

## **Headteacher**

I write this having just finished our Y13 Leavers' Assembly. It is a bittersweet day in our calendar as a cohort, many of whom we have known for 7 years, take their leave—returning after the Half Term Break for their final A Level Examinations. Dressed as they were—a motley crew of chipmunks, 'Where's Wally?', princesses and a surfeit of onesies—they represent much of what is so special at Bullers Wood. Individual, vibrant and confident; with a shared identity and history as members of our community. We wish them well over the coming weeks. I said to them this morning that I am confident they will achieve outstanding examination results which set them up for the next stage of work, training or study but also that they have the humanity and humility of knowing that significant as it is what they achieve, it is equally important how they go about it.

Most students in Year 11 reach the break in the knowledge that they are now half way through their GCSEs. We have been so impressed with their resilience over the last couple of weeks. They are the first cohort to sit exams the new GCSE exams in nearly all subjects. With the demise of coursework there are more exams than ever before, with more content and more challenging concepts. They have acquitted themselves well thus far; determined and resolute—and for the most part still smiling! They have a well deserved break over the coming week—as well as no doubt redoubling their revision efforts for the remaining papers.

Alongside the 'final push' for exams—we have, like all other organisations, been grappling with the implications of GDPR. Our new policy and privacy notices which set out how we will be GDPR compliant have gone on the website this afternoon. Amidst the complexities of the new legislation it has served as a powerful reminder of just how much data processes have evolved in recent years—and with the increased digitalisation of nearly all aspects of life the

amount of data processed has burgeoned. I am sure we, like everyone else implementing this, will benefit from the reviews we have carried out to ensure that the data we hold is appropriate, secure and not stored any longer than needed.

As we head towards the end of the academic year work continues apace towards opening the Boys' School. I am pleased to say that we are increasingly confident of opening in September with a full complement of 180 boys. I am occasionally asked about the impact of this on the Girls' School. It is important to remember that the Boys' School will be a separate school to the Girls' School, with its own staff, governing body and deriving its own budget based on student numbers. Operating within the same MAT gives us the opportunity to secure economic efficiencies across the operation of two schools—through bulk buying or resources and contracts and shared services. This is vital in the current economic climate in order for us to maintain the range of subjects and courses we deliver which is central to the ethos of Bullers Wood. Some parents have raised concerns about the potential loss of talented colleagues to the Boys School. This is always a challenge—talented colleagues are attractive candidates to other employers. However, I have been struck in recent years by the number of applicants for positions here where the prospect of joining a small MAT built on the ethos and traditions of Bullers Wood is very much a draw. We need to adapt to meet changing circumstances—or run the risk of being their victim. Rest assured, the focus of the Governing Body and Leadership Team of the Girls' School remains relentlessly focused on our priorities here—each and every one of the 1555 young people we are privileged to welcome through our gates each day.

**Ben Greene, Headteacher**





## Imperial College STEM Potential Programme

Elle-Mae Wood

Blog#3

Saturday 24th March 2018

What a fun packed day I had ahead of me! I knew it was going to be a busy day - it always is at Imperial. Today combined Maths, Physics and Chemistry.

My group started with Chemistry. Here we started with a subject called 'Alchemy'. The ancient goal of alchemy was given as the transmutation of common metals into gold. Today we learnt how to turn a specific type of a copper 2p coin into 'silver' then 'gold'.

To our disappointment the 'silver' and 'gold' coins we made weren't pure silver or gold as this isn't possible... yet. The silver was obviously plated and the gold was more like brass. However to form our wonderful creation the process was fairly simple: we were given 2.5g of powdered zinc (highly flammable) and 50ml of sodium hydroxide solution (extremely corrosive), after combining those two into a beaker we heated the newly formed greyish solution. To turn our copper coin into 'silver' we placed it into the solution and continued to heat it for approximately 2-3minutes. Once washed we then placed into a roaring flame of a Bunsen burner, which turned it 'gold'.

After lunch, we sat a Physics lecture all about optics. We explored the lengths and frequencies of all the different waves ranging from gamma rays to radio waves. To solidify some of our knowledge we also looked at a laser and torch shone through different solutions such as: water, and water mixed with flour. This helped us understand internal refraction.

To end the day we finished off with Maths. Personally Maths is one of the hardest subjects at university. It's so difficult to understand however if you do grasp onto one tiny bit of information you really do feel like you've accomplished something. In our lesson we looked at imaginary numbers again. Having a refresh of this subject was a really good idea but still, the amount of information you were able to recall is minuscule. We got onto textbook questions and I found myself able to complete a whole exercise, which felt extremely rewarding. The questions completed are below: However the working out did take some time, several pieces of paper and was very messy.

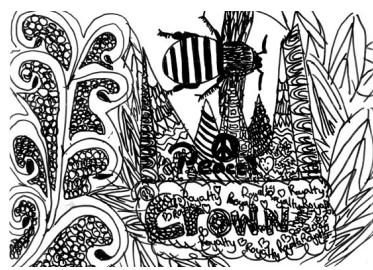
Yet again, another successful trip which reminded me how lucky I was to receive a place in this course.

Exercise 1A  
1.  $(5+2i) + (8+ai)$   $\Rightarrow 3(7+6i) + (-3-5i)$   
=  $(13+11i)$   
2.  $5(3-7i) + (-6+7i)$   $\Rightarrow (9+6i) - (8+10i)$   
=  $1-4i$   
3.  $a. (-4-6i) - (-8-8i)$   $\Rightarrow (3+4i) + (4+5i) + (5+6i)$   
=  $12+15i$   
4.  $+ 4 \Rightarrow -14i$   
5.  $x^2 + 2x + 5 = 0 \Rightarrow -2 \pm \sqrt{4-4(5)}$   
6.  $\Rightarrow -2 \pm \sqrt{-16}$   
7.  $\Rightarrow -2 \pm 4i$   
8.  $\Rightarrow 1+2i$   
9.  $33. x^2 + 4x + 12a = 0$   
10.  $\Rightarrow -2 \pm \sqrt{b^2 - 4ac}$   
11.  $\Rightarrow -4 \pm \sqrt{16 - 4(1+2a)} = -4 \pm \sqrt{12a - 100}$   
12.  $\Rightarrow \frac{-4 \pm \sqrt{10a}}{2} = 2 \pm 5i$

## Chislehurst Society Competition

Congratulations to May Taylor, Tia Dubidad, and Poppy Spiller from Year 7 and Amie Butcher from Year 8 for their fantastic entries for the Chislehurst Societies Environmental Awards.

The girls have used a zentangle technique that they learnt in Art Club to produce these stunning designs of 'Imperial bees'.





## World Autism Awareness Week—Bella's Story

Bullers Wood school was part of [Schools Club](#), which provides free workshops, theatre tickets, backstage tours and diverse educational resources for staff and students. This is Bella Madge's Old Vic story:

When my school, Bullers Wood School for Girls, joined The Old Vic Schools Club it really caught my attention. I applied to join the programme by writing a letter explaining why I wanted to take part and how I would share the experience with the whole school. When I first found out I got in, I was ecstatic! Then, I found out I was the only one from year nine!

The Old Vic would be coming to Bullers and giving workshops with professional actors. We would also get free tickets to see several productions, I knew I was going to be taking four trips to The Old Vic and I was terrified. I have never had much experience with theatres; when I have gone I have never actually gone into the room due to nerves of such intensity that have stopped me from going inside. I am autistic which means I find loud noises and new situations very intimidating so this was going to be a challenge.

I arrived and I remembered feeling immense excitement. The building was so beautiful and exquisite; I felt like I had left the world behind me and that I was somewhere much more magical than anything I could ever imagine. I was given the visual story by my teacher and I flicked briefly through it (a visual story is an explanation of everything that will happen and where everything is; the staff and exits are also mentioned). I felt much more reassured when I had seen this because I was immediately prepped for everything and knew where everything was. I distinctly remember seeing a part of the visual story which said I could leave the play at any time

to watch it on a monitor which instantly calmed my nerves beforehand.

I stayed with my teacher and found out we were on the top floor. We waited for around ten minutes and then we went inside. I felt instant amazement. The theatre was so intricate and so gorgeous that when I took my seat, I actually felt no worry at all. I felt like I had left it all behind and entered the story even if it hadn't started yet!

I went to see *Girl From the North Country*. It was one of the most beautiful, heart-breaking, intelligent pieces of acting and singing. I went home telling everyone 'I loved it so much, it was amazing!' Each and every actor and actress gave it their all and I felt ensnared by its charm. I actually felt like I was in their world, and not sitting in the audience. I loved the singing so much that when I got home, I learnt the words to the song '**Tight Connection to My Heart**' because it was sung with such emotion and passion. It was so eloquent and detailed; every character made you feel something different. There were times where I felt goosebumps from how remarkable the singing was.

I made my whole family listen to the soundtrack multiple times and have begged my Mum to let me go again and all I said when I got home was 'Oh, I wish you had seen it Mum'.

I would definitely recommend a trip to The Old Vic as the staff are all friendly and welcoming, the theatre is exquisite and the acting quality is of the highest degree. I can't wait to go back again.

Happy 200th birthday, The Old Vic!

**By Bella Madge, 13 years old**

## Fully Booked Quiz

On Thursday 22<sup>nd</sup> of March, Marta Podganja (8a), Isabelle Parkins (8b), Nihinsa Gamhewage (8f), Georgina Bevan (8f), Holly Robertson (8b) and Annie Golightly (8c) took part in the Fully Booked Quiz in Bromley Central Library.

We took the school minibus to the library and waited for the other teams who were: Chislehurst School, Langley girls, Harris Bromley and Bishop Justus. After competing in several different rounds including a 'Wonderful Walliams' and a 'Happily Ever After' round we received our final score. Overall we came 5<sup>th</sup> with 63 points with Bishop Justus winning with 74 points. It was a wonderful experience and I we really enjoyed doing it.

**By Annie Golightly**





## Rwandan Survivor

On the 11th of May 2018, 30 Bullers Wood students were lucky enough to have spoken with a survivor of the Rwanda Genocide, Sophie Musabe Masereka.

Genocide is defined as any act with the intent to destroy a religious or ethnic group.

Rwanda, a country located in Africa, was peaceful consisting of the Hutu and Tutsi groups. Those with higher economic status tended to be Tutsi and those with less of a status were Hutu. The two groups were interchangeable, hardworking/lucky Hutu could become Tutsi and unlucky Tutsi could become Hutu.

Since 1890 Germany had ruled Rwanda until the treaty of Versailles. Germany then had to remove itself from a lot of its colonies, including Rwanda. This meant that Belgium was now able to take Rwanda over.

The Belgians didn't understand their culture so they made sure that the two groups were no longer interchangeable and introduced mandatory ID cards.

When the Belgians left, a new democratic system was put in place. As the Hutu made up the majority of the population they gained power and resented the Tutsi for previously having powers over them.

After many years of discrimination and violence, their mutual hatred led to the shooting of the Hutu president's plane. The Hutu blamed the Tutsi for this. This was the mark of the beginning of the mass genocide that led to the killing of up to 1 million people.

Sophie lived in her home in Rwanda, alongside 7 other family members. By the end of the 100 day genocide 4 close family members and many other extended family members were killed. With the help of her Guardian Angel and her 3 miracles, Sophie managed to survive. After going 57 days without water or food the RPF rescued her and her mother from a church full of Tutsi refugees. Today Sophie has a family and 3 daughters and after 15 years she was able to share her story.

One of Sophie's core beliefs is that education is a privilege and should not be taken for granted. Because she was a Tutsi she was unable to further her education until after escaping the genocide. She is still studying today after not being able to go to university in Rwanda. She never took her education for granted and said neither should we.

The link below is to Sophie's website which includes her full story of her experience of the Rwanda genocide.

Link: <https://www.sophiesurv.org/>

We are now working on a small project to help other students learn about Sophie's experiences and we hope she can return to school to speak to more students in the future.

**Miss Levey**



## Bromley Youth Council

Oscar Harrison, JJ Roach, Libby Hyde and Nodesha Asamoah all participated in the Bromley Youth Elections and will be our representatives. We are immensely proud of all their efforts.



## Archaeology Project with Year 8

In March the History Department had the opportunity to invite the Museum of London Archaeology Service to do some after school sessions with Year 8. All Year 8s were invited, and a group came along to the sessions to learn more about the process of digging and recording archaeological sites. The Museum brought along boxes with trowels to dig, each one represented a different site and had real finds from sites excavated in London. The students 'dug' the sites, recorded and investigated the finds, drew plans of each site and finally built reconstructions on Minecraft.



Archaeology Club was great fun. We found our finds and analysed what era and what type of buildings the finds were

## Track and Field Cup

We recently competed in the English Schools Track and Field Cup down in Ashford and we came 1<sup>st</sup> in the Intermediate girls and 2<sup>nd</sup> in the Juniors. This was a combined event where each student took part in two events and their distance/heights/times were allocated points according to the competition rules. It was a really fun competition with many of the students gaining badged awards. It gave the students an opportunity to compete in an event that they didn't usually compete for the school in. Both teams were awarded a certificate by meeting the ESAA target of 240 for the Juniors (we gained 302) and 250 for the Intermediates (we

from. Our finds were from the roman era and there were bath houses and warehouses and bakeries.

In the last week we reconstructed our buildings on Minecraft.



The most interesting part was analysing our finds. I met some great people and thank you Miss Levey for organising it.

**By Eliza-Jane Evans Y8**

## STEM Activities

On the 1<sup>st</sup> May, Mrs Purcell took some students to Emirates Stadium for a day of STEM activities. We took a train to the stadium where we were introduced to an ambassador who told us all about what we were doing that day and what he did at his work. We then took a quiz about STEM and the environment in our area and what we could do there to improve it.

We then went to three stations where we met different people who showed us what they did and gave us activities to do that gave us an idea as to what they do in their job. We then had an activity where we had to create a product in 20 minutes that applies to one of the 17 Global Goals for Sustainable Development.

gained 274). The girls did absolutely fantastically and were a credit to the school. A special mention to Kacey Walters who gained the highest possible ranking by gaining 50 points from her events combined. Although we were pipped to the post for Round 2 of this competition (another Kent round received a higher team point score) the PE department are very proud of them! Bring on the Bromley Minors for Yr7 and 8 on the 13<sup>th</sup> June!

**Ms Venton**

We were proud to be given the teamwork award.

At the end of the day, we retook the quiz and many people changed their minds and thought that they would like to do a job to do with STEM, showing how powerful and informative that day was.

It was a great experience as we got a feeling as what we could do in the future in jobs to do with STEM and it really helped us think and understand what people do in this world and what we can do to help our world to develop.

**By Angeliki Georgiou Y8**



## Youth Travel Abassadors

We are grateful to not only have recently received £250 for the school, but we have also enjoyed our time as Youth Travel Ambassadors (YTA) so far this year.

So what have we done?

This year our project was about road safety and walking to school. To achieve this, we have delivered assemblies to year groups and a poster completion for Y7 on how to walk safely to school. We found it very hard to pick a winner as we had a lot of entries but we managed. The winning poster is displayed around Sanderson to remind students on how to walk safely to and from school. As well as this, we have done an obstacle course with Y7 to show them that using your phone on the road can be a big distraction. Doing the obstacle course was a fun, interactive way of

getting pupils to learn about distractions.

Carlene Ruboneka and Amelia O'Brien Y8



## Les Deux Alps—Ski Gtrip 2018

With a rocky start to the ferry timings and the small mishap of an incorrect passport, the two coaches of students made it to the French Alps in great time. We arrived at a beautiful resort, with lots of snow and accommodation all to ourselves. Luggage took a while to unload partly due to some students (and staff) who looked like they had packed for a month away!

Ski fit was organised and sorted the day of arrival, so we would be ready to hit the slopes after a good night's sleep. Our instructors met us with great energy and enthusiasm, and all were quickly on the slopes. The beginner groups made swift progress, after initially not being able to stop or slow down, they were soon making turns and controlling their speed as the week went on. The chair lift proved to be a different story!

All ski groups looked stylish on the slopes and covered some miles on their skis. We had a varied evening entertainment programme with evenings spent bowling, ice skating, swimming and a photo scavenger hunt where some students got very creative.

A good week was had by all with fears of going higher up the mountain overcome and it was sad when departure day arrived. Thanks to all students and staff for making it an enjoyable trip.





## TEENTECH Awards

On Tuesday 1st May, I went on a STEM trip to the TEENTECH awards. The trip was located at the Arsenal football stadium; The Emirates. Throughout the day there were many activities that we took part in. Some of the activities were a team planning and presenting task, similar to dragons den. We also took part in a 3D printing activity, forensic science task and also a futuristic robotic arm, which could control and move objects on a computer.

I enjoyed all the events during the day, however my favourite was the forensic science task where we used magnetic powder to brush over our hand prints. We were able to lift our finger prints off using a sticky piece of plastic

and make this into our very own keyring. I learnt about all of the different types of prints and discovered that I have very common finger print, but also have a very rare right loop and an arch.

This trip inspired me to do something in the future relating to STEM. I really enjoy Science, Technology and Maths at school and I love engineering. I would like to use my skills in my future career as well as now. I really recommend this trip and strongly enjoyed the day out.

**By Holly Boult Y8**

## ***Maths on the Back of an Envelope – Rob Eastaway***

Rob Eastaway, a mathematics speaker and author, came to Bullers Wood School on the 16<sup>th</sup> of May 2018 to help Year 10's and 12's understand that mathematics is not just numbers and calculators but it is also a hobby and a fun topic. Using pi, countdown and a quiz he conveyed how he saw mathematics not as a subject but as a lifestyle. When asked what inspired him to give maths talks he said, "When I wrote my first book, schools started asking me to speak to their students." When asked what inspired him to pursue mathematics he said that he enjoyed puzzles as a child and was good at them. Although he is now a mathematics

speaker and author of many interactive and inspiring books, he took an engineering degree at university, showing us that you might like something when you're doing it but you can decide to take a whole different path if you choose to.

Rob Eastaway is an inspiration and a brilliant speaker. The talk was interactive and from our point of view unexpectedly fun and interesting.

We hope to see more of Mr Eastaway and his chocolate Freddos in the future.

**Foster for Bromley**



Can YOU keep these  
siblings together?

www.bromley.gov.uk/fostering

0208 461 7701

Help a Child Smile Again