

STIMULUS Project

Progress Report 2018/19

Placing Cambridge University students in local schools
to support science, mathematics

stimulus.ucam.org



STIMULUS is a community service programme which gives Cambridge University students the opportunity to work with pupils in local schools, helping with Maths, Science, Computing or Technology lessons.

STIMULUS students work as volunteer teaching assistants in the classroom, alongside the class teacher. Each STIMULUS placement commits a volunteer to working in their allocated school alongside a specific teacher for 1-2 hours a week for a term.

In 2017/18 **STIMULUS celebrated 30 years** of students and teachers working together to enrich learning and teaching in local schools. **The STIMULUS programme was initiated, in 1987**, by Professor Kenneth Ruthven from Cambridge University's Faculty of Education. Toni Beardon, its first co-ordinator, established a network of interested schools and successive co-ordinators have extended this. With the support of the Millennium Mathematics Project, and funding from Colleges, Departments and donors, the programme has grown exponentially.

In 2018/19 STIMULUS organised **266 placements for Cambridge student volunteers in local schools**. In total, **200 students were involved in the STIMULUS programme** over the course of the academic year.

32 local schools benefitted from the support offered by STIMULUS volunteers. These included a mix of primary and secondary schools as well as sixth form colleges.

"It was a great opportunity to further my own skills whilst helping others to understand a subject I am passionate about."

“It’s lovely to feel that you’re making a genuine difference. The classes are often quite large, so it’s good to be able to provide one-on-one attention when the teacher can’t”

STIMULUS volunteer 2018/19

The main aims of the STIMULUS programme are:

- to provide support for the teaching of Mathematics, Science, ICT and Technology in schools;
- to provide pupils with positive role models of young scientists, mathematicians and technologists;
- to encourage all pupils to develop and maintain an interest in Mathematics, Science and Technology;
- to contribute to enrichment opportunities for school students;
- to give university students opportunities to develop their communication and interpersonal skills;
- to give university students experience in the classroom and a better understanding of education;
- to provide a link between the University and the local community.

The project also provides valuable experience to those students who are considering a teaching career and often helps them decide whether to make this career choice. Each year we have some students who go on to follow a PGCE course, to join the Teach First scheme or the Graduate Teacher Programme, or to participate in the Students Associate Scheme during their vacation. The STIMULUS scheme experience proves to be an extremely positive aspect in their applications.

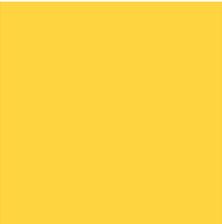
How do STIMULUS volunteers help in schools?

Examples include:

- Helping generally to support pupils in the classroom
- Assisting with practical work
- Encouraging pupils to talk about their work, using key vocabulary
- Asking questions which help pupils develop their understanding
- Encouraging uninterested pupils to engage with the task
- Helping sixth-formers during a lunchtime “surgery”
- Taking practical materials in from a university department
- Taking a small group to work on extension topics
- Working one-to-one with an exceptionally able pupil
- Discussing university applications with sixth-formers
- Helping with after school Science Clubs and Homework clubs

“STIMULUS allows me to use the knowledge that I have gained in my education to help students appreciate the science they are learning a bit better. It is always a great feeling to see students light up and excited after they have managed to understand a previously baffling concept.”

Secondary volunteer 2018/19



“We really value the Stimulus volunteers as they not only help students with their work, but also help them to raise their aspirations. ”

Teacher feedback 2018/19

Volunteers acquire a range of skills from participating in the scheme:

- STIMULUS can also help to develop and support volunteers' confidence and leadership skills: **82% of respondents** to an evaluation questionnaire **felt that their STIMULUS placement had helped them to develop their communication skills** and, in the Michaelmas term, a similar percentage (**83%**) felt that it had improved their capacity to **'take the initiative'**.
- **Three quarters** of Michaelmas term volunteers believed that, as a result of participating in the STIMULUS programme, they had **improved their time management skills**.
- Organisation and interpersonal skills are developed, as volunteers need to organise their work around their visits and work alongside teachers and students.
- Many students will be involved in 'teaching' in different contexts during their careers and, though their STIMULUS placement, they are able to develop their teaching skills. Some students use the scheme to find out more about teaching as a career, and to help them decide whether to apply for a PGCE, Teach First or Student Associate Scheme placement. In the Michaelmas term, **37%** of students who responded to an evaluation questionnaire indicated that they were **'considering teaching as a career'**.
- **93%** of volunteers who responded to an evaluation questionnaire **would recommend the STIMULUS programme to others**.

(All data from 2018/19 STIMULUS programme evaluation.)



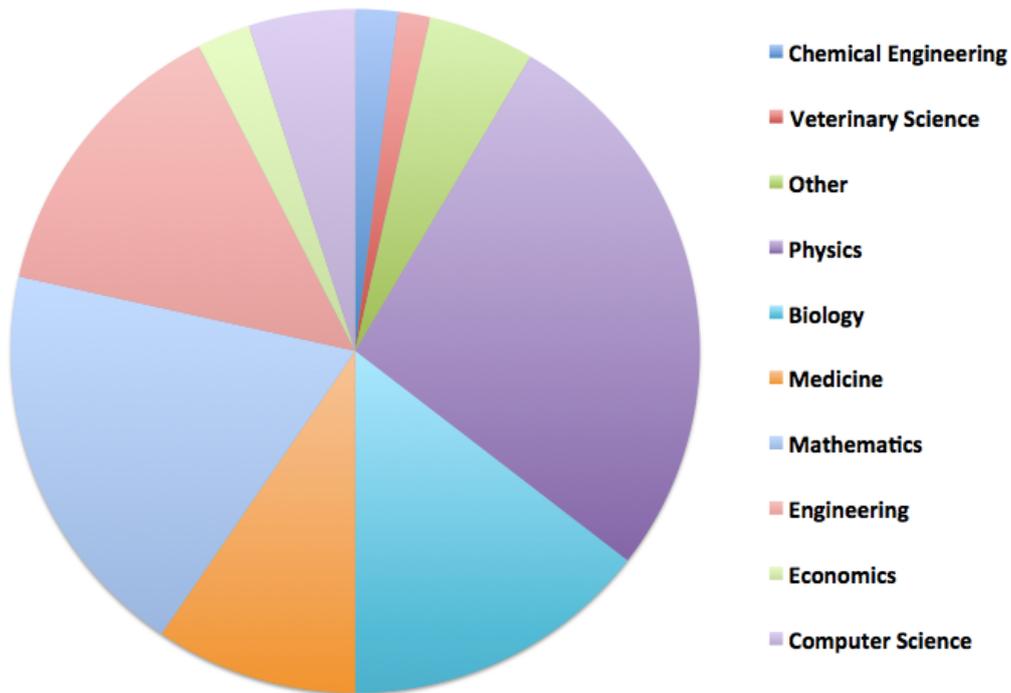
“I made a difference to a student's life and helped them to build their confidence. In so doing I gained confidence in my own abilities to communicate effectively, to listen and infer, and to take initiative when approaching problems.”

STIMULUS volunteer 2018/19

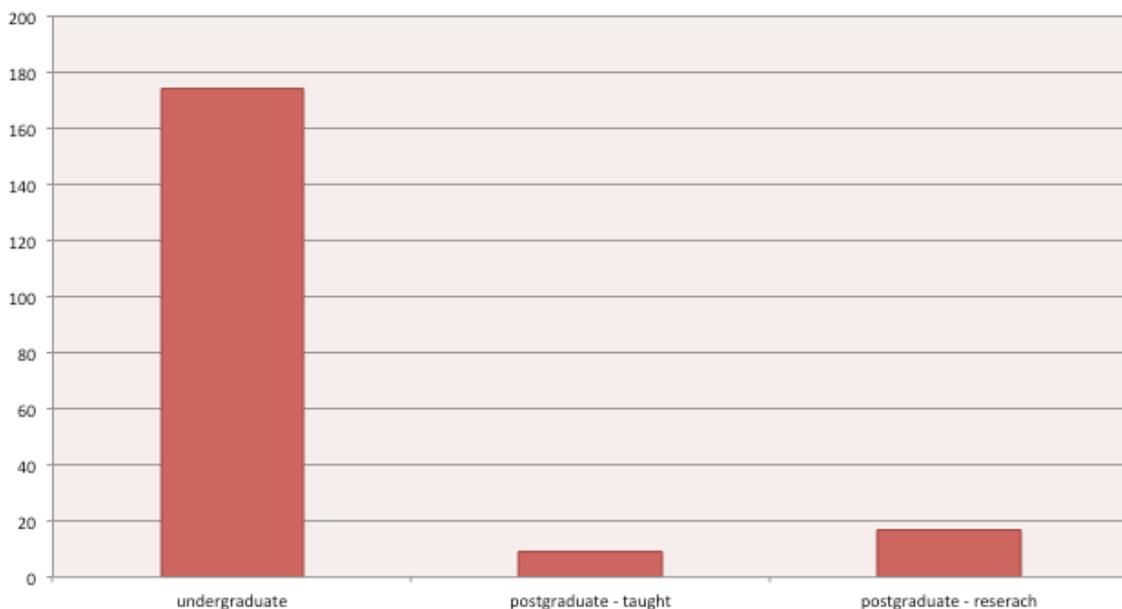
“It [having STIMULUS volunteers] has been a great support and a breath of fresh air. The students respond well to the STIMULUS volunteers and seem to enjoy their approach. J is really fantastic, he is able to really engage with learners and is extremely patient with them.”

Teacher feedback 2018-19

Subjects studied by STIMULUS Volunteers 2018-19



STIMULUS Volunteers by degree status 2018-19



“The opportunity to give back to the community through teaching was a great motivator. It was also great to challenge and extend the students, as this is something that I wished I had greater exposure to at school.”

STIMULUS volunteer 2018/19

Schools taking STIMULUS volunteers, with number of placements in each term	Michaelmas term 2018/19	Lent term 2018/19
Abbey College	0	6
Cambridge Academy for Science & Technology	2	1
Chesterton Community College - Mathematics	10	12
Coleridge Community College (Cambridge Academic Partnership) - Mathematics	4	7
Cotton Primary	2	1
Fawcett Primary	2	2
Girton Glebe	0	2
Hills Road Sixth Form College - Biology	2	2
Hills Road Sixth Form College - Chemistry	4	6
Hills Road Sixth Form College - Maths	1	1
Hills Road Sixth Form College - Physics	1	1
Histon & Impington Junior School	1	3
Kings College School	0	4
Kings Hedges Primary	2	2
Long Road Sixth Form College - Maths	10	9
Long Road Sixth Form College - Biology	1	2
Long Road Sixth Form College - Chemistry	1	4
Long Road Sixth Form College - Computing	3	5
Long Road Sixth Form College - Physics	3	3
Mayfield Primary School	2	2
Milton Road Primary School	2	3
Morley Memorial Primary School	2	2
Newnham Croft Primary School	2	2
North Cambridge Academy	4	3

“Volunteers who help in class rooms are very helpful as they have vast knowledge of computing. The volunteer who runs our 'Code Club' is invaluable. We can't run the club without our volunteer!

Teacher hosting a STIMULUS volunteer 2018/19

Schools taking STIMULUS volunteers, with number of placements in each term (continued)	Michaelmas term 2018/19	Lent term 2018/19
Park Street Primary School	1	2
Parkside Community College (Cambridge Academic Partnership) - Maths	9	10
Parkside Community College (Cambridge Academic Partnership) - Science	6	10
Queen Edith Community Primary School	3	1
Ridgefield Primary School	4	3
St Albans Catholic Primary School	4	4
St Faith's	0	2
St Luke's Primary School	2	2
St Matthew's Primary School	5	5
St Paul's Primary School	1	1
St Philip's	4	3
The Stephen Perse	8	7
The Netherhall School - Mathematics	3	2
The Netherhall School - Science	1	1
Trumpington Community College (Cambridge Academic Partnership) - Maths	1	2
Trumpington Community College (Cambridge Academic Partnership) - Science	2	3
Trumpington Meadows	2	3

“Seeing the kids enthusiastic about school science and introducing them to ideas they thought were really complicated or difficult, but then managed to understand [has been rewarding]. Also I think I made the teacher's life a bit easier in a practical subject with a large class size ”

STIMULUS volunteer 2018/19

Numbers of STIMULUS volunteers by college	Number of students
Christ's College	7
Churchill College	24
Clare College	13
Clare Hall	1
Corpus Christi	6
Darwin College	0
Downing College	7
Emmanuel College	13
Fitzwilliam College	10
Girton College	17
Gonville and Caius College	12
Homerton College	15
Hughes Hall	2
Jesus College	6
King's College	8
Lucy Cavendish College	0
Magdalene College	10
Murray Edwards College	5
Newnham College	15
Pembroke College	15
Peterhouse	13
Queens' College	12
Robinson College	7
Selwyn College	15
Sidney Sussex College	1
St Catharine's College	5
St Edmund's College	2
St John's College	14
Trinity College	10
Trinity Hall	6
Wolfson College	0

STIMULUS volunteers are:

- “At the very least another pair of hands in the classroom helping the students. [And] in many cases, an inspirational link to further education.”
- “Extremely valuable as they really help stretch and extend the children's mathematical thinking.

Teachers hosting STIMULUS students 2018/19

Acknowledgements

We are very grateful to all our supporters, past and present, whose generosity has enabled hundreds of volunteer Cambridge students to help in local schools. We would particularly like to thank all those who have supported us over the past year:

Winton Charitable Foundation;

John Templeton Foundation;

Metaswitch Networks (Cambridge);

Colleges of the University of Cambridge: Christ's College, Churchill College, Clare College, Clare Hall, Corpus Christi College, Darwin College, Fitzwilliam College, Girton College, Gonville and Caius College, Homerton College, Jesus College, King's College, Magdalene College, Murray Edwards College (formerly New Hall), Newnham College, Pembroke College, Peterhouse, Queens' College, Selwyn College, Sidney Sussex College, St Catharine's College, St Edmund's College, St John's College, Trinity College, Trinity Hall;

University of Cambridge Departments, Faculties and Schools: Biological Sciences, Computer Laboratory, Education, Engineering, Mathematics, Physics;

Contact details

Website: <https://stimulus.maths.org>

STIMULUS Programme Co-ordinator
Centre for Mathematical Sciences, Wilberforce Road, Cambridge CB3 0WA

Email: stimulus@hermes.cam.ac.uk

