Computer Science

In January, Year 8 were the winning VEX team in a very well-fought final.

Congratulations!

In March, 6 Year 10 students went to Rolls Royce to carry out programming challenges with PA consultants and Rolls Royce apprentices. These included having the chance to encrypt messages on an enigma model and using big data.

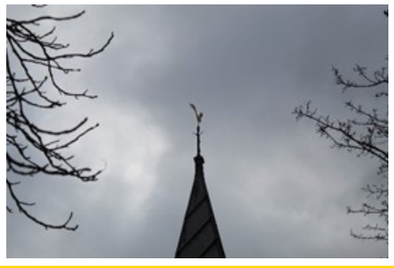
It was a very enjoyable and interesting day.

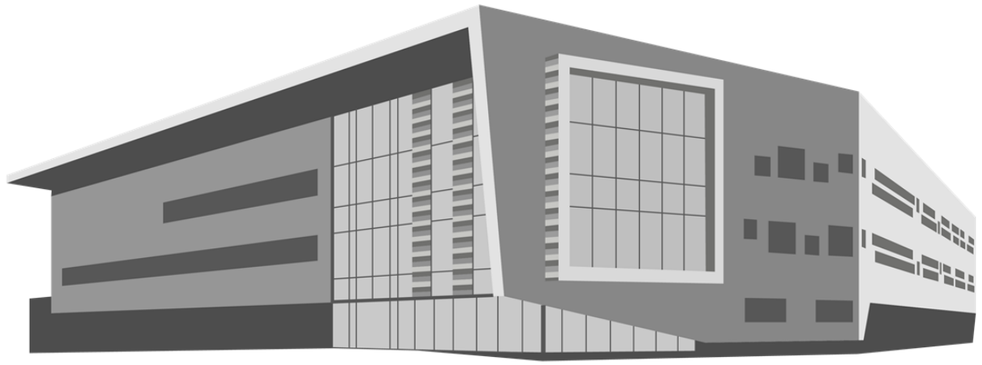
- Mr Harbour and Mr Wood

Photography

Year 10 and 11 have been working hard on their Photography coursework. Year 10s have been learning more about shutter speed, aperture and composition and put this into practice in their trip down to the local churchyard where they got some fantastic images, despite the cold temperatures and wind! Here is some of their work.

- Ms Foster





BBC Bitesize Daily lessons — In partnership with tes

As you may know, the BBC have launched a massive home learning support package. Our very own Mr Cox was approached to have one of his resources published on this. It is called English Transactional Writing SOW/ Guide and can be found through this link: https://www.tes.com/teaching-resources/bbc-bitesize-daily. Well done, Mr Cox!

There're plenty more great learning resources there too. It's worth a look! Just go to: https://www.bbc.co.uk/bitesize.

Look out for....

Home Challenges sent to you by your Heads of Year. Three to get you started:

1.Send your Head of Year a photo you have taken on the theme: 'Lockdown from my window'

2.Think of a drawer/ cupboard/ corner in your room that rarely (if ever) gets tidied. Tidy it!

3.Write a letter or an email to an elderly relative

Assemblies will soon be available on NUAST's YouTube Channel.

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Nottingham University Academy of Science and Technology

NUAST News

April 2020

Dear Parents/Carers/Students,

I hope you are all safe and well in these difficult and unprecedented times.

I would like to take the opportunity to welcome you all back to the summer term at NUAST. It is the most 'different' start to a summer term that I have ever known and our normal focus upon examination preparation, intervention and support for students undertaking examinations and preparing for the world of work or university study is somewhat different this year.

I write to you from the empty corridors of our school, which was closed just over four weeks ago as part of the national strategy to help reduce the spread of COVID-19. Our students and staff give our school its heartbeat and rhythm. Although a number of staff are in school each day to support both vulnerable and keyworker children it is just not the same. I miss the 'normal' school day and cannot wait for the day we return to normal.

I would like to thank all the staff in the school (both teaching and support) for their incredible support of our students, parents and each other in preparing lessons and teaching materials for online delivery via email, video conferencing and Microsoft Teams. Staff and students alike have been on a huge learning curve and have successfully maintained teaching via the Teams platform. All students should be fully engaged in work that is being set by their subject teachers.

Our pastoral and support staff are maintaining contact with students, families and support organisations to ensure that students feel supported and are safeguarded during the period of lockdown. I would remind parents and carers of students who are vulnerable or who have keyworkers as parents that the school is open to them during the closure period. Places can be booked online or by calling the school between 9.00 and 15.00.

The cleaning and site team continue to come to work to keep the site open and safe for the children of our key workers, our vulnerable children and the staff who still come in to work with them. The building has been deep cleaned and essential maintenance is being carried out.

I would like to offer my thanks to parents and carers who have supported our efforts by helping their children set up for remote teaching. The role each of you play is of paramount importance for when we return to school. Parents act as motivators when focus and self-discipline slip; sources of knowledge and support when children get stuck; sources of reason when things get too much and sources of care as we all adapt to this new way of life.

The messages and gestures of support from staff, students, parents, governors and members of the NUAST community have been greatly received.

As I write, there are currently no firm plans to reopen the school despite the recent press speculation. Please be assured that when we do eventually reopen we will only do so in a manner that reflects best practice, follows government guidelines and protects the health and wellbeing of staff and students. On a sad note, I wish to inform you that our receptionist Tina Woodhouse has unfortunately lost both her brother and father to COVID-19. Many of you will know Tina well and I offer the sympathies of the whole school community to Tina and her family during this difficult time.

- Mr White, Principal

Maths News

One of the world's most renowned mathematicians Michael Atiyah claimed to have solved the 161-year-old Riemann Problem in September 2018. Solving the problem came with an award of £760,000!


Michael Atiyah in 2007

Bernhard Riemann came up with the problem in 1859. It attempts to answer an old question about prime numbers, numbers that divide only by themselves and 1 (2, 3, 5, 7, 11, 13, 17, 19….). The hypothesis states that the distribution of primes is not random, but might follow a pattern described by an equation called the Riemann zeta function. So far 10,000,000,000,000 prime numbers have been checked, but there is no proof that all primes follow the pattern. To solve the problem, you need to find a way to predict the occurrence of every prime number, even though primes have historically been regarded as randomly distributed.

Home School News

Well done for all your hard work at home. We have had some great work submitted in Teams so far. In maths each week you have a lesson which closely follows our scheme of learning, with a worksheet to complete, followed by a Mathswatch task on the same topic. In other lessons we want to encourage your mathematical thinking! You may be set a puzzle or problem like the one below. You can submit your solutions on Teams for your teacher to review. The Riemann Problem is one of seven unsolved maths problems, each worth £760,000. While NUAST cannot offer you £760,000 for solving mathematical problems, we can offer valuable ATL house points!

Why not have a go at this prime number problem. It's slightly easier that the Riemann Prime problem but still a challenge!

Strange Numbers

Strange numbers are defined in the following way:

- All strange numbers are prime.
- Every single digit prime number is strange.
- A number with two or more digits is strange if, and only if, the two numbers obtained from it, by removing either its first or its last digit, are also strange.

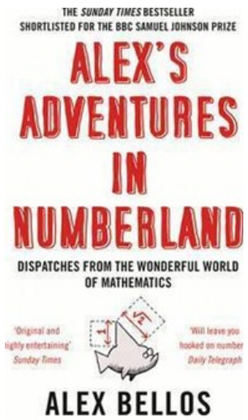
Find all the strange numbers (Hint – there are less than 10)

Good luck young mathematicians!

Book Recommendation

Alex's Adventures in Numberland: Dispatches from the Wonderful World of Mathematics by Alex Bellos.

Exploding the myth that maths is best left to the geeks, Alex Bellos covers subjects from adding to algebra, from set theory to statistics and from logarithms to logical paradoxes. In doing so, he explains how mathematical ideas underpin just about everything in our lives.



- Mrs Morgan

nuast
Nottingham University Academy of Science and Technology

Wednesday 8th April 2020

Dear Parent/Carer

Re: Year 11 Prom

It is with deep regret that we will have to cancel the Year 11 Prom for students that was due to take place in June. As I am sure you will appreciate, this decision has not been taken lightly. I feel that due to the current COVID-19 situation and regular updated information from the Department of Health it is in the best interest of staff and students to cancel this event.

All deposits will be fully refunded after the Easter school break once the office staff return to school.

I would like to thank you and your child for you continued support, efforts and work over the last academic year and I am sorry that the students could not finish the school year as intended. I wish you well and hope you and your family are keeping safe.

Yours sincerely

Robert White
Principal

Science News

Forensics

We were very fortunate to welcome Dr Roger Summers, a leading forensic expert, to NUAST to work with Year 12 students. He has worked on cases including Grenfell Tower, the Leicester helicopter crash, Lockerbie and 2005 Tsunami. He also developed bite mark forensic analysis.

Dr Summers ran a forensic taster for us which was based on an undergraduate course. Our students listened to the Meredith Kercher case which gave them ideas about how forensic science draws from across the scientific fields of biology, chemistry, physics and geology. They then worked in groups of three, each with a specific case. The work culminated with a mock trial in which students proposed their theories based on forensic evidence. Dr Summers was very impressed with the students' deductions. This was a superb experience and showcased an exciting career path.

In February, Year 12 biologists went across to the new Biology Institute at the University of Nottingham, where they were amazed at the high-throughput stem cell machine, affectionately known as "Brian". Stem cells have massive potential as a therapy for many diseases. The cutting-edge technology we saw is the future of many therapies. We listened to three companies, *T-Elevation*, *Nanophage* and *Follicured* who told us how they used stem cell technology. After a network pizza lunch, students then presented a poster to the companies and university staff. The event was a huge success. Well done to all who took part.

- Mrs Barnett