

Vision

for science and
maths education

THE
ROYAL
SOCIETY

“Science contributes a lot to society but it will only do that if we can get the education of science right.”

Sir Paul Nurse, President of the Royal Society

OUR VISION

All young people study maths and science up to the age of 18

Create new baccalaureate-style frameworks that encompass vocational and academic learning across a broad range of subjects to age 18.

Evolution not revolution in the curriculum

Use the expertise and independence of the science, technology, engineering and maths professional bodies to stabilise the curriculum and assessment, providing quality and coherence in 5–18 science and maths education.

There is a strong supply of science and maths teachers

Widen access to science and maths teaching and enhance their appeal to prospective entrants and returners by expanding the science, technology, engineering and maths community's role in recognising professionalism in teaching.

Young people see where science and maths can take them

Maintain investment in large-scale, national programmes and events delivered locally, which provide students with role models and help teachers and families to develop better engagement with academia and industry.

Performance measures value good teaching

Give teachers a greater role in assessing student's achievements in public qualifications. Judge the health of the school and college systems through broader measures that reflect the features of high quality science, technology, engineering and maths education.

Education policy and practice are informed by evidence

Enhance collaboration and communication between science and maths education researchers, scientists and mathematicians, teaching professionals, policymakers and the public.

	NOW	ACTION	2035
YOUNG PEOPLE	Too few young people are studying science and maths.	<p>Create a broader baccalaureate-style qualification.</p> <p>Provide careers guidance showing the potential of science and maths careers.</p>	<p>All young people study maths and science up to the age of 18.</p> <p>Young people see where science and maths can take them.</p>
TEACHERS	<p>There is a shortage of science and maths teachers.</p> <p>These teachers have limited opportunities for professional development.</p>	<p>Guarantee more opportunities for professional development created with the support of the science, technology, engineering and maths community including industry.</p> <p>Make regular subject-specific professional development mandatory for teachers throughout their career.</p>	There is a strong supply of science and maths teachers.
ASSESSMENT AND ACCOUNTABILITY	Much teaching is shaped by external exams.	<p>Encourage every school to have a governor with responsibility for science, technology, engineering and maths.</p> <p>Trust teachers with an increased role in assessing student achievement.</p> <p>Ensure exams are not the only measure of a school's performance.</p>	Performance measures value good teaching.
EDUCATION POLICY	The pace of change is disruptive for young people and teachers.	Create expert-led independent curriculum bodies to manage curriculum change.	<p>Evolution not revolution in the curriculum.</p> <p>Education policy and practice are informed by evidence.</p>

One million new science, engineering and technology professionals will be required in the UK by 2020.

Royal Academy of Engineering

Over half of people in the UK do not feel informed in science.

Ipsos MORI

Download the full report at
royalsociety.org/education/policy/vision



Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science.

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