

Qualifications for 14-16 year olds and Performance Tables

A SCORE response to the Department for Education consultation
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SCORE

SCORE is a collaboration of organisations, which aims to improve science education in UK schools and colleges by supporting the development and implementation of effective education policy.

SCORE is currently chaired by Professor Graham Hutchings FRS and comprises the Association for Science Education, Institute of Physics, Royal Society, Royal Society of Chemistry, and Society of Biology.

Association for Science Education

The Association for Science Education (ASE) is the largest subject association for education in the UK. Members include teachers, technicians and others involved in science education. The Association plays a significant role in promoting excellence in teaching and learning of science in schools and colleges. Working closely with the science professional bodies, industry and business, ASE provides a UK-wide network bringing together individuals and organisations to share ideas and tackle challenges in science teaching, develop resources and foster high quality continuing professional development.

Institute of Physics

The Institute of Physics is a scientific charity devoted to increasing the practice, understanding and application of physics. It has a worldwide membership of around 40,000 and is a leading communicator of physics-related science to all audiences, from specialists through to Government and the general public. The Institute's Education Department works in policy, teacher recruitment and retention, teacher support and student support.

Royal Society

The Royal Society is a Fellowship of more than 1,400 outstanding individuals from all areas of science, mathematics, engineering and medicine, who form a global scientific network of the highest calibre. The Society is committed to an evidence-based approach to supporting responsible policy-making within science and education, drawing upon high quality information and advice from its Fellows and Foreign Members, the wider scientific and education communities and others to achieve this.

Royal Society of Chemistry

The Royal Society of Chemistry is the UK professional body for chemical scientists and the largest organisation in Europe for advancing the chemical sciences. Supported by a worldwide network of over 47,500 members and an international publishing business, the Society's activities span education, conferences, science policy and the promotion of chemistry to the public.

Society of Biology

The Society of Biology is a single unified voice for biology: advising Government and influencing policy; advancing education and professional development; supporting its members, and engaging and encouraging public interest in the life sciences. The Society represents a diverse membership of over 80,000 – including, students, practising scientists and interested non-professionals – as individuals, or through learned societies and other organisations. The Society supports and recognises excellence in biology teaching and champions a biology curriculum that challenges students and encourages their passion for biology.

1. SCORE welcomes the government initiative to review the qualifications for 14-16 year olds and their inclusion in performance tables. SCORE fully agrees with Professor Alison Wolf that there is a need to ensure that pupils' best interests, in terms of progression and educational value, should be prioritised over performance table points in school decision-making. The drive for Free Schools and new style Academies has raised issues about accountability structures for publicly funded education and performance tables will have an important role in helping to monitor the core subjects taught in these types of schools.
2. SCORE recommends that the government adheres to the following principles on qualifications for 14-16 year olds and performance tables:
 - a. The Government should consider the unintended consequences of any performance measure it introduces and, in particular, the impact it may have on the range and quality of qualifications on offer to students.
 - b. A school should be required to report on what it is trying to achieve. It should be able to offer a range of qualifications appropriate to the needs of its students, regardless of whether a qualification features in a performance table.¹
 - c. A performance measure that tries to serve too many purposes is unhelpful and could run the risk of leading to perverse incentives. Performance tables should be an accountability measure for the protection of standards, to be used by schools, students, parents and local communities, as well as the Department for Education.
 - d. Qualifications are developed for a specific purpose and should be recognised and valued for what they represent. There should be no attempt to develop equivalence between qualifications that have been designed for different purposes. GCSEs, BTEC and Diplomas are not equivalent and nor should they try to be. Any such equivalencies are likely to drive down standards and the integrity of qualifications.
 - e. Arbitrary criteria used to define whether a qualification features in the performance table should not be a proxy for what constitutes a 'good' qualification. Such a message may encourage valuable qualifications, not included in the performance table, to change arbitrarily in an attempt to meet the criteria.
3. There are 452 approved GCSE qualifications, and 86 of these include science in some way. However, not all of these science-related qualifications cover the National Curriculum for science. Given the Department's proposal that qualifications included within the performance tables should support broad progression for the majority of pupils', **SCORE recommends that the performance tables make a clear distinction between those science-related qualifications which cover the National Curriculum content for science at Key stage 4, and those that don't.**
4. It is proposed that one of the criteria used for including qualifications within performance tables is size (roughly equivalent to one GCSE). Indicating the size of qualifications able to be included in the performance tables is likely to drive the behaviour of qualification providers, and encourage the slicing (or padding) of qualification syllabus to fit a standard length. This could damage the integrity of a qualification and lessen its value to employers

¹ This point is also made by the Science and Learning Expert group who state, 'schools and colleges should produce a public annual report setting out their performance' ("[Science and Mathematics Secondary Education for the 21st Century](#)" BIS, 2010)

and further and higher education. Again SCORE would like the government to acknowledge that qualifications are not and should not be equivalent.

5. **SCORE asks the Department to consider carefully the longer term implications of guidance on the size of qualifications included in the performance tables.** We endorse the Government's aim to discourage 'qualification-bagging' which has been increasing in recent years with pupils encouraged to take qualifications nominally 'worth' more than one GCSE in the current performance tables. It is worth noting that this approach may lead to unforeseen consequences, such as qualifications being offered and taken up for the unsound educational reasons.
6. The National Curriculum is currently being reviewed, and it is not clear whether all National Curriculum subjects will have the same amount of content to cover. No decision has yet been made on the shape of the Key Stage 4 science curriculum or how it will be assessed at GCSE. In the past, the National Curriculum programme of study has specified up to two GCSE's worth of science content. The old GCSE 'double award' in science would not necessarily have been included in these revised performance tables, and, even if it were, would only count as one qualification. The Department must ensure that decisions based on a uniform approach to all subjects do not restrict the development of appropriate, high quality assessments by awarding organisations for specific subjects such as science.
7. The current performance indicator in science (2 A*-C GCSEs in science, or equivalent) remains an important measure of schools' provision of, and pupils attainment in, a broad and balanced science curriculum at Key Stage 4. **SCORE recommends that the Government includes a similar measure using a new, shorter list of preferred qualifications.** It is vital that the list only includes qualifications that cover the entire content of the National Curriculum for science.