

RSC Saturday School Scholarship Impact report: September 2023

Maximising attainment through diversity and inclusion

"Before the scholarship, Chemistry was just another tricky subject on my timetable, nothing more. Now, I genuinely love the subject and have applied to study it at university".



1. Introduction

In November 2021, Saturday School Ltd (SSL) was awarded £8000 from the Royal Society of Chemistry as part of their Diversity and Inclusion Fund. This led to the formation of the RSC Saturday School Scholarship: a programme to support, educate and inspire young people studying National 5 or Higher Chemistry. The first year of this scholarship delivered incredible success for the 26 young people taking part. The cohort achieved a 96% pass rate in their final SQA exams, with 77% gaining a grade A or B, and 40% attaining an A, results which are well above the national averages.

In December 2022, SSL applied for repeat funding and was awarded a further £5000 to deliver a second year of the scholarship with a new cohort of 14 young people taking National 5 or Higher Chemistry. Of the new cohort, 4 learners who took part in year one (National 5) progressed into year two (Higher).

In August 2023, SQA exam results for cohort 2 showed our pass rate in Chemistry sits at 93%, this is compared to a national pass rate of 76%.

Recommendation 1:

SSL will reapply for RSC funding at the end of academic year 2023 with the aim of continuing the programme into year 3, supporting more young people and taking on new scholars. As with year 1 and 2, we will ideally offer the current scholars studying N5 the opportunity of support with Higher Chemistry should they choose to continue with the subject at school. SSL would like to explore the possibility of greater funding to increase the number of scholars it can support and also increase the number of classes and subjects scholars can attend; branching into Maths, English and potentially other sciences.





The scholarship has made me feel better about my calculations, I've learned a better way of approaching questions and made new friends. It's been really helpful.



40% of Scholars *agree*, and 50% *strongly agree*, that the Royal Society of Chemistry Scholarship sends a message that "*Chemistry is for everyone*".

2. Scholarships at Saturday School

The RSC Scholarship is one of three highly impactful scholarships being delivered by SSL – run alongside <u>The Catherine McEwan Foundation Scholarship</u> and the <u>Saturday School</u> <u>Scholarship fuelled by Di Maggio's</u>.

<u>The RSC Scholarship</u> offers learners fully funded attendance at 5 Weekly Lessons and 2 Grade Booster Days in N5/H Chemistry, delivered by fully qualified Chemistry Teachers of SSL. It also gives them unlimited 24/7 access to online learning support via Google Classroom.

Weekly Lessons cover areas such as:

- Bonding and properties of materials, Chemical formulae
- Periodicity and trends in the periodic table
- The Mole and concentration calculations
- Chemical bonding and Intermolecular forces
- Alkanes, alkenes, cycloalkanes, alcohols, Isomers, energy from fuels
- Oxidising and Reducing Agents
- Energy from fuels, calculations based on equations, Chemical analysis
- Equilibria
- Getting the most from reactants

<u>Grade Booster Days</u> 1 and 2 offer a two-part cumulative full course review of Chemistry in preparation for the scholar taking their N5 or Higher exam in the SQA exam diet, typically April/May each year.

Recommendation 2:

In academic year 2023/24 Saturday School will launch its new delivery site in Edinburgh Napier University and therefore will offer a second geographical location - in addition to the longstanding location in The Glasgow Academy - for scholars to learn with us, opening up scholarship applications/opportunities to even more young people in more parts of Scotland.





The RSC Scholarship has had a positive impact on me. The regular classes have helped me to keep up with studying and made me feel more confident with chemistry. I also enjoyed meeting new people.



3. Publicising the opportunity and the application process

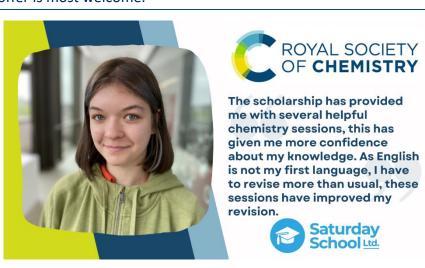
Saturday school uses a range of media to communicate the opportunity to learners:

- Direct emails to all schools within relevant geographical reach of SSL
- Social media output on Twitter and Facebook
- Upgraded and new pages on the SSL website
- Sharing on teacher channels such as Strontium
- Email campaigns to existing parents and students of Saturday School.

Scholars applied using a Google Form designed by SSL staff, linked to the RSC Inclusion and Diversity Strategy. A personal statement, parent/carer statement and teacher supporting statement were required before a scholar is considered.

Recommendation 3:

Compared to year 1, year 2 has seen much more widespread popularity and awareness of the RSC Scholarship in the education community, repeat interest from existing schools and from new centres has helped to grow the prominence of the offer. Should repeat funding be achieved to deliver year 3, then continued promotion of the scholarship will continue as per the approach listed above. Complacency will be avoided and increased efforts will be made to attract new scholars from the East of Scotland (see recommendation 2) who may be less aware of the offer and who will benefit from the opening of our second centre in Edinburgh. Further, the support of year 1 and 2 Scholars in an ambassadorial role for the programme is also proving highly effective in a range of ways. Continued support from RSC to share the offer is most welcome.



40% of Scholars *agree*, and 60% *strongly agree*, that the Royal Society of Chemistry Scholarship is "*promoting inclusion and diversity in Chemistry*".

4. Scholars

There were 14 young people taking part in the RSC Scholarship, representing a broad range of SIMD deciles, ethnic identities and pre-scholarship working grades. From the original applications completed, 80% were female, this remained the same for the final chosen group. The cohort for year two represents eight schools across six local authorities in Scotland.

Table 1 – A breakdown of demographics, characteristics and attainment grades:

Scholar names removed	Decile (SIMD)	Student gender identity	Student ethnic identity	Level of study	Learning barrier, disability, ESOL	Pre- scholarship working Grade	Final SQA exam grade
	2	Male	Scottish Pakistani	Н	No	А	Α
	5	Male	Asian- Afghan	Н	No	В	Α
	9	Female	White Scottish	Н	No	В	Α
	4	Female	White Scottish	Н	No	С	Α
	3	Female	White European (Ukrainian)	Н	ESOL	В	В
	4	Female	White Scottish	Н	Dyslexia	С	В
	1	Male	British Somali	Н	No	F	В
	8	Female	White	Н	No	В	С
	8	Female	White Scottish	Н	No	D	С
	3	Female	Asian – Pakistani	Н	ESOL	D	С
	6	Female	Pakistani British	Н	No	D	С
	3	Female	Black African	Н	No	F	С
	6	Female	Pakistani British	Н	No	F	С
	8	Female	Black Scottish	Н	No	F	D

The data above shows an incredible success rate for year 2 of the scholarship. The average improvement per student is a 2-band increase in their grade. In many cases, lifting a failing candidate into a narrow pass or better. Some students have gained an A grade having been at B, and in one case a C has been transferred into an A. For our Scholars, the exam pass rate in Chemistry sits at 93%, this is compared to a national pass rate of 76%.

Recommendation 4:

SSL welcomes the thoughts of RSC in terms of how well the cohort meets the aims of their Diversity and Inclusion Strategy and how the above results satisfy attainment targets for learners. If year 3 funding is awarded then work will be done with teachers, schools and families to understand the gender imbalance in applications. Work will also be done to ensure more schools and young people are made aware of the offer.

5. STEM Ambassadors supporting the scholarship

The Chemistry Department at the University of Strathclyde has generously and enthusiastically supported the RSC Scholarship at Saturday School. Led by Dr Fraser Scott, an enhanced approach to support the scholars was devised as they reached their final SQA exams. In May 2023, two Postgraduate Researchers volunteered their time to join the Higher Chemistry Grade Booster Days. Their support was invaluable and served not only as an inspiration to the young people in the classroom but also offered another expert to support the young people in key curricular content as they approached their exams. Follow-up support has also been offered to scholars by the STEM Ambassadors such as:

- Tours of the university chemistry department and Laboratories
- Support with completing UCAS applications
- Career and study advice
- General coaching and mentoring







"It was great to engage with the secondary students at the Grade Booster session and help answer questions in preparation for their upcoming chemistry exam. I look forward to future events and other opportunities to take part as a STEM ambassador."

Emma, Postgraduate Researcher in Chemistry and STEM Ambassador

"The Royal Society of Chemistry Scholarships for Saturday School have a really positive effect on the community which is local to the University of Strathclyde and we are delighted that we can help with transitioning these young people into Higher Education"

Professor Debbie Willison, Deputy Associate Principal (Online Learning) and Vice Dean Academic (Science)

Recommendation 5:

If year 3 funding is awarded, we will increase the involvement of STEM Ambassadors who work and study in Chemistry. Scholars will be offered the opportunities listed above and we will also aim to offer careers talks/visits to industry

6. Data capture

At the end of the scholarship, RSC Scholars were asked to take part in a survey to capture feedback on how the programme impacted on them. The feedback from scholars, for the second year running, is incredibly positive, with some notable points below:

- 40% of Scholars agree, and 50% strongly agree, that the scholarship sends a message that "Chemistry is for everyone".
- A combined 100% of Scholars agree (40%), and strongly agree (60%), that the scholarship is "promoting inclusion and diversity in Chemistry".
- 80% of scholars state that the programme is positively changing the perceptions on who can work and study in Chemistry.
- 70% of scholars strongly agree and 30% agree, that the scholarship in increasing their confidence in Chemistry.
- 100% of scholars say the programme is improving their knowledge, understanding and problem-solving skills in chemistry, with 70% showing a "remarkable increase".
- 100% of scholars have increased their grades in class tests and coursework with 90% stating that the programme will improve their final grade in the SQA exam.
- 100% of scholars can now envisage a future in Chemistry for themselves, with 60% saying the scholarship has made them "more likely" to do so.

7. Next steps

This report will be published and shared online in September 2023. Saturday School will continue to develop this and other existing scholarships whilst seeking funding to add new offers to the scholarship portfolio. It is hoped that in the years to come, SSL will have a broad suite of scholarship offers that support many more young people.

For more information on any aspect of this report or the wider work of Saturday School Ltd, contact info@saturdayschoolscotland.com or visit www.saturdayschoolscotland.com.