Old Palace of John Whitgift School
Independent Girls' School

Issue 247
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AROUND THE PALACE

Dear all,

Happy New Year to our Old Palace families and I very much hope that you all had a relaxing break over the festive period. It has been great to welcome students back to school this week and despite the continuing challenges of Covid it has been a positive start to the new term. I hope you enjoy this first Bulletin of 2022.

JBurton

Jane Burton, Head

Year 2 Maths: Learning to Tell the Time

It's been lovely to welcome our pupils back to Prep for the start of the spring term. Here is Libby in Year 2 with Saanvi learning to tell the time.

A letter from Mrs Nike

Dear all,

Happy New Year! I hope you all had a good break.

Term has started well here at Prep. We are excited to be launching our Prefect Programme this term with our Year 6 girls. The girls in Year 6 voted for the pupils they thought should be given the following leadership responsibilities.

Prefect Role

- Pupil Parliament Lead
- Stafford House Prefect
- Anselm House Prefect
- Laud House Prefect
- Hatton House Prefect
- Diversity, Equality and Inclusion
- Eco
- Wellbeing
- STEM Prefect
- Character Development
- Charities & Enterprise
- Sports
- Music

It is great to have Year 6 helping us to shape the future of our school.

Throughout the year, there will be various opportunities for girls from other year groups to get involved.

Mrs Nike
Head of Pre School & Preparatory

Year 12: Biology In Action

In December, Year 12 and 13 Biology A-level students had the amazing opportunity to experience the 'Biology in Action' conference at the Emmanuel Centre in London. We got to see five interactive and engaging sessions delivered by renowned scientists and communicators, as well as an exclusive look inside the pathway to success in our A-Level examinations. During the talks, we went from the deepest ocean trenches to the top of the world to learn about scientists working in fields that broaden our understanding of: biodiversity, possibly life on other planets, and how as humans we can survive.

The first talk was titled, 'How the nose knows,' and was delivered by Darren Logan, Head of Research at the Waltham Petcare Science Institute. We learnt that smell is the oldest, most complex, yet least understood of our five senses. I thought it was fascinating to understand what happens in our brains when we smell our favourite smell, and how our ability to detect certain smells are encoded in our genes. The amount of detail expressed in just a 45-minute talk was extremely enlightening, such as how Olfactory neurons use transcription to make flexible predictions about the environment and dynamically change odour responses. What really interested me was how smell loss may be one of the best indicators of disease, and why we lose our sense of smell when we contract illnesses like COVID-19.

Next, Helen Scales, who is a Marine Biologist, gave us one of my favourite talks of the day, titled, 'Exploring the Wonders of the Deep.' Helen's passion for her field of work was obvious in the excitable and enthusiastic manner in which she delivered her talk.

During this talk, we were taken to the deepest location on Earth, The Mariana Trench, spanning 2550 km in length and 69 km in width. Being devoid of sunlight, with water chillingly cold and dark, and a pressure so high it would feel as if 100 adult elephants were standing on your head (as Helen Scales described it), it was incredible to discover the abundance of life in this habitat. What I found particularly interesting was how a species of crab, called the Yeti Crab, can survive in hydrothermal vents exceeding temperatures of 400°C. These crabs

use their furry arms to farm bacteria for food, and unlike plants, which photosynthesize, these bacteria are chemosynthetic, meaning they can use methane and hydrogen sulphide from the vents as an energy source.

Something Helen mentioned which stayed with me long after the conference, was the great extent at which climate change affects the ocean. It was surprising to learn that even at the bottom of the ocean, life is being affected by climate change, and this has inspired me to read more about climate change and find out what can be done to reduce the impact of it. Helen Scales answered the popular question of whether the 'extinct' Megalodon could be lurking at the bottom of the ocean. Her answer to this was even though it is unlikely for a creature so big to go undiscovered, the ocean is so vast, it is impossible to entirely to rule out the possibility of creatures like the Megalodon existing.

Another talk was delivered by Andrew Steele, who has a PhD in physics, but decided on a career change to work as a computational biologist. His talk, titled, 'Ageless: The new science of getting older without getting old' was all about the ways in which humans can reduce the impacts of ageing. From removing aged 'senescent' cells, to drugs, diet and gene therapy, Andrew Steele talked us through how breakthroughs in the lab show that we can slow down, or even reverse, the ageing process. He ponders the question, 'Could we one day cure ageing, and would we want to?'

A dramatic and thought-provoking part of Andrew's talk was 'The Ageing Graph,' which was the reason for Andrew's career change. This graph shows us that your risk of death doubles about every 7 or 8 years as a human being. In your 30s you have a 1 in 1000 chance of not making it to your next birthday, however, when you reach 90, your odds of death are about 1 in 6. Andrew describes this as 'life and death at the roll of a dice,' which can be quite a terrifying thought. I think it's amazing how revolutionary new medicines may soon be able to reverse this ageing process which, according to Andrew, is currently our 'greatest humanitarian crisis.'

The final talk, which was another of my personal favourites, was delivered by Greg Foot, who also hosted the day. Greg Foot is a science presenter and communicator, whom some students may recognise from BBC Bitesize. Greg Foot told us about his experience of his trek up to the highest pop-up lab in the world, in Mount Everest. It was fascinating to learn that the reason people experience hypoxia in

Year 12: Biology In Action *continued*

high places like Mount Everest is not because of a lack of oxygen, but simply due to a lack of air. I enjoyed this talk a lot as the speaker was so enthusiastic and he showed us footage of his time on Everest which really immersed us in the experience.

Overall, Biology in Action was an invaluable experience. Each talk was as engaging, and as thought-provoking as the next, and it was clear to see that each speaker had a true passion for Biology.

Amelie, Year 12

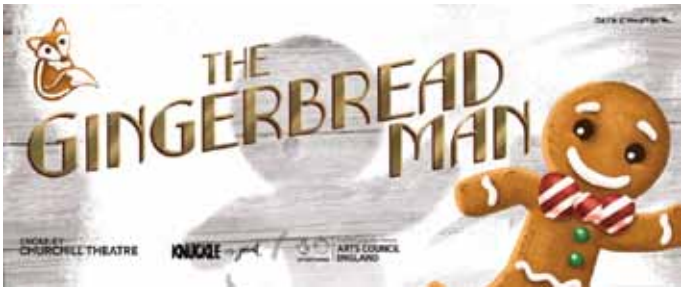
Quotes from Students

"I found the talk on A-Level exams really useful as it gave us clear, easy to follow steps, to help us succeed in our exams."
Zeenat, Year 12

"The genome sequencing talk was really informative as it told us some of the risks of using Genome Sequencing kits which I wasn't aware of before."
Ilma, Year 12

"The Biology in Action trip was extremely interesting with a variety of speakers, each sharing with us their knowledge and love of the subject and specific areas within it. I personally enjoyed Dr Andrew Steele's talk about ageing and how research is being done to create drugs and therapies to reduce the effects of the ageing process."
Lilia, Year 12

Pre School Trip to see *The Gingerbread Man* at the Churchill Theatre, Bromley



On the last day of the autumn term, Pre School pupils completed their topic 'Sparkle and Shine' with a visit to The Churchill Theatre, Bromley to see a Christmas show *'The Gingerbread Man'*.

They had a wonderful time enjoying the fun and games as the gingerbread man escaped from the Queen's kitchen There was much amusement when he ran across the front row! Afterwards, the girls were invited onto the set for a picture with the star!

DT - Food Club

During the autumn term in DT, pupils in Years 7-10 were busy every fortnight cooking and baking a variety of dishes and bakes with Mr Jupp and Mrs Solari.

The students were paired up with an older student supporting a younger one in each session. All the students produced some lovely outcomes; we were very proud of them!

During the term the students cooked: a Chicken & Mushroom Alfredo: a Spanish omelette: a Victoria sponge cake and some fun Christmas treats including Gingerbread biscuits and chocolate decorations to hang on their Christmas trees.

Spanish Omelette

Christmas Treats

In Food Tech Club we made Christmas cookies and chocolate decorations. I enjoyed this session a lot as we were not just cooking but in the DT workshop creating chocolate moulds for our decorations, using the vacuum form machine.

To make our moulds we had some wood that was cut in a circle for us to use. Then Miss Solari our DT teacher gave us a variety of small card decorations to then glue onto the wood pieces. There were different decorations, and you could place different ones together to make a nice design. Once that was done, we vacuum formed our wood pieces with some HIPS plastic and then the moulds were ready to use and fill up with chocolate. The chocolate was placed in the fridge to set and then ready to eat. Yum!

The cookies were also enjoyable to bake too, as the dough was formed and rolled out ;everyone was able to choose a cookie cutter to shape their dough into Christmas themed items such as stars, Christmas trees and gingerbread men. I choose an assortment of shapes and my cookies turned out amazing and tasted delicious!

Feyi, Year 8

Making the vacuum formed chocolate moulds

Clubs: Spotlight on...**Design and Technology** *continued*

Jewellery Club

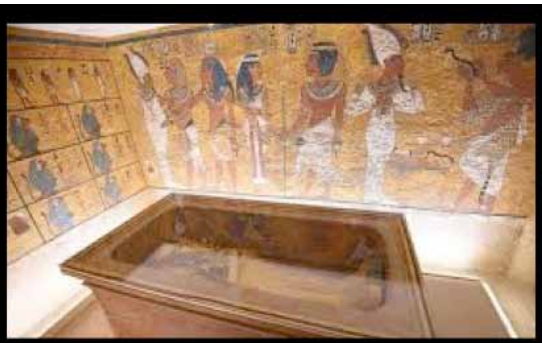
Jewellery Club was a great success last term, and a small group of Year 9 students created some lovely acrylic pendants.

Please do sign up for this club in the New Year if you'd like to give it a go!

Every Friday in DT from 12.55pm with Mrs Solari.

ABRSM Practical Music Exam RESULTS

Name	Year	Instrument	Grade	Mark
Olive	Year 8	Piano	1	Pass
Tarinya	Year 8	Acoustic Guitar	3	Merit
Isabella	Year 9	Piano	2	Merit
Tamalia	Year 5	Piano	Initial	Distinction
Lila	Year 9	Piano	2	Merit
Lakshmi	Year 6	Flute	3	Merit
Sara	Year 11	Piano	6	Merit
Chloe	Year 6	Flute	1	Merit
Eleanor	Year 3	Violin	2	Distinction
Tahalia	Year 10	Flute	4	Merit
Kayla	Year 11	Singing	4	Merit
Jessie	Year 8	Trombone	5	Distinction
Emily	Year 10	Violin	5	Pass
Sanjana	Year 9	Trumpet	2	Merit
Kayla		Singing	4	Merit



This Week in History...
Tutankhamun found

On January 3, 1924 British Egyptologist, Howard Carter, discovered the sarcophagus of King Tutankhamun in the Valley of the Kings near Luxor, Egypt.

Lights, Camel, Action & Super Star Filming

Pre School and Prep parents may remember that at the end of last term we announced we were filming Lights, Camel, Action and Super Star.

The films are now available via a private link on our YouTube channel. Parents should have received details in a letter from Mrs Nike which was sent home earlier this week.

Year 8 Environmental History Presentations

As part of our new Key Stage 3 syllabus, Year 8 students spent the second half of last term learning about environmental history. They explored the ways that humans have thought about nature, about how environmental factors have shaped the outcomes of wars, and examined case studies of key events such as the American Dust Bowl of the 1930s, London's Great Smog of 1952 and Hurricane Katrina in 2005.

In each case, students thought about the extent to which human beings could be held responsible for the causes and consequences of these events. At the end of the unit, they spent two lessons putting together small-group presentations on how they, if they were teachers, would deliver a lesson on a different episode in environmental history.

Working in groups of three or four, students chose to study events such as the Little Ice Age, the Aberfan Disaster of 1966, or the Fukushima Earthquake and Nuclear Disaster of 2011. In each case, they designed a lesson so that students learned key information as well as thinking about the larger question to what extent humans were responsible. The students did a terrific job, producing evidence filled PowerPoint presentations that were accompanied by a good range of activities for students to complete, including word searches, debates, fill in the gap exercises and even Kahoot quizzes!

Finally, they developed their public speaking skills in delivering the presentation and answering questions from their classmates. Well done, Year 8!

Senior Clubs Start Monday 10th January

Clubs form a fundamental part of the Old Palace experience and we know the students will be excited to get involved in the activities on offer. It is a fantastic way for students to get to know others within their year group and across other year groups whilst extending their skills in different areas.

With over 70 clubs on offer this term, we are confident there are opportunities available for all.

We are pleased to be able to offer the following new clubs this term: Islamic Society, Cryptic Crosswords, Charities Committee, Urban Design Challenge, Spanish Culture Club, Poker Club, Poetry Club and Mandarin (paid club).

In addition, there is an exciting opportunity for students to take part in the Drama Festival in May, which will be developed and rehearsed during lunchtime Drama club sessions.

Full details have been emailed to students and parents today. The clubs booklet and schedule will be available to view on our website from Monday:

www.oldpalace.croydon.sch.uk/senior-school/co-curricular/