

You're never too young to be a researcher

The CERN@school programme

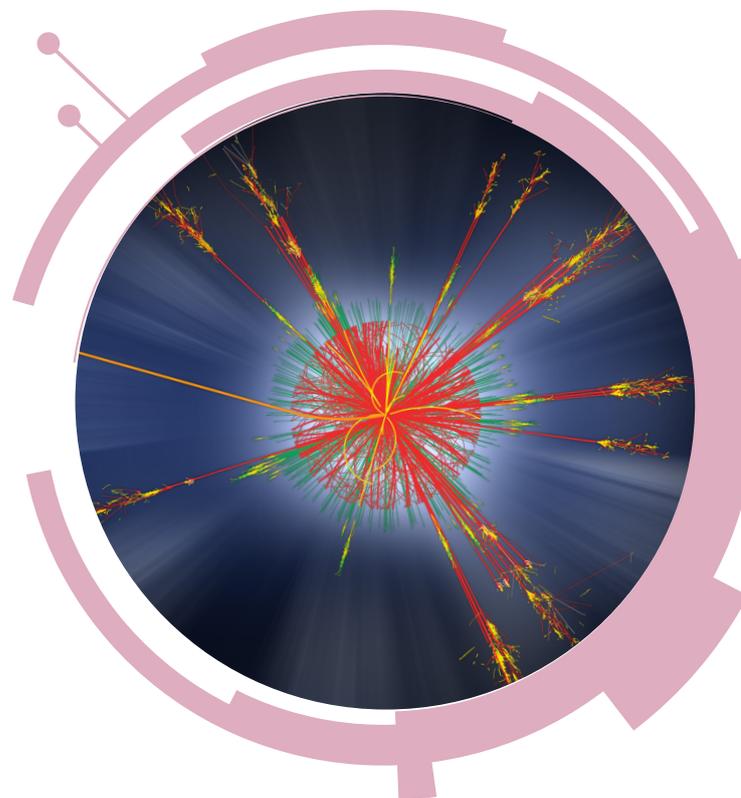
Partnerships

Working together for better engagement

When pupils from the Simon Langton Grammar School for Boys and their teacher Becky Parker visited CERN in 2007, they met Michael Campbell, the leader of a collaborative project called Medipix. Straight away, they saw the potential of the technology in front of them as an amazing educational platform for UK schools.

Supported by STFC since 2010, CERN@school enables students and teachers to visualise radiation in the environment around them. Teacher-led research projects help to enhance teachers' expertise and job satisfaction. Most importantly, student-led research projects let the students undertake genuine scientific research and technology development themselves – CERN@school projects have been published in multiple peer-reviewed scientific journals.

The projects let students experience the reality of research for themselves – the importance of teamwork, the challenge of perseverance, and the excitement of



Tiamat Films

During year 12 I threw myself into a lot of physics-related extracurricular activities, such as the Gold Crest Award and the Ogden Gold Award, with three other classmates. To complete both awards we had to spend 100 hours of work on a completely original investigation and then have my report and presentation peer assessed by experts in the field. When we won the awards, our report was published in 'Contemporary Physics'.

CERN@school student

When we first saw the potential of bringing CERN technology into a school, we dreamt big. With the support of STFC, we were able to lay the foundations for a programme which, even now, continues to expand and grow.

Becky Parker, Institute for Research in Schools

discovery. Every year this work is celebrated at the CERN@school symposium, where 200 students and teachers come together to present their work and share their understanding of CERN@school science with their peers and the wider scientific community.

The programme has allowed students to take measurements from satellites in space, monitor radiation levels on the international space station, and hunt for new exotic particles in the data from the Large Hadron Collider. They have worked alongside companies like Rolls-Royce and Surrey Satellite Technology Ltd., and organisations like NASA.

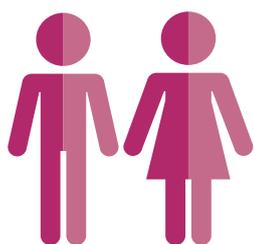
The success of CERN@school has also led to the formation of the Institute for Research in Schools – a charitable trust whose aim it is to develop a range of research fields within which school students and their teachers can take part in authentic research. The project is a great example of how cutting edge science and technology can be used to inspire the next generation of scientists and help build a society that values and participates in scientific endeavour: you are never too young to be a research scientist!

KEY LEARNING POINTS

- Provide support and guidance for teachers: an online symposium and CPD session that was available for teachers to refer to when setting up CERN@school via the IRIS YouTube Channel worked very well for us.
- Link the project to the curriculum: this enabled CERN@school to be established in school and used widely. The research aspect can then develop according to the specific interests of the teachers and students, and they have the opportunity to shape the work they do.
- Provide opportunities for collaboration: the CERN@school symposium allows students to present their work, share their ideas as in scientific conferences and feel part of their scientific research community. Presenting at CERN conferences has been life changing for some students too.

Most of these students are now expressing an interest in studying physics at A-level, something they hadn't considered previously. They have developed research skills they wouldn't otherwise have had, and enjoy the fact that they have become experts in the use of specialist equipment that uses CERN technology. It really has brought the science alive for them.

Jess Hamer, Ruislip High School



15,000
students involved in
CERN@school project
since 2010