

The formula for world-class science and chemistry education

June 4 2014

The Royal Society of Chemistry has today launched a report which identifies disparities in the provision of specialist science and Chemistry teaching across the UK. The report highlights inconsistent delivery of science education and calls on government to introduce urgent changes to avert a skills and knowledge shortage in crucial science sectors by 2020.

Launching the report, Clare Viney, Royal Society of Chemistry Executive Director of Communications and Campaigns, said: "Cutting edge [science](#) remains a central component of a growing and resilient economy.

"Our children deserve the best science and [chemistry](#) education we can provide to secure their economic futures and to furnish them with the skills, knowledge and vision to meet global challenges head-on."

Competitors such as Singapore, Hong Kong, Germany, and Poland currently out-rank the UK in international league tables. If the UK's science and chemistry education provision cannot keep pace, new investment in chemistry-using industries may go elsewhere, removing jobs on a permanent basis.

The solution

It is widely acknowledged, including by the Department for Education,

the National Audit Office, and the Wellcome Trust, that subject-specialist teaching greatly enhances the likely take up of science subjects and importantly the continuation of a science education among children and young students.

Evidence shows that subject specialists have a deeper understanding, possess increased confidence, and improve pupils' attainment and attitudes towards their subject.

Subject-specific continuing professional development (CPD) is as important for teachers to be effective specialists, yet many schools do not fund or prioritise CPD, leaving teachers unsupported.

Some of the most successful [science education](#) systems - such as in Shanghai, Hong Kong, and Poland - prioritise subject-specialist teaching.

Ms Viney concluded: "To prevent the risk of the UK falling behind its international competition, the UK must ensure young people receive a science and chemistry education which is engaging, inspiring and expert.

"We need to sow the seeds of curiosity in and appreciation of science in primary schools and beyond through the subject-specialist teaching of science and chemistry.

"That's why we are today calling on government to ensure that every post-14 chemistry student, including those studying the subject as part of a combined science qualification, is taught by a chemistry-specialist teacher and that in every primary school, the science subject leader is a specialist."

Crucially, the Royal Society of Chemistry report also highlights serious deficiencies in available data on science teaching with much existing evidence anecdotal and out of date. The RSC will commission further

research to be released towards the end of 2014.

More information: The complete report is available online:
[www.rsc.org/images/specialist- ..._ort_tcm18-240681.pdf](http://www.rsc.org/images/specialist-..._ort_tcm18-240681.pdf)

Provided by Royal Society of Chemistry

Citation: The formula for world-class science and chemistry education (2014, June 4) retrieved 27 April 2024 from <https://phys.org/news/2014-06-formula-world-class-science-chemistry.html>

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