



Speaking on behalf of members
Acting on behalf of children and young people

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Centre-assessed grades

“We are asking schools and colleges to use their professional experience to make a fair and objective judgement of the grade they believe a student would have achieved had they sat their exams this year.”



You have been given the task of estimating the 2020 Tokyo marathon results, if they had actually run the race

You have to rank order the athletes.

You have to estimate the finishing times and decide the medallists.

You can only use what you already know; no more trial races.

When you have done this you have to send your estimates to the IOC.

If your results aren't in line with what they expect, they will change them.

How do I do it?

- Should I say that the current circumstances mean they all deserve to win and give them all a gold medal, or run their best time? They've trained hard, after all.
- Do I accept that men and women run different times?
- Do I accept that, as sad as it is, some athletes have better training facilities, better nutrition and better coaches which will inevitably mean they would do better in the race?
- I've heard of some of the runners but not others. Shall I rank those first? Or perhaps the British runners first, because I am British and, well, why not?
- What do I do about runners who have been out of form this season, but their coach tells me they would have done really well?
- Should I expect those runners who have had a good season but are now carrying an injury to tell me?

Some of the issues:

- Inflation
- Gender gap
- Disadvantage gap
- Bias
- Rapid improvement
- Rapid decline

Won't teachers be overly generous?

- Awarding organisations and Ofqual will take steps to ensure grades match previous years
- Doing so devalues current Y11 achievements and disadvantages other cohorts
- Some believe that GCSEs at age 16 should be scrapped, so the profession needs to show that it is capable of doing this exercise well
- Heads of Centre need to sign off the whole process; inflated grades make this process a risk.

You have to provide both a rank *and* an estimated grade

		Rank	Grade
Baldwin	D	?	?
Barton	G	?	?
Harris	T	?	?
McCulloch	J	?	?
Rollett	S	?	?

Why have they asked you for both?
Which one do you do first?

Grades?

		Grade
Barton	G	9
Harris	T	8
McCulloch	J	8
Rollett	S	4
Baldwin	D	2

If results are changed by awarding organisation, which 8 goes down, or up?

Rank?

		Rank
Barton	G	1
Harris	T	2
McCulloch	J	3
Rollett	S	4
Baldwin	D	5

Rank on its own doesn't convey any clustering

We suggest you start by working out a 'mark'

You probably have a lot of information about Year 11:

- Mock mark across the year group
- Non-examined assessment
- Significant work completed throughout the course
- Moderated performances

etc

Your first job is to consider how these could be combined to give initial 'marks' for students.

It isn't the actual mark that matters. It's all relative.

Why is starting with a 'mark' helpful?

- It will produce an initial rank which is 'objective and fair'.
- It is less likely to be prone to bias.
- You can justify the rank to the head of centre
- It will reveal clustering
- You can experiment with different weightings of evidence to see how the rank changes
- It's transparent and explicable after the event

Judgement? Calculation? Estimation?

- The best word is 'estimation'
- This is not about what a student deserves to get
- This is not about a target grade
- This is not the moment or the method to put right inequalities in the exam system

How will the awarding organisations moderate grades?

- Ofqual use a methodology called ‘comparable outcomes’
- All things being equal, we should expect GCSE results to be broadly similar year on year, based on prior attainment at Key Stage 2
- Ofqual and the awarding organisations already know, nationally, what grade distributions to expect in each subject.
- Awarding organisations also have a detailed understanding of how individual centres have performed in each subject over time.

How can I understand what the national picture looks like?

The Ofqual guidance states:

"We are working with technical experts within exam boards and others to develop this model, which will combine a range of evidence including:

- expected grade distributions at national level*
- results in previous years at individual centre level*
- the prior attainment profile of students at centre level "*

Transition matrix for GCSE Geography 2019: All pupils

Pupil Percentage		KS4 Attainment									
		U	1	2	3	4	5	6	7	8	9
		KS2 Attainment	W	0	32	23	23	9	5	9	0
1	18		23	23	18	6	4	1	1	3	4
2	15		43	26	9	3	2	1	0	0	0
3c	11		35	34	15	3	2	1	0	0	0
3b	8		29	34	20	5	2	1	0	0	0
3a	5		22	34	25	8	4	1	0	0	0
4c	4		15	28	30	13	6	3	1	0	0
4b	2		8	20	30	18	12	6	2	1	0
4a	1		4	11	23	20	19	14	6	2	0
5c	0		1	4	12	15	21	22	15	7	2
5b	0		0	1	4	7	14	21	24	19	9
5a	0		0	0	1	1	4	11	22	29	31

Calculating a grade distribution

Let's assume a school is in line with the national average, in this case for English Language. Suppose 200 pupils have these KS2 scores:

KS2 sub-level	2	3c	3b	3a	4c	4b	4a	5c	5b	5a	
no. students	5	3	5	12	27	39	43	45	17	4	200

Transition matrix for English Language 2019

9	0%	1%	0%	0%	0%	0%	0%	0%	1%	2%	6%	20%	9
8	0%	0%	0%	0%	0%	0%	0%	1%	2%	6%	13%	23%	8
7	0%	1%	0%	0%	0%	0%	1%	2%	6%	12%	20%	24%	7
6	3%	1%	1%	1%	1%	2%	5%	9%	16%	24%	27%	20%	6
5	8%	3%	2%	3%	5%	8%	14%	20%	26%	27%	20%	9%	5
4	13%	6%	6%	9%	13%	18%	23%	25%	23%	17%	9%	2%	4
3	23%	17%	28%	38%	41%	43%	39%	31%	20%	10%	4%	1%	3
2	31%	24%	37%	32%	27%	20%	13%	8%	4%	2%	1%	0%	2
1	15%	33%	21%	13%	9%	6%	4%	2%	1%	1%	0%	0%	1
U	8%	13%	6%	4%	3%	2%	1%	1%	1%	0%	0%	0%	U
	W	1	2	3c	3b	3a	4c	4b	4a	5c	5b	5a	

If the school was perfectly in line with the national average, of the 43 pupils with KS2 sub-level 4a:

1% would get a grade U
 2% would get a grade 1
 4% would get a grade 2
 20% would get a grade 3

and so on

Building a profile

Overall picture for 4a students:

grade	9	8	7	6	5	4	3	2	1	U	
no. students	0	1	2	7	11	10	9	2	1	0	43

Overall picture for all students:

grade	9	8	7	6	5	4	3	2	1	U	
no. students	3	7	13	28	40	39	46	16	6	2	200

Why a final grade distribution may be different from the national

Impact of:

- Centre performance over time
- Demographics

ASCL toolkit, available at [ASCL.smidreport.com](https://www.ascl.org.uk/ascl-smidreport.com)

You can compare 2019 figures for a school with the national average.

The method compares cumulatively pupils obtaining at least a certain grade in the school with the equivalent nationally.

Made available to model 2020 CAGs against 2019.

Chemistry 2019

Transition Matrices

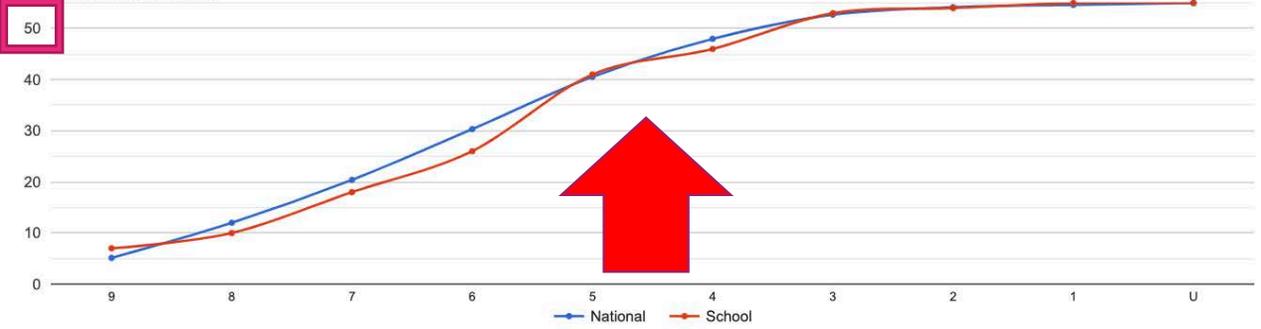
The DfE Provisional 2019 Transition Matrices are now live.

INFO

GCSE (9-1) Chemistry

- Count
- Percentage
- National %
- National Breakdown
- Difference
- Cumulative Difference
- Rotate Matrix

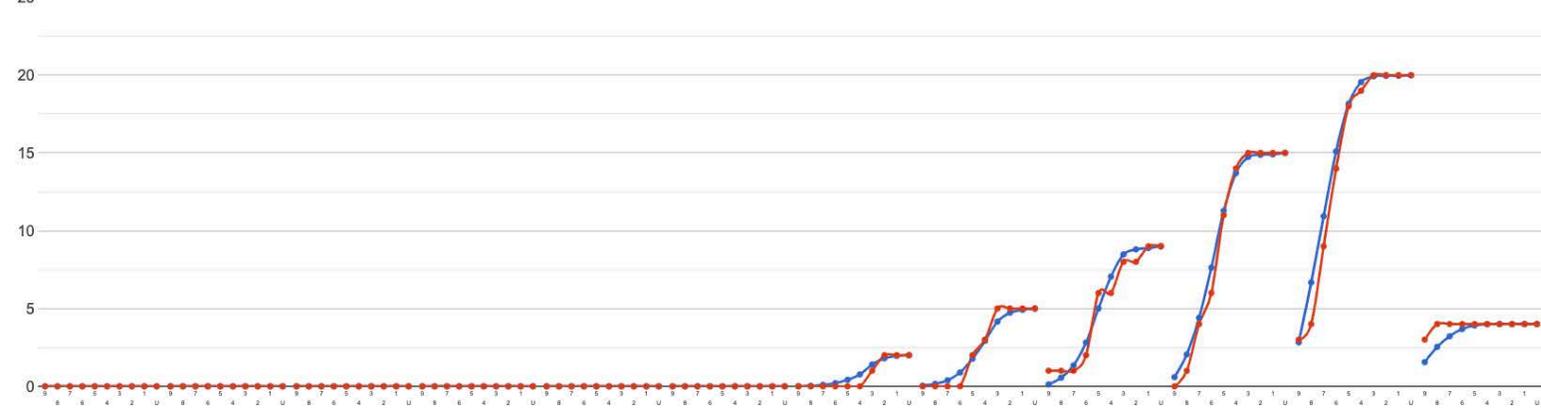
Total Cumulative Chart



	9	8	7	6	5	4	3	2	1	U	Total
W											0
1											0
2											0
3C											0
3B											0
3A											0
4C						-1					-2
4B				-1			1				0
4A	1			-1	1	-1		-1			-1
5C	-1	-1		-2							-3
5B		-3	-2	-1		-1					-6
5A	1	1	1								4
Total	2	-2	-2	-4	0	-2	0	0	0	0	-8

National Data Set 139147 Pupils

- KS2 Grade W
- KS2 Grade 1
- KS2 Grade 2
- KS2 Grade 3C
- KS2 Grade 3B
- KS2 Grade 3A
- KS2 Grade 4C
- KS2 Grade 4B
- KS2 Grade 4A
- KS2 Grade 5C
- KS2 Grade 5B
- KS2 Grade 5A



Maths 2019

Transition Matrices

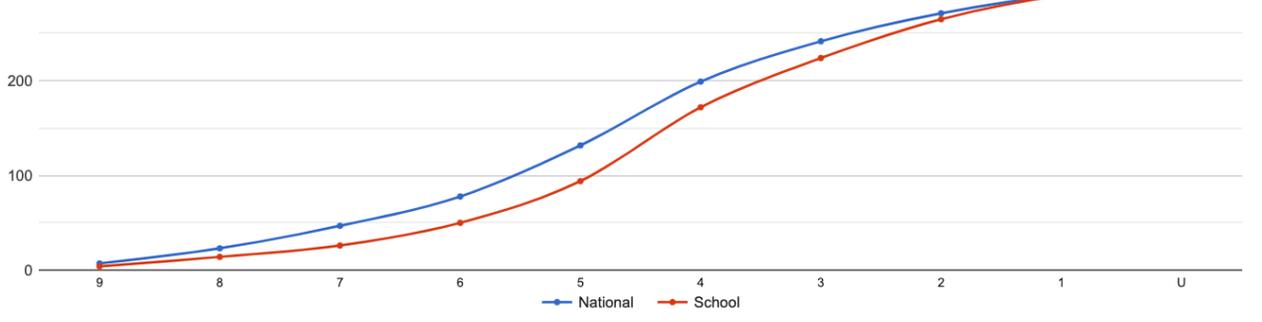
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INFO

GCSE (9-1) Mathematics

- Count
- Percentage
- National %
- National Breakdown
- Difference
- Cumulative Difference
- Rotate Matrix

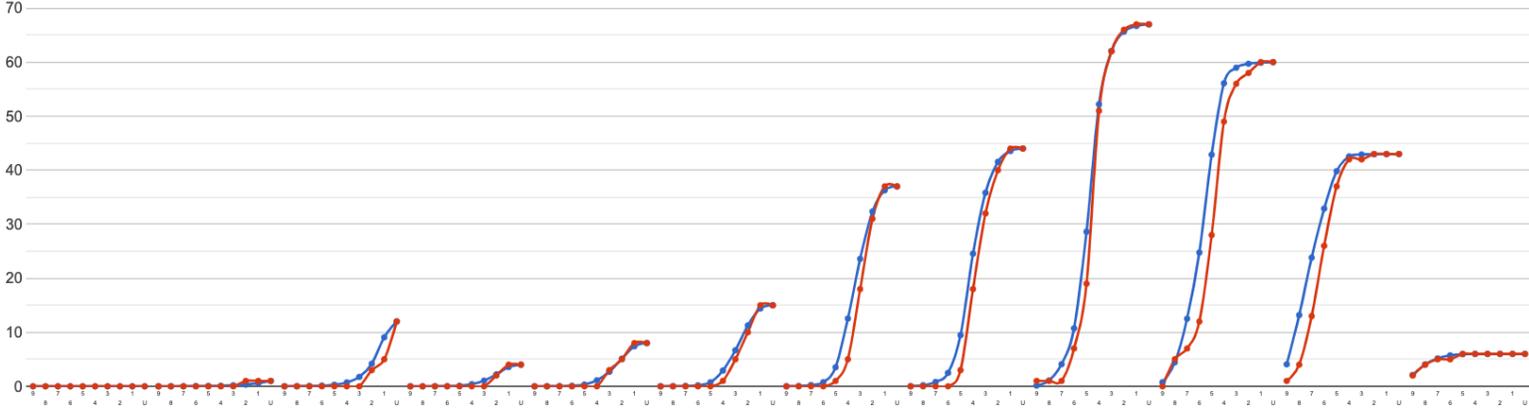
Total Cumulative Chart



	9	8	7	6	5	4	3	2	1	U	Total
W											0
1								1			1
2						-1	-2↓	-1	-4↓		-8
3C							-1				-1
3B						-1			1		-1
3A					-1	-2↓	-2↓	-1	1		-5
4C				-1	-3↓	-8↓	-6↓	-1	1		-17
4B			-1	-2↓	-6↓	-7↓	-4↓	-2↓			-21
4A	1		-3↓	-4↓	-10↓	-1					-16
5C	-1	1	-6↓	-13↓	-15↓	-7↓	-3↓	-2↓			-45
5B	-3↓	-9↓	-11↓	-7↓	-3↓	-1	-1				-34
5A				-1							-1
Total	-3	-9	-21	-28	-38	-27	-18	-6	0	0	-150

National Data Set 499211 Pupils

KS2 Grade W KS2 Grade 1 KS2 Grade 2 KS2 Grade 3C KS2 Grade 3B KS2 Grade 3A KS2 Grade 4C KS2 Grade 4B KS2 Grade 4A KS2 Grade 5C KS2 Grade 5B KS2 Grade 5A



Timescale

Stage	Action	Completed by
Stage 1	Subject leaders collate information about which objective evidence could be used in the process, including progress on NEAs. This can be started now.	Tues 21 April
Stage 2	Decision made by subject leaders regarding the evidence they propose to use to create an overall mark for each student.	Wed 22 April
Stage 3	Discussion with senior leaders over evidence base and mark calculation decisions to ensure fair and robust process	Fri 24 April
Stage 4	Subjects calculate the overall mark for each student from the evidence base and carefully check the calculations	Fri 1 May
Stage 5	Discussion with senior leader regarding Stage 4 calculations to quality assure process and detail	Wed 6 May
Stage 6	Recommendation of grades (and ranking students within grades) by subject teachers and leaders based on Stages 4 and 5 submitted to senior leaders	Mon 11 May
Stage 7	Moderation of grades by senior leaders using national distributions and understanding of past centre performance	Fri 15 May
Stage 8	Explanation of process with governors and trustees	Fri 22 May

Other important points

- There will be no performance tables in 2020. You do not need to worry about your school's performance
- Nor should this be part of any performance management discussion
- You **must** not discuss grades with parents at any point. These are centre-assessed grades
- If your own children are in Y11 you need to take steps to protect yourself, your colleagues and the head of centre
- A similar process applies to A levels and VTQs. Smaller groups are harder to predict
- Some of your pupils will get a U

Finally...

Knowing what you know, all of it, your job is to **estimate the most plausible grades your pupils would have obtained if they had actually taken the exam.**

What you have to do is unprecedented.

It requires integrity, professional wisdom, courage and ethics. You will also have to set aside some of your instincts to do the task you have been given.



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