

National 4 and 5s: The accidental attainment gap

FAST FACTS

- The maximum number of N4 or N5s that pupils can study for in S4 varies between 5 and 9 depending on which school a pupil attends.
- Reform Scotland has updated its research from three years ago and found the situation has worsened, with more state schools reducing the number of Nat 4 or 5s that can be studied.
- At the same time the independent sector still allows 8, or 9 National 5 exams to be sat in S4.
- Curriculum for Excellence was supposed to broaden pupils' education. Unfortunately, for some it is narrowing it, at least in the senior phase.
- When all pupils chose 7 or 8 subjects there was more scope for to combine practical and academic options. The reduction in number reduces this ability.
- While some local authorities have a council-wide maximum, in other areas, there are variations within the council area.
- The number of qualifications each pupil studies for should be based on their individual ability, not dependent on the school they attend or local authority in which they live.
- It is simply unacceptable that it is dependent upon the postcode in which a child lives or whether their parent can pay for private education, for the brightest pupils to be able to maximise their potential.
- This worrying variance seems to have been unintentional and has inadvertently, created a new attainment gap.

CONTEXT

Three years ago Reform Scotland carried out research highlighting a wide variation in the maximum number of National 4 and 5s pupils could take in S4. A maximum that was based purely on the school a pupil attended or the authority in which the school was located, and not their individual ability. Since then there has been greater focus on the impact of the Broad General Education and Curriculum for Excellence, as well as concerns about falling numbers studying certain subjects.

As a result, Reform Scotland decided to return to the issue and see how the situation had changed since we last asked the question.

What emerges is that not only has the variation in the number of subjects allowed to be studied continued, but in many areas it has worsened. Indeed, a new attainment gap is emerging. More state schools have reduced the maximum number of subjects allowed to be taken in S4, while independent schools following the SQA curriculum have not.

Where once most state schools allowed pupils to take 7 or 8 Standard Grades, based on their individual ability, a majority of schools now offer only six subjects to be studied in S4. In a few schools it is as low as 5.

In contrast, peers who can afford private education can take 8, or indeed 9 National 4s and 5s.

Now is a time when we need to be removing obstacles and narrowing attainment gaps, not creating more.

BACKGROUND

In 2014, as part of Curriculum for Excellence, the Standard Grade exams system was replaced with National 4 and 5s.

Where Standard Grades were taught over a two year period, National 4 and 5s are supposedly studied in S4 only. The intention was to extend the broader education provided in S1 and S2 into S3, with students studying for the new courses in S4 only. Decisions to reduce the number of subjects appear to be based on the SQA's recommended minimum hours of study (160 hours).

However, this is effectively saying that nothing studied prior to the start of S4 counts towards examinable knowledge of the subject. But course work will often build upon work studied in S1-3. Work done in S3 should contribute to later study

The aim of the change brought about by the Curriculum for Excellence was to provide a broader education for pupils. However, depending on how the change in assessment is implemented in different schools it can mean that pupils at some schools are limited to only being able to take five N4 or N5s in S4, while others including those attending independent schools can take eight.

But why is there such a wide variation in the maximum number of allowed subjects? How can some schools manage a timetable to enable the most able pupils to study eight courses, while others only manage 6?

This appears to have been the result of confusion over what constitutes the Broad General Education. In spite of the now notorious "20,000 pages of online advice", Education Scotland failed to make clear to schools what, in

timetabling terms, was to be regarded as appropriate for the S1 to S3 curriculum. Specifically, it failed to provide clarity on subject choice at the end of the BGE. Schools and local authorities were left to work out for themselves whether or not providing pupils with the traditional subject options at the end of S2 prior to taking two year courses over S3 and S4, was compatible with the new S1 to S3 BGE. The clearest indication that schools got came from the length of the new National courses to be taken in S4 which, like Highers, were to be 160 hour (ie one year) courses so as not to 'interfere' with the integrity of the S1-3 BGE. Thus, it was deduced that, as with Highers, the maximum number of subjects that could be timetabled in one school year was 5.

When all pupils used to choose 7 or 8 discreet subjects they did so over two years and thus there was more scope for all to combine practical and academic options. The reduction in number reduced this capacity.

This is likely to adversely affect those who leave a school that allows only 6 subjects at the end of fourth year, as they will probably end up with fewer qualifications than they otherwise might if they attended a different state school. Currently, about 11% of pupils leave school at this point. For those going on to study Highers, they have a smaller pool of subjects to choose or have to consider more 'crash' Highers.

Either scenario puts the pupil at the school with the lower maximum at a disadvantage.

Subject	2013 S4 entries				2018 school entries			Difference
	Standard Grades	Intermediate 1	Intermediate 2	Total	Nat 4s	Nat 5s	Total	
French	20,623	1,726	3,512	25,861	2,447	8,144	10,591	-15,270
German	4,296	324	645	5,265	493	1,859	2,352	-2,913
Spanish	3,676	708	1,327	5,711	1,583	4,923	6,506	795
Biology	19,592	5,599	2,148	27,339	7,171	20,811	27,982	643
Chemistry	18,191	2,853	2,353	23,397	4,172	15,883	20,055	-3,342
Physics	13,749	2,304	2,090	18,143	3,659	13,662	17,321	-822
Geography	15,372	609	1,616	17,597	3,578	9,795	13,373	-4,224
History	18,471	1,207	2,490	22,168	5,722	14,413	20,135	-2,033
Modern Studies	12,811	691	1,458	14,960	4,276	11,853	16,129	1,169
Computing Studies	10,233	1,112	1,149	12,494	2,812	6,369	9,181	-3,313
Craft & Design	9,769			9,769	1,531	4,599	6,130	-3,639
Graphic Communication	7,148	563	1,901	9,612	1,211	5,434	6,645	-2,967
Art and Design	10,625	3,089	4,478	18,192	3,417	9,188	12,605	-5,587
Drama	5,743	202	958	6,903	876	4,493	5,369	-1,534
Music	8,473	626	2,875	11,974	1,106	7,099	8,205	-3,769
Physical Education	14,495	1,388	2,509	18,392	3,867	15,373	19,240	848

The above table shows the difference for entries in some subjects in 2013 (for Standard Grades and Intermediates) compared with 2018 (National 4 and 5s).¹ While it is very early to draw too many conclusions about the impact of the fall in the number of subjects pupils are able to sit, some of the more creative or not traditionally academic subjects are losing out.

When looking at groups of subjects it is worth noting that the science subjects have an overall decline of around 3,500; social sciences a decline of around 5,000 and languages down about 17,000. If there is a general reduction from typically studying eight subjects to frequently only six, this will undoubtedly have had an impact.

A further note of caution is that the 2013 SQA results break the number of entries down by school year, so the 2013 entries are for S4, where-as the 2018 figures are not broken down beyond school level, so will therefore include some pupils taking Nat 4 or 5s in 5th or 6th year. This is unfortunate as not only does it make comparative analyses of this crucially important areas more difficult, but this change in how the data is presented obscures a potentially serious threat to the Scottish Government's laudable aim of improving equity in education.

¹ 2013 - Standard Grades and Intermediates entries in S4 - <https://www.sqa.org.uk/sqa/70787.html> 2018 - Nat 4s & 5s school entries - [https://www.sqa.org.uk/sqa/files_ccc/Attainment_Statistics_\(August\)_2018_Schools.xls](https://www.sqa.org.uk/sqa/files_ccc/Attainment_Statistics_(August)_2018_Schools.xls)

Policy recommendations

Every child in Scotland should have the same opportunity to be able to study the appropriate number of subjects for their ability. The most academically able child should be able to take the same number of subjects regardless of which school they attend.

Of course, pupils with different abilities should be able to take a varying number of subjects in S4. However, the decision over the number of exams they take should be taken by the pupil, in conjunction with their teachers and parents. Currently, that is not the case.

It is clear from the results detailed in the Table that some local authorities leave it up to individual schools to make a decision, while others impose a blanket decision across the council area.

It is ironic and disappointing that a policy about extending broad general education into S3 has actually narrowed the education on offer in S4 for many young people.

Review the relationship between the Broad General Education and the Senior Phase. The variations in opportunities afforded to pupils highlight the need for an urgent national review of the relationship between the BGE and the Senior Phase with an expert examination of school timetabling across the country.

Reform Scotland asked each local authority what was the maximum number of National 4s and 5s pupils could sit in the current academic year, as well as in 2019/20 and 2020/21. The table below also includes the results of the research we carried out three years ago, illustrating how the situation has changed. Finally, we contacted several independent schools across Scotland to ask them what was the maximum number of National exams that their pupils were able to sit.

The results are included in the table below:

Colour code: **Five** / **Six** / **Seven** / **Eight+ or no limit**

(Midlothian and South Lanarkshire failed to respond to our Freedom of Information request within the 21 day deadline)

Council	March 2016 FOI response	2019 FOI responses		
		2018/19	2019/20	2020/21
Aberdeen City	All 6 but Torry Academy was 5	6	TBC	TBC
Aberdeenshire				
Aboyne Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	TBA
Alford Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	6
Banchory Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	6 poss 7
Banff Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Ellon Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Fraserburgh Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Gordon Schools (The)	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Inverurie Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Kemnay Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6-8 depending	6-8 depending	6-8 depending
Mackie Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Mearns Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Meldrum Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	TBA
Mintlaw Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	8	8
Peterhead Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	6
Portlethen Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	7	7	7
Turriff Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	6
Westhill Academy	6 National 5 courses, or more, agreed upon on a case by case basis.	6	6	6
Angus	6	6	6	TBC

Argyll & Bute				
Campbeltown Grammar School	6	5	6	6
Dunoon Grammar School	6	8	8	8
Hermitage Academy	6	6	7	7
Islay High School	6	5	5	5
Lochgilphead Joint Campus - Secondary	6	7	7	7
Oban High School	6	6	7	9
Rothesay Joint Campus - Secondary	6	7	7	7
Tarbert Academy (3-18) - Secondary	9	9	9	9
Tiree High School (3-18) - Secondary	6	6	6	TBC
Tobermory High School (3-18) - Secondary	6	6	6	6
Comhairle nan Eilean Siar				
The Nicolson Institute	7	7	7	TBC
Sir E Scott School	7	6	6	TBC
Sgoil Lionacleit	6	6	6	TBC
Castlebay School	6	6	6	TBC
Clackmannanshire				
"School 1"	6 or 7. The previous answer never set out which school had which maximum	7	7	7
"School 2"		7	7	7
"School 3"		7	7	7
Dumfries & Galloway				
Annan Academy	8	6	6	TBC
Castle Douglas High School	8	6	6	6
Dalbeattie High School	8	7	7	TBC
Dalry	8	6	6	6
Douglas Ewart High School	8	6	6	6
Dumfries Academy	8	6	6	TBC
Dumfries High School	8	6	6	6
Kirkcudbright Academy	8	7	7	7
Langholm Academy	8	6	6	TBC
Lockerbie Academy	8	6	6	6
Moffat Academy	8	7	7	7
Northwest Community Campus	8	6	6	6
St Josephs College	8	7	7	7
Sanquhar Academy	8	7	7	6
Stranraer Academy	8	7	7	TBC
Wallace Hall Academy	8	7	7	7
Dundee				
Grove	6	6	6	6
Morgan	6	6	6	TBC
Craigie	6	6	6	6
Braeview	6	6	6	6
St John's	6	6	6	TBC
St Paul's	6	6	6	TBC
Harris	6	6	6	6
Baldrigon	6	6	6	6
East Ayrshire				
Auchinleck	7	6	7	7
Cumnock	7	7	7	7

Doon	7	6	6	6
Grange	7	7	7	7
Kilmarnock	7	7+1	7+1	7+1
Loudon	7	7	7	7
Stewarton	7	7 (Pupils attending college on Tues & Thurs can sit 8)	7 (Pupils attending college on Tues & Thurs can sit 8)	7 (Pupils attending college on Tues & Thurs can sit 8)
St Josephs	7	7	7	7
East Dunbartonshire				
Bearsden Academy	8	7	7	7
Bishopbriggs Academy	8	7	7	7
Bocclair Academy	8	7	7	7
Douglas Academy	8	7	7	7
Kirkintilloch High School	8	7	7	7
Lenzie Academy	8	6	6	6
St Ninians High School	8	7	7	7
Turnbull High School	8	7	7	7
Edinburgh	8	<p>I can advise that there is no limit set centrally. Schools choose the best structure for their own context. Even when schools on paper may set a limit, in terms of the number of subjects timetabled during the school day, there may be individuals who do other courses as self-study, or in non-school hours.</p> <p>Where the schools have responded to this request, the number varies between 6 and 8.</p>		
East Lothian	6-8 school dependent	7	7	7
East Renfrewshire	No maximum	No maximum	No maximum	No maximum
Falkirk				
Bo'ness	6	6	6	6
Braes	5	7	7	7
Denny	6	6	6	6
Falkirk	7	7	7	7
Graeme	6	8	8	8
Grangemouth	6	6	6	6
Larbert	6	6	6	6
St. Mungo's	6	6	6	6
Fife				
Auchmuty High School	7	7	6	6
Balwearie High School	7	7	7	7
Beath High School	6	6	6	7
Bell Baxter High School	5	6	7	7
Dunfermline High School	7	7	7	7
Glenrothes High School	6	6	6	6
Glenwood High School	6	6	6	6
Inverkeithing High School	6	6	6	6poss 7
Kirkcaldy High School	7	7	7	7
Levenmouth		6	6	6
Lochgelly High School	6	6	6	6poss 7
Madras College	7	7	7	7
Queen Anne High School	7	7	7	7
St Andrews RC High School	6	8	9	10

St Columba's RC High School	6	7	7	7
Viewforth High School & Cluster	6	6	6	6
Waid Academy	7	7	7	7
Woodmill High School	6	6	6	6
Glasgow	<p>The council does not hold the information requested. The explanation given was as follows: "Some schools (e.g Hillhead High 'bypass' National 5 exams and present at Higher level), others have a range of presentations 6, 7, 8 etc. "There are also situations where young people may sit, for example, 4 National 5s and 2 National 4s in the same session. "Young people are presented at varying levels and numbers dependent upon their needs/aptitudes and the curricular structure of the school they attend."</p>	<p>For the current academic year, most schools in Glasgow offer 6 or 7 options in S4. There are exceptions to this - Hillhead has 2 year courses for all young people so national qualifications are studied across S4 and S5; and St. Andrew's has 3 pathways in S4 so there area group of young people who bypass national qualifications in S4. It is a very narrow view to deduce from that that these options would be the number of national qualifications which the young people would be studying. It does not take account of the range of courses and qualifications which schools are offering young people as part of these options, some of which are more relevant to the needs of young people than a narrow set of academic qualifications. Young people will be involved in Skills for Work courses; vocational courses at college; and National Progression Awards, all of which are extending the opportunities for success for young people on the basis of flexible curricular pathways. There is a wide range of variety of these courses being offered in different schools across the city.</p>		
Highland	<p>All 6 except 7 at Inverness Royal Academy and 8 at Lochaber High School</p>	<p>The standard number of subjects offered by schools in S4 is six (except for Inverness Royal Academy which currently offers 7 subjects in S4.). However some pupils can take more than 6 where there is provision and where the pupil has the capacity and ability to take on the extra subject(s). There are currently no formal plans to change this policy but like all local authorities we monitor attainment trends and will engage our school leaders in review of policy as appropriate in the future.</p>		
Inverclyde	6	6	6	TBC
Midlothian				
Moray	All 6 except 5 at Elgin High	6	6	6
North Ayrshire	7	6	7	7
North Lanarkshire	7	7	7	7
Orkney				
Kirkwall Grammar School	7	6	6	6
Stromness Academy	7	6	6	6
Stronsay Junior High	7	8	8	8
Westray Junior High	7	6	6	6
Sanday Junior High	7	7	7	7
Perth & Kinross				
Auchterarder High School	7	7	7	TBC
Blairgowrie High School	7	7	7	TBC
Breadalbane Academy	7	7	7	7
Crieff High School	7	8	8	8
Kinross High School	7	7	7	TBC
Perth Academy	7	7	7	7
Perth Grammar School	7	6	6	6

Perth High School	7	7	7	7
Pitlochry High School	7	7	7	7
St John's Academy	7	7	7	7
Renfrewshire	7	7	7	TBC
Scottish Borders	8	no max	no max	no max
Shetland Islands	7	7	7	7
South Ayrshire	6	The option choices for each secondary school is routinely 6 qualifications in S4. However, there are a proportion of young people each year who achieve seven and eight in line with their needs, interests and aspirations.	TBC	TBC
South Lanarkshire				
Stirling	6-7 depending on school	7	7	7
West Dunbartonshire				
Our Lady & St. Patrick's High School	8	8	8	TBC
Vale of Leven Academy	6	6	6	TBC
Dumbarton Academy	6	6	6	TBC
Clydebank High School	6	6	7	TBC
St. Peter the Apostle High School	6	6	6	TBC
West Lothian				
Armadale Academy	6	6	6	TBC
Broxburn Academy	7	7	7	TBC
Deans Community High School	8	6	6	TBC
Inveralmond Community High School	6	6	6	TBC
Linlithgow Academy	6	6	6	TBC
St Kentigern's Academy	7	7	7	TBC
St Margaret's Academy	7	7	7	TBC
The James Young High School	6	6	6	TBC
West Calder High School	7	7	7	TBC
Whitburn Academy		6	6	TBC
Independent Schools				
Watsons		8		no plans to reduce
Heriots		8		no plans to reduce
Hamilton College		9		no plans to reduce
The Glasgow Academy		8		no plans to reduce
Dollar Academy		8		no plans to reduce
Morrison's Academy		8		no plans to reduce
Lomond School		10		no plans to reduce
Wellington School		8		no plans to reduce