

Context of examinations 2022

- GCSE, A level, Scottish National 5 and Scottish Highers were all assessed by examinations for the first time since 2019.
- Results were widely expected to be and were below 2021 levels, but higher than 2019 due to adjustments to grade boundaries.
- Advanced notice of exam topics were released prior to the examinations and formulae sheets were available for Maths and Science subject exams at GCSE.
- First set of results for T levels in 2022, although only three courses in total.

A Level - STEM exam entries

- The proportion of Entries for STEM subjects has slightly declined between 2020 and 2022 from 41.6% in 2020 to 41.1% in 2022, although it was in line with entries in 2019.
- A higher proportion of boys (52.7%) were entered for STEM subjects than girls (31.5%) 2022.
- A higher proportion of girls were entered for Biology (9.9%) compared with boys (6.8%).

A Level - STEM exam results

- The proportion of young people attaining a C or above for STEM subjects in 2022 (79%) was higher than the last time exams took place in 2019 (69.7%).
- All subjects' results declined from 2021 as expected, but the percentage point decrease varies across STEM subjects. There were large decreases in Biology (-10.7%P), Chemistry (-10.1%P) and Computing (-10.7%P)
- Females outperform males in the majority of STEM A level subjects for the proportion attaining A* to A grades.
- Females outperform males attaining A to A* in Physics (Female 40.1% vs 39.3% Male), ICT (39.9% vs 27.7%), Economics (41.7% vs 36.8%) and Design and Technology (39.2% vs 34.7%)
- Males outperform females for the attainment of A to A* in Further Mathematics (68.7% vs 65.4%) and Chemistry (41.3% vs 39.2%).

GCSE - STEM entries

- Many STEM subjects such as Maths and Science are compulsory at GCSE.
- Males are more likely than females to take optional STEM subjects at GCSE based on entries. This is particularly apparent in Computing (2.23% vs 0.61%) and Design and Technology (2.13% vs 0.9%).

GCSE - STEM Results

- The proportion of young people attaining 4 or above for STEM subjects in 2022 (70.5%) was higher than the last time exams were taken in 2019 (65.4%).
- Large dips in GCSE results from 2021 and 2022, largely due to the re-introduction of examinations and changes to assessment.
- There were particularly large dips in the proportion of young people attaining 7 or above in Economics (-9.3%p), Engineering (-6.1%p) and Biology (-6%p).

- Females outperform males in most STEM subjects at GCSE. The proportion of females attaining 7 or higher in STEM subjects is above males including most core science subjects: Double Science (11.9% vs 9.6%), Science (11.3% vs 6%), Chemistry (50.8% vs 49.3%) and Biology (51.7% vs 48.3%).
- Males only outperform females in Mathematics: Numeracy (19.3% vs 18.1%), Physics (51.9% vs 49.3%) and Economics (44.8% vs 40.5%) although the number of girls entered for Economics was quite small.

Scottish Results

National 5 - STEM entries

- 43.4% of young people were entered into STEM Subjects - a number of these are compulsory including Maths and Science.

National 5 - Exam results

- For the proportion of young people attaining A the difference between 2021 and 2022 is smaller in STEM subjects (-3.3%p) than non-STEM subjects (-8.5%p).

Scottish Highers - Entries

- 31% of young people were entered for STEM subjects in Scottish Highers.
- The highest entries are Mathematics (9.6%), Chemistry (5.1%), Physics (4.3%) and Biology (3.9%).

Scottish Highers - Exam results

- Proportion of young people attaining an A in STEM subjects is higher than non-STEM subjects in 2022 (36.7% vs 34.5%)
- Most traditional STEM subjects saw relatively small declines from 2021.
- Large declines in proportion of young people attaining C or above in Fashion and Textile Technology (-21.9%p), Health and Food Technology (-21.7%p), Computing Science (-15%p).

T level - Entries

| T Level Course | Number of Learners | Male (numbers) | Male (%) | Female (numbers) | Female (%) |
|---|--------------------|----------------|----------|------------------|------------|
| Design, Surveying and Planning for Construction | 207 | 187 | 90.3 | 20 | 9.7 |
| Digital Production, Design and Development | 340 | 304 | 89.4 | 36 | 10.6 |
| All Engineering related T Levels | 547 | 491 | 89.8 | 56 | 10.2 |

- Just over half of all young people who completed their T Level course in 2022 studied Design, Surveying and Planning for Construction and Digital Production, Design and Development (53%)
- These courses are very male dominated with only around 10% of the students being female on both courses.

T Level - Results

- Most young people who studied a T Level achieved a pass or above.
- In Design, Surveying and Planning for Construction: 93.7% of young people achieved a pass or above and 84% achieved a Merit or above.
- In Digital Production, Design and Development: 89.7% of young people achieved a pass or above and 66% achieved a Merit or above.