



**Cambridge Academy
for Science and Technology**
The best in everyone™

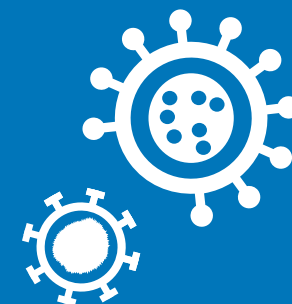
Part of United Learning

Year 9 Entry Prospectus



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What do we offer?

Cambridge Academy of Science and Technology is an inspiring, specialist science academy for young people aged 13-19. The college offers a programme of GCSE, A level and T level courses along with a unique opportunity to work with nearby organisations involved in science, engineering and technology.

Situated in the heart of Cambridge's Biomedical Campus, the college is surrounded by world-leading academic, healthcare and commercial organisations which sponsor, support and contribute to the life and work of the college.

Students work in state-of-the-art laboratories and facilities, learning in innovative and exciting ways, supported by CAST's unique partnerships. CAST therefore gives its students a head start into their future careers.

The academy's curriculum is focused on pathways into different career sectors. So, whether students want to pursue specific STEM (Science, Technology, Engineering & Maths) careers, such as life science, chemistry, computing, medicine, etc. or a more general applied sciences course, we guide

them into the subjects and experiences which will support their career plans.

Employers help lead Challenge projects. These engage and stretch students every week, introducing them to real and relevant research and work. This provides every learner with a portfolio of experiences and attributes that are highly prized by universities and employers alike.

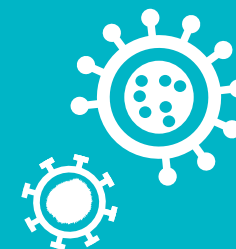
Following on from GCSEs, the CAST Sixth Form is a high performing, firmly established sixth form with a strong track record of both academic excellence and student progress. With students from many different schools, both national and international, the sixth form has a vibrant atmosphere with a wealth of opportunities, while at the same time being small enough to ensure our students are all known and treated as individuals. If you choose to join us, we can help you achieve the highest possible academic outcomes through a combination of outstanding teaching, our unique position as an academy for science and technology and the close support needed to

thrive in a more independent environment.

CAST is a United Learning school and also supported by the Baker Dearing Trust as a University Technical College (UTC).

**“
Science at CAST is not just about learning facts. It's about discovering how the world works and how I can be part of it.”**

Yosef





“
CAST teachers are brilliant – always
willing to offer extra support and
passionate about their subjects.”

Philip

“
The hands-on activities
we do in lessons make
complex ideas easier to
understand and much
more interesting.”

Saanvi

Our curriculum

Year 9

Our aim in Year 9 is to excite students in the scope and range of STEM subjects. We offer a specialist KS3 curriculum which ensures all our students have both the skills and knowledge to be successful when they transition into KS4. This supports our students onto future STEM careers when they graduate from CAST.

In Year 9 students study the following:

- Biology
- Challenge
- Chemistry
- Computing and Technology
- English
- Geography
- Maths
- PE
- Physics
- PSHE
- Religious Studies

Year 10 and 11

In Year 10 and 11, all students take nine GCSE subjects in addition to Challenge, PE and PSHE:

Seven are core and taken by all students:

- Biology
- Chemistry
- English Language
- English Literature
- Maths
- Physics
- Statistics

Students also take two option subjects from:

- Computer Science
- Construction and the Built Environment
- Geography
- Health and Social Care
- ICT (Information Technology)
- Psychology
- Sports Science

Sixth Form

In the Sixth Form, students choose from either an A Level or T Level programme. They will continue to work on Challenge projects. This includes the Extended Project Qualification.

“

The teachers at CAST make learning exciting and challenging, always encouraging me to think deeper and ask questions.”

Ameya



Real experience from the start

Being a good scientist is more than just knowing about the subject, it is being able to apply the scientific method to new problems. This means students will design and perform their own experiments using modern technology to solve real world problems.

Students engage in Challenge projects. These are extended STEM-based projects developed and delivered in close collaboration with partners in industry, health care and academia. All projects have a clear 'challenge' that students must overcome and some form of industry-matched outcome at the end. Projects may include seminars, masterclasses, practical activities, independent work and student presentations.

The aim of Challenge projects are to gain:

- A practical understanding of the scientific method
- Practical science skills
- An extension of curriculum teaching
- Transferable skills such as teamwork, leadership, and presentation skills
- An understanding of future career options

Students have a choice of the projects and subject areas that they will work in. Examples of some of the projects available in Years 9, 10 and 11 include:

- Drug development with AstraZeneca
- Designing a hydropower station with Mott MacDonald
- Elephant conservation in Africa with The Institute for Research in Schools
- Environmental impact assessment for the Cambridge South Railway Station with Mott MacDonald
- Architectural design with Morgan Sindall
- Use of animals in research with the University of Cambridge
- Classifying stars in collaboration with the European space agency and James Webb Space Telescope
- Science of growing grapes with Saffron Grange Vineyard
- Superconductivity engineering with Universities of Oxford and Cambridge Engineering & Physics Departments

CAST is also proud to be the University of Cambridge Engineering Department's 'Dyson School.'

These are some of the employers who have been involved with the Challenge projects:



Education with character



At CAST our aim is not only academic success, but the development of confident, capable young people who are ready to take their place in an ever-changing world.

Schools and colleges play a vital role in equipping students with the knowledge, skills and resilience they need to look after themselves and contribute positively to society, whether locally, nationally or globally. We believe the world is a place of immense opportunity, and we strive to ensure that every student at CAST is ready to embrace it with confidence and curiosity.

Trips and Visits

Our Year 9 students benefit from a rich and varied programme of trips and visits that extend learning beyond the classroom. A highlight of the year is the Outward Bound residential trip, where students develop independence, teamwork and resilience in a challenging yet supportive environment. In addition, students have the opportunity to take part in memorable experiences such as ski trips, international cultural trips and a range of subject-specific excursions that deepen their understanding and bring learning to life.

Clubs and Societies

Sport plays a key role in life at CAST, with a wide range of opportunities for students to develop new skills and compete against local schools. Alongside this, students are encouraged to engage in a variety of clubs and activities that support their wider interests. These include opportunities such as the Duke of Edinburgh Award, fostering independence and teamwork, as well as popular clubs like Warhammer, which develop creativity, strategic thinking and collaboration.

Together, these experiences help build confidence and a strong sense of community.

Supracurricular

Beyond the classroom, students are encouraged to challenge themselves through a broad programme of supracurricular opportunities, including competitions and enrichment projects. CAST students regularly achieve success in STEM competitions, demonstrating strong problem-solving and creative thinking skills. Each year, students secure the prestigious Arkwright Engineering Scholarship, reflecting the strength of our provision. As the University of Cambridge's Department of Engineering

'Dyson School', CAST offers unique opportunities for students to work alongside scientists and engineers both in school and at the department itself, an inspiring experience that brings academic learning into a real-world context.

PSHE

Personal development is at the heart of our curriculum. Our PSHE programme covers essential topics such as relationships and sex education, personal safety, decision-making, personal finance, health, politics, religion and how to seek help. Students' understanding is assessed annually, ensuring they develop the knowledge and skills needed to navigate modern life with confidence. These themes are further reinforced through assemblies, tutor time and other aspects of school life, creating a coherent, supportive and enriching experience for all.



Make your future extraordinary

Progression is at the heart of all that we do at Cambridge Academy for Science and Technology. We want every one of our students to have the best possible chance of succeeding in their chosen career path. Therefore, we expect each student to achieve their best in their academic studies, Challenge projects and in the many other opportunities that we provide.

To support students in progressing to their chosen careers we provide a bespoke careers guidance programme as well as a large number of supracurricular and extracurricular opportunities. Every student receives personalised guidance in developing CV writing skills and interview technique to support their sixth form and apprenticeship applications. CAST is proud to hold the Career Mark in recognition of the quality of the careers provision we provide.

Involving employers at the heart of our education enables students to build professional

networks and opens doors and work experience opportunities that are not always available elsewhere. By working with professionals and industry experts, students develop the skills and confidence needed to conduct themselves successfully in a professional environment.

As well as their lessons, students have the chance to take part in a wide range of extracurricular activities from visits to the University of Cambridge, sporting events, and international trips, to after school clubs where they can compete in local and national competitions.

Year 9 students start to look at their own strengths and the opportunities available around the Cambridge area and beyond. Through Challenge projects, school trips, and external speakers, they meet numerous employers and learn about a wide range of careers.

From the start of Year 10, students have workshops on how to write a covering letter and apply for a job.

They receive personalised support to produce their own CV. All students have the opportunity to take part in a mock interview and receive feedback from an external expert. Having learnt how to apply for a job, students complete a week's work experience.

In Year 11 students attend career carousels and are then supported in applying for the next stage of their education, be that sixth form, further education, an apprenticeship, or a job with training. However, before that starts, students attend careers carousels to get them thinking about where they want to be in the future, ensuring that they are making informed decisions about the next steps in their education.

In addition to the core guidance outlined above all students receive at least one 1:1 guidance meeting with our expert career advisor in Key Stage 4. They also receive education in managing money, employment rights, trade unions and human resources through PSHE lessons.

Throughout their time at CAST, students build up a Portfolio of Achievement that brings together their academic, employability, careers and personal skills into a document that they can use to support them in achieving their future career aspirations.

“
CAST has helped me discover new areas of science that I didn't know I was interested in before.
”

Luca



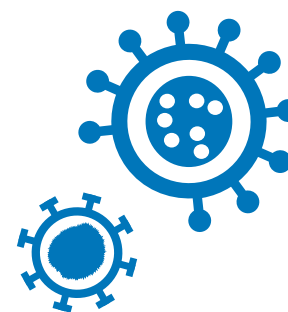


CAST Sixth Form

After Year 11 many of our students progress on to our very successful sixth form. CAST Sixth Form offers many advantages to support your continued education, including:

- **High quality teaching** – meaning excellent exam results.
- **Small size** – meaning personalised support.
- **Working with employers on extended STEM projects** – meaning you gain the skills to progress into your chosen career.
- **Specialist STEM college** – meaning you learn what you love with like-minded peers from experts, gaining A and T Levels, the qualifications employers want.
- **Outstanding careers support** – meaning our students get the university and apprenticeship places they want.
- **Friendly supportive environment** – meaning all our students flourish.
- **Outstanding facilities** – meaning you are confident in working with professional equipment.
- **Active Sixth Form Council** – meaning your views make a difference.
- **Dedicated Sixth Form study area** – meaning there is always space for you to work in CAST Sixth Form.
- **Located on the Cambridge Biomedical Campus** – provides access to some of the world's top science and medical organisations.

The majority of CAST Sixth Form Year 13 students progress onto university, most studying STEM courses. Each year we have students who achieve places at the UK's top universities, including Cambridge, Oxford and other Russell Group Universities. We also regularly have students achieving sought-after higher apprenticeship places in a wide range of fields.



“
Work Experience has helped me to understand
what it is like to work in the field of medicine.
This will be great for my CV.”

Niharika

Supporting students to succeed

At CAST, we encourage our students to become independent and courageous learners by developing the core values of respect, responsibility and resilience. We want our students to try things they cannot do, to persist in the face of difficulty and become resilient in overcoming setbacks. We provide a range of opportunities to help students become confident, well-rounded and ambitious. Each student belongs to a tutor group and during weekly tutor time they take part in informative, thought-provoking assemblies as part of our wider curriculum offer.

Students also participate in the whole-school reading programme to broaden the mind and widen their vocabulary. The tutor is the primary point of contact for students and parents. If extra support is required, tutors can refer to our experienced pastoral team, led by the Head of Year, or the dedicated SEND team lead by the SENDCo.

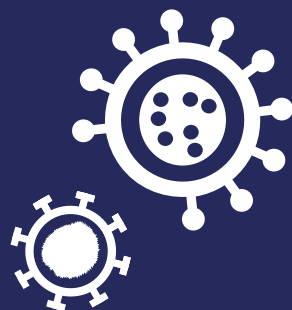


“

At CAST I have always felt supported and encouraged by teachers to push myself to achieve more than I ever thought I could.”

Aiyana





SEND

Students identified with additional needs who can be effectively supported within the classroom and require no additional intervention will be 'monitored' by teachers and the SENDCo and parents will be informed. Those students requiring additional support over and above high-quality teaching will receive 'SEND support' and will be added to the SEND register.

Students and their parents will be invited to contribute to the creation of a Strategy Sheet to assist teachers in choosing the best approach to enhance learning and well-being for the individual. Students arriving with an Education Health and Care Plan will have reasonable adjustments put in place to help them meet targets determined by the local authority. All students on the SEND register have a learning mentor who they can talk to if they are worried about anything at school.

Special Educational Needs fall into the four main categories below, though many students find they have a combination of challenges:

- **Communication and interactions** (e.g. autism or speech and language needs).
- **Cognition and learning** (e.g. moderate and severe learning difficulties, dyslexia, dyspraxia and dyscalculia).
- **Sensory and/or physical needs** (e.g. visual impairment, hearing impairment, a multi-sensory impairment, or a specific physical disability).
- **Social, emotional and mental health difficulties** (e.g. anxiety and depression, ADHD, ADD, OCD or detachment disorder).



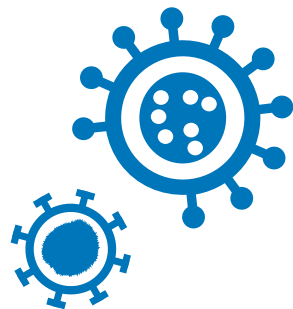
CAST is part of United Learning

United Learning is a group of schools which aims to provide excellent education to children and young people across the country.

We seek to improve the life chances of all the children and young people we serve and make it our mission to bring out the best in everyone - students, staff, parents and the wider community. Working collaboratively, we can offer more to both staff and young people than any single school could offer alone. As part of United Learning, we are able to offer group-wide activities and experiences that we would not be able to offer alone.

United Learning's approach is underpinned by a sense of moral purpose and commitment to doing what is right for children and young people, supporting colleagues to achieve excellence and acting with integrity in all our dealings within and beyond the organisation, in the interests of young people everywhere.

We summarise this ethos as *the best in everyone*.



“

CAST has helped me shape my future career plans by giving me a hands-on experience of science and technology, building my confidence and helping me understand what career path I want to follow.”

Riya

CAST is a University Technical College

University Technical Colleges (UTCs) are government-funded schools with a STEM (Science, Technology, Engineering and Maths) focus. They provide a unique and relevant approach to education which addresses the changing needs of students and employers in the 21st Century.

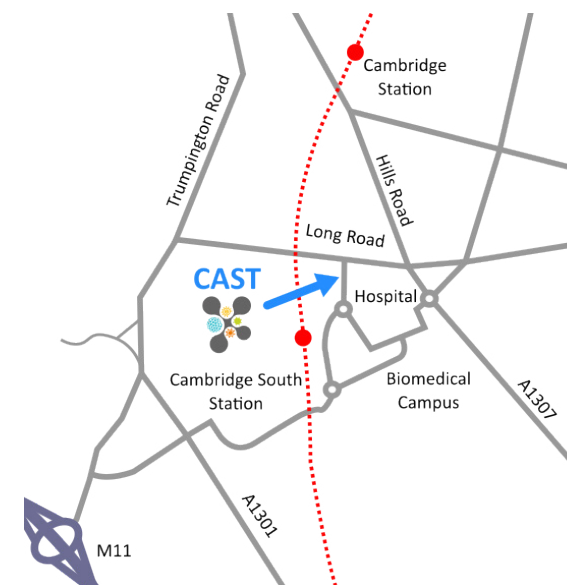
Established by companies and universities in areas of high demand for talent, UTCs provide sought-after technical qualifications and experience and benefit from industry standard equipment and specialist staff to provide students with the skills valued by employers. UTCs are a national family of almost 50 state-funded schools that offer a distinctively different educational choice from other schools. The Baker Dearing Educational Trust is a small, flexible charity that sits at the centre of the UTC network and focuses on promoting and supporting new and existing UTCs.

The UTC mission is to provide young people with a relevant education in a fast-changing world and provide employers with the skilled workforce needed for UK industry to thrive. We offer young people the education they need today to equip them for tomorrow's careers.



Travel

CAST is situated on the Cambridge Biomedical Campus close to Addenbrookes Hospital, therefore has excellent transport links. The college is served by a large number of buses, is on the Cambridgeshire Guided Busway and is only a few minutes walk from Cambridge South Station. There is ample bike parking.



Applying for a place

Students wishing to join Cambridge Academy of Science and Technology in Year 9 should complete an application form through Applicaa, available from our website. Applications will be open from late September. The first round of applications closes mid December.

Students from anywhere in the region can apply. Places are not limited to those living in Cambridgeshire. The main catchment is typically the area within a 15-mile straight line radius of CAST.



For more information regarding admission to our school, or our open evening, please visit:

www.cambridgeAST.org.uk/admissions/applying-for-year-9

Email: admissions@CambridgeAST.org.uk

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