

HIGHGATE

Teacher of Physics

September 2020



An able, well-qualified and inspiring teacher of Physics is required to join this very successful and innovative department from September 2020. The successful candidate will be required to teach pupils throughout the school, from Year 7 to Year 13. This is an exciting opportunity for either an experienced classroom practitioner who enjoys the company of bright, ambitious and well-motivated pupils or someone wishing to gain experience of teaching in an academically selective secondary school; applicants with experience of either secondary or tertiary education are encouraged to apply. An interest in academic extension, via either research activities, or direct teaching, alongside university preparation, would be an additional and welcome dimension.

All pupils study Physics as a separate subject in Years 8 to 11 having followed a General Science course in Year 7. In 2019 86% of pupils taking IGCSE Physics achieved grades 9/8. At A level 70% of pupils achieved A*/A grades following the AQA specification. Several students apply to Oxford or Cambridge to read physics, natural sciences or engineering each year.

The department is well resourced and staffed. There are ten specialist teachers, who enjoy the support of able and energetic technicians, who ensure that everything runs smoothly



as well as designing new experiments. The department is located centrally within the school. There are three laboratories, a small lecture theatre, prep room and office. All teaching rooms are equipped with desktop PCs and 4k SMARTboards.

The department has a particularly successful extra-curricular offering. In addition to its contributions to the annual school-wide STEM Week, recent visits to the National Physical

Laboratory and CERN were extremely popular. In addition, every year Sixth Form pupils enter the Physics Olympiad and the Physics Challenge. Pupils' achievements in competitions are excellent.

The School has in place DfE recognised arrangements for the Induction Year and the confirmation of NQT status. It also has considerable experience and success in guiding new and unqualified Physics graduates into the profession. For all teachers new to Highgate, regardless of experience, there is a strong and supportive framework of induction to the School.

Teachers at Highgate enjoy a welcoming, comfortable and exceptionally well-resourced environment and are provided with significant assistance from a range of support staff. Salaries are competitive. The School pays the employer's contribution to the Teachers' Pension Scheme. Terms are shorter than in the maintained sector. School staff have free access to the School's sports facilities.

Physics Partnership

Highgate's partnership scheme, of which the Physics department is a major contributor, aims to offer enrichment classes for bright pupils in local schools, specialist teacher INSET, curriculum development and support for materials and experiments.

Links have been made with the staff and pupils in ten maintained schools in the boroughs of Haringey, Camden, Islington, Newham and Brent. Work has focused on running extension sessions for able pupils and providing CPD for teachers with a particular focus on developing their knowledge and experience of practicals to enhance learning. We consider these experiences vitally important for creating an interest and understanding of Physics, but they are often not available to pupils in schools where there are limitations in equipment and fewer Physics specialists.

For Sixth formers, we have two research-based projects currently running at Queen Mary University and UCL. At Queen Mary, we are using Kepler telescope data to search for exoplanets, with students learning how to automate the task by writing code in Python, and, at UCL, we have a research project investigating the molecular outflows from young stars, using original research data collected for the project. Our students have discovered previously undetected molecules in four of these stellar nurseries.

We have also provided half-termly Saturday morning 'masterclass' sessions for over fifty Year 11 pupils aimed at raising aspiration and awareness. GCSE, A-level, BMAT, and British Physics Olympiad preparation classes were run on request at both Highgate and one of our newest partner schools, the London Academy of Excellence, Tottenham. Highly successful competitive physics-based events have been run for pupils in Years 8 and 12; at a recent Year 12 Partnership Conference, pupils enjoyed lectures on the physics of Brian Cox's *The Wonders of Life*, the search for Earth-like planets, and the world of quantum mechanics.



The Head of Physics, Dr William Whyatt (william.whyatt@highgateschool.org.uk), or the Head of Science, Mr Arthur Dabrowski (arthur.dabrowski@highgateschool.org.uk) will be happy to answer any questions about this post.

APPLICATION PROCEDURE

Please complete the on-line application form (<https://www.highgateschool.org.uk/work-with-us>)

Closing date 8:00am on 27 January 2020 but applications will be considered as they are received.

Criteria for the post of Teacher of Physics

(to be read in conjunction with the details of the post)

1 Essential professional criteria

Criteria	How will these be tested or verified?
A good honours degree in Physics, or a related subject (eg Natural Sciences)	Original degree certificate(s) Questions about subject specialisation (and course content for more recent graduates) Opportunities at interview to discuss techniques for teaching set topics
Experience of teaching academic lessons, either as an employed teacher or during a teaching placement, and an understanding of effective assessment	A 50-minute lesson to be taught to a Key stage 3 or 4 class. Opportunity to comment on and grade pupils' written work
Excellent communication skills	Two panel interviews; lesson (as above)
The ability to use ICT fully in the teaching of Physics, or a willingness to learn the skills	Observed in the lesson Opportunities to recount experience and expertise at interview
The ability to establish good relations with colleagues and pupils.	Opportunities at interview to recount experiences where these skills have been demonstrated Questions which referees will be asked as part of the confidential reference request
Knowledge of, and sympathy with, fundamental British values	Questions to test this at interview
Awareness and understanding of safeguarding and welfare of children	Questions at interview to test attitudes towards and knowledge of children's safeguarding and welfare Questions which referees will be asked as part of the confidential reference request

2 Desirable professional criteria

Criteria	How will these be tested?
A teaching qualification (e.g. PGCE, GTP)	Original certificate
Experience of teaching successfully in an academically selective school	Questions which a referee from an academically selective school will be asked as part of the confidential reference request Verification of a candidate's employment history
A willingness to be involved in the wider life of the department (e.g. Societies, publications and outreach teaching)	Opportunities at interview to recount experience of running or participating in such activities or to give ideas for these

3. Person specification

Highgate seeks to appoint teachers who will have, in addition to the professional qualities outlined above, the following proven personal qualities, or the potential to develop them. At interview, candidates will have the opportunity to demonstrate or give an account of these attributes.

- The energy, dynamism and stamina to contribute broadly to the life of a busy co-educational independent day school
- Profound and continuing interest in the academic subject / s to be taught
- The ability to pitch lessons appropriately and adapt methods according to pupils' responses and class dynamic
- Willingness to contribute to the co-curricular life of the school
- Commitment to the school's work in partnership with other schools
- Understanding and observance of professional standards (dress, punctuality, confidentiality)
- Capacity for industry and initiative as part of a team ie. contribution to the work of a department
- Empathy with pupils across the age and ability spectrum at Highgate and the ability to relate to them
- Awareness and understanding of matters relating to the personal, social, health and emotional development of Highgate's pupils
- Knowledge and understanding of Child Protection issues and good practice (eg. professional obligations on safeguarding the welfare of children)
- Capacity to deal sensitively with problems raised by pupils, in line with Highgate's pastoral policies and sanctions system, working in partnership with Highgate's designated staff i/c pastoral care
- Ability to liaise and communicate effectively and professionally with parents
- Ability to see any issues that may arise with pupils, parents or colleagues from a variety of perspectives
- The ability to defuse difficult situations using different strategies such as careful listening, sensitive use of humour, praise and recognition where due, utilising the School's reward system
- Retention of a sense of perspective and, on occasion, the invaluable ability to laugh at oneself
- Willingness to seek out or to accept guidance or constructive criticism from line-managers