

A level (UK) and Advanced Higher (Scotland) results 2023

A level Results for England, Wales and Northern Ireland

For 2023 Ofqual confirmed a return to pre-pandemic grading. The implication is that students should be just as likely to achieve a particular grade in a subject in 2023 as they would have been in 2019. The overall grades this year are lower than in 2022, where grade boundaries were set to ensure they were at the mid-point between 2019 examinations and 2021's Teacher Assessed Grades (TAGs), but similar to the results in 2019.

STEM subject entries¹ 2023

Proportion of entries for STEM Subjects

The table below shows the proportion of the total entries for each STEM subject.

Subjects	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Biology	8.6	8.3	8.5	8.5	8.6
Chemistry	7.3	7.1	7.3	6.9	7.1
Computing	1.4	1.6	1.7	1.8	2.1
Design and Technology	1.4	1.3	1.2	1.3	1.2
Economics	3.8	4	4.1	4.3	4.5
ICT	0.2	0.2	0.2	0.2	0.2
Mathematics	11.4	12	11.8	11.3	11.2
Mathematics (Further)	1.8	1.9	1.9	1.8	1.7
Other sciences (2)	0.3	0.3	0.3	0.3	0.3
Physics	4.8	4.8	4.9	4.7	4.4

- Mathematics is still the most studied A level in 2023.
- The proportion of entries for Physics has decreased and it has moved from the 8th most popular subject in 2019 to the 10th most popular subject in 2023.

¹ Defined list of STEM Subjects - Biology, Chemistry, Computing, Design and Technology, Economics, ICT, Mathematics, Mathematics (Further), Physics & Other sciences as used in previously in our output.

STEM Subject Change 2022 to 2023

Subject	2022 Number of Entries	2023 Number of Entries	% change 2022 to 2023
Biology	71,979	74,650	3.7
Chemistry	58,881	61,284	4.1
Computing	15,693	18,306	16.7
Design and Technology	11,404	10,639	-6.7
Economics	36,483	39,141	7.3
ICT	1,403	1,338	-4.6
Mathematics	95,635	96,853	1.3
Mathematics (Further)	15,146	15,080	-0.4
Other sciences ²	2,209	2,409	9.1
Physics	39,753	38,379	-3.5

- Design and Technology (-6.7%), ICT (-4.6%) and Physics (-3.5%) saw the largest decreases in student numbers between 2022 and 2023 for STEM Subjects.
- While ICT has seen a small decline in number of entries (-4.6%, entries decrease of 65), Computing saw a large increase (+16.7%, entries increase of 2,613).

² Other sciences include all science subjects except Biology, Chemistry and Physics.

STEM subject results 2023
A* to A 2019 to 2023

	Examinations	Centre Assessed Grades	Teacher Assessed Grades	Examinations	Examinations
Subject	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Biology	24.1	37.5	45.1	34.9	27
Chemistry	29.1	42.9	48.6	39.4	32.2
Computing	17.9	36.6	44.5	35.4	22.2
Design and Technology	16.3	32.8	42.2	30.8	17.9
Economics	28.9	41.2	46.7	38.3	29.3
ICT	15.4	28.6	46.3	31.2	23.3
Mathematics	41.0	50.3	55.2	48.2	41.9
Mathematics (Further)	53.5	71.7	75.5	67.8	58.5
Physics	27.9	41.9	46.8	39.5	31.7
Other sciences ³	22.5	35.7	41.3	33.5	26.6

- All STEM subjects saw an increase on A/A* results from 2019, this is the year that JCQ have said is the most relevant comparison.
- ICT (8.1%p) Mathematics (5%p) and Computing (4.3%p) have seen the largest increases in STEM subjects from 2019.
- As expected and announced in advance of publication of results, there have been decreases in the proportion of young people achieving A* to A between 2022 and 2023.

³ Other sciences include all science subjects except Biology, Chemistry and Physics.

A* to C 2019 to 2023

	Examinations	Centre Assessed Grades	Teacher Assessed Grades	Examinations	Examinations
Subject	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Biology	67.3	84.4	86.7	76.0	68.6
Chemistry	72.2	86.6	86.4	76.3	71.6
Computing	63.3	84.7	87.2	76.5	65.8
Design and Technology	68.2	86.4	88.1	81.1	68.9
Economics	80.7	90.7	90.4	86.0	80.2
ICT	66.7	88.1	89.1	80.5	73.3
Mathematics	75.6	86.9	86.3	79.1	76.5
Mathematics (Further)	86.6	96.0	95.4	92.2	88.5
Physics	70.5	84.4	85.2	77.6	69.3
Other sciences ⁴	69.7	87.9	86.2	77.0	72

- Most STEM subjects saw little variation between 2019, the year JCQ and Ofqual have said is the most relevant year for comparison and 2023.
- ICT (+6.6%p), Computing (+2.5%p) and Other Sciences (+2.3%p) saw the largest increases in STEM subjects since 2019.
- There was a small decrease in Physics (-1.2%p).

⁴ Other sciences include all science subjects except Biology, Chemistry and Physics.

STEM subjects vs. non-STEM subjects results 2023

A* to A

		2019 (%)	2022 (%)	2023 (%)	2019 to 2023 (%p)	2022 to 2023 (%p)
A* to A	STEM Subjects	31.4	41.5	33.5	2.1	-8
	Non-STEM Subjects	21.3	32.9	22.8	1.5	-10.1
	All Subjects	25.4	36.4	27.2	1.8	-9.2

- The proportion of young people who were entered into a STEM A Level achieving A* to A in 2023 is higher than across all subjects and non-STEM subjects.
- The proportion of young people achieving an A to A* has increased since 2019.
- As widely expected, the proportion of young people achieving a A* to A in 2023 is down on 2022, however the decrease in STEM subjects is lower than for non-STEM subjects.

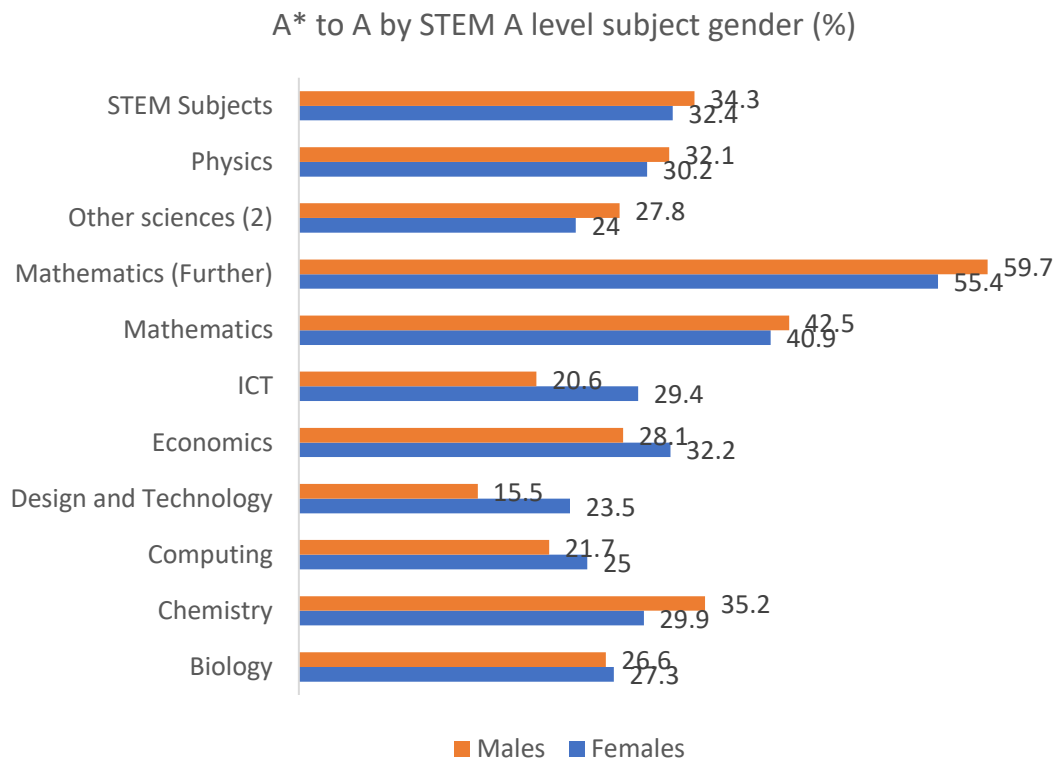
A* to C

		2019 (%)	2022 (%)	2023 (%)	2019 to 2023 (%p)	2022 to 2023 (%p)
A* to C	STEM Subjects	72.9	79	73.3	0.4	-5.7
	Non-STEM Subjects	78	85	77.9	-0.1	-7.1
	All Subjects	75.9	82.6	76	0.1	-6.6

- The overall proportion of young people achieving a C or above in STEM subjects is roughly in line with 2019.
- As expected, the proportion of young people achieving a C or above is below that of 2022, however the decreases are less than in non-STEM subjects and across all subjects.

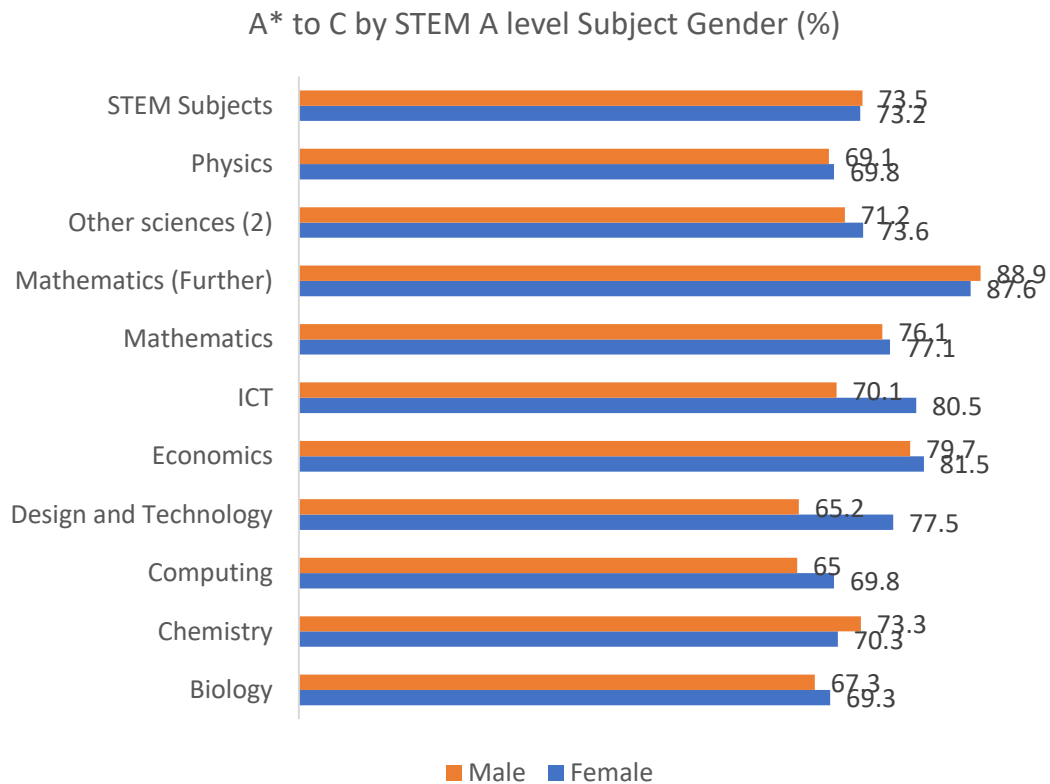
Gender differences in STEM subject results 2023

The proportion of students achieving A* to A by gender



- Female students outperform male students in 5 of the 10 STEM related subjects for the proportion achieving an A or A*.
- Female students outperform male students in ICT (+8.8%p), Design & Technology (+8%p) and Economics (+4.1%p)
- Male students outperform female students in Chemistry (+5.3%p), Mathematics (further) (+4.3%p) and Other Science (+3.8%)

The proportion of students achieving A* to C by gender



- Female students outperform male students in 8 of the 10 STEM subjects listed for the proportion achieving A* to C.
- Female students outperform male students in Design & Technology (+12.3%p), ICT (+10%p) and Computing (+4.8%p)
- Male students outperform female students in Chemistry (+3%p) and Mathematics (Further) (+1.3%p).

Scottish Higher results

Scottish Highers are the Scottish equivalents of A levels in the rest of the UK. As with the A level results, the Scottish Qualifications Authority (SQA) announced prior to the publication of the provisional results that they would be lower than 2022. The aim was to place the grade boundaries somewhere between 2019 and 2022, the last two years where examinations took place. The SQA highlighted that any comparison should be done with caution as there had been significant changes because of the Covid-19 pandemic.

STEM subjects entries, 2023

Proportion of entries for STEM Subjects

The table below shows the proportion of the total entries for each STEM subject.

Subject	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Administration and IT	2	2.1	2.2	2.3	2.3
Applications of Mathematics ⁵	0	0	0	0.5	0.8
Biology	4.1	4	3.8	3.9	3.7
Chemistry	5.4	5.4	5.1	5.1	5
Computing Science	1.7	1.7	1.7	1.9	1.9
Design and Manufacture	1.2	1.1	1.2	1.2	1.1
Economics	0.3	0.3	0.3	0.4	0.5
Engineering Science	0.6	0.6	0.6	0.6	0.6
Environmental Science	0.2	0.2	0.3	0.3	0.3
Fashion and Textile Technology	0.1	0.1	0.1	0.2	0.2
Health and Food Technology	0.6	0.6	0.7	0.7	0.7
Matamataig (Mathematics) ⁶	0	0	0	0	0
Mathematics	10	10.3	10	9.6	9.8
Physics	4.5	4.5	4.4	4.3	4.2

- The proportion of entries for Maths and Physics has reduced since 2019.
- Between 2022 and 2023, there has been little change in the proportion of total entries which are for STEM subjects.

⁵ Application of mathematics is the study of Maths in real-life contexts and aims to equip learners with mathematical skills and knowledge they will need in their everyday lives.

⁶ Matamataig (Mathematics) - Is Mathematics taught in the Scottish language.

STEM Subject Change 2022 to 2023

Subject	2022	2023	% Change
Administration and IT	4,420	4,325	-2.1
Applications of Mathematics	870	1,615	85.6
Biology	7,340	7,070	-3.7
Chemistry	9,565	9,685	1.3
Computing Science	3,490	3,560	2
Design and Manufacture	2,280	2,035	-10.7
Economics	780	890	14.1
Engineering Science	1,185	1,245	5.1
Environmental Science	545	585	7.3
Fashion and Textile Technology	360	350	-2.8
Health and Food Technology	1,245	1,390	11.6
Mathematics	18,010	18,705	3.9
Matamataig (Mathematics)	45	40	-11.1
Physics	8,045	7,995	-0.6

- There has been a large decrease in the number of entries between 2022 and 2023 in Design and Manufacture (-10.7%).
- Application of Maths has seen a substantial increase of (+85.6%p) between 2022 and 2023.
- Engineering science has increased by +5.1%p.

STEM subject results 2023

STEM Subjects Grade A

Subjects	Examination	Teacher Assessed Grading		Examinations	Examinations
	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Administration and IT	28.6	40.3	48.7	34.8	32.6
Applications of Mathematics	-	-	-	23.6	24.8
Biology	27.7	35.7	37.2	30.4	34.4
Chemistry	29.7	40.7	43.4	34.9	32.6
Computing Science	23.2	39.2	49.2	36	36.4
Design and Manufacture	11.8	27.2	30.1	17.5	12.3
Economics	40.2	51.3	63.1	50	37.6
Engineering Science	26.6	40.8	40.1	27.4	23.7
Environmental Science	19.2	30.6	35	20.2	13.7
Fashion and Textile Technology	9.3	35.3	51	19.4	11.4
Health and Food Technology	10.5	31.5	46.7	16.5	12.2
Mathematics	32.9	40.6	47.1	45.9	38.9
Matamataig (Mathematics) ⁷	42.9	42.9	50	33.3	37.5
Physics	28.7	41.5	42.5	37	34.1

- As widely expected, the proportion of young people achieving an A in Scottish Highers in 2023 is below 2022 levels for STEM subjects.
- The majority of STEM subjects are above 2019 levels, with Computing (+13.2%p), Biology (+6.7%p) and Physics (+5.4%p) seeing the largest increases.
- Environmental Science (-5.5%p), Engineering Science (-2.9%p) and Economics (-2.6%p) have seen the biggest dips since 2019.

⁷ Matamataig (Mathematics) - Is Mathematics taught in the Scottish language.

STEM Subjects A-C

Subjects	Examination	Teacher Assessed Grading		Examinations	Examinations
	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
Administration and IT	78.4	91.9	90.9	80.1	79.9
Applications of Mathematics	-	-	-	69	73.7
Biology	72.7	84.9	78.1	75.3	75.4
Chemistry	75.6	88.3	81.4	78.3	77.8
Computing Science	63.9	89.3	86.2	71.2	69.8
Design and Manufacture	54.2	88	81.3	67.5	54.8
Economics	79.5	92	92.6	81.4	74.2
Engineering Science	65.3	89.2	83.1	69.2	63.9
Environmental Science	69.2	88.9	80.6	68.8	59.8
Fashion and Textile Technology	74.4	94.1	94.1	72.2	71.4
Health and Food Technology	60.1	91.9	89.5	67.9	62.2
Mathematics	72.4	83.3	80.1	75.3	73.2
Matamataig (Mathematics) ⁸	85.7	100	83.3	77.8	75
Physics	75	86.7	80.8	77.9	77.2

- The proportion of students achieving a C or higher in STEM Subjects has increased since 2019 for the majority of STEM subjects.
- The largest increases from 2019 were in Computing Science (+5.9%p), Biology (+2.7%p), Chemistry (+2.2%p) and Physics (+2.2%p).

⁸ Matamataig (Mathematics) - Is Mathematics taught in the Scottish language.

STEM subjects V Non-STEM subjects 2019 to 2023

A Grade

As widely predicted the proportion of students achieving an A grade in their Higher examinations fell from 2022 but was higher than in 2019.

	Examination	Teacher Assessed Grading		Examination	Examination
Category	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
STEM	28.7	39.4	44.1	36.7	33.4
Non-STEM	28.1	40.3	49.2	34	32.5
All Subjects	28.3	40	47.6	34.8	32.8

- The proportion of students awarded an A grade for STEM related subjects was roughly in line with the rate in non-STEM subjects and across all subjects in 2023.
- The proportion of students achieving an A Grade in STEM subjects is higher than in 2019.

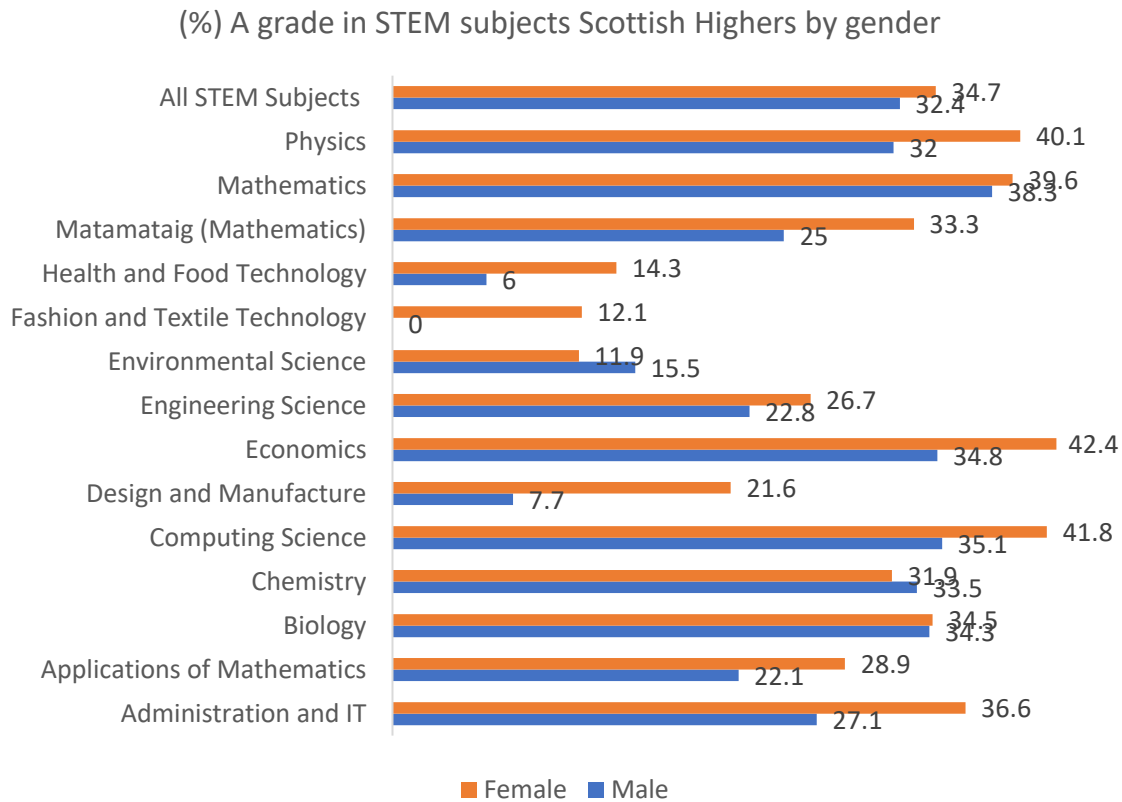
A to C Grade

	Examination	Teacher Assessed Grading		Examination	Examination
Category	2019 (%)	2020 (%)	2021 (%)	2022 (%)	2023 (%)
STEM	72.2	86.4	81.9	75.6	73.8
Non-STEM	75.9	90.5	89.7	80.4	78.6
All Subjects	74.7	89.3	87.3	78.9	77.1

- The proportion of students achieving A to C in STEM subjects is lower than for non-STEM subjects, or for all subjects.
- The proportion of students achieving an A to C in STEM subjects is higher than in 2019, however the increase is smaller than in non-STEM subjects.

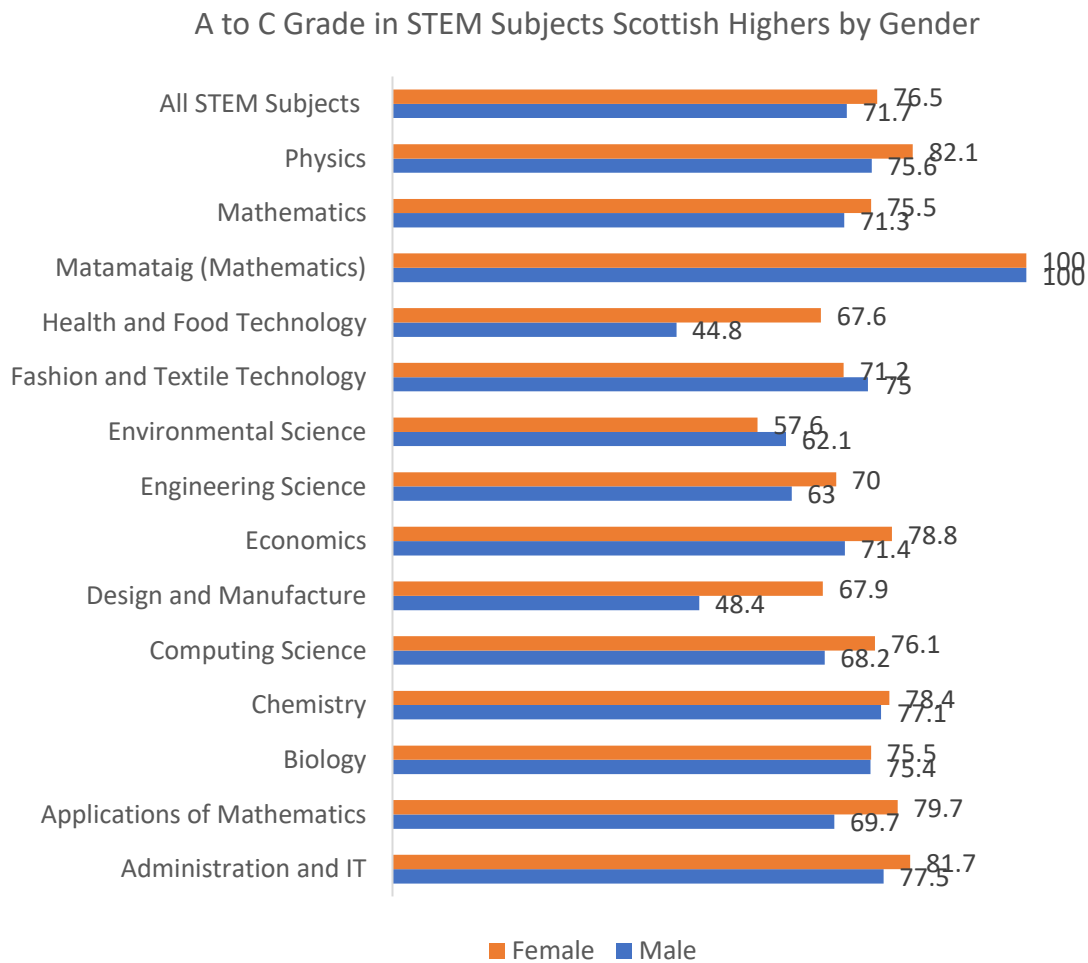
Scottish Highers STEM subjects by Gender

Proportion of A grades in STEM subjects by gender



- Female students outperform male students in the proportion of A grades attained in 12 of the 14 STEM subjects.
- The largest gap between female and male students are in Design and Manufacture (+13.9%p), Fashion and Textile Technology (+12.1%p) and Administration and IT (+9.5%p).
- Male students only perform better in two subjects: Environmental Science (+3.6%p) and Chemistry (+1.6%p).

Proportion of A to C Grades in STEM subjects by gender



- Female students also outperform male students in 12 of the 14 STEM subjects for the proportion achieving A to C.
- The largest gaps between female and male students are in Health and Food Technology (+22.8%p), Design and Manufacture (+19.5%p) and Applications of Mathematics (+10%p).
- Male students only outperform female students in two subjects: Environmental Science (+4.5%p) and Fashion and Textile Technology (3.8%p).