

Maths: your **BIG** questions answered

- Why is AQA's A* to C rate lower than other awarding bodies and will this continue?

The figures published by the Joint Council for Qualifications (JCQ) reflect the performance of every candidate. AQA's entry is made up of a high proportion of early entry (Year 10) students, along with a significant number of adult learners. Whilst some of these students achieve top grades, their average performance tends to be weaker than that of the traditional Year 11 cohort. The impact of these groups have a bearing on the published figures. In 2009, the published figure for A*–C was 54.9%, but 16 year olds achieved 58%, higher than the national average and comparable to the other awarding bodies.

As with the new GCE qualifications this year, it is likely that Ofqual will take steps to ensure equity of standards at the start of new GCSE qualifications.

- Some of AQA's specimen questions seem wordy. Why is this and what are you doing to make sure that literacy skills do not stop learners showing their maths skills?

For every examination, AQA's Question Paper Evaluation Committee (QPEC) ensures that a balance in the structure of questions is achieved. Questions that are too structured can create problems for students with weak literacy skills, whilst a question that is too open can be off-putting to weaker students, who are then unable to demonstrate the mathematics they know and understand. The QPEC is made up of independent experts and working teachers who take great care in considering the language used in papers. For example, whilst three short sentences may contain more words than one longer sentence conveying the same information, it is likely that the literacy skills needed for the three sentence approach will be lower.

There is no doubt that the new Programme of Study has a shift in emphasis towards Problem Solving and Functionality. This will mean that more questions will be set in context, and this might create problems for some students. It is AQA's duty as a responsible supporter of education to ensure that students are as prepared as they can be for this change. Within our pilot and current specifications we are looking at ways to set engaging, purposeful questions with realistic literacy demands.

- How do I choose the best tier of entry for my students?

As a teacher, you are the best judge of your students' ability. We can offer support materials to prepare students for examinations and allow you to gauge their level of attainment, but the decision on how individual students will perform best must rest with you. Half of each examination paper is targeted as the bottom two grades available, so grade C candidates should be able to access the first half of the Higher tier papers.

Any student who has a chance of achieving Grade B or is looking to study the subject further should be entered for the Higher tier. Equally, a student aspiring to Grade C only is likely to have a much more positive examination experience by taking the Foundation tier papers.

- Why is AQA only offering one specification?

AQA feels that linear and modular options can be offered through a single specification with schools offered the opportunity of taking units during the course or leaving assessment till the end. Teachers have confirmed to AQA that the flexibility allows them to mix and match options while following the same assessment structure. Teachers confirm that the total time spent on taking the three units at the end of the course will not be excessive.

- How is number and algebra split across the units in the AQA examination?

Number is an integral part of all areas of mathematics and it was felt important that links between number and statistics, number and algebra and number and geometry were acknowledged. In the case of algebra, it is easily split between non calculator (unit 2) and calculator (unit 3).

- How are the percentage weightings arrived at on individual units?

The balance of papers is designed to give an appropriate weighting to different aspects of mathematics, as well as meeting the various requirements laid down in the *GCSE subject criteria for mathematics* including the balance of subject content and the requirements in terms of the assessment objectives.

- Why is the AQA non calculator paper only worth 1/3 of the total?

The *GCSE subject criteria for mathematics* insists that “each scheme of assessment must allocate a minimum weighting of 25 per cent and a maximum weighting of 50 per cent, to assessment without a calculator”. It is felt that 1/3 is a suitable proportion, taking into account the availability of calculators and feedback from teachers about non calculator papers.

- Why are the AQA papers at Foundation and Higher the same length of time?

Feedback from teachers has repeatedly highlighted the difficulties of Foundation examinations finishing before Higher tier examinations and the disruption that different finishing times can cause, especially because these examinations are usually timetabled in the same space. AQA has listened to the feedback and compromised on the lengths of the examinations.

- Why are there only three units with the AQA offer?

The three units, which are specifically focused on definable areas of the curriculum, have been well received by teachers and the combination of content has been suitably trialled by AQA. To ensure that grade boundaries are suitably wide enough, it was agreed to limit the number of units to three.

- Why hasn't AQA got a multiple choice paper?

Although multiple choice questions offer an easy method of assessment it was not thought to be appropriate as students might gain marks by guesswork. This throws a question mark over the validity of such assessment, especially where the weighting of any unit is small.

- Why isn't there any synoptic assessment with AQA?

The Qualifications and Curriculum Development Agency's (QCDA) 40 % terminal rule means that 40 % of the assessment must be taken in the examination series in which the qualification is awarded. So students must take either Unit 3 or both Unit 1 and Unit 2 in the series in which the qualification is awarded. There is no requirement for any synoptic assessment or any demand to repeat content already assessed.

- Why doesn't AQA offer a separate functional paper?

The *GCSE subject criteria for mathematics* requires that GCSE assessments in mathematics must allocate a weighting of 20–30 per cent on Higher tier and 30–40 per cent on Foundation tier for the functional elements of mathematics. There is no requirement that this should be a stand alone paper and feedback from our extensive pilots suggests that functional mathematics is best integrated fully into the examination papers.

- Why doesn't AQA offer examination papers targeted at specific grades?

The *GCSE subject criteria for mathematics* makes it clear that “*Question papers in mathematics must be targeted at either foundation or higher tier*”. For that reason all AQA papers are offered at either the Foundation tier (covering all of the grades G to C) or the Higher tier (covering all of the grades from D to A*). Students are allowed to mix and match tiers across different units but each question paper is either Foundation or Higher.

More information

If you have any further questions why don't you **Ask AQA?**

Ask AQA is an intelligent question and answer bank where you can find answers to frequently asked questions and submit your own question for a personal answer, and it's available 24 hours a day.

You can also contact the Maths subject team.

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