

GCSE Mathematics (9–1): tiering guidance

The introduction of the new GCSE Mathematics (9–1), with its more challenging content and the new 9–1 grading structure, may have left you with questions about which tier you should be entering your students for. In this guide we explain the main differences between tiers and highlight some things you may want to consider as you make your decision.

GCSE Mathematics (9–1) retains the Foundation and Higher two-tier structure with which you will be familiar. The new qualification also retains an overlap region between the tiers. The current overlap covers grades D and C while the new overlap covers grades 4 and 5, the latter being the new 'good pass'. Deciding which tier is the correct one for your students requires your detailed knowledge and understanding of each individual – their strengths, current level of attainment, areas where they may struggle and how well they are likely to perform when faced with an examination with a greater emphasis on non-routine, problem-solving questions.

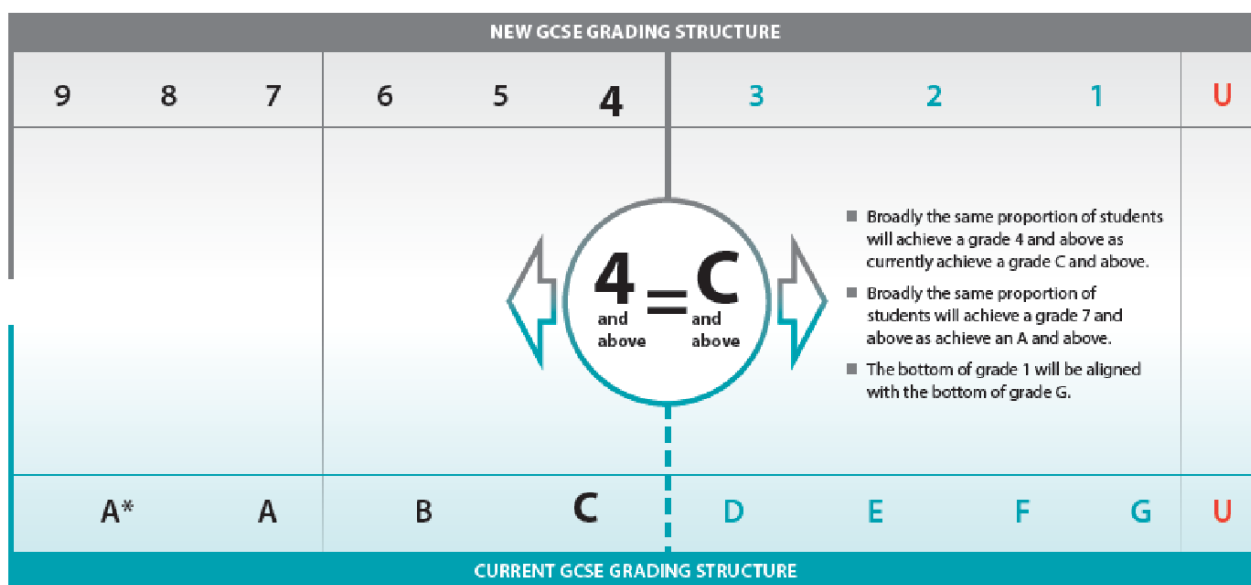
However, as well as these very familiar considerations, there are some additional things you should be aware of, including the differences between tiers in the new GCSE. The table below summarises the content and assessment requirements for each tier, as stipulated by Ofqual.

Foundation Tier	Higher Tier
Covers grades 1 to 5	Covers grades 4 to 9, with a grade 3 allowed for those who fall just below the grade 4 boundary
Common questions, targeted at grades 4 and 5, appear towards the end of the paper	Common questions, targeted at grades 4 and 5, appear at the start of the paper
About 50 per cent of the marks assess number, ratio, proportion and rates of change	About 35 per cent of the marks assess number, ratio, proportion and rates of change
Around 20 per cent of the marks assess algebra skills	Around 30 per cent of the marks assess algebra skills
50 per cent of marks will target the upper part of grade 3 and higher with at least 20 per cent at grades 4 and 5	50 per cent of marks will target grades 7, 8 and 9 (broadly aligned with current grades A and A*)
50 per cent of marks are for AO1, with the emphasis on accurately carrying out routine procedures	40 per cent of marks are for AO1, with the emphasis on tasks requiring multi-step solutions
The content covers areas 1 and 2 (standard and underlined content)	All the content areas (standard, underlined and bold) are covered and students are expected to be confident and competent with the underlined content
Some content that is currently Higher tier material has moved into the Foundation tier assessment	

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From the table above, you can see that the expectation of competence and confidence with the underlined content, the reduced percentage of questions on number, ratio, proportion and rates of change, and the introduction of some new, more advanced content mean the Higher tier is definitely going to challenge many students. However, as well as including the bold content and awarding a higher proportion of marks for algebra and geometry, the nature of the assessment at Higher tier is also a little different, so it's not simply Foundation tier with harder content thrown in. The assessment objectives are weighted towards the higher-order skills. Only 40 per cent of the marks will be awarded for AO1 and even there the emphasis is on multi-step processes rather than routine calculations. The remaining 60 per cent of marks are for AO2 and AO3, so to do well at Higher tier, students will need to be good problem solvers and able to reason and communicate well mathematically.

There are changes in the content of Foundation tier too since it has gained some topics which were previously only covered in Higher-tier courses. In some ways this makes the new Foundation tier a little like the Intermediate tier of older, three-tier GCSEs where B grade material was covered. As you can see from the Ofqual diagram below, the overlap between tiers at grade 4 and 5 is also at a higher level than the overlap at grades C and D in the current GCSE. Broadly speaking, the proportion of students currently achieving a grade C and above will be the same as those achieving a grade 4 and above. This means that the new 'good pass' grade 5 is higher than the current grade C.



Ofqual have also announced that in 2017 the grading will draw heavily on statistical evidence, using the broad 'anchor points' between the old and new grading structures referred to in their diagram above. You can read the full press release at www.gov.uk/government/news/setting-standards-for-new-gcses-in-2017, from where you can also download the diagram above.

When thinking about which tier is most suitable for borderline students, a good place to start might be the common questions practice papers we've put together using the new SAMs and specimen papers. The common questions make up at least 20% of the marks at each tier and are aimed at grades 4 and 5. While these practice papers are not a definitive list of the possible topics that will be covered in common questions, they are indicative of the type of question that may be asked. How well your students tackle these questions and how far they can get beyond that should give you a good idea as to whether they are working around grade 4 or 5, or whether they are above or below that.

Choosing the correct tier may seem a difficult decision at the moment, but we hope this guide has gone some way to help. The other support materials that we are providing following the GCSE trial, such as the gold/silver/bronze problem-solving practice papers, may also help with

assessing which tier of entry to choose for your students. The main questions you may want to ask yourself when making the decision about which tier are:

- How confident and competent are they with the underlined material?
- How well do they tackle the common question papers? Don't forget that the common questions build on prior knowledge that the students have accumulated to this point, and for students to be confident about accessing these questions they will need to have a solid understanding of this prior knowledge.
- Where do you feel they are under the current grading system and roughly how does that compare to the new structure?
- How well do they approach problem-solving and non-routine questions?
- Is their performance likely to be different if they are faced with a paper they find tough right from the start compared to a paper where they can answer many questions easily?