



THE KING'S SCHOOL
CHESTER

HEAD OF COMPUTER SCIENCE



Willow
Lodge

Discovering the *world*



KING'S
JUNIORS

Igniting *curiosity*



KING'S
SENIORS

Seizing *opportunity*



KING'S
SIXTH FORM

Becoming *exceptional*

EVERY OPPORTUNITY. ENDLESS POSSIBILITIES.



Head of Computer Science



THE KING'S SCHOOL

King's is an academically selective, co-educational independent school originally founded in 1541 for the 'poor and friendless' children of Chester. Almost 500 years later, King's is a thriving, dynamic and forward-thinking school of 1100 pupils that is considered to be one of the very best of its kind in the country.

At King's we aim to make the very most of every individual student in the school, both academically as a selective school with a great tradition of scholarship, but also in terms of character development, confidence and wellbeing. This is achieved by a broad curriculum, extensive co-curricular programme, excellent pastoral care and highly committed and professional staff. We want our pupils to remember their time at school with real fondness whilst relishing the prospect of successfully making their mark on the world and leaving it a better place.

The school enjoys a spacious and well-resourced site on the southern outskirts of Chester, having moved from a city centre location in 1960. Our new, state-of-the-art infant school, Willow Lodge, was built 4 years ago with the Junior School being impressively extended a year beforehand. A major site development plan is in progress for the Senior School, with a new £5 million Sports Centre due to open this year. The school retains close links with Chester Cathedral, where it holds regular services, including a traditional Service of Nine Lessons and Carols at Christmas.

King's comprises the Senior School (ages 11-18), the Junior School (ages 7-11) and the Infant School (Willow Lodge, ages 3-7). There are currently 730 pupils in the Senior School (200 in the Sixth Form), 250 pupils in the Junior School and 120 in the Infants, supported by almost 250 staff (teaching and support). In 2018 the students achieved 72% A*- A at GCSE and 87% A*- B at A level. There are over 100 activities and clubs in the Senior School for students to choose from on a weekly basis. The major sports are football, hockey, cricket and rowing for boys and netball, hockey and rowing for girls. Drama, music and the CCF are also all particularly strong.

Further information about the school can be found on our website: www.kingschester.co.uk



Head of Computer Science



THE OPPORTUNITY

We seek to appoint a Head of Computer Science to build on the success of the last few years and to further develop the Department. This is an opportunity for a dynamic, enterprising man or woman who:

- has the vision to build on the excellent academic achievement of the Department and the imagination to ensure that the subject is popular and successful;
- understands academically gifted young people and is able to get the best out of them;
- is an inspirational teacher and able to ensure others follow his or her lead;
- will inspire students, staff and parents.

THE SCIENCE FACULTY

All departments at King's are part of a faculty structure, with Heads of Departments responsible directly to the four Heads of Faculty, who in turn report to the Deputy Head Academic. The Science Faculty, led by Dr Helen Faulkner, comprises the departments of Biology, Chemistry, Computer Science and Physics.



Head of Computer Science

THE DEPARTMENT OF COMPUTER SCIENCE

Three members of staff teach in the department: the Director of Studies, a part-time teacher and the Head of Department. The successful applicant will be able to offer Computing throughout the school from Year 7 to A level.

Computer Science is compulsory in Removes (Year 7) and Shells (Year 8) where the average class size is 26 and then optional in the Third Year (Year 9). The following areas are taught.

Removes: The social and technological aspects of the Internet and its effects on society, E-safety, Scratch, Python programming using BBC MicroBits.

Shells: Spreadsheets, Python programming, Computer systems, HTML & CSS.

Third Year: Computational thinking, developing algorithms using Python, Boolean algebra, binary and hexadecimal mathematics. The internet, e-commerce and legislation that governs its usage. Hardware, networks and data handling. E-safety web site using HTML & CSS. Flash animation.

There is one GCSE Computer Science set in the Fourth Year (Year 10) and two in the Fifth Year (Year 11); the average size of each set is 11. We currently follow AQA GCSE.

Yr 10 topics: Python programming. Computational thinking, Boolean logic, logic gates and circuit diagrams, binary and hexadecimal mathematics, data representation, encryption and ciphers, networks, characteristics of an assembler, compilers and interpreters, machine code, computer systems architecture.

Yr 11 topics: Developing algorithms using Python. Software and hardware, databases, the internet, communications and networking, networks and network protocols, social engineering and system security, computing ethics, the legal framework and the environment.

Computer Science has recently been re-introduced into the Sixth Form and is gaining in popularity, with ten pupils expected in the Lower Sixth and four in the Upper Sixth from September 2019. We study the AQA Computer Science syllabus at A level. The Sixth Form are comfortable with both Python and Java; the course language however has been set to Java.

Lower Sixth: Object oriented programming using Java. Encryption, abstraction and automation, finite state and Turing machines, regular and context free languages, data structures, vectors, graph and tree traversal, searching and sorting algorithms, Big O Notation, Boolean algebra, logic gates and computer systems architecture.

Upper Sixth: Students develop their coursework project and investigate the pre-release programme using Python. Operating systems, relational databases and SQL, TCP/IP, the internet and internet security, functional programming, moral ethical and cultural issues.

Examination results are consistently excellent. Last year students achieved 100% A*-B at A level and 70% 9 – 7 at GCSE.



Head of Computer Science



TERMS OF APPOINTMENT

The School will offer a highly competitive salary on our own salary scale which is pensionable under the TPS. A school iPad will be provided, along with a relocation allowance where appropriate. Staff children may be educated at King's at reduced fees.

PROCESS

Candidates for this post should complete the application form which should be posted or e-mailed to The Headmaster, The King's School, Chester, CH4 7QL to arrive **not later than 12 noon on Wednesday 6 March 2019**.

(hm@kingschester.co.uk)

Fax: 01244 689501

Tel: 01244 689523

A curriculum vitae will **not** be accepted in place of the completed application form.

Interviews will be held on Tuesday 12 March 2019.

The Deputy Head (Academic), James Millard, is available to discuss the post informally with prospective candidates. Email: jam@kingschester.co.uk.

The school is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment. The successful applicant will be required to undertake an enhanced DBS check. All our appointments follow the procedures laid out in our Equal Opportunities and Child Protection policies.