

Tiering guide: Foundation or Higher tier for GCSE sciences?

What did 2018 show us
about tier choices?

What are the key
indicators to support
future decisions?



View our comprehensive guide
alongside our [quick reference poster](#).

aqa.org.uk/science

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Foundation or Higher tier? How confident are you?

Tiering decisions for GCSE sciences aren't always easy, especially for potential grade 5 students.

Data from the very first exams suggests some science departments may need to reconsider their entry policy. 2018 exams were unique in that special arrangements were made to prevent more students getting U grades after taking higher tier science exams. If future national tier choices mirror those choices made in 2018, a greater number of students may not achieve a grade.

Fortunately, the contributing factors are manageable.

Nobody is a better judge of a student's ability than their teacher, but we can recap some key considerations. We've collected our existing guidance alongside other useful advice.

To decide whether this guide is for you, think about your experience level:

Beginner

You're used to making tier choice decisions, and they're almost always appropriate. But you could do with a recap? We've covered all the key points visually on a single page. See our [Tiering guide: Quick reference poster](#).

Advanced

You're the lead in your department when it comes to tier decisions, and it's your responsibility to give your colleagues a common understanding? This guide is for you.

You know your students best, so our help can only go so far. This resource covers the essential key points along with the context needed for a true understanding.

Do you have a question about tiering?

Email our subject specialists at gcsescience@aqa.org.uk with the subject line "GCSE science tier choices" and if we can help, we will.

Foundation tier has changed

The grades available on each tier changed when the GCSE science specifications were reformed. The highest grade available on Foundation tier has risen. Now students can gain the equivalent of a B grade, making it a better option for some potential grade 5 students.

Legacy GCSE science		Current GCSE science	
Foundation	Higher	Foundation	Higher
			9
	A*		8
	A		7
	B		6
		5	5
C	C	4	4
D	D	3	(3)
E	(E)	2	
F		1	
G			
U	U	U	U

The Foundation tier goes all the way up to a grade 5 for Biology, Chemistry and Physics or 5-5 for Combined Science.

Previously the Foundation tier of all Science GCSEs was capped at a grade C.

Similarly, the Higher tier now only goes down to a grade 4 for Biology, Chemistry and Physics or a 4-4 for Combined Science as opposed to the previous grade D.

In summary

The tiers shifted during exam reform to cover a different range of grades and this change should influence the entry decisions that you make for your students.

The table on the left summarises this.

An 'allowed grade 3' is mentioned in brackets in the 'Higher' column; in Combined Science, there is an equivalent 'allowed grade 4-3'. This is the so-called safety net grade, and we'll recap the purpose of this next.

The safety net

When we think of grade boundaries, the distance between the 'top' of the grade and the 'bottom' of the grade is known as the 'width'.

For example the Higher tiers of Combined Science target twelve grades: 9-9 through to 4-4 at even widths.

For the separate sciences (Biology, Chemistry and Physics), the range is 9-4.

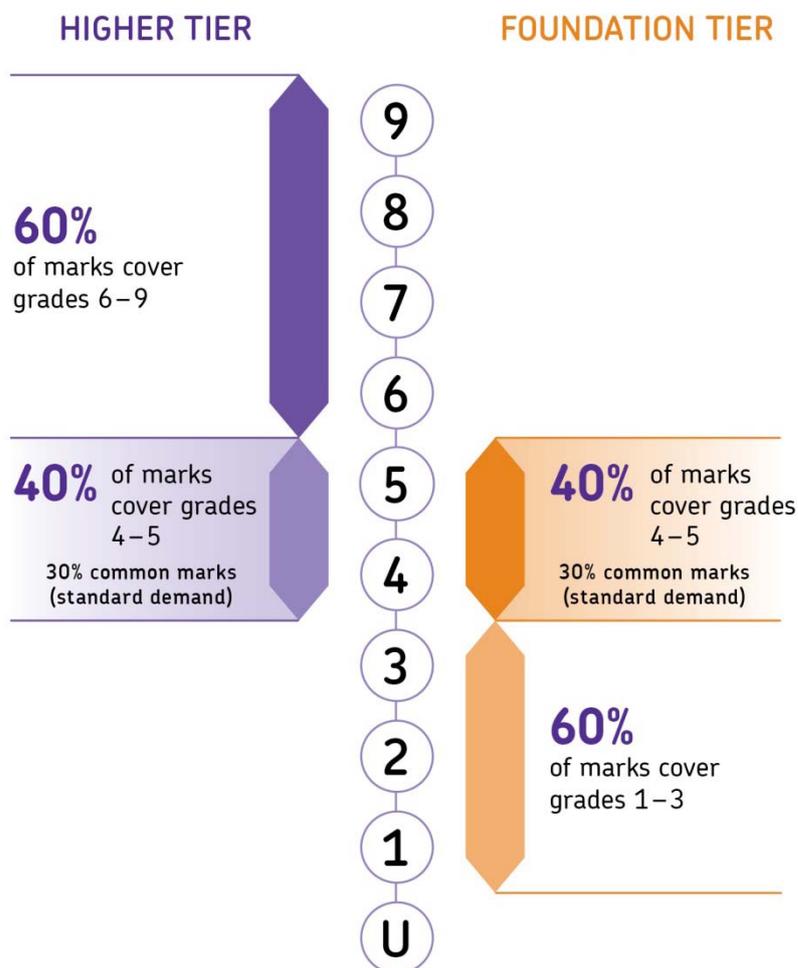
The width of these grades will change slightly year-on-year depending on the ability of the cohort and how the paper performs.

Unfortunately some students underperform on exam day. This is why there's also an 'allowed' grade 4-3 on the Higher tiers for Combined Science. For separate sciences, this is a grade 3.

On the Higher tier, no questions target the 'allowed grades' which are half the width of a normal grade. They exist as a contingency to catch the solid Higher tier-standard students who have an off day and would otherwise fall of the scale completely and be Ungraded (U).

Summary

Every year, against all expectations, some solid Higher tier students have off days. The safety net 'allowed grade 4-3' or 'allowed grade 3' is there to catch these. If you feel a student might rely on this grade from the outset, it's probably worth entering them for the Foundation tier. They are likely to have a better experience, or even achieve a higher grade.



Why the 2018 experience still matters

The new GCSE Biology, Chemistry, Physics and GCSE Combined Science Trilogy and Synergy specifications were examined for the first time in 2018. The vast majority of students were entered for the correct tier, but the changes made it difficult for some teachers and more students should have been entered for the Foundation tier.

The main challenges were:

- the grades available at each tier had changed compared to 2017 exams
- the proportion of marks targeting each level of demand.
- students had to sit the same tier in all the exam papers for a specification
 - for example they cannot take a mixture of Foundation and Higher tier papers in Combined Science.

Ofqual wrote to exam boards to:

- widen the 4-3 grade boundary and introduce a new grade 3-3 for Combined Science
- widen the grade 3 on each of the separate sciences (Biology, Chemistry and Physics).

There's more on Ofqual's ['GCSE results day'](#) blog post.

Teachers are now much better placed to make informed decisions about those potential grade 5 students. To maximise potential, each student needs to be seen as an individual.

If you had students in 2018 who were awarded a grade 4-3 or 3-3 on the Higher tier in Combined Science, or grade 3 in Biology, Chemistry or Physics, it is really important that you look at your entry policy. If students of similar ability are entered for the Higher tier in the future, they would be at risk of not being awarded a grade. **The arrangements Ofqual put in place for 2018 will not be carried forward in the future.**

Summary

If a number of your students achieved grade 4-3 or 3 on Combined Science in 2018 or a grade 3 on separate sciences (Biology, Chemistry or Physics), check that your entry decisions reflect the advice in our resources.

Maths and languages also have Foundation and Higher tier options. If these departments experienced success in their entry decisions, talk to your colleagues about their rationale and approaches.

Common questions: how they can help

The Foundation and Higher tiers overlap at grades 4 and 5. 30% of the marks on each tiered paper are common to both tiers. We use student performance on these common questions to equate the standard of grade 4 and 5 across the Foundation and Higher tiers. This is so standards are comparable across the two tiers.

These common questions are written at standard demand and are part of the 40% of marks that are targeted at standard demand on each tier. Performance on these questions can be useful when making tiering choices.

The key to your tiering decision for an individual student could be:

- to find our sample papers and past papers
- identify the common questions that appear on both Foundation and Higher tiers
- look at student performance on these particular questions
- an extra step would be to check their performance on the other standard demand questions (approximately the next two questions after the common questions on the Higher tier).

Are they consistently performing well on these questions?

It's important that Combined Science (Trilogy) students perform consistently well across all six papers – these cover all aspects of science.

If students perform consistently well on the common questions, they're not at high risk of 'falling off' the tier.

Sample and past papers are split between our public website and our secure logged-in area (SKM).

For material on our public website, follow:

[aqa.org.uk/science](https://www.aqa.org.uk/science) > GCSE [select your science] > assess

For material on our secure logged-in area, follow:

[aqa.org.uk/log-in](https://www.aqa.org.uk/log-in) > e-AQA > Secure Key Materials > GCSE > scroll down to 'science'

Summary

If students can't answer many common questions then they're unlikely to have a good experience on the Higher tier. 60% of the marks on the Higher tier are aimed at grade 6 and above. There are no low demand questions on the Higher tier, the easiest questions are targeted at standard demand (grade 4 to 5).

Key indicators for sciences

- How well do students perform on the common questions in their mock exams?
- How comfortable are students with maths questions in a scientific context?
- How confident are students at fully understanding the required practicals, the science behind them, and the 'working scientifically' elements?
- Can students deal with questions where the science is in an unfamiliar context?
- How resilient are students when tackling challenging questions from the start of the paper?
- Have students got a good understanding of all the basic scientific concepts and phenomena?
- Are their graphing skills good and can they interpret data well?
- Words and terms: do they have a good understanding of them, and can they use precise scientific language?
- Can your students write a coherent, logical and structured extended answer?

Summary

Look at performance evidence from specific question papers, but remember that grades aren't allocated to individual papers. It is the total mark across all the papers for a specification that matters.

The most informed judgements will be based on performance from all papers. Which tier will be most appropriate to enable a student to demonstrate their best performance overall?

If circumstances change, so can your tier choice

Mock exams are a key part of decision making for many schools and colleges. Many schools and colleges sit Paper 1 as a mock in December/January and then Paper 2 in February/March. (Synergy-specification schools have a number of models for combining the four papers).

The entries deadline is [Thursday 21 February](#). A lot can change in this time, but tier changes can be made for free until 21 April. There'll be a charge for entries received after this deadline.

The [entries process can be summarised](#) on a single page, but reach out if you have a specific question.

Questions about entries

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