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New Hall School
The Best Start in Life

Appointment of

Second in Computer Science

Applications considered on a rolling basis until midday, Monday 15 August 2022

The Computer Science Department

The Computer Science Department at New Hall strives to equip our students with a full understanding of the ubiquitous technology around them. We develop a range of lifelong transferable skills such as resilience, confidence, creativity and teamwork, alongside the computational and mathematical knowledge inherent in the subject. With a captivating curriculum, students are immersed in the technology for the future, both inside and outside of the classroom. Our aim is to develop students into the leaders of technological innovation. It is therefore important that the Department evolves with these changes, enabling students to live in the digital age both now and in the future.

The Department is well-equipped. All students in Years 3 to 13 are provided with a School iPad and all Computer Science lessons take place in air-conditioned PC suites, large enough for all students to access their own computer. Students have use of a wide range of software platforms including Microsoft Office, Scratch, Python, SketchUp, and Visual Studio. The Department also has access to a laser printer and a 3D printer. All teaching staff at New Hall are given a School laptop and an iPad.

Year 6 Bebras Gold Award winners

Key Stage 2 Curriculum
The Department delivers the Year 6 Computing curriculum, which has been structured to bridge the gap between Primary and Secondary education. This subject-specialist delivery, within Key Stage 2, provides an exceptional opportunity for a teacher to broaden their experience.

Key Stage 3 Curriculum
The programme of study undertaken by students in Years 7 and 8 is based on the six areas of the Computing at School's (CAS) Computing Progression Pathways document. We aim to introduce students to elements of theoretical knowledge, such as:
- how computers work
- data representation
- ethics
- algorithms
- personal safety and dangers to personal data associated with the use of technology

Year 7 Computational thinking in action

A substantial amount of time is spent on building their skills in programming, spreadsheet modelling, computational thinking and project management. Each half term is dedicated to a particular area of the CAS Computing Progression Pathways.

The Year 9 curriculum is designed to provide an introduction to the GCSE Computer Science curriculum. Students build upon the skills acquired in Years 7 and 8, beginning with the development of programming to the level required for GCSE. They will also be introduced to cyber security, web development and databases. All students will additionally benefit from opportunities to improve their digital literacy through completing The Duke of York Inspiring Digital Enterprise Award (iDEA).

Year 9 visit to Bletchley Park – learning about encryption

GCSE AQA Curriculum

This is a two-year course studied by students who choose this as a GCSE option. GCSE Computer Science follows the AQA specification, which involves two written examinations. Some of the areas of study will include cyber security, logic gates, radix of numbers and Python programming.

A LEVEL AQA Curriculum

In Years 12 and 13, students follow the AQA specification in Computer Science. The course has a substantial programming component with two written examinations and a Non-Exam Assessment (NEA), which allows the flexibility to investigate any computing problem and create a solution.

Academic Achievements

The Department is committed to helping students to explore careers in technology. In recent years, a large

Robot wars with Year 13

number of our students have gone on to study Computer Science or related degrees at university, for example, Cybersecurity, Robotics, Computing with Mathematics and Mechatronics. Last year, one of our most able students won a scholarship to study in a highly competitive American university. We also have strong links with a range of technology firms and regularly have students progressing on to apprenticeship courses.

We are proud that a number of New Hallians hold positions as leading practitioners at successful and well-known organisations, such as IBM, Facebook, The Moving Picture Company and Ford Credit Europe.

Examination results are excellent each year and our students perform well above the national averages. This is due to excellent teaching and teamwork within the Department and the positive relationships forged between teachers and students both inside and outside the classroom.

Students in Years 6 to 9 take part in the annual Bebras Computational Thinking challenge. This allows students to complete a series of online tasks that demonstrate their skills as computer scientists. Our students demonstrate a high aptitude in thinking on their feet using logic. This year, the Junior (Years 6 & 7) and Intermediate (Years 8 & 9) cohorts both achieved average scores well above both county and national figures.

This year, 45 students received the Gold Award and were invited to the Oxford Computing Challenge.

KS3 Bebras Challenge Gold Award winners and Year 8 Programming lesson

We also participate in a range of other competitions, with a group of our Year 9 girls winning the prestigious Big Bang UK Young Scientists & Engineers South East competition. In addition to being crowned the overall winner, the New Hall team were awarded the Thales sponsored prize for best coding. The girls developed a Python program which utilised an artificial intelligence algorithm to generate paths through a maze.

2018 Big Bang UK Young Scientists & Engineers South East winners

For further details regarding Computer Science at New Hall School, please contact:
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Head of Computer Science: Mrs Devina Gillooly
BSc (Hons) Computing with Maths (Kingston), MSc Telecommunications (Queen Mary), PGCE Post Compulsory (Institute of Education)

Job Description

All teachers 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.

The Second in Computer Science reports to the Head of Computer Science. The key responsibilities for the role include:

- to produce and evaluate Key Stage 3 schemes of work and assessments in consultation with the Head of Department
- to facilitate the creation of new resources in light of curriculum changes at all Key Stages
- to act as the Department representative at the Most Able & Talented working party
- to assist the Head of Department in academic monitoring
- to act as a liaison with the Subject Leader for ICT in the Preparatory Divisions
- to assist the Head of Department in raising the profile of Computer Science throughout the school through the development of co-curricular societies
- to support the Online Safety Lead as Technical Advisor and the promote E-Safety throughout the Whole School
- to promote Remote Learning across the whole School
- to deputise for the Head of Department
- to support the Head of Department in the organisation of educational day visits

Senior Divisions Teacher key responsibilities:

1. **New Hall Teacher Standards**
   It is expected that all teachers will engage in the performance management process and strive for excellence in the following standards:
   1.1 sets high expectations which inspire, motivate and challenge students
   1.2 promotes good progress and outcomes by students
   1.3 demonstrates good subject knowledge and curriculum knowledge
   1.4 plans and teaches well-structured lessons
   1.5 adapts teaching to respond to the strengths and needs of all students. This includes ensuring EAL, SEND and MAT students are supported within lessons
   1.6 makes accurate and productive use of assessment
   1.7 knows how to assess relevant subject and curriculum areas, including formative and summative assessment
   1.8 marks books to a high standard, ensuring regular and constructive feedback
   1.9 manages behaviour effectively to ensure a good and safe learning environment

2. **Within the Department**
   2.1 to support colleagues, to ensure good working relationships and to contribute to the work of the Department
   2.2 to maintain and develop a sound knowledge of the subject area, including developments in the teaching of that subject; to bring to the attention of appropriate people INSET needs and opportunities
   2.3 to ensure a safe, purposeful and happy working environment for students
   2.4 to deliver and communicate clearly the requirements of the examination specification and the Department's schemes of work, including coursework requirements (this will necessitate a thorough knowledge of the published specification, and careful attention to detail, on the part of the teacher)

2.5   to monitor, assess and record students' progress, using strategies in accordance with Department and School policies (these will include formal reporting to parents in written form and orally at Parents' Meetings)

2.6   to work closely with colleagues to evaluate and develop the courses offered to students and the teaching strategies used. This will include contributing to the Department Development Plan

2.7   to initiate and support cross-curricular links as appropriate

2.8   to contribute to Departmental displays

2.9   to co-operate fully, as appropriate, in parental contact

3. Within the School

3.1   to support and contribute to the Catholic ethos of the School

3.2   to liaise and work with Tutors, Heads of Year and Heads/Assistant Heads of Boarding, as appropriate

3.3   to be aware of and contribute to the School Development Plan and to promote the strategic aims of the School

3.4   to be a Tutor (as required), facilitating class prayer, ensuring students are accurately registered, delivering PSHEE lessons and acting as the first point of contact for parents

3.5   to contribute to the co-curricular programme on a weekly basis or as otherwise arranged

3.6   to contribute to the weekend boarding provision on a termly basis or as otherwise arranged

3.7   to supervise students outside of lesson time, including a weekly duty

3.8   to cover lessons for absent colleagues

Teachers are expected to be in school from 8.00am to at least 4.30pm each day, with two days working until 6.00pm; attend two assemblies per week and lead assembly on a rota basis; run at least one co-curricular club; undertake one boarding duty per term; and attend meetings after these hours as required.

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.

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 can be found on the website.

Person Specification

	Essential	Desirable
Education	University graduate with an ability to teach Computer Science from Key Stage 2 to A Level	Qualified teacher Ability to teach another subject on the New Hall curriculum, e.g. Mathematics or Academic Projects
Experience	Experienced teacher of GCSE and A Level Computer Science	Experience of leadership & management Experience of developing and delivering In Service Training Experience of independent and/or boarding education and/or Catholic education Experience marking or moderating for public examination boards
Skills and Aptitudes	Excellent communication and organisational skills Ability to work with computer hardware, software and networking Adept at procedural and object-oriented programming, in order to deliver lessons up to Key Stage 5 Actively promote E-Safety as part of the curriculum delivery Ability to work with other staff as a team	Candidates who are able to teach a second subject or offer help with coaching a Sport team should state this in their application, giving details of second subjects, sports, and any coaching qualifications/willingness to undertake coaching training
Disposition and personal qualities	Understanding of the importance of promoting and safeguarding the welfare of children Initiative, drive and enthusiasm to develop students' interest in Computer Science Willingness to participate enthusiastically in aspects of boarding school life Ability to relate effectively to students and to motivate them Flexibility to adjust to change and development	

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 two days 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

Salary
The salary range for the post of Second in Computer Science is £46,614pa-£55,800pa (NH8-15 at September 2022 rates, including MA2c).

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. There are generous INSET and Continuing Professional Development (CPD) budgets.

Accommodation
School accommodation is available. This may either be rent-free single accommodation for someone taking on a role as a Boarding Tutor, or a rented single room in a shared house.

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.

Sport 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.

Lunch in term time

Currently, all staff are provided with lunch without charge during term time. This is subject to annual review.

Sport club membership

As an employee, you will be able to make use of an annual membership 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 from Years 3-13 have a School iPad.

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