“At CSMS I enjoyed being in lessons where discussion, hard work and passion for the subject was highly valued by students and teachers alike. Without the input from CSMS in terms of suggesting the summer schools that I attended (including one in Glasgow which was funded through the scholarship scheme), the lecture series with inspiring scientists, guidance with my personal statement, interview preparation, and crucially showing me that I was capable of achieving my goals, I doubt I would have received an offer from Oxford University.”

Ella K, studying Earth Sciences 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: 85.7% of students achieved A*-B in Further Maths A Level, and 91.7% of students achieved A*-B in Maths A Level in 2020.

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.

Students who hope to join the Oxbridge Pathway will have an additional academic interview.





CONTACT US

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

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