



AROUND THE PALACE

Dear all,

Despite the best efforts of the British weather it has been a very positive end to the autumn term.

The Senior School '12 Days of Christmas' campaign, led by our students, has given the school the opportunity to support the local community and those less fortunate than ourselves. The response to the campaign has been very strong indeed and so

thank you to all those Old Palace families who supported the events and donated food/money.

At Prep, we have seen some magical performances from pupils from Pre School to Year 6 and I know this has been very much appreciated by our families.

The whole school came together on Tuesday afternoon for the Carol Service at Croydon Minster and this was a very special event where we were treated to some superb

musical pieces and some enthusiastic carol singing from all those who attended.

As the term draws to a close, I would like to take this opportunity to wish all our Old Palace families a Merry Christmas and a Happy New Year. I hope that you all enjoy a restful and relaxing break over the festive period. I hope that you all enjoy a restful and relaxing break over the festive period.

Jane Burton, Head

Students Enjoy Christmas Lunch at Seniors



OPA & Friends Annual Carol Service

We were pleased to welcome back so many OPA & Friends to our annual Carol Service.

A huge thank you to Mr Griffith, Miss Orr and the Choir for

their truly beautiful singing; it was a real privilege to be able to listen to Christmas carols sung in the intimate setting of our historic chapel.



Christmas Lunch *continued*

On Tuesday, the entire Senior School enjoyed a very special Christmas lunch with all the trimmings.

Thank you so much to our incredible Holroyd Howe catering team, headed by Mr Haigh-McLane, for all their hard work in delivering such a wonderful lunch.



Year 7 - 9 Chapel Recital

In November, we held our first two Chapel Recitals of the year.

There were some superb performances from our older students, including Lloyd-Webber's haunting *Pie Jesu* duet, a gorgeous piano arrangement of

Over the Rainbow by Dave Stapleton, and the beautiful second movement from Beethoven's *Pathétique Sonata*. In the lower school recital we enjoyed a wide variety of performances from Cimarosa and Haydn to Pamela Wedgwood and Adele.

Well done to Ria (Year 13), Celeste (Year 11), Anjola, Grace and Sanjana (Year 10), Anastasia (Year 9), Anja, Catherine and Tia (Year 8), and Chloe, Kemafo, Sabrina, Sierra, Sophia & Zara (Year 7). It was also lovely to have a large supportive audiences.



BioSoc Festive Pipette Art

In the last BioSoc of the term, students improved their manual dexterity and created some festive micropipette art.

They carefully pipetted very small volumes of solutions of different pHs into designs of snowmen, baubles, fairy lights and trees. The black was made using a food test by adding iodine to a starch solution. It required patience and accuracy.

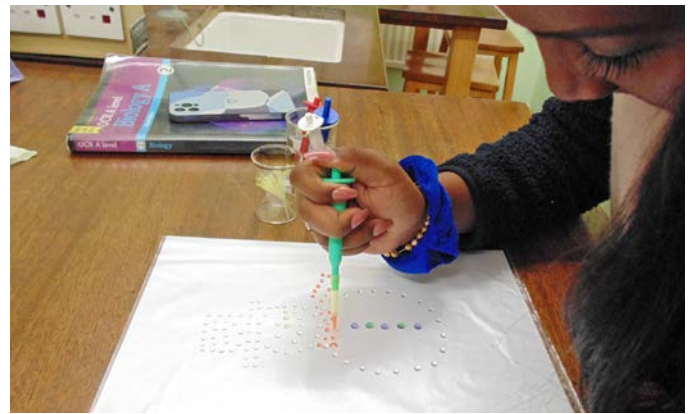
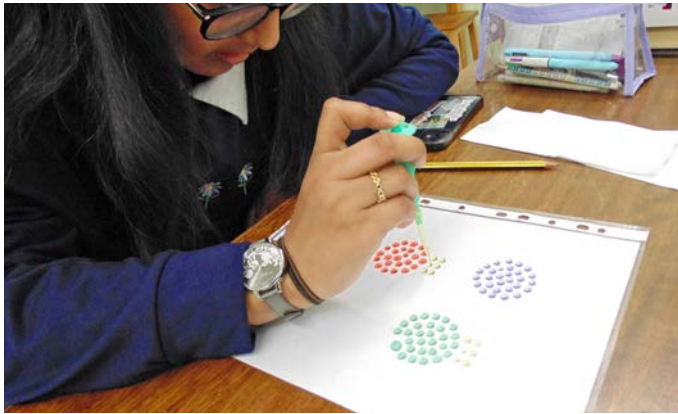


Illustration Club

This term in illustration club we have looked at what illustration can mean and explored different techniques such as painting, drawing and collage. During December the students designed an illustration that they made into a foam print, to create a series of Christmas cards. The results were really wonderful!

I thoroughly enjoyed doing this project. As it was extremely interesting learning about the unique techniques, we could use to make an illustration come to life. I especially enjoyed printing my design onto the card and revealing the finished product. I would certainly love to explore printmaking more in the future!

Sharon, Year 8



Hockey Training

The OPS Hockey Squad had the final training session of the year. They braved the cold temperatures and we had a great last session doing match play.

Miss Rodwell would like to thank them for their passion and commitment to Hockey squad this term. They have all improved their hockey skills and fitness over the term. Well done!



Why do so Many Countries Want to Host the FIFA World Cup?



There is no doubt by now that you know that Qatar is the host country of the FIFA World Cup 2022. However, did you know that several other countries including Australia, Japan and the USA also bid to host the game? So why exactly do so many nations want to host the World Cup? After all, it did cost Qatar more than \$200 billion to build the infrastructure needed for the games!

Well to begin with, the FIFA World Cup in Qatar is estimated to have generated 1.5 million jobs in construction, real estate, and hospitality, helping to increase employment and income levels in the country. In addition, one million tourists are expected to show up for the matches in total, which is predicted to contribute QAR 66bn by 2025 to the Qatari economy. And in the past, the World Cup has been shown to increase tourism by an average of 8% in all host countries.

Hosting the prestigious World Cup has also helped to raise Qatar's international profile and has attracted plenty of FDI from large companies like Google and Microsoft, which is sure to improve the Qatari economy and GDP for many years to come.

Lastly, despite the controversy surrounding Qatar's poor human rights record, the World Cup is bound to leave a long-lasting legacy for Qatar in the future. Not only is it the first Middle Eastern country to host the games but

also this is an opportunity for Qatar to share its culture with the rest of the world. The Lusail Stadium will also be converted into a community centre post-World Cup, helping to provide extra schools and health clinics, as well as regenerating the area, particularly Doha where the games are being held. This too will benefit the Qatari citizens in the years to come.

So, there is no doubt why hosting the World Cup is always in such high demand. The 2026 games are due to be hosted in North America, but the host country of the 100th anniversary of the FIFA World Cup in 2030 is still undecided. Many countries, such as Morocco, Uruguay and Ukraine are possible contenders, but we will have to wait until 2024 to find out who wins the bid.

Albertina, Year 12

Which Career? Maths and Careers Event



On Friday, 18th November, students in Year 8 took part in an online enrichment event in which they met people with Maths backgrounds working in different roles.

Michael works in supply and logistics, which sounded like it could be boring at first, but the students quickly realised there is a lot more to it!

Students learned how the humble pencil is made up of five different parts, sourced from around the world, put together in Germany before being shipped out to be sold. Catherine, Year 8 Hatton, and her classmates were

thrilled when her question was asked:

"If pencils are made up from so many different parts from around the world, how are they so cheap?"

Then Esther, a Computational Biologist, told us about her cutting-edge work in cancer research. She spoke about how she struggled with Maths in school but pushed herself until she improved, and she later went on to complete a Mathematics degree.

Mohammed from Ernst and Young told students about apprenticeships and how they can be a better option financially than going to university for a degree in some cases. Many students were unaware that you can study an apprenticeship in anything other than plumbing or car mechanics, so this

opened their minds to new possibilities for when they finish school.

All three of the panellists took Mathematics at A Level and it was brilliant to see some of the directions this can take people and the doors it can open to interesting and fulfilling careers.



Seniors: Creative Workshop

On Tuesday, 22nd November, Lavi Shanbhag, creator of My Inky Journal, visited Old Palace to deliver two creative workshops. The first was a sketching workshop open to all year groups, with a focus on drawing everyday objects using a fine line pen.

The second was a lettering workshop for Year 12 art and photography students.

I really enjoyed the sketching workshop because it gave me the opportunity to do something that I really enjoy, with others that enjoy it too. I like to sketch most things, but this workshop helped me to discover things that I hadn't thought of sketching before like kitchen items. I hope there will be more workshops like this in the future.

Laura, Year 9



Whole School Dance Production
1st & 2nd March 2023

DANCE SHOW AUDITIONS

Audition Dates:

Tuesday 10th January

Tuesday 17th January

(Sign up outside the dance studio)

You must submit your dance details before Fri 6th Jan (email will be sent to students once signed up)



Year 13 Sports Leaders Visit Prep

At the beginning of December, the Year 13 Sports Leaders visited the Prep School to run a fun Christmas-themed session with our Year 6 students. The girls did all the planning and delivery themselves. The session consisted of a fun, active warm up and then a team obstacle race based on Christmas, such as dropping the present down the chimney, turning into a bauble, feeding the reindeer and moving the snow!

The Year 6 pupils were great – a bit noisy but very involved! Well done to Abhirra, Amy, Alyssa, Emily and Inaaya in Year 13.



Class of 2022 A Level Celebration Evening & Reunion Calling the Class of 2022...

SAVE THE DATE: Thursday 5 January 2023

You and a guest are warmly invited to attend the presentation of certificates to mark your achievements in your A Levels.

Where: Old Palace
Senior School

5pm: Refreshments

5.30pm: Certificate Presentation

RSVPs: <https://forms.office.com/e/uBddFCiMsp>

Alternatively, you can email us at:
OPAlumnae@oldpalace.croydon.sch.uk



How is London Coping with the Climate Crisis?



London has undoubtedly become more familiar with the effects of climate change after having witnessed 40+ degree heatwaves and intense storms in just the past year. So how is London tackling this ever-pressing climate crisis, and is what we're doing enough?

The first way that London is planning to manage the climate crisis is by cutting carbon dioxide emissions. This is a common response that's been taken by countries across the world and would reduce, or eventually stop, the enhanced greenhouse effect.

Currently, in London, approximately 80% of carbon dioxide emissions come from the combustion of fossil fuels to power and heat infrastructure. The remaining 20% is from transport. However, the Mayor has set a target for London to become net zero by 2050, meaning that a lot needs to be done to quickly to reduce our demand for fossil fuels.

To do this the London Assembly has several programmes. One programme involves supporting the use of low-carbon hydrogen to power transport. As with fuel cells, the main waste product here is water, not carbon dioxide. Hydrogen cells in transport would also reduce nitrogen oxide emissions since hydrogen burns well when there's more oxygen than fuel. However, hydrogen is only as clean as the energy used to produce it.

This means that for this scheme to be entirely successful, the hydrogen needs to be produced from a carbon-neutral source.

Another scheme is improving building energy efficiency by introducing new technologies on old buildings; this is a particularly important scheme since 80 per cent of existing buildings are likely to still be in place in 2050. Gathering information surrounding our greenhouse gas emissions is also really important since it allows methods of response to be more efficient.

Therefore, the London Assembly measures the amount of greenhouse gas in London each year through the London energy and greenhouse gas inventory. Overall, these schemes are effective and necessary. However, if we are to meet the Mayor's net zero targets by 2050 much more needs to be done.

The second aspect of London's approach to the climate crisis is adapting to the effects of global warming. London's average summers are expected to be a fifth drier and 3°C warmer by 2050. This is a frightening figure given that the small rises we have already seen have disrupted London's services. The plans outlined in the 2011 adaptation strategy involved increasing the amount of vegetation in the city to reduce heating, strengthening the City's heatwave response plan and mapping

overheating risk to prioritise actions targeted to the most vulnerable during intense heat. Although these ideas are valid, they are not likely to fully negate the intense heating we are expected to experience. Intense rainfall and flooding are also becoming more frequent in the winter, which has significant impacts on the City since almost a fifth of it is in the Thames floodplain.

To target and reduce the impacts of flooding, the Mayor in the last adaptation strategy focused on raising awareness of floods in the hope that this would improve the city's resilience against floods. This again seems like a minimal response to such a large-scale problem and more likely needs to be done to help London cope in the future when these events worsen.

The fact that London is not yet prepared to manage climate change is a very worrying reality, but we should not feel powerless. On an individual basis, many things can be done to help reduce the effects of the climate crisis. These may include reducing red meat intake and using public transport rather than driving.

Amy, Year 12

Students are welcome to join the school's **Eco Club, on Mondays at 1pm**, where we will be making plans to improve the impact our school has on the environment.

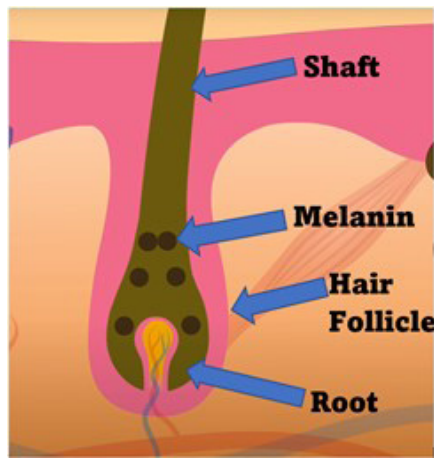
Year 9: Food Technology - Cultural Dishes

Here are some pictures of Year 9 cultural dishes made in Food Technology celebrating food from different parts of the world.

They look amazing.



Why does Santa have White Hair?



Christmas is soon approaching and everywhere you look is merchandise of a little man in red with a famous white beard.

Santa is well known for his prominent snow-white hair but how did he get it?

When Santa was younger it's likely he had different coloured hair from black to ginger, just like you and me. The colour of your hair is determined by your genes, which you get from your mum and dad.

A strand of hair can be split into two parts, the shaft and the root. The shaft is the coloured part of your hair which we can see. The root is the bottom part which has the job of keeping the hair attached to your scalp. Every root is surrounded by a tube of tissue under the skin called the hair follicle. Each hair follicle contains pigment cells which make a chemical called

melanin. The darker your hair is the more melanin your body creates, and the lighter, the less. Melanin is the same chemical that gives your skin its colour.

But this doesn't answer our question of Santa having white hair...

As people get older, the pigment cells in our hair follicles gradually start to die. Dead pigment cells cannot create any melanin, so the strand of hair grows to be grey, silver or in Santa's case white. Eventually all the pigment cells die and all the hair changes colour.

To conclude, Santa's thick shiny beard is a sign he is eating healthy and the colour white certainly tells us he is very old, although don't tell him that or you might get a sack of coal!

Rinii, Year 11

Football Update

I had a very busy summer regarding my footballing journey. To start with, I had successful trials with Brighton and Hove Albion Women FC U16 in July, and I was offered a place on the team. With a heavy heart, I opted to leave Crystal Palace as Brighton presented the bigger challenge that I was looking for. Unlike Crystal Palace, Brighton is a Tier 1 Regional Talent Club (RTC) which offers enhanced coaching to players identified as having elite potential. The level of football is very competitive as it involves other elite clubs like Chelsea, Arsenal, Man City, to name but a few. I have so far had three competitive games this season. Winning 2-1 against Southampton in the FA cup, 5 - 1 win against Charlton in the league and a 3-2 loss to Chelsea. The game against Chelsea was an open and very competitive game and with due respect, Chelsea were lucky to walk away with all the three points or any at all as Brighton was all over them.

I also attended very stiff trials with Surrey County, and I was selected to be part of the Surrey County Schools Girls U16 football squad 2022/23. It is a great honor to represent the school, as part of the county team and I am really looking forward to the challenge of playing very competitive games against other counties and keeping my school flag flying high.

Bethany, Year 11

First Prize for Parvati at the Sutton Music Festival



Many congratulations to Parvati in Year 8 on her recent success at the Sutton Music Festival.

Parvati received first prize for the under 12 Folk Song category. The adjudicator praised her for her ability to sing 'with a range of colour' and described the performance as a 'poised and well-considered performance with a magical ending'.

Well done Parvati!

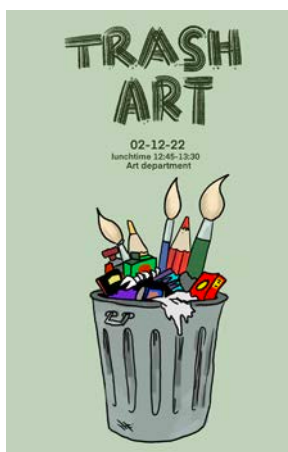


Community News

Trash Art Workshop

Last week, Amy & Eco Club led a 'trash art' workshop. The idea was to create pieces of art using recycled materials, to highlight just how much we throw away on a daily basis. Their creations are now on display for all to see, and to hopefully trigger some thoughtful conversations...

The team are now planning to work towards an Eco Schools award, to try to make our school more eco-friendly.



House Quiz

Last week our House Leaders organised a series of fun House quizzes for students and staff. They were highly competitive events, with Hatton being announced the overall winners.

Year 13 also narrowly won against the staff on Friday in a tense match-up!



12 Days of Christmas

The student leadership team and charity committee have organized a host of fun activities for this festive season at Seniors. They have selected four local Croydon charities to support: Croydon Refugee Day Centre, Croydon Nightwatch, Crisis Skylight Croydon and the Salvation Army Croydon. Each charity is working hard within the Croydon community to support the homeless, refugees and those who are struggling financially.

We welcomed Chris from the Salvation Army in to speak at assembly to launch our campaign, and he spoke to students about the challenges people are facing this winter and how our donations will help to make a difference. Students have collected food donations, hosted a mini fair, hosted a Nativity! Movie night and organised Christmas jumper day – all to raise funds. Thank you to everyone who has contributed so generously.





Vertigo (1958) - ground breaking CGI titles !

On Tuesday 29th November, myself and other students from Year 7 to Year 8 attended a Curiosity Club delivered by the Computer Science Department based on CGI. We learned that the first-ever film to use CGI was *Vertigo*.

You can watch the title sequence at www.youtube.com/watch?v=SkLn8mamU78.

It was believed that CGI was used during the late 1950s by the director Alfred Hitchcock. SFX and VFX are all used in the process to make CGI.

Visual Effects (VFX) mainly focuses on adding effects to existing imagery or film. Special Effects (SFX) is the use of illusions

The first feature film to make use of CGI was the 1973 film *Westworld*.^[1] Other early films that incorporated CGI include *Star Wars* (1977),^[1] *Tron* (1982),^[1] *Golgo 13: The Professional* (1983),^[2] *The Last Starfighter* (1984),^[3] *Young Sherlock Holmes* (1985)^[1] and *Flight of the Navigator* (1986).^[4] The first music video to use CGI was Dire Straits' award-winning "Money for Nothing" (1985), whose success was instrumental in giving the process mainstream exposure.^[5]

Interestingly, Wikipedia claims incorrectly that *Westworld* (1973) was the first movie to use CGI, when in fact it dates back to the 1950s. Computer-generated imagery has evolved in many ways since the *Vertigo* film (when it used to be an astounding accomplishment). However, now it has become normal to see computer made dinosaurs or non-humanoid creatures. In our Curiosity Club, we watched many old and



Director Alfred Hitchcock and friend

new clips such as the original *King Kong vs Godzilla* (1962), hence, we found out it wasn't very realistic because you could tell it was human actors messing around in 'not scary' and 'unbelievable' costumes. You can see how much special effects and therefore CGI has evolved with the pictures of *Godzilla* and *King Kong's* first movie compared to its latest.

We also discussed bad CGI and good CGI. Bad CGI is when the Computer-Generated Imagery is easy to spot or is generally bad quality such as the first version of the recent *Sonic* film trailer (in the first movie) with his intimidating and human-like features.

Good CGI is when it is hard to spot or it's so good you can't even tell the difference between real life and CGI. One of the best CGIs of all time was in *Avengers Endgame* with the Thanos Marvel character, which used motion capture CGI on actor Josh Brolin. Although a lot of other movies use intensive CGI to make the characters look beyond realistic!

Kemafo, Year 7



The motion-capture of actor Josh Brolin as Thanos



King Kong Vs Godzilla (1962) Actors in monster suits!



Godzilla Vs Kong (2021) Ultra-realistic CGI

Indoor Cricket

This year, for the first time, Old Palace entered the U15 Indoor Cricket League. For our first match, we were drawn to play against St Philomena's in the 8-a-side format of the game

Students from Years 9 and 10 had just two short practices to get them back into the swing of cricket again. Old Palace fielded first and did really well – cutting short the innings of St Philomena's by getting all their batters out in less than 8 overs. It was then left right to the final over of our batting innings to score the necessary runs and so it was a close contest, but we were thrilled to be the winners.

Well done to Arabella who was named Player of the Match and also retired due to having scored the maximum runs in this format.

We look forward to hearing who we play in the next round.



Maths Conference Trip

On 29th November, Year 12 students visited the Phoenix Theatre in London to watch a series of lectures on how maths is integrated into all sorts of careers in today's world.

The first guest speaker we listened to discussed how computer simulations could be used in the organising of large festivals like Glastonbury to, for example, create models estimating

how long it would take everyone to evacuate in the event of a fire. Particularly how the density/number of people per m^2 (there are over 175,000 people at Glastonbury each year!) affects the speed at which people walk.

The next speaker discussed how he used maths to design large buildings such as the Emirates Stadium, to improve the structural performance of the material as well as reducing the environmental impact. I especially found it interesting how the Millennium Dome is 365m across, 52m wide and has 12 towers to represent the length of a year!

The last speaker we listened to had a particular passion and talent for juggling. He explained how patterns can be used within juggling to show that when juggling with an even number of balls, the balls always stay in the same hand. Yet when there's an odd number, the balls keep changing hands.

Overall, it was a very interesting and interactive series of lectures. Thank you to the maths department for organising this trip for us.

Albertina, Year 12

Netball: U14A & B v Wallington

On Monday we hosted a league match against Wallington Girls. Both matches were really good and very close; a fine display of Senior level netball played at its best with everyone striving to perform well against a much larger school.

U14B v Wallington

Lost 7 – 8 which shows how close it was!

Sapphy was named Player of the Match.

Squad: Rosie S, Amber, Olivia, Arabella, Keona, Sapphy and Tahlyah.

U14A v Wallington

Lost 8 – 12, but were 1 – 5 down in the first quarter and so a real fight back and great shooting.

Anna was named Player of the Match

Squad: Zara, Emilia, Tori, Anna, Tejaska, Isobel and Amira.

Thanks to Grace, Zara, Arabella and Fatima for staying as Sports Leaders to help out with timing, coaching and scoring.



This term Business and Economics students have taken part in a range of activities to better understand the world around them.

Boohoo Visit

Year 11 students were given the opportunity to take part in a workshop, led by Everfi in partnership with Boohoo.

Students were able to speak with a senior HR administrator and digital marketing manager from Boohoo and ask questions about the roles, responsibilities and career progression within the company.

In the first part of the session, students were taught about employability skills and how to sell their strengths when writing applications and during the interview process. They were tasked with identifying their individual strengths, and the transferable skills that they could offer employers.

In the second part of the session, students were presented with commonly occurring supply chain and customer service issues experienced by the Boohoo group. In teams, students discussed appropriate methods of resolution.

Finally, students were given a project to create a new niche clothing line for young people. This required them to come up with a clear USP, devise a mission statement and pitch their ideas to the panel. Each group received feedback from the session's leaders on their pitch and business idea.



Cost of Living Assembly

Year 12 and 13 Economics students delivered an engaging whole school assembly on the cost-of-living crisis. Students highlighted the changes to prices that have occurred in recent months, the wide-ranging impact of inflation, and the initiatives taken by the Government to bring about stability.

Students worked together to create a presentation that would engage and educate both younger and older students on the changes taking place in the economy

Meeting an Entrepreneur by Lila



Business Studies students in Year 10 and 11 were visited by Philip Poole, owner and CEO of Veritas. Veritas specialises in teacher recruitment for over 1000 schools in the USA, Canada, and Australia.

Mr Poole took us on a journey of the work experience that led him

to becoming an incredibly successful businesses owner. We were all amazed to learn that he started from very humble beginnings, working as a waiter; however, it was later on in his career that he knew that he wanted to be his own boss.

We were told about the process of how he started his business, such as the importance of SWOT analysis, employee motivation and customer relationship and feedback, as well as the actions he had to take to survive the pandemic. After his talk we were able to ask him questions - and there were A LOT!

No amount of textbook reading and note taking can replicate the insight gained from hearing from leaders in business, so I'd like to thank Ms April for organising this event for us.

I have a feeling I'll do quite well on the upcoming topic test.

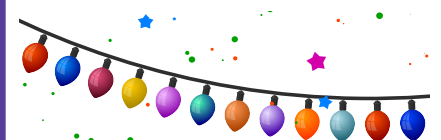
THIS WEEK IN HISTORY...

CHRISTMAS BANNED!

In December 1647, the Puritans who controlled Parliament during the English Civil War banned the celebrating of Christmas in England! Riots broke out in Kent, but the ban stayed in place until the monarchy was restored in 1660. In Scotland, it only returned in 1712!



Maths Puzzle Fun



Mrs Burton is putting lights around 8 windows; each window is 1 and a half meters wide and 2 meters long.

How many meters of lights does she need?

Answer on page 16

Football v CHS

On Tuesday evening we played our first ever football fixture; this one was against Croydon High School.

The students had lots of fun and showed a great deal of football skills as well as determination and team spirit.



U18 Hockey v CHS

The U13s A and B Old Palace Hockey team played Croydon High on Wednesday evening.

The A team drew against Croydon High 4-4 and the B team also drew against Croydon High 1-1. It was a fantastic game to watch. Both teams passed the ball with accuracy and control. They got the ball up the pitch and created some width to score some great goals. Students also tracked back behind the ball and put in amazing tackles.

They should be so proud of themselves. Well done OPS!



Sixth Form PE

Some of the Sixth Form students have been able to use the facilities at Whitgift and Trinity during their Healthy Active Lifestyle Lessons.

This week, Year 12 tried out Racketball – an activity similar to Squash – with varying degrees of success!



Maths Puzzle Fun page 15 Answer

Each Window is $(2 \times 1.5) + (2 \times 2)$ metres perimeter. = 7m

8 windows means **56m** total

Last week's winner was **Nikita** in Year 7.