

Decisions on setting the grade standards of new GCSEs in England - part 2



From April to June 2016 we consulted for a second time on setting the grade standards of new GCSEs graded 9 to 1 to be awarded in England from 2017 and beyond¹. We first consulted, between April and June 2014², on the awarding of new GCSEs using 9 to 1 grades in English language, English literature and mathematics in summer 2017.

This second consultation proposed the approach to be taken in all other subjects and proposed a change to our previous decisions for English language, English literature and mathematics about how grades 8 and 9 are to be set in the first year of awarding.

We have reviewed the responses to the consultation and are now announcing our decisions. We are also publishing a more detailed analysis of the responses alongside this document³.

Summary of our decisions

Following consultation, we have decided that:

- The first award of all new GCSEs will be based primarily on statistical predictions with examiner judgement playing a secondary role. A modified approach, based on a wider range of information, will be used where needed because of the size and nature of the candidature;

¹ A copy of our consultation document can be found at <https://www.gov.uk/government/consultations/setting-the-grade-standards-of-new-gcse-in-england-2017-2018>

² A copy of the consultation document can be found at <http://webarchive.nationalarchives.gov.uk/20141110161323/http://comment.ofqual.gov.uk/setting-the-grade-standards-of-new-gcse-april-2014/> . Decisions were made in September 2014 following this consultation.

³ <https://www.gov.uk/government/consultations/setting-the-grade-standards-of-new-gcse-in-england-2017-2018>

- The grade standard established in the first award will be carried forward in the second and subsequent years;
- The same approach will be used for the first awards of grades 1 to 7 in all new GCSEs as has already been confirmed for new GCSEs in English language, English literature and mathematics. This approach uses key reference points between current (alphabetical) and new (numerical) grades to set grade standards in the new qualifications;
- The 'tailored' approach⁴ will be used to set standards for grades 8 and 9 in all new GCSEs in the first year they are awarded, including English language, English literature and mathematics;
- The standard established in the first award for grades 8 and 9 will be carried forward in the second and subsequent years.

We set out below further details of our decisions and a summary of responses to our consultation proposals.

The approach to setting grade standards in new GCSEs

1. Approach to setting grade standards in new GCSEs in year 1

In our consultation we proposed that the first award of new GCSEs would be based primarily on statistical predictions. We proposed use of a modified approach based on a wider range of information, with less reliance on statistics, where the size and nature of the candidature means that the statistical predictions are less reliable.

The majority of respondents (63%) agreed with this proposal.

Of those who agreed, some thought the approach was particularly important to protect the interests of students in the first cohort taking new qualifications, given that teachers will be unfamiliar with the new content and how it is assessed⁵. There was also support for the modified approach, with less reliance on statistics, as it would be fairer to students taking low entry subjects.

⁴ The tailored approach uses a formula that would result in, across all subjects, close to 20% of those awarded a grade 7 or above being awarded a grade 9. The formula we will use to achieve this outcome is: *Percentage of those achieving at least grade 7 who should be awarded grade 9 = 7% + 0.5 × (percentage of candidates awarded grade 7 or above)*. For further information on the development of the formula see: <http://www.cambridgeassessment.org.uk/Images/298710-a-possible-formula-to-determine-the-percentage-of-candidates-who-should-receive-the-new-gcse-grade-9-in-each-subject.pdf>

⁵ Ofqual has published research into any potential so-called 'sawtooth effect': <https://www.gov.uk/government/publications/investigation-into-the-sawtooth-effect-in-gcse-as-and-a-levels>.

Of those who disagreed, some suggested that the approach would disadvantage students taking low entry and / or higher ability cohort subjects because this would make it harder to achieve a higher grade in these subjects and therefore have a negative impact on take-up. Some comments related specifically to Latin and Classical Greek (although entries for these subjects are currently high enough for statistical predictions to be used with confidence in awarding to carry forward existing grading standards). Some respondents commented that it would be necessary to make special provision for increased examiner judgement because of the higher ability of the students taking Latin and classical Greek.

We proposed that exam boards should use the modified approach where there is insufficient data to make reliable statistical predictions. The approach set out in our consultation would ensure exam boards used the most reliable evidence that the awarders have available in a particular circumstance, whether that be statistical predictions or examiner judgement. The nature of statistical predictions means that they will inevitably be more reliable for some subject cohorts than others. The modified approach is designed for use where statistical predictions are the least reliable.

We have decided that the first award of new GCSEs will normally be based primarily on statistical predictions informed by Key Stage 2 data. A modified approach could be used, based on a wider range of information, with less reliance on statistics, where the size and nature of the candidature means that the statistical predictions are less reliable. We will consider detailed implementation points raised by exam boards in response to our consultation before we finalise the requirements we place on them.

2. Approach to setting grade standards in new GCSEs from year 2 onwards

We proposed that the grade standards established in the first award of new GCSEs would be carried forward in subsequent years. This would be done through largely the same approach as has been in place for many years, based on a mixture of statistics and examiner judgement.

The majority of respondents (64%) agreed with this proposal.

A number of respondents commented on the need for flexibility to ensure that any problems arising in the first year were not carried forward. We agree that it will be important to review the awards made on an annual basis. In our consultation we made a commitment to 'appraise the approach taken to awarding annually' and that any

changes made as a result 'would be consistent with our objective to maintain standards over time'.⁶

A number of respondents commented on the need to avoid artificial grade inflation whilst allowing for genuine improvement in performance over time. Our previous consultation set out how the current approach to setting grade standards at GCSE addresses this.⁷ The consultation also set out our plan to improve on the current approach where possible, for example through using outcomes from the National Reference Test⁸ (NRT), in due course.

Following consultation, we have decided to adopt this proposal: the grade standard established in the first award of each new GCSE will be carried forward in subsequent years. This will be done through largely the same approach as is in place for pre-reform GCSEs, i.e. an approach based on a mixture of statistics and examiner judgement.

3. Approach to setting the standard in the first year of awarding new GCSEs

We proposed to adopt the same approach to the first award of grades 1 to 7 in all new GCSEs, as we have confirmed will be adopted for new GCSEs in English language, English literature and mathematics, that is to use key reference points between current and new grades. This means that where the cohort has the same level of prior attainment, broadly the same proportion of students will achieve a grade 4 and above as currently achieve a grade C and above. There would be a similar alignment between the new grade 7 and the current grade A and the new grade 1 and the current grade G. This statistical alignment of key grades would provide a clear link between the awarding of pre-reform and new GCSEs and a good reference point for qualification users.⁹

The majority of respondents (57%) agreed with this proposal.

Of those who disagreed with the proposal, several suggested that the approach would disadvantage students taking subjects with small or higher ability cohorts, for example,

⁶ Section 2.17: <https://www.gov.uk/government/consultations/setting-the-grade-standards-of-new-gcses-in-england-2017-2018>.

⁷ Section 2.10 - 'If there is evidence to show performance has genuinely improved across the cohort the proportion of higher grades awarded can increase. Year-on-year increases... that cannot be justified have, however, been stopped.'
<http://webarchive.nationalarchives.gov.uk/20141110161323/http://comment.ofqual.gov.uk/setting-the-grade-standards-of-new-gcses-april-2014/>

⁸ Ofqual announced on 2 September 2016 that the NRT will be introduced with the first annual tests to take place in schools in the spring of 2017, see <https://www.gov.uk/government/collections/national-reference-test-information>.

⁹ For more information, see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/537147/Postcard_-_Grading_New_GCSEs.pdf.

Latin, classical Greek and modern foreign languages. Some suggested that it would be harder to get a higher grade in these subjects.

Our aim in the reform of GCSEs is to maintain continuity with existing grade standards in the first year of awarding new GCSEs and to carry forward the standard at key reference points. If we identified a potential issue with standards in a subject, we would take separate steps to consider this.

Following consultation, we have decided to adopt this proposal: we will require exam boards to use the same approach to the first award of grades 1 to 7 in all new GCSEs as we have confirmed will be adopted for new GCSEs in English language, English literature and mathematics. They will use key reference points between current and new grades.

Awarding grades 8 and 9

4. First award of grades 8 and 9 in new GCSEs from summer 2018 onwards¹⁰

We proposed exam boards should use the ‘tailored approach’ to awarding grades 8 and 9 in new GCSEs to be awarded for the first time from summer 2018. The tailored approach uses a formula that would result in, across all subjects, close to 20% of those awarded a grade 7 or above being awarded a grade 9. The formula used to achieve this outcome is: *Percentage of those achieving at least grade 7 who should be awarded grade 9 = 7% + 0.5 × (percentage of candidates awarded grade 7 or above)*. This differs from our previously announced ‘20% approach’¹¹ which would have meant that, for each qualification, the top 20% of those who got grade 7 or above would get a grade 9.

A majority of respondents (74%) agreed with this proposal.

A number of respondents commented that the tailored approach was preferable to the original 20% proposal as it would be fairer for subjects with typically higher ability cohorts (for example Latin, Classical Greek, modern foreign languages and single sciences).

As set out in our consultation, we proposed the tailored approach to address the disproportionate impact of using a flat percentage on some subjects (as in the original

¹⁰ This decision relates to the award of all new GCSEs from summer 2018 onwards. Most new GCSEs will be first awarded in summer 2018 and 2019. For details of when all new GCSEs will be first awarded see: www.gov.uk/government/publications/get-the-facts-gcse-and-a-level-reform

¹¹ We announced the 20% approach in 2014 for new GCSEs to be awarded in 2017 (English language, English literature and mathematics): <http://webarchive.nationalarchives.gov.uk/20141110161323/http://ofqual.gov.uk/documents/grading-new-gcse-2017-leaflet>

20% approach). However, some respondents commented that the tailored approach would still be unfair to smaller, higher ability cohorts.

Some respondents were concerned that the proposal tried to deliver inter-subject comparability without acknowledging that as its aim. This is not our aim. As we set out in our consultation, our aim is to reflect the standards in pre-reform GCSEs while also establishing a new standard for the top grade in the new qualifications. As set out under section 3 above, any perceived issues with grade standards in current qualifications would be addressed separately.

We intend the new grades 8 and 9 should provide a greater degree of discrimination at the top of the grade range than the present A*. So if more grade 9s than A*s were awarded, we would not achieve our aim. For many subjects, we would expect that applying the tailored approach or the 20% approach would result in a similar number of grade 9s. However, the 20% approach would result in more grade 9s than A*s in some subjects. We estimated in the consultation that applying the 20% approach to current GCSEs would result in nine subjects awarding more grade 9s than presently they award A*s. If the tailored approach was applied to the new GCSEs being introduced in all subjects being reformed, there would be fewer grade 9s than A*s.

Following consultation, we have decided to adopt this proposal: we will require exam boards to use the tailored approach to award grades 8 and 9 in new GCSEs to be awarded from summer 2018.

5. First award of grades 8 and 9 in new GCSEs in summer 2017 (English language, English literature and mathematics)

We proposed the tailored approach to award grades 8 and 9 for English language, English literature and mathematics. This marked a change to our previously announced approach (the 20% approach as set out under Section 4 above).

The majority of respondents (56%) agreed with this proposal.

A number of comments noted the fairness and consistency of the approach. Some saw no good reason for adopting a different approach for different subjects.

Some groups within the mathematics community were concerned about the impact of the tailored approach on the proportion of grade 9s in mathematics, especially when compared with the impact of the approach on other subjects. Their analysis was based on a comparison of mathematics with GCSE English language alone, not including students who presently take GCSE English, using data from our consultation document. On reflection, it would have been clearer to have provided the aggregated data for English language and English, because it would have provided a better

representation of the position we expect to see in summer 2017¹². We present the aggregated data¹³ below. This shows that, if we adopt the tailored approach, there would still be a proportionately bigger reduction in students receiving the top grade in mathematics than in English but this is less pronounced using the data for English language and English combined, than for English language alone.

The table below shows the impact of the different approaches to the award of grade 9 in these subjects. The figures in blue in brackets underneath the percentages give the numbers of students we would have expected to achieve the alphabetical grades in 2017, rounded to the nearest thousand, based on our analysis of 2014 results, and the numbers we would expect to achieve the top numerical grades, using both the approach we proposed and the approach we originally decided for English language and mathematics.

	Entry	% of grades A and A*	% of grade A*	The 20% approach (% of grade 9)	The tailored approach (% of grade 9)	The tailored approach (% of grades 7, 8 and 9)
Mathematics	585,000	21.5 (126,000)	8.8 (51,000)	4.2 (25,000)	3.7 (22,000)	21.5 (126,000)
English language ¹⁴	611,000	18.8 (115,000)	5.3 (32,000)	3.8 (23,000)	3.4 (21,000)	18.8 (115,000)

Our modelling using the tailored approach shows 1,000 more grade 9s in mathematics than in English language, noting that mathematics has lower entry figures. The 20% approach shows 2,000 more grade 9s in mathematics than in English language. At present there are 19,000 more A* grades in mathematics than in English language so the move to the new scale does change that balance quite considerably. The shift in the balance of top grades in English language and mathematics when compared with the current position will occur if either the 20% or the tailored approach is used. The effect is only slightly greater with the tailored approach. The proportion of students

¹² This is because combined English qualifications are not being reformed and we expect the students that took those qualifications to take the new English language GCSE.

¹³ The figures are taken from the Datalab report which we published separately at the same time as our consultation. We presented data from this report in our consultation document. The figures are based on results in 2014 and include 16-year-old candidates taking both GCSE and IGCSE. The full report is found here: <https://www.gov.uk/government/publications/options-for-setting-the-grade-9-boundary-in-gcses>

¹⁴ Projections for English language, based on aggregated 2014 data for English and English language.

getting 7, 8 and 9 and A and A* will be broadly the same because grade 7 is anchored to the current A, as set out in our consultation.

We have set out below additional concerns that were raised about the impact of the tailored approach on the grades awarded for mathematics, together with our response to each concern:

- The tailored approach would mean a greater reduction in the number of students being awarded the top grade for mathematics relative to English language (as shown in the table above). We consider that it would not be an unreasonable outcome for the grade proportions to be more in line across these large entry subjects, which the tailored approach would achieve.
- Projections suggest that when comparing the impact of the tailored approach on mathematics with the sciences, mathematics has a larger overall entry and fewer grade 9s would be awarded, although currently more A* and A grades are awarded in mathematics than the sciences. We do not consider the different outcomes for mathematics and science using the tailored approach to be disproportionate. It is also difficult to make direct comparisons between these subjects as students take different science GCSEs and different combinations of science GCSEs, unlike mathematics which is a single GCSE taken by most students.
- Students perform better in mathematics than in English language at Key Stage 2 and that should be reflected at GCSE. This is broadly reflected at GCSE. We do not consider it necessary to reflect the Key Stage 2 relationship between mathematics and English when determining how to award the highest GCSE grade. This is primarily because there is no reason to expect that the relationship between Key Stage 2 mathematics and English outcomes would be strictly matched at every grade of GCSE. Further, the relationship between Key Stage 2 English and mathematics outcomes change over time. Moreover, to secure the same relationship as at Key Stage 2 would require a different approach for awarding the highest grade in mathematics than in other subjects.

A small number of respondents were concerned about our proposals to change our previously announced position on English language, English literature and mathematics. However, we think there is a clear rationale for revising our approach to the award of grade 9 in these subjects. We said, when we announced the 20% approach, that we would look carefully at the impact of this approach on the full range of GCSE subjects before deciding how to proceed. We have done this and found that the tailored approach is the fairest across all subjects.

While we try to avoid changing a position that we have already announced, in this case, as set out in our consultation, we think it is necessary to do so in order to introduce an approach that is appropriate and consistent across all reformed GCSEs.

The potential changes for mathematics relate only to where grade boundaries are placed for the highest grades. Nothing in the consultation proposed changing the curriculum that students should study or the nature of the assessments they will sit. So the change should not affect schools' teaching of the new qualifications or their preparations for the first assessments.

In summary, the formula to be used under the tailored approach for the first award of grade 9 will mean that, across all subjects, about 20% (rather than exactly 20%) of students who achieve a grade 7 would achieve a grade 9. The grade profile for each subject will be different. We do not consider the differences in the proportion of students receiving the top grade to be disproportionate. We have decided that using the 'tailored approach' to the first award of grades 8 and 9 for English language, English literature and mathematics will be the fairest approach across all subjects.

6. First award of grades 8 and 9 in new GCSEs from year 2 onwards

We proposed that the awards of grades 8 and 9 in the second and subsequent years would be based on the standard set in the first award. We proposed the tailored approach to grade 9 awarding should be used in the first year only and grade standards would then be carried forward from year to year as for other grades.

Almost half (49%) of respondents agreed with this proposal.

A number of comments supported the consistency of this approach across years and noted that it would be a fair approach. Others noted the importance of examiner judgement.

Comments were similar to those made in response to our second proposal about carrying forward the grade standard established in the first award of new GCSEs in subsequent years.

A number of respondents commented on the need for flexibility to ensure that any problems arising in the first year were not carried forward. We agree it will be important to review the awards made on an annual basis. In our consultation we made a commitment to 'appraise the approach taken to awarding annually' and that any changes made as a result 'would be consistent with our objective to maintain standards over time.'¹⁵

A number of respondents commented on the need to avoid artificial grade inflation whilst allowing for genuine improvement in performance over time. Our previous consultation set out how the current approach to setting grade standards at GCSE addresses this.¹⁶ That consultation also set out our plan to improve on the current

¹⁵ See footnote 6 above.

¹⁶ See footnote 7 above.

approach where possible, for example through using outcomes from the National Reference Tests¹⁷ (NRT), in due course.

One of the implementation issues we will consider with the exam boards after year one will be how best to ensure stability in the grade boundaries while maintaining standards.

Following consultation, we have decided to adopt this proposal: the awards of grades 8 and 9 in the second and subsequent years will be based on the standard set in the first award.

Equalities impact assessment

We have analysed the responses to our consultation to assess the potential impact of our proposals on people who share particular protected characteristics. This builds on the equality impact assessment we conducted before consulting on our proposals. We have considered this analysis in making our decisions. We did not identify any potential impacts on students who share any protected characteristics in our previous consultation or in the proposals set out in the second consultation. A small number of respondents to the consultation expressed a view on equalities issues. Please see our Consultation Analysis¹⁸ and Equalities Impact Assessment for more details¹⁹. We considered the consultation responses and did not identify any new potential impacts on students who share particular protected characteristics.

Next steps

We will publish a consultation in autumn 2016 on the regulatory requirements we will place on exam boards, to give effect to our decisions.

¹⁷ See footnote 8 above.

¹⁸ <https://www.gov.uk/government/consultations/setting-the-grade-standards-of-new-gcses-in-england-2017-2018>

¹⁹ <https://www.gov.uk/government/consultations/setting-the-grade-standards-of-new-gcses-in-england-2017-2018>