



Teacher of Physics

King's College London Mathematics School

- Full time from January 2018, or by arrangement
- Salary £27,000 - £36,500 depending on experience

Job pack contents:

- Application procedure
- Information about King's College London Mathematics School, and the post;
- Job description;
- Person specification.

Application Procedure

Should you wish to apply for this position please send the following:

- A completed application form, and
- An Equality and Diversity reporting form

Links to these documents can be found on our [website](#).

You may include a curriculum vitae and/or covering letter as well as, but not in place of, the application form.

Applications should be made electronically in Word or PDF format by email to mathsschool@kcl.ac.uk. Enquiries may be made to Mr Jim Bennie, Head of Physics, by emailing james_william.bennie@kcl.ac.uk

Closing date: 12pm on Wednesday 18 October, but applications will be considered upon receipt.

Please advise your referees that they may be contacted and asked to provide a reference at short notice.

King's College London Mathematics School (KCLMS)

www.kcl.ac.uk/mathsschool

King's College London Mathematics School is for highly motivated students aged 16-19 with a particular aptitude and enthusiasm for mathematics who wish to progress to competitive degrees and careers in which mathematics is applied. The school aims to widen participation in high quality mathematics teaching by recruiting students who would not otherwise have access to such teaching at sixth form level. The school opened in September 2014.

The curriculum

Our aim for the curriculum is for it to not only ensure excellent progress and attainment at A-level, but also to prepare students for successful study at university.

All students at the school take Mathematics, Further Mathematics and Physics to A-level, and either Computer Science or Economics to AS-level. They also take part in an extended curriculum that includes develops broader skills through a programme of extension, clubs and societies, sport, personal development and academic literacy. All students complete a substantive collaborative group research project set by industry or academia, and have the option of completing the Extended Project Qualification in their second year.

Students are prepared throughout their time at the school for the most challenging qualifications at sixth form level, including the STEP (Sixth Term Examination Paper) set by Cambridge, which is an important pre-requisite for mathematics courses at some of the best universities in the UK. They are also prepared to enter the many individual challenges and team competitions that are available in mathematics, physics and computer science.

The link to King's College London

King's College London are the sponsoring organisation for King's College London Mathematics School, and the university maintains strong strategic and operational links with the school. The Mathematics, Physics and Informatics departments of King's College London were closely involved in curriculum development for the school and maintain an ongoing supportive role, ensuring strong intellectual foundations and insight into developing applications of mathematics. PhD students from King's visit the school weekly to run problem solving classes for students in small groups.

King's has an outstanding reputation for providing world-class teaching and cutting-edge research. It is one of the top 25 universities in the world (2016/17 *QS World University Rankings*) and the fourth oldest in England.

Site and Size

The school is located on Lambeth Walk, near to the Imperial War Museum and a short walk from the King's Waterloo campus. The school has 150 students split between year 12 and year 13.

Admissions Policy

King's College London Mathematics School operates a selective admissions process. The key entry requirements are:

- At least seven GCSEs at grade 5-9, including: Mathematics (grade 8 or better), Physics or dual award science (grade 7 or better), and English (grade 5-9);
- A threshold score in a mathematical entry test set by the King's College London Mathematics School;
- A successful interview in which the school will assess the likely impact it will have on the future career of each applicant.

The school is committed to recruiting a significant proportion of students from socially disadvantaged backgrounds, and to an outreach programme (see below) to further this objective.

Outreach

King's College London Mathematics School aims to be a centre of excellence for the teaching of mathematics and its applications. The school supports high-attaining students across London, and in

particular those who come from more challenging backgrounds, to develop their mathematical skillset, and also works with teachers to provide professional development around the teaching of Mathematics and Further Mathematics A Levels.

The school's outreach activities also extend to physics, and this summer KCLMS ran a week long summer school in partnership with King's College London for students from challenging backgrounds in year 11 who wanted to take up A Level Physics.

Teacher of Physics

The school is seeking to appoint a dynamic and inspirational teacher of Physics to join a talented and high-achieving department and help to realise the vision and ambitions of the school.

Physics at King's College London Mathematics School is unique: not only does every student study this subject, but every student also takes Mathematics and Further Mathematics A-levels, meaning that topics can be tackled using considerably more mathematics than is usually assumed. The vision is for mathematics to be used to develop ideas, analyse problems and make verifiable predictions.

The school has two modern, well-equipped science laboratories, a design laboratory featuring an extensive workshop as well as a laser-cutter and 3D printer, a spacious prep room, and support from a university technician. Students are following OCR's Advancing Physics, a course that was developed in consultation with the Institute of Physics. The course provides a simple, direct and rigorous approach to modern ideas as well as rich opportunities for candidates to engage in individual research. Physics is a central aspect of the school's core curriculum and is thriving at the school: A Level results in August 2017 were 77% A*/A grades with value added at +0.9 grades per entry, there are many students who wish to apply to study it at top universities, there are keenly attended Physics, Astronomy and Engineering clubs, and a considerable proportion of students choose to enter the AS and A2 Physics Challenges.

The successful candidate will have strong academic credentials. They may already have a proven record of outstanding teaching, or they may be new to the profession. A vital qualification will be that they share the vision of the school to help young people with a particular aptitude for the mathematical sciences find challenge and excitement in a curriculum that fosters intellectual growth and curiosity.

The post will commence from 1 January 2018, though alternative start dates may be possible by arrangement.

Job description

Post title	Teacher of Physics
Responsible to	Lead Teacher of Physics
Role outline	
The Teacher of Physics will be responsible for preparing and teaching high quality lessons, ensuring the academic progress of their students, promoting the subject more widely and encouraging further study of physics and engineering in higher education. They will take charge of the care, guidance and support of a tutor group, and will work collaboratively with all staff to realise the vision of the school, including by working on the school's outreach programme.	
Responsibilities	
As a Physics Teacher:	

- To teach physics to KCLMS students, maintaining outstanding standards of learning, teaching and assessment.
- To support the school in developing an inventive approach to learning, teaching and assessment in physics so that all students are challenged effectively and enabled not simply to get high grades but also to gain an excellent understanding of the subject which propels them into successful further study.
- To maintain outstanding outcomes in physics.
- To prepare appropriate resources for lessons.
- To provide academic support for students in their lessons, as well as a reasonable degree of support outside lessons (e.g. after school or during part of lunch) to ensure that every student makes continuous and effective progress.
- To provide feedback on students' progress to the school, to parents/carers and to students themselves where appropriate and as directed by Senior Leaders.
- To provide or contribute to written assessments, reports and references relating to individual students and groups of students.
- To participate in arrangements for preparing students for public examinations and in assessing students for the purposes of such examinations.
- To participate fully in the learning community of KCLMS teachers, for example by regularly observing colleagues and welcoming observations in return, by contributing enthusiastically to discussions around teaching and learning, and by attending professional development activities either at KCLMS or elsewhere to improve and enhance teaching practice, including attending meetings which take place outside of normal working hours.
- To teach physics to students transitioning from GCSE to A Level Physics on the PHYSICS+ summer school that takes place in the second week of July.

As a tutor:

- To take responsibility for the care, guidance and support and the academic monitoring and eventual outcomes of a tutorial group, to include tracking and reporting on students' attendance and their academic, social and personal development, and taking actions to improve these outcomes.
- To manage students' welfare and academic performance in particular through the Academic Mentoring programme, meeting with students individually on a regular basis.
- To ensure that all students observe KCLMS policies relating to dress, behaviour and other matters, and that they take proper care of KCLMS's environment and resources.
- To prioritise at all times the safety and well-being of the students by following the Welfare & Safeguarding policies.

As a member of staff:

- To contribute to the extended curriculum, including by supporting and developing the academic literacy of students in their own teaching and through the academic literacy programme.
- To contribute to a programme of after-school and lunchtime academic enrichment and co-curricular activities.
- To participate in recruitment events such as Open Evenings, Taster Days and Interview Days, some of which take place on weekday evenings or at weekends.
- To lead or assist offsite trips and visits (any necessary training, for example around First Aid or Risk Assessment, will be provided).
- To embody and promote the school values.
- To contribute to the establishment and maintenance of a caring, positive, safe and stimulating environment for each student at King's College London Mathematics School.

- To prioritise at all times the safety and well-being of the students by following the Welfare & Safeguarding policies.
- To attend training days in reasonable proximity to the start or end of the KCLMS terms (usually, within four working days of the published term dates), and demonstrating a personal commitment to be fully up-to-date with training.
- To take a share of the duties around student supervision.
- To provide cover for absent colleagues, and participate in arrangements for students' supervision during public examinations.
- To undertake any other duties which may be reasonably required by KCLMS.

Person specification

Eligibility to work in the United Kingdom

The advertising of this post has not been compliant with UKBA guidelines for candidates who need to apply for a Certificate of Sponsorship to work in the UK.

Criteria	E S S E N T I A L	D E S I R A B L E	HOW IDENTIFIED AND ASSESSED AP Application I Interview R References TL Taught Lesson
Education/qualification and training			
Excellent grades in A-level Mathematics and Physics, or equivalent qualifications	X		AP
Good honours degree in Physics or in a subject containing a significant proportion of Physics	X		AP
Qualified Teacher Status		X	AP
PGCE		X	AP
Experience			
Successful and recent teaching experience of Physics to high-attaining students aged 16-19		X	AP, TL, R
Successful and recent AS- and A2-level Physics teaching		X	AP, TL, R
Successful experience as a tutor in a school		X	AP, I, R
Experience of preparing students for university entrance in Physics and Engineering, including supporting UCAS applications		X	AP, I
Experience of physics extension papers (PAT, Physics Challenge, Physics Olympiad)		X	AP, I
Knowledge/skills			
Precise and analytical self-reflection	X		I, TL
The depth of knowledge and the mental agility to allow flexibility in lessons	X		I, TL
Ability to quickly create effective rapport and a constructive relationship with students	X		TL
Excellent communication skills, both written and verbal	X		AP, I
Excellent organisational skills, including keen attention to detail	X		AP, I
Excellent IT skills, including the ability to learn new systems quickly and use them intelligently and flexibly	X		AP, I
Knowledge of the needs of SEN(D) learners, in particular learners with high-functioning Autism / Aspergers		X	AP, I

Personal characteristics/other requirements			
Commitment to the educational vision and the mission of King's College London Mathematics School	X		AP, I
Profound and continuing interest in the subject(s) to be taught	X		AP, I
Profound and continuing interest in learning, teaching and assessment	X		AP, I
Commitment to own self-development	X		AP, I
Capacity to take initiative and to innovate	X		AP, I
Ability to lead and to enthuse others	X		AP, I
Ability to work constructively with others inside and outside the school	X		AP, I
Integrity and reliability	X		AP, I

Safeguarding

King's College London Mathematics School is committed to safeguarding the welfare and well-being of children and applicants must be willing to undergo child protection screening appropriate to this post, including checks with past employers and the Disclosure and Barring Service.

Equal opportunities

King's College London Mathematics School recognises that equality of opportunity and the recognition and promotion of diversity are integral to its strengths. The following principles apply in respect of the School's commitment to equality and diversity:

- To provide and promote equality of opportunity in all areas of its work and activity;
- To recognise and develop the diversity of skills and talent within its current and potential community;
- To ensure that all employees and prospective employees of the School are treated solely on the basis of their merits, abilities and potential without receiving any unjustified discrimination or unfavourable treatment on grounds such as age, disability, marital or civil partner status, pregnancy or maternity, race, religion or belief, sex, sexual orientation, gender, gender reassignment, trans status, socio-economic status or any other irrelevant distinction;
- To provide and promote a positive working, learning, and social environment which is free from prejudice, discrimination and any forms of harassment, bullying or victimisation;
- To promote good relations between individuals from different groups.

Applicants with disabilities

King's College London Mathematics School is keen to increase the number of disabled people it employs. We therefore encourage applications from individuals with a disability who are able to carry out the duties of the post. If you have special needs in relation to your application please contact the HR Manager, Gaenor Stevenson, by emailing Gaenor.Stevenson@kcl.ac.uk

Thank you for your interest in King's College London Mathematics School.