

Founded 1642



# New Hall School

The Best Start in Life



Appointment of

## Head of Physics

Closing date: Midday, Friday 3 December 2021

Start date: September 2022

# The Physics Department

Physicists are problem solvers who use their skills to solve the problems of the Universe and to explain the Universe around us, from the tiniest particle to the infinite. Physics crosses the boundaries of Science from technology and engineering to medical physics and material science. Physics enables us to solve the most relevant questions of the modern world including the problems of energy consumption and food production in a rapidly growing population while also making our world more entertaining through the development of technology.

The central aims of the Department are:

- to inspire students to be inquisitive about the world around them
- to help all students to develop their scientific knowledge and to apply this to practical situations
- to provide opportunities for students to develop their practical and problem-solving skills, both inside and outside of the laboratory
- to offer a variety of approaches to teaching and learning to engage and motivate pupils and demand their active participation
- to explore enrichment opportunities outside the curriculum to enhance pupils' enjoyment of Physics and to inspire them to study Physics, or related disciplines, in the future

Committed to providing opportunities for students to explore STEM related careers, the Physics Department works in close collaboration with the other STEM subjects within School. The Department is also committed to sharing good practice, embracing new technologies and delivering innovative and engaging lessons. New Hall particularly encourages and supports teachers in continued professional development and, with the support of experienced colleagues, the Physics Department provides an excellent opportunity for any teacher to not only develop their teaching of the subject but to also further their own interests within Physics. Furthermore, as New Hall is an all-through 1 – 18 school on a single site, we also provide opportunities to make valuable subject links between the primary and secondary phases, with subject-specialist teaching beginning from Year 5.



*Students making telescopes in our Astronomy Club*



## Facilities

There are ten well-stocked Science laboratories, with two dedicated to Physics. In addition to this, we are currently developing a junior Science laboratory for Years 5 to 8. The facilities within the laboratories are excellent, with each having an interactive whiteboard. All teachers are issued a laptop and iPad to maximise the opportunities for using technology to enhance their lessons. The range of Physics-specific equipment available to the teachers is also first class and the Department is supported by a generous budget to ensure that practical work can be at the heart of our approach. There is also a Departmental workroom and we have a dedicated Physics technician who supports the teaching within the Department. All students from Year 3 to Year 13 are provided with a School iPad to help facilitate their learning.

## The Curriculum

Throughout the Senior Divisions (Years 7-13), Physics, Chemistry and Biology are taught as discrete subjects, by subject-specialist teachers.

In Years 7 and 8, the students follow a program of study designed within the Department that covers the main areas of the National Curriculum and prepares students for GCSE. In Year 9, all students then begin the AQA GCSE Physics course. At the end of Year 10, well over half of each cohort opts to sit the three Sciences as separate GCSE subjects (Triple Award), with the others instead taking the Combined Science (Trilogy) papers (Double Award).

At A Level, the students study OCR Physics A and the popularity of the subject means that there are typically two A Level Physics groups each year. A large number of students will also go on to study Physics, or a related subject, at University. In recent years, our Physics A Level students have gone on to study Mechanical Engineering, Civil Engineering, Robotics and Mechatronics, Astrophysics and Physics.

The Department also supports students in completing EPQs based around Physics. Projects have included the building of a hover craft, a trebuchet, a robotic arm and a presentation on the history of particle Physics.



*Students participating in STEM challenge activities*

## Departmental Achievements

The Department consistently achieves excellent results both at GCSE and A Level. Over the last three years, 55% of grades at A Level have been A\*/A, with 87% at A\*-B. In GCSE Physics, 82% of grades have been at 7+.

We are also keen to encourage students with co-curricular activities throughout the School. Our clubs and societies include Astronomy Club, Engineering Club and STEM club. We also run an A Level Problem Solving Club, aimed at preparation for the Physics Olympiad, in which we have had great success with students achieving gold and silver awards.



*Students celebrate their Physics Olympiad success*

In Year 7, we take part in 'Race for the Line'. This fun activity encourages students to design and build their own rocket car and take part in a national race. The students are also able to complete a CREST award based around this.



*Year 7 students race their rocket cars at the front of School*

In Year 8, we continue to develop these practical skills with immersive activities run by 'Thinkers in Education'. An Engineering Day in Year 9 then allows students to experience different aspects of this field and we are supported by a variety of global companies who visit us to help inspire the students, such as McAlpine, E2V and Kelvin Hughes. Students also attend a range of lecture series, including the GCSE Science, GCSE Physics and A Level Physics Live events in London. We also have an active local Institute of Physics group who run regular lectures and we support Physics Fest (a Physics outreach day for local children). In recent years, we have also attended the Particle Physics Masterclass, either at the Rutherford Appleton Laboratory or the University of Cambridge.

For further details regarding Physics at New Hall School, please contact Mrs Katherine Jeffrey, Principal, at [k.jeffrey@newhallschool.co.uk](mailto:k.jeffrey@newhallschool.co.uk).

## Job Description

Heads of Department (HoDs) are leaders of a staff team and are accountable to the Senior Leadership Team (SLT) for academic attainment and the progress of students. They are also responsible where relevant for support staff working within the Department. They have a key management role in raising academic standards and contributing to the life of the School. The quality and standard of work in the Department depend on the inspiration, dynamism, guidance and example of the HoD. The HoD will report to a member of the SLT; reporting lines are reviewed annually.

HoDs have an essential contribution to make to the management of the School in matters affecting curriculum planning, development of courses, teaching organisation and methods, links with agencies outside the School and Departmental finance. They will be consulted on matters relating to the curriculum where appropriate.

All teachers are expected to uphold, support and realise the Catholic ethos of the School, as outlined in the Mission & Ethos Statement and the Aims of the School.

Key responsibilities:

### **1. Organisation and General Management**

- 1.1 to lead by example, demonstrating excellent classroom practice, marking to a high standard and being an inspirational teacher showing management skill and good judgement in support of the School's aims
- 1.2 to direct and monitor the teaching and learning of the subject
- 1.3 to arrange regular departmental meetings; these should be at least fortnightly
- 1.5 to induct and supervise trainee teachers, NQTs and new members of staff in the Department
- 1.6 to liaise with colleagues, e.g. Learning Development, EAL, Learning & Teaching Committee
- 1.7 to be responsible for the development of members of the Department, using the Performance Management process effectively
- 1.8 to observe all teachers of the subject, at least twice per year, and to undertake unannounced Learning Walks in order to monitor Learning and Teaching
- 1.9 to undertake marking reviews regularly, to ensure the highest standards are maintained, in line with the School's Marking Policy
- 1.10 to promote the welfare of all students served by the Department and to pass on relevant information to other staff
- 1.14 to contribute to Curriculum Leaders' Group meetings

## **2. Curriculum**

- 2.1 to review annually the specification used within the Department and make recommendations to the SLT if changes are required
- 2.2 to access examination board websites on a regular basis, including secure password protected content, to ensure that the taught curriculum mirrors exactly that prescribed by the examination boards. This responsibility may be delegated to another member of the Department but accountability for ensuring that this happens lies with the HoD alone
- 2.3 to ensure that each subject teacher delivers the correct specifications and schemes of work
- 2.4 to oversee the Marking & Assessment Policy within the Department and its proper use in accordance with the whole School policy
- 2.5 to oversee all aspects of subject examinations e.g.
  - 2.5.1 to ensure adequate testing throughout the year, the standardisation of internal examinations, their moderation, setting, marking and necessary follow-up
  - 2.5.2 to submit results to the Vice Principal (Curriculum, Growth & Innovation) or other person as required
  - 2.5.3 to ensure that external examination specification requirements are adequately covered and examiners' reports are read by members of the Department
  - 2.5.4 to ensure that information given to the Examinations Officer is full and accurate; in case of dispute, decisions about the levels of examination entry should be supported by evidence
  - 2.5.5 to ensure that teachers are clear about the format of question papers, the stationery used by the relevant examination board and that candidates are familiar with the formats
  - 2.5.6 to ensure that examination candidates are provided with a copy of the relevant specification
- 2.6 to collaborate with Subject Leaders in the Preparatory Divisions to ensure a coherent delivery of the subject across the School
- 2.7 to ensure that report writing across the Department is in accordance with School policy and the Whole School Administration Guidelines
- 2.8 to set and mark entrance papers and to interview candidates, as required
- 2.9 to make recommendations regarding the allocation of Scholarships and Awards
- 2.10 to ensure that sufficient stretch and challenge is provided for Most Able & Talented students within the Department and that additional support and mentoring is available to those students striving for the most competitive universities, such as Oxford and Cambridge
- 2.11 to ensure that all teachers within the Department are aware of students on the SEND and EAL registers and that sufficient strategies and access arrangements are in place

## **3. General**

- 3.1 to take a leading role in initiatives to recruit and retain students such as Open Days and Educational Days
- 3.2 to uphold the School's Code of Conduct and to support members of the Department in doing likewise
- 3.3 to attend School functions regularly
- 3.4 to be a point of contact for parents and to ensure that all positive feedback and concerns/complaints are dealt with in line with School policy
- 3.5 to contribute to curriculum booklets, Department handbook, promotional material or letters to parents, as required

- 3.6 to kindle intellectual curiosity for the subject and to promote opportunities for further study and careers through academic societies, local or national events and links with universities
- 3.7 to present an attractive, stimulating, tidy and safe learning environment in classrooms and to oversee Departmental displays in public areas
- 3.8 to be responsible for resourcing the Department within the set budget
- 3.9 to manage Health & Safety issues within the Department and to refer any issues to the Health and Safety Officer

All staff are responsible for promoting and safeguarding the welfare of students at New Hall School by ensuring compliance with the School's Safeguarding & Child Protection Policy at all times. It is a requirement of all staff to report any actual or potential risks to the safety or welfare of students to the Designated Safeguarding Lead.

This document summarises the main responsibilities of the post. All staff are required to undertake whatever else may reasonably be requested by the Principal. All staff are expected to uphold, support and realise the Catholic ethos of the School, as outlined in the Mission & Ethos Statement and Aims of the School. Job Descriptions are subject to annual review.



## Person Specification

	Essential	Desirable
<b>Education</b>	<p>University graduate (or equivalent) with an ability to teach Physics to A Level</p> <p>Ability to teach another subject on the New Hall curriculum e.g. Chemistry, Biology, Mathematics or Computer Science</p>	Qualified Teacher Status
<b>Experience</b>	Experienced teacher, with leadership & management experience	<p>Experience of independent and/or boarding education and/or Catholic education</p> <p>Experience of marking or moderating for public examination boards</p>
<b>Skills and Aptitudes</b>	<p>Excellent communication, IT and organisational skills</p> <p>Be able to take a leading role in ensuring first-class provision in the whole school co-curriculum for Physics-related activities</p>	Candidates who are able to teach a second subject or offer help with coaching a sports team should state this in their application, giving details of second subjects, sports, and any coaching qualifications/ willingness to undertake coaching training
<b>Disposition and personal qualities</b>	<p>Understanding of the importance of promoting and safeguarding the welfare of children</p> <p>Initiative, drive and enthusiasm to develop students' interest in Physics</p> <p>Willingness to participate enthusiastically in aspects of boarding school life</p> <p>Ability to relate effectively to students and to motivate them</p> <p>Flexibility to adjust to change and development</p>	

New Hall is committed to increasing the number of staff from ethnic minorities, across all roles and at all levels, to reflect our diverse student population. Applications from practising Catholics are particularly welcome. The Equal Opportunities Policy is available on our website.



# School Tour

Click [HERE](#) to view our Open Day virtual tour.

## Hours of Work, Salary & Benefits

### Hours of Work

There may be occasions where you are required to work additional hours for the proper performance of your duties, taking account of the nature of the work in an independent boarding school. A degree of flexibility is required.

For example, teachers are expected to:

- be in School from 8.00am to at least 4.30pm each day, with one day working until 6.00pm
- run one after-School co-curricular club
- attend after-School staff meetings that may run until 6.00pm
- undertake boarding duties on a rota (currently one per term, on a Saturday/Sunday, usually for half a day)
- attend Saturday Open Days, after-School Parents Evenings (until around 8.00pm), Prize Giving Open Days, Taster Days and staff INSET Days

School holidays for teachers are typically in the range of 16-18 weeks.

### Salary

The current range for the Head of Physics is £48,771-£59,307pa. This salary includes a Management Allowance of £10,000 (MA4a).

### Pension

Teaching staff are able to join the national Teachers' Pension Scheme (TPS). Pension contribution rates are variable, currently between 7.4% per annum and 11.7% per annum, dependent on salary (employee), and 23.68% (employer). New Hall Governors keep membership of TPS under review.

### Training

New Hall is committed to professional development of staff and will support further in-service training as required. The School has a strong track record in teacher training, which will be fully funded and delivered in partnership with the University of Buckingham. There are generous INSET and Continuing Professional Development (CPD) budgets.

### Accommodation

Rented school accommodation may be available.

### School fee remission

School fee remission for staff children is granted in accordance with the provision at the time of commencing employment at New Hall. If your child is aged 4-11 and joins New Hall Preparatory Divisions, there is a reduction of one third of the day fees. Please note that there is no staff fee remission for New Hall Nursery/Pre-School (ages 1-4). If your child is aged 11-18 and joins New Hall Senior Divisions, there is a reduction of two thirds of the day fees.

Places for staff children are subject to space availability and the normal entry assessments. If the acceptance of a job offer is dependent on your child/ren attending New Hall, please contact the Admissions Team on 01245 467 588 to verify whether there is availability within the year group/s. You will need to complete an Application Form for fee remission, available from the HR

Department. This must be done prior to your child starting the School or the remission will only apply from the following term.

### **Sports teams**

Contributions to the sporting life of the School by leading a team attracts a competitive remuneration package for weekend fixtures. This will be paid at a rate of £60 when on site (including home fixtures) and £90 when accompanying away fixtures.

### **Sport membership**

As an employee, you will be able to make use of a discounted annual membership rate for the New Hall Sport Club (currently £20pa plus £5pa for family members), with effect from your start date. Membership includes Club time use of:

- 25-metre, 6 lane indoor swimming pool
- 10 floodlit tennis/netball courts
- Fitness Suite, which comprises a range of cardiovascular equipment and free weights
- Athletics track
- 12 golf practice bays

### **Technology**

New Hall is committed to promoting the digital literacy of our students. All teachers are provided with a School laptop and iPad to aid their delivery of lessons and all students in Years 3-13 have a School iPad.





[hr@newhallschool.co.uk](mailto:hr@newhallschool.co.uk) | | 01245 467 588  
 New Hall School, The Avenue, Chelmsford, Essex CM3 3HS