

Langley Park School for Girls

Enabling everyone to thrive – acting with kindness, determination and respect.



Headteacher: Mr S Whittle, MA (Cantab), PGCE, NPQH

17 January 2025

Dear Families,

As we near the end of another busy week at Langley Park School for Girls, I'd like to acknowledge the hard work and commitment of our students, especially those in Years 11 and 13 preparing for examinations this summer.

Our Year 11 students have demonstrated maturity and determination during their Mock GCSE MFL oral exams in German and Spanish. These exams provide valuable experience of the format of the examination and highlight the importance of thorough preparation, rehearsal and learning of key language. I know our students will learn from this experience and improve their performance in the final examinations later this year, in response to teacher feedback.

Our Year 11 and Year 13 students have also shown excellent engagement during the PIXL tutor group sessions and after-school revision sessions this week. These opportunities for re-teaching and revising key content are vital in preparing for their upcoming exams, and it is inspiring to see students making the most of this support. Over 100 Year 11 students joined an online revision session in Maths on Saturday morning and I want to thank Miss Severns for providing this additional opportunity for our students.

For our Year 13 students, it has been an exciting time as they submit their UCAS applications and begin receiving university offers. A number of students have already received positive responses, and we are thrilled for them. Additionally, some of our students who interviewed for places at Oxford and Cambridge before Christmas eagerly await their results – we are incredibly proud of their achievements.

Alongside the commitment shown by our students, our teachers came together after school on Monday as part of our ongoing professional growth programme, working in teaching and learning communities to collaborate, share best practice and plan peer coaching observations. This commitment to professional development underpins our shared goal of delivering the highest quality education for our students.

I have had the opportunity to visit a number of this week's assemblies led by Heads of Year, during which students have been reminded of such things as SMART targets, effective time management and positive self-talk, all of which is sound advice, which I have every confidence in students acting on.

On Tuesday and Wednesday, in common with other trust schools, we had the privilege of hosting senior leaders from Hayes, Langley Park School for Boys, and Ravens Wood, along with our Director of Education, for a peer review. This was a valuable opportunity for joint lesson observations, meetings with staff and students, and a review of our school improvement plan and self-evaluation. The review team identified significant strengths, including our students' positive attitudes to learning, excellent behaviour, and the continuous steps being taken to enhance teaching and learning. The reviews have provided an opportunity to learn from and with our trust colleagues, sharing best practice between our schools and it was especially encouraging to hear senior leaders from our partner schools reflecting on the things they want to take back to their schools. I look forward to sharing the detailed report with staff and to working with the LPGS team to address our identified areas for development.

We are delighted to confirm that Darrick Wood School will be merging with Impact Multi Academy Trust on 1 April 2025. This follows an informal consultation with all stakeholders and completion of extensive due diligence by both Trusts. From 1 April, Impact Multi Academy Trust will consist of five secondary and three primary schools, working in partnership to improve outcomes for children and young people in the local area.

Parents and carers of students in Years 7, 8, and 9 will have received their children's progress updates this week. These reports have been revised in response to your feedback, ensuring they provide clearer and more meaningful insights into students' progress and achievements.

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2022-2025

On a different note, I'd like to remind parents and carers who drop off and pick up children to stop and park considerately. We have recently experienced instances where staff cars have been blocked in, causing delays and difficulties for colleagues, including missed after-school appointments. Your cooperation in ensuring access for everyone is greatly appreciated.

Finally, we look forward to welcoming families of students in Years 8 and 9 to next week's Bromley Y Coffee Morning. This event will provide valuable information from our school staff and Mental Health Support Team about supporting your child's wellbeing – an increasingly important focus for us all.

Thank you, as always, for your ongoing support of our school and students.

Yours faithfully,

S J Whittle
Headteacher

MESSAGES FROM STAFF

Royal Society of Chemistry Competition Winners

One of our teams came second in the SE regional final of the Royal Society of Chemistry Top of the Bench competition! Our victorious team are Vanessa T in Y11, Ava D in Y10, Lottie H & Isabella L in Y9.

The final results were:

- 1st - St Olave's Grammar School, Team 11 Manganese
- 2nd - Langley Park School for Girls, Orange Team Rhenium
- 3rd - Bexley Grammar School, Team CAIT Chromium

Their winning poster about Rhenium is shown below.

Properties

Rhenium is a transitional element that shares several similarities with tantalum (Ta), mainly in its chemical properties and structural characteristics. Both elements belong to the group of refractory metals, which means they have high melting points and excellent resistance to wear and corrosion.

- Melting point of 3186°C – one of the highest melting points of all elements
- Boiling point of 5630°C – it has one of the highest boiling points of all elements
- Density of 21.02g/cm³ – it is also one of the densest elements

Discovery

Rhenium was discovered in 1925 by Walter Noddack, Ida Tacke and Otto Berg. The isolation of rhenium was finally achieved in May 1925 by Walter Noddack and Ida Tacke working in Berlin. They concentrated it from the ore gadolinite in which it was an impurity.

Extraction

The majority of Rhenium comes from ores found in Chile. Rhenium is extracted from roasting fume and dust, leaching residue, and aqueous solution to produce a rhenium bearing solution. Subsequently, rhenium rich solution is generated by separation with solvent extraction, ion exchange, adsorption, membrane techniques or chemical precipitation.

Appearance

Rhenium is a silvery-white, lustrous and dense metal. It tarnishes slowly in moist air.

Uses

- filaments for mass spectrometers (Mass spectrometry (MS) is a technique used to measure the mass-to-charge ratio of ions.) and ion gauges.
- in electrical contact material-it has good wear resistance and can withstands arc corrosion.
- in thermocouples-a device for measuring temperature.
- in wire used in flash lamps for photography.
- in addition to tungsten and molybdenum-based alloys to increase ductility at higher temperatures.
- rhenium catalysts used for hydrogenation of fine chemicals and disproportionation of alkenes.
- rhenium is used with platinum as catalysts in production of lead-free, high-octane gasoline.
- used in alloys for jet engines and in tungsten/molybdenum-based alloys.

Pricing and demand

Rhenium value, based on its rarity and usage in the aerospace industry keeps the price around an average of \$1200 USD per pound or \$2500 per kilogram. The current price of Rhenium is \$2,461.03 per kg. Rhenium is one of the top ten most expensive metals known, surpassing silver.

Structure & Bonding

Rhenium has a close-packed crystal structure that contributes to its high density and melting point. A single atom of Rhenium contains both 75 electrons and protons, and 112 neutrons; it has 2 atoms in its outer shell, making it a group 2 metal. Rhenium forms both Ionic and Covalent bonds, enabling a wide range of complex compound formations. The atoms bond especially well with Halogens and Oxygen.

Toxicity & reactions

Rhenium metal is not regarded as toxic on its own. However, all Rhenium compounds should be regarded as highly toxic. If ingested, it will act as a physical irritant to the digestive system. Rhenium is moderately reactive and forms compounds with most non-metals at high temperatures. Rhenium catalysts are especially resistant to chemical attack from Nitrogen, Phosphorus, and Sulfur, which makes them useful in hydrogenation reactions.

Isotopes of Rhenium

- 185Re – Natural abundance 37.4% – Half-life: stable – Commonly used in Rhenium-Osmium dating
- 187Re – Natural abundance 62.6% – Half-life: 4.12 × 10¹⁰ years (41200000000 years) – used in geological dating
- 186Re – Synthetic – Half-life: 3.7186 days – used in Radiopharmaceuticals for therapy
- 188Re – Synthetic – Half-life: 17 hours – applied in cancer treatment and research
- 189Re – Synthetic – Half-life: 24.3 hours – utilized in nuclear science for research

Interesting facts

- Rhenium was named after a river in Germany which was where it was initially isolated (the Rhine river)!
- It's the last stable, non-radioactive and naturally occurring element that has been discovered.
- This metal is commonly found in almost all electric ovens even though it is quite rare!

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Sources: <https://thechemicalelements.com/tantalum/> <https://www.chemcool.com/elements/rhenium.html> - text: rhenium is a silvery-white, lustrous and dense metal, and it is one of the most refractory metals. <https://pubs.acs.org/doi/10.1021/acs.chemmater.1c00001> <https://www.eaglealloys.com/interesting-facts-about-rhenium/> <https://www.ccdc.cam.ac.uk/elements/rhenium/> https://wp2.rinceducation.org/wp-content/uploads/2020/09/noddack_ida_walter_laboratorio2.png <https://www.isc.org/periodic-table/element/75/rhenium> <https://thechemicalelements.com/iron/> <https://thechemicalelements.com/tantalum/> <https://www.science.org/doi/10.1039/c9cp02392a> - text: Rhenium is a silvery-white, lustrous and dense metal, and it is one of the most refractory metals. <https://www.ccdc.cam.ac.uk/structures/search?id=doi:10.1039/b184276a&ccdc=152818> <https://www.examples.com/chemistry/rhenium.html> https://www.livestocks.co.uk/daily_charts/daily_charts.php https://en.wikipedia.org/wiki/Jet_engine

PE Kit

Please see the rules below regarding PE kit, we appreciate your continued support in reinforcing these requirements with your child.



PE KIT

The following
LPGS PE
kit items
ARE
acceptable



PE KIT

The following
items ARE NOT
acceptable at
anytime for PE
lessons



PE Bags

The ticked
bags ARE
acceptable

The crossed
bags ARE NOT
acceptable



PE Team

INFORMATION

Platform Concert – 29 January 2025

the platform



This year's LPGS Platform concert is on:

Wednesday 29th January
6pm
MAIN HALL

If you sing or play an instrument, it is
YOUR CHANCE
to perform whatever you would like!

*** BACKING TRACKS OR INSTRUMENTAL
ACCOMPANIMENT ARE ESSENTIAL IF YOU
WANT TO DO A SOLO ***

**YOU JUST NEED TO SIGN UP BY PERFORMING ONE
SECTION OF YOUR SONG/ PIECE AT
3.20PM ON TUESDAY 21st January (E005)**

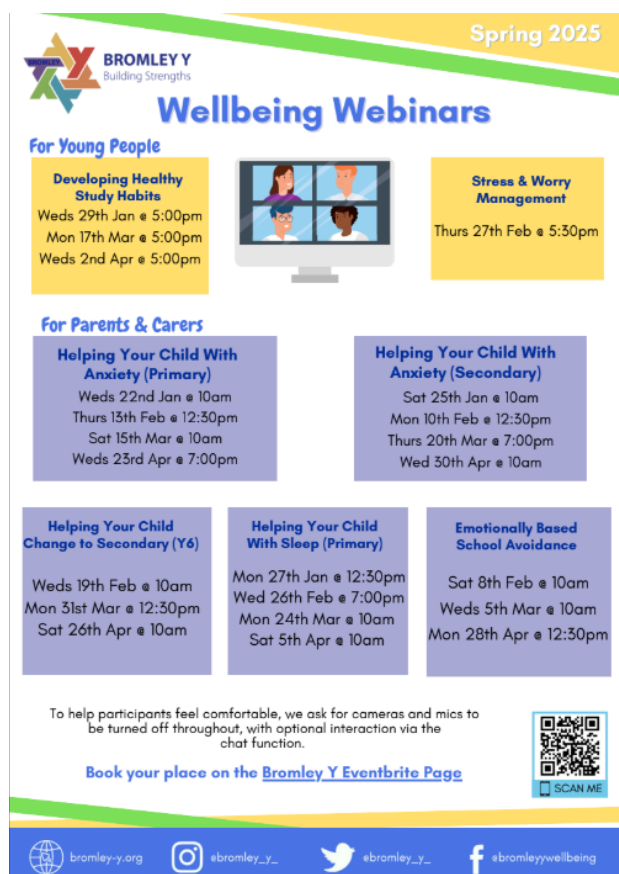
National Youth Jazz Orchestra

This February Half Term, NYJO (National Youth Jazz Orchestra) is delighted to be offering three days of percussion workshops at Woolwich Works. From Tuesday 18 February – Thursday 20 February, young people will have the chance to explore African Drumming, Steel Pans and Samba. Click [here](#) for more information and sign up via the booking [link](#). The deadline to register is Monday 10 February.

Bromley Y

The dates of Bromley Y's Spring 2025 webinars for young people and parents/carers are available [here](#) and include the topics below. Click on the links for more information.

Webinars for Young People



BROMLEY Y
Building Strengths

Spring 2025

Wellbeing Webinars

For Young People

- Developing Healthy Study Habits**
Weds 29th Jan @ 5:00pm
Mon 17th Mar @ 5:00pm
Weds 2nd Apr @ 5:00pm
- Stress & Worry Management**
Thurs 27th Feb @ 5:30pm

For Parents & Carers

- Helping Your Child With Anxiety (Primary)**
Weds 22nd Jan @ 10am
Thurs 13th Feb @ 12:30pm
Sat 15th Mar @ 10am
Weds 23rd Apr @ 7:00pm
- Helping Your Child With Anxiety (Secondary)**
Sat 25th Jan @ 10am
Mon 10th Feb @ 12:30pm
Thurs 20th Mar @ 7:00pm
Wed 30th Apr @ 10am
- Helping Your Child Change to Secondary (Y6)**
Weds 19th Feb @ 10am
Mon 31st Mar @ 12:30pm
Sat 26th Apr @ 10am
- Helping Your Child With Sleep (Primary)**
Mon 27th Jan @ 12:30pm
Wed 26th Feb @ 7:00pm
Mon 24th Mar @ 10am
Sat 5th Apr @ 10am
- Emotionally Based School Avoidance**
Sat 8th Feb @ 10am
Weds 5th Mar @ 10am
Mon 28th Apr @ 12:30pm

To help participants feel comfortable, we ask for cameras and mics to be turned off throughout, with optional interaction via the chat function.

Book your place on the [Bromley Y Eventbrite Page](#)

SCAN ME

Webinars for Parents/Carers



BROMLEY Y
Building Strengths

Spring 2025

Parent/Carer Webinar Dates January - April 2025

- Helping Your Child with Fears & Worries for Primary Parents**
Weds 22nd Jan @ 10:00am
Thurs 13th Feb @ 12:30pm
Sat 15th Mar @ 10:00am
Weds 23rd Apr @ 7:00pm
- Helping Young People with Fears & Worries for Secondary Parents**
Sat 25th Jan @ 10:00am
Mon 10th Feb @ 12:30pm
Thurs 20th Mar @ 7:00pm
Weds 30th Apr @ 10:00am
- Helping Children with Sleep for Primary Parents**
Mon 27th Jan @ 12:30pm
Weds 26th Feb @ 7:00pm
Mon 24th Mar @ 10:00am
Sat 5th Apr @ 10:00am
- Emotionally Based School Avoidance**
Sat 8th Feb @ 10:00am
Weds 5th March @ 10:00am
Mon 28th April @ 12:30pm
- Changing from Primary to Secondary School**
Weds 19th Feb @ 10:00am
Mon 31st Mar @ 12:30pm
Sat 26th Apr @ 10:00am

Scan QR code to Book

SCAN ME

Bromley Y's social media pages and feeds on [Instagram](#) and [Facebook](#) contain many self-help and psycho educational resources as well as information about Bromley Y. The [Bromley Y website](#), contains a [calendar](#) showing all webinars along with links to register, FREE on [Eventbrite](#).

My Child At School (MCAS)

A reminder to parents/carers who have not yet set up their MCAS accounts, please follow the instructions in this [letter](#) to set up your account. MCAS can be accessed via a web browser or the MyChildAtSchool mobile app.

We are aware the LPSB have also launched the MCAS app this term and families with children in both schools can switch easily between their children's accounts within the app.

UPCOMING EVENTS

Monday 20 January	Year 8 & 9 Bromley Y Coffee Morning
Monday 20 January	Year 11 Art Trip
Tuesday 21 January	Platform Concert Auditions
Thursday 23 January	Year 9 Parents' Evening
Friday 24 January	Year 9 DTP/MenACWY Vaccinations
Wednesday 29 January	Platform Concert
Thursday 6 February	Year 8 Parents' Evening
Friday 7 February	Futures Fair
Monday 10 – Friday 14 February	Year 11 & 13 Trial Exams
Thursday 13 February	Spanish Exchange Parent Meeting
Friday 14 – Thursday 20 Feb	Ski Trip
Monday 17 – Friday 21 February	Half Term
Monday 24 – Friday 28 February	Year 11 & 13 Trial Exams
Thursday 20 March	Year 7 Parents' Evening
Thursday 1 May	Year 12 Parents' Evening
Thursday 15 May	Year 10 Parents' Evening

Details of sports fixtures can be found on [Firefly](#)