

**Nine posts: Professorships,
Readerships, Senior
Lectureships, Lectureships,
Research Associateships**
*in Mathematics and
Science Education*





Appointments

King's College London wishes to appoint nine outstanding scholars to join our existing group of 12 permanent staff at the Centre for Research in Education in Science, Technology, Engineering and Mathematics (CRESTEM).

The posts, available from September 2012, will be spread equally across mathematics and science as follows:

- three professors (including one senior professor to lead mathematics and science education research in the Department of Education & Professional Studies)
- two readers/senior lectureships
- two junior lectureships
- two post-doctoral research associates

Who are we looking for?

For the senior positions, we are looking for individuals with a strong record of research and publications and, for the Chairs, experience of leading large externally-funded projects.

For the junior positions, we are looking for individuals with a doctorate in mathematics/science education or a related field who have already begun

to establish themselves as published researchers.

Whilst the quality of applicants' research and publications is paramount, we prefer that their research interests will relate to one or more of the following:

- school mathematics (primary and/or secondary)
- school science (primary and/or secondary)
- progression in the learning of mathematics or science
- learning in informal contexts
- attitudes, identity and participation
- international comparisons
- assessment
- technology
- digital literacy
- teacher education/professional development
- statistics and/or risk
- public engagement with science/science communication

We particularly welcome applicants with interests that address both science and mathematics education or with expertise in quantitative methods. Successful applicants would contribute to our teaching at masters and doctoral level. We anticipate that one appointee will have sufficient expertise to contribute to



Rosalind Driver



Margaret Brown

a new undergraduate degree in public engagement and science communication.

A tradition of mathematics and science education

King’s tradition of excellence in mathematics and science education is built on foundations laid down by outstanding scholars including Paul Black, Rosalind Driver (above left), Margaret Brown (above right), David Johnson, Mike Askew, Rick Duschl, Michael Shayer, Philip Adey, Dylan Wiliam, Jo Boaler and Jonathan Osborne. The current leaders of CRESTEM are Jeremy Hodgen, Justin Dillon, whilst Jill Adler holds a Chair in Mathematics Education.

A commitment to teaching

CRESTEM staff are fully committed to improving the quality of STEM education through research and teaching. CRESTEM has been allocated 120 Post Graduate Certificate in Education places in mathematics, the sciences and ICT for 2012-13 making it one of the largest providers in the country.

There are MA courses in Mathematics, ICT and Science Education and staff contribute to modules in assessment, teacher development and international & comparative education.

London and the policy dimension

King’s location, in the centre of London and its record of outstanding scholarship, have resulted in CRESTEM having unrivalled access to and influence on policy making in mathematics and science education. We expect the senior appointments to build on these research and policy synergies. CRESTEM also has strong links within King’s with the School of Mathematics & Natural Sciences.

King’s has been responsible for producing the most influential reports in mathematics and science education including *Inside the Black Box* and *Beyond 2000*. More recently, the Nuffield Foundation have sponsored the production of three more key reports: *Science Education in Europe* and *Is the UK an outlier?* and *Values and Variables: Mathematics Education in high-performing countries*. Reports such as these have maintained King’s position as a research-led university at the heart of policy-making.



CRESTEM – The Centre for Research on Education in Science, Technology, Engineering and Mathematics

CRESTEM is already the leading research group in mathematics and science education in the UK. The group has a substantial programme of research funded by the Economic and Social Research Council (ESRC), the European Union (EU), the US National Science Foundation and the Nuffield Foundation.

The group leads the ESRC's Targeted Initiative on Science and Mathematics Education (TISME: 2010-2014) and hold two of the major projects funded under TISME: Science Aspirations and Career Choice: Age 10-14 (ASPIRES: 2009-13) and Increasing Competence and Confidence in Algebra and Multiplicative Structures (ICAMS: 2008-12).

Current and recently completed CRESTEM research studies focus on international comparisons in mathematics education, science interests and recruitment, family numeracy, inquiry-based science education, mathematics enhancement courses for teachers, engineering education and assessment in mathematics and science education as well as a number of smaller projects.

CRESTEM has considerable success in securing studentship funding for doctoral candidates from the Economic and Social Research Council, the British Council and overseas governments. Science education benefits from two substantial bequests which fund research in science education and which will be available for the next

20 years at least. The Rosalind Driver Research Scholarship Fund, currently valued at just under £1m, supports several PhD students working with partner institutions including the Natural History Museum, Imperial College and the Royal Botanic Gardens, Kew. Another bequest of £900k supports studentships specifically in chemistry education.

CRESTEM has more than 30 doctoral students who belong to King's Graduate School. In a move that will enhance the College's outstanding environment for postgraduate study and professional development, the Economic and Social Research Council recently awarded King's more than £5.2 million to support postgraduate studentships and training in the social sciences. The King's Interdisciplinary Social Sciences Doctoral Training Centre is organised around 15 cross-cutting research themes, connecting the social sciences with the humanities, the health sciences and the natural and mathematical sciences.

'King's College London also undertakes nationally and internationally respected research in education, not least its work on assessment. This research base, within and across all subjects, makes a significant contribution to teacher training and to the professional development of practising teachers. University tutors work with teachers across the region on masters and doctorate programmes further strengthening the partnership.'

Ofsted inspection report: PGCE, 2010



Positions available

- Professors (three posts, including one senior professor to lead mathematics and science education research in the Department)
- Readers/senior lectureships (two posts)
- Junior lectureships (two posts)
- Post-doctoral research associates (two posts)

Timetable for applications and appointments

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|----------------|---------------------------|
| April 2012 | Deadline for applications |
| May 2012 | Short-listing takes place |
| June 2012 | Interviews |
| September 2012 | Posts available |

Involvement in the recruitment process

Ideally, the senior positions, and particularly the senior chair, would be involved in recruiting the other staff. This is a unique opportunity to build a world-class research team in this important area.

Who should I contact?

For informal discussions about the posts, please contact one of the following people:

Professor Christopher Winch

Head of the Department of Education & Professional Studies

Email: christopher.winch@kcl.ac.uk

Professor Justin Dillon

Co-leader of CRESTEM

Email: justin.dillon@kcl.ac.uk

Dr Jeremy Hodgen

Co-leader of CRESTEM

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