

Welcome from the Head

Dear Applicant

Thank you for requesting details of the post of Physics Teacher at Newcastle High School for Girls. I hope that the enclosed information will encourage you to apply for a job in our successful and happy school. You will also find the School offers a very pleasant and supportive atmosphere in which to work.

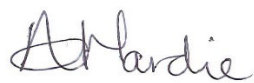
I regard every member of staff as extremely important. It is essential that anyone joining Newcastle High School for Girls has the ability and drive to help us improve further by participating wholeheartedly in all aspects of school life and promoting our ethos.

We are all committed to helping every individual in the School, both staff and pupils, achieve their full potential. We have a thorough Induction Programme for all staff and the Staff Room is lively and welcoming.

Extensive building and refurbishment programmes in recent years mean that both our Senior and Junior School sites have some of the most impressive school facilities in the region and, indeed, the UK.

I do hope that you will apply for this post. Newcastle High School for Girls is a wonderful School in which to work and this is an exciting opportunity. I look forward to hearing from you.

Yours faithfully



Mrs A Hardie
Acting Head

About the School



Newcastle High School for Girls is the North East's leading independent girls' day school. Founded in 2014, following the merger of two very long-standing predecessor schools, NHSG is a state-of-the-art, modern school with a tradition and history stemming back almost 150 years.

We are an all through school (ages 3-18) with around 250 girls in the Junior School and 450 in the Senior School, including 150 in the Sixth Form, who, together with around 150 staff, make up a friendly and welcoming community.

The Junior and Senior Schools occupy their own separate campuses around a mile apart and this role is based at both of our school sites. Our two campuses are situated within the suburban, leafy, areas of Jesmond and Sandyford, both very close to Newcastle city centre with excellent transport links to the Tyne & Wear Metro and bus services from across the region.

Our School is a very popular choice at all ages, with girls joining us from most parts of the Tyne & Wear metropolitan area as well as areas further afield in Durham, Northumberland, the Tyne Valley, the Borders and Teesside.

Girls who attend NHSG are bright, enthusiastic, eager to learn and have high aspirations. Our public examination results are consistently outstanding, and girls go on to study a wide range of subjects at prestigious universities in the UK and abroad. NHSG is highly regarded for the way it achieves its outstanding outcomes within a particularly warm and supportive environment, with pastoral care and achieving the best for every girl at the heart of everything we do.

About the Girls' Day School Trust



The GDST is a family of 23 independent schools and 2 all girls' academies across England and Wales. As specialists in girls' education, we tailor our teaching to the way girls learn best and instil in them the conviction that there is no limit to what they can achieve.

At GDST, we focus not only on what is learned but how it is learned. Ensuring our girls are confident and fearless, determined to show what they can do. Nothing holds our girls back – they're encouraged to embrace every role and subject. As a result, they trust their own abilities and are alive to every opportunity.

We concentrate on creating an environment where all can thrive and learn from one another. Physical and emotional well-being is paramount, which is why every GDST school provides an incredible array of extra-curricular activities and wellbeing programmes.

Within this family, networking opportunities enable staff to share best practice and develop initiatives that benefit all our schools and pupils. In addition to supporting the work of individual schools in providing excellent induction and development opportunities for staff, the GDST provides access to an extensive training programme, GDST Learn. This includes development opportunities and grants for some individual courses of study.

Science at NHSG – Overview



Our Science Department consists of 7 state-of-the-art specialist laboratories, 1 science classroom and a flexible learning space/demonstration laboratory, allowing us to deliver larger practical sessions and lectures. We also have an outdoor science terrace where pupils can carry out practical work. To support the learning of our pupils, we have three highly experienced science technicians allowing us to carry out a curriculum rich in practical work. All laboratories are equipped with interactive white boards, a visualizer, additional white boards and gas guards.

At NHSG, pupils are taught by subject specialists in separate Biology, Chemistry and Physics lessons throughout Key Stage 3 and follow a bespoke curriculum designed to prepare them for GCSE Science. Our curriculum is challenging with a focus on developing enquiry and practical skills.

At Key Stage 4, all of our pupils follow one of two routes; either all three individual sciences or, the Combined Trilogy course. We currently follow the AQA specification for all GCSE science options.

At Key Stage 5, our pupils have the option to study A Levels in Biology, Chemistry and Physics. We currently follow the AQA courses for Biology and Chemistry and OCR for Physics. Each subject receives 10 lessons per fortnight taught, in each subject, by two specialist teachers. We consistently have large number of pupils choosing to study sciences at A Level. Our pupils go on to a variety of different careers including many choosing STEM courses at university, in particular, medicine, dentistry, pharmacy, veterinary science and engineering at the UK's most prestigious universities.

Members of our Science Department also teach our Key Stage 2 pupils in Years 5 and 6, who visit Senior School weekly, and we work with our Junior School colleagues to deliver part of the extensive Junior School science curriculum. Our Junior School pupils also benefit from access to their very own specialist science teaching laboratory at Junior School, in addition to the outdoor learning facilities on the Junior School site.

At Senior School, enrichment is a huge part of what we deliver. We continue to build on the STEM enrichment programme from Junior School to help all pupils explore and learn about the diverse nature of STEM careers. We provide pupils of all ages a range of different opportunities to explore the STEM subjects outside of the classroom in the form of competitions, clubs, challenges, trips and residential courses.

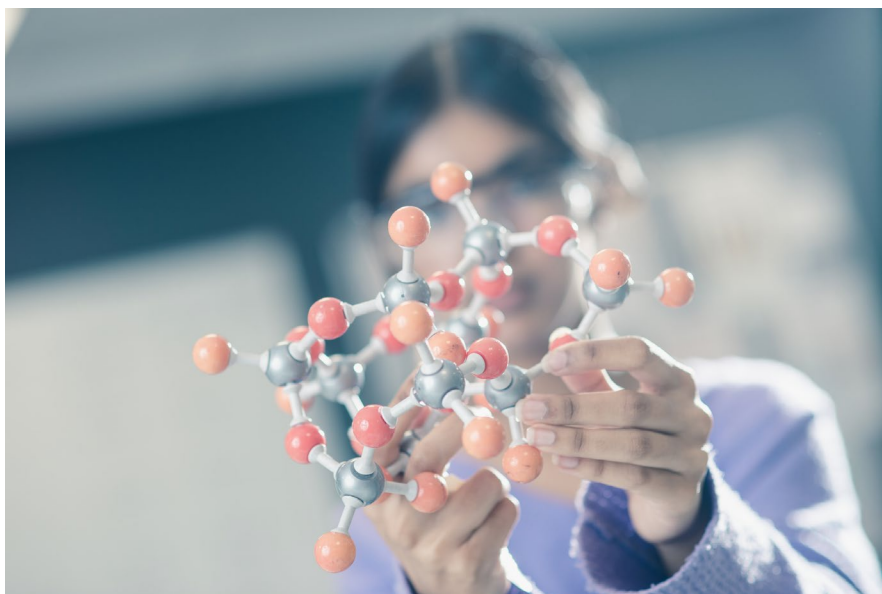
In Years 7, 8 and 9 our pupils have an opportunity to join our very successful KS3 STEM club. This takes place weekly and is supported by our 6th Formers and staff. Our pupils also have the opportunity to undertake CREST awards.

In Year 8, all of our pupils compete annually in an internal engineering challenge, the winning team from which goes on to compete against 5 other local schools in the Faraday Challenge IET event. Year 8 pupils also have the opportunity to take part in the Formula 1 challenge which aims to change the perceptions of science, technology, engineering and maths by creating a fun and exciting learning environment and develops an informed view about careers in engineering, Formula 1, science, marketing and technology.

Year 9 pupils all have the opportunity to compete in the Biology Challenge, a competition designed to stimulate pupils' curiosity for the natural world and to encourage them to take an interest in Biology outside of school.

In conjunction with the ICT Department, our pupils can also compete in FIRST LEGO League - an accessible, guided, global robotics competition, helping pupils and teachers to build a better future together. The programme is built around theme-based challenges to engage children in research, problem solving, coding, and engineering. Our Year 9 pupils are given the opportunity to develop these skills and explore the world of robotics.

In Year 9, we also host an annual internal competition to honour 150 years of Mendeleev's Periodic Table, in which pupils are each allocated an individual element to research and produce a fact file. The Chemistry Department then has the tricky task of voting for the best entry.



The Chemistry Department also puts together a team of elite Chemists from years 9, 10 and 11 to compete annually in the Royal Society of Chemistry Quiz at Newcastle University.

In Year 12, our chemists are invited to attend Pharmacy School in conjunction with Sunderland University. Here, pupils have a week-long opportunity to work in the university laboratories to create a whole host of different chemicals. They are able to use state-of-the-art facilities and equipment to make up creams, formulations, drugs and tablets. The skills gained from this experience not only help support our pupils with their A Level studies but also give them insight into university life and life in industry. Our Chemistry Department also hosts a monthly chemistry book club where chemists come together to read and share their thoughts on a chemistry text.

Our Year 12 Physics pupils all take part in the Engineering and Education Scheme (EES), where they also have the option to gain a gold CREST award. EES is a 6 month long EDT Programme which links teams of five or six Year 12 pupils and their teacher with local companies where they work on real-life, scientific, engineering and technology projects.

All Physics and Maths pupils in Years 12 and 13 are given the opportunity to travel to CERN in Switzerland, a unique trip to help them to answer some of the great questions of contemporary physics.

In Year 12, all Biology pupils have the opportunity to visit Newcastle University microscopy Department to learn how to use TEM and SEM microscopes. In Year 13, all Biologists attend a trip to the Centre for Life to explore the links between their phenotypic ability to taste PTC and their TAS2R38 (bitter taste receptor) genotype.

All year 13 Biology pupils also attend a 3 day residential course at the Cranedale Centre in Yorkshire to improve their fieldwork skills and are also given the opportunity to participate and compete in the annual Biology Olympiad.

In addition to our enrichment programme, we are also deliver outreach work to a large number of local primary schools via our Serious Fun on Saturdays, Science is my Super Power, Digital Schoolhouse and All Girl Masterclass programmes in addition to providing Science CPD for local teachers.

Our Science Department is academically strong, consistently achieving excellent GCSE and A Level results across all subjects. We are a great team of staff at NHSG who work closely together at all times to ensure that all of our pupils receive the very best science education and an enriching experience that equips them with a passion for and knowledge of the real-world applications of their science studies.

