

nuast
Nottingham University Academy
of Science and Technology

Year 12 Wellbeing Day

Year 12 Students took part in a Wellbeing Day as part of an initiative to tackle stress and anxiety. Students could choose from a variety of activities, from Yoga and Dance, to bridge-building and learning about why sleep is so important. Students were also lucky enough to have Professor Justine Schneider join them to talk about the importance of mental health and the role we all have in tackling our misconceptions, showing how we can all help ourselves and others when facing periods of poor mental health in our lives.

- Mr Cox

Important Dates

Results Days

A Level Results Day is on Thursday 16th August.

GCSE Results Day is on Thursday 23rd August.

Enrolment Days for Year 12

23—24th August

28—29th August

The school will be open from 9am.



Have a lovely summer!

Training Teachers

Over the last year, four future teachers have been working at NUAST as part of their Initial Teacher Training (ITT). They all agreed that the experience has been very worthwhile and that the knowledge they have gained will be invaluable when they begin their teaching careers. They commented on how pleasurable the experience was and how much they enjoyed working with us.

We have also been very impressed with the enthusiasm and thoughtfulness that they brought to lessons. It is pleasing to report that they have all now gained teaching posts for next September. In fact, one is returning to NUAST to join the science team.

- Mr Williams

Teach Learn

NUAST News

Summer 2018

Message from the Principal

The summer term has been busy and successful for students at NUAST. Year 11 and Year 13 students have been undertaking final examinations which appear to have gone well given the feedback from both students and teaching staff. I commend the students for their effort and parents/carers for their support as they prepared their children for these important examinations. I attended the Year 13 leaving event in Nottingham and it was very sad to see students who have been with us since opening leave us after four years. It felt like the family was leaving home. I wish all students who have undertaken public examinations the very best in their results and for their future studies and apprenticeships.

Results will be issued to students on 16th August (A level) and 23rd August (GCSE). Results will be available from 9am. Staff will be available to support and advise students and parents/carers about their options. We intend to collect students' email address details to keep in contact. On leaving NUAST, past students become valued alumni and we are keen to keep in touch.

Students from Xingting High School, our partner school from Ningbo, have visited NUAST to learn about English culture and education. Our students were exemplary ambassadors for the school and local area and made our Chinese visitors very welcome. This partnership is of huge benefit to NUAST and allows our students to engage in a rich cultural exchange. We look forward to developing this partnership further through joint education projects. NUAST students will again be visiting Ningbo in September.

NUAST has hosted a number of visitors from influential organisations over the last term. Visitors included Lord Kerslake and four other representatives of the Civic Universities Commission, Chris Millward (Director for Fair Access and Participation at the Office for Students) and Dr Tim Bradshaw (CEO of the Russell Group). Our students enjoyed these opportunities to engage with leading policymakers.

I would like to thank all the partner organisations, companies, University of Nottingham, Nottingham Trent University and charities that have supported NUAST this year. The work and support you give to us as an organisation enhances and enriches the life of our students. I would like to thank all the staff at NUAST who work relentlessly to ensure excellent results and outcomes for our students. A small number of staff will be leaving us at the end of the term: I wish them every success for their futures.

- Mr White



Innovative therapies and rocket science

Biology Trip to University of Nottingham

Year 12 biologists went to University of Nottingham and supported three start-up companies with their seed-funding money. All three companies, SpiNoVa, ReGerm and BetaGen use novel therapies. BetaGen are in pre-clinical trials for regenerating the pancreas. ReGerm address the problem of male infertility. SpiNoVa presented the most impressive therapy which introduces stem cells to the spinal cord. Paralysed rats were able to walk 40 days after the therapy. Students saw how personalised medicine is becoming more of a reality.

Our students were judged during the conference on their posters, on which they had to explain their experiments and present their results. This was an excellent experience of how university and industry research is communicated to the wider scientific community. The shield was won by Bruno Truben and Nick Terry, whose winning entry can be seen on the achievement wall in the KS4 base area. University lecturers and the companies were impressed at how articulate Bruno and Nick explained the serial dilution method to quantify water potential in plant tissue.

- Mrs Barnett



Physics Trip to Kimberley School

Through University of Nottingham and the Ogden Trust NUAST students had the opportunity to learn about the physics of rockets, specifically how to calculate the range and initial velocity of a paper rocket powered by compressed air. Testing the rockets and building a calibration curve were both part of the competition and eventually eight teams competed against each other in a precision challenge.

The competition was very tense, and NUAST was narrowly beaten by Nottingham Girls' High School for the winning spot.

Nottingham Trent University Trip

Six Year 10 students took part in a Physics in Music competition at Nottingham Trent University through the Ogden Trust earlier this month. Our students were required to look at the resonance of wine glasses, construct thongo-phones, and produce different frequencies for a light harp. They had to create their own note for all three instruments and play a 'popular' song in each activity. They were supported by undergraduate and post-graduate students, as well as NTU lecturers throughout the day. Two NUAST students were in the winning group and their performances were recorded and played back to the audience to the delight of all in attendance.



- Mr Beardsall



NUAST prepares to welcome its first Year 7 students

Over the past year we have welcomed a large number of Year 5 and 6 students from local primary schools for a day of Science, Computing and Engineering.

Nearly 200 students from The Lanes, John Clifford, Victoria, Dunkirk and Crabtree Farm Primary Schools took part in a range of exciting lessons aimed at inspiring young people to take a career in STEM.

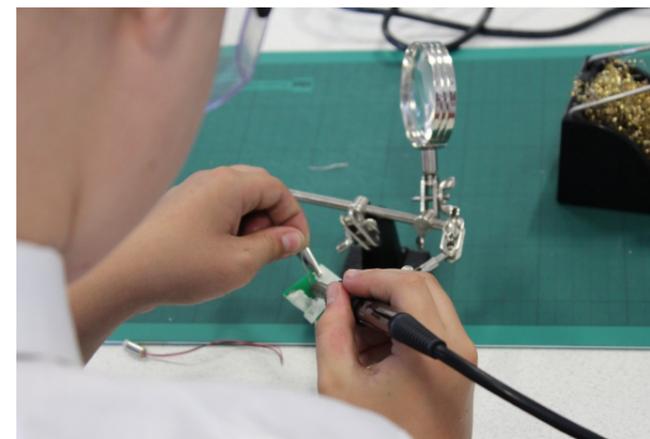
In science, students got the chance to mix chemicals together to make a slime-like material and learned about its properties and applications. In engineering, Computer Aided Design software was used to plan the layout of a personalised keyring which was then manufactured on our laser cutting machines. In computer science, students got the chance to design and build a robotic arm using programmable Lego.

We are delighted that NUAST's reputation as a leading centre for educational excellence is growing and we are now oversubscribed not only for Year 7 intake, but also for Year 10 and 12.

- Mr Wood



Year 7 Transition Days



Year 6 students enjoyed two fantastic days at NUAST in July. They got a taste of a variety of different subjects. Two highlights included learning how to solder in engineering and drawing fish in art. We were very impressed with their enthusiasm and hard work!

Celebrating NUAST's student successes outside school

Jacob Taylor (Year 10) has been working hard to regain his fitness after a back injury in the Olympic Canoe Slalom K1 (Kayak Single) discipline. The 2015 British Champion Junior 14 has been training 7-10 sessions per week on the water and in the gym. His short term ambition is to be selected for the Great Britain Junior team 2020 and race at the European and World Championships.

We wish Jacob every success!



Bethan-Jaye Storry (Year 10) entered the Fashion and Textiles category at the Nottingham Creative Awards for 13-15 year olds with her dress for children. She was shortlisted from over 600 entries and invited to attend the awards at Nottingham Playhouse on 23 May. On the evening she was 'highly commended' and received a certificate. She thoroughly enjoyed the evening and felt privileged to have her work displayed at such a prestigious event. NUAST would like to congratulate Bethan-Jaye for this fantastic achievement and we are so pleased that her creativity and hard work have been recognised in this way.

Congratulations Bethan-Jaye!

Creating a Woodlouse Colony

A major biology practical at A level uses choice chambers to analyse the behaviour of small creatures and their preference for certain environments. Woodlice are an excellent species to use to examine their preferences for light versus dark and dry versus moist habitats.

It is possible to maintain a small woodlouse colony in a prep room but there can be issues with mould accumulation or conditions becoming stressful for the woodlice. The best solution is to create an ideal habitat on the school site to encourage a population to naturally colonise. It also means that after the potentially distressing exposure to the lab, being transferred into and out of containers, they can be returned to a natural habitat. With this in mind we have built a log pile on site. By recycling materials from staff gardens, we are hoping to establish a healthy, natural colony ready for next year.



- Mr King

Preparing for Interviews

NUAST is the pilot school for the Midland Masonic Education Partnership. The pilot involved 15 Year 10 students participating in employer-style interviews conducted by 5 Nottingham-based business people on 21st June. Students were selected based on excellent Attitude to Learning scores. Students completed 2 interviews and general feedback was given to them at the end of the day to help them with future college and job interviews. We would like to thank the following individuals for giving up their time to provide our students with this very valuable experience:

- Dee Fletcher – Director Response Network Ltd
- Taryn Hall – Director Response Network Ltd
- Sue Gott – Director Bluebell HR
- Keith Rogers – Director Guy Taylor Associates
- Barry Woodhead - Project Director Midlands Masonic Scholarship Scheme

- Mr Tapp



Field Trip to the Peak District

47 Year 10 students participated in the first NUAST Physical Geography fieldtrip to the Peak District on Monday 18th and Tuesday 19th June. The fieldtrip involved students visiting Burbage Brook near Hathersage and the River Wye in Bakewell. The day involved numerous activities including fieldwork investigations such as sketching maps and making observational notes on fluvial landforms and two long walks to experience the long profile of a river. Students will use the information collected to help them complete Paper 3 of their GCSE geography exams. Students worked very hard and collected lots of meaningful and accurate data. Thankfully no one fell into the river!

- Mr Tapp



Photo Courtesy of Joshua Ten Bruggencate (Year 10)

Future Destinations of Year 13 Leavers

This year we have two students who have won prestigious places to read Law and Biochemistry respectively at Oxford University.

We also have...

- our first ever couple of students who are doing non-STEM subjects - Law and Japanese Studies respectively.
- medical science students going on to study radiography, optometry and midwifery.
- a significant proportion of our students going onto study a degree in mathematics.
- students doing civil, mechanical and design engineering degrees.
- success in securing apprenticeships for a number of students including one at Perkins Engineering.
- one student who got to the final four for the Mercedes F1 team. He did not get the job but is happy to have an apprenticeship with a prestigious classic car restoration company.
- another student is in the final interview stage for a highly competitive Rolls Royce apprenticeship.

We wish all of our Year 13 leavers every success in their future ambitions, whatever they may be.

- Mr Edwards

Maths Puzzle

Over the Hill



A woman went up a hill at a rate of one and a half miles per hour and came down at the rate of four and a half miles per hour.

It took her six hours to make the return trip.

How far is it to the top of the hill?

Share your solution with your maths teacher.



Summer Reading...

Ava Webb (Year 10) recommends...
Wyrd Sisters by Terry Pratchett



Year 10 are studying *Macbeth*, and I think this witty parody makes an effective point of reference for key events and points of literary analysis in the play.

Lillith Jones (Year 10) recommends...
Fullmetal Alchemist by Hiromu Arakawa

Fullmetal Alchemist is a Japanese Manga series. In an alchemical ritual gone wrong, Edward Elric loses his arm and his leg, and his brother Alphonse becomes a soul trapped in a suit of armour. Equipped with 'auto-mail' prosthetic limbs, the brothers begin their journey to search for the one thing that can restore their bodies...the fabled Philosopher's Stone. *Fullmetal Alchemist* is one of the funniest Manga I have ever read. With 27 books in the series, this will keep you busy over the summer!

Prodrive



The Business Department organised a competition for Year 10 engineering and business students. The competition was based around a Dragons' Den-style panel where students designed a product and pitched it to a panel of industry experts and staff.

Students worked in pairs and gave presentations to the panel of judges who were amazed at the creativity and quality of our students. There were prizes for the top three teams. Congratulations to Jake and Charlie, Kashif and Isam and Amy and Shaker.

As a reward for their efforts, all of the students who participated were taken to Prodrive in Banbury for a tour of their operations. Prodrive design and build racing cars for Aston Martin along with lots of other projects for high profile companies. We were very lucky to be allowed access as we got to see the actual racing cars that were used in the Le Mans 2018 24-hour race which had come back from France that morning. Students also got to see the teams in action creating new products for clients.

Young Enterprise/ RS Components Innovation Competition

In May, six of our Year 10 students entered a competition run by Young Enterprise and RS Components. The challenge was based around designing a mascot for RS Component's Titan II truck which tours businesses and schools to inspire and engage people in engineering. The students designed a mascot, Tytus Tyger, and presented their concept to a panel of judges. They were successful in winning the regional heat and represented NUASt at the final in June. They had to present their mascot and pitch to a panel of judges about how their mascot could be marketed by RS Components. The team were up against 5 other schools across the East Midlands. They gave a great presentation and were able to answer the judge's questions. Although they were beaten in the final, it was a great experience and we are very proud of their efforts.

- Mrs Langsdale

