



SPARQ-ed 2021

Excursion bookings now open

SPARQ-ed is a unique educational facility established as a collaboration between the Department of Education and The University of Queensland. SPARQ-ed aims to promote excellence and innovation in biological and biomedical education by delivering world class specialist programs to Queensland school students and their teachers.

The SPARQ-ed (pronounced 'spark ed') facility is located in the Translational Research Institute (TRI) in Woolloongabba, Brisbane. It features a biomedical PC2 teaching laboratory and learning centre on the ground floor of the TRI building where participants can work alongside scientists from TRI's partner institutes.

School groups can participate in a full day excursion experience. Experiences have been designed to complement the implementation of ACARA Science and QCAA Biology and Chemistry subjects.

Students will receive a safety induction and training in using specialist equipment prior to completing the chosen experiment.

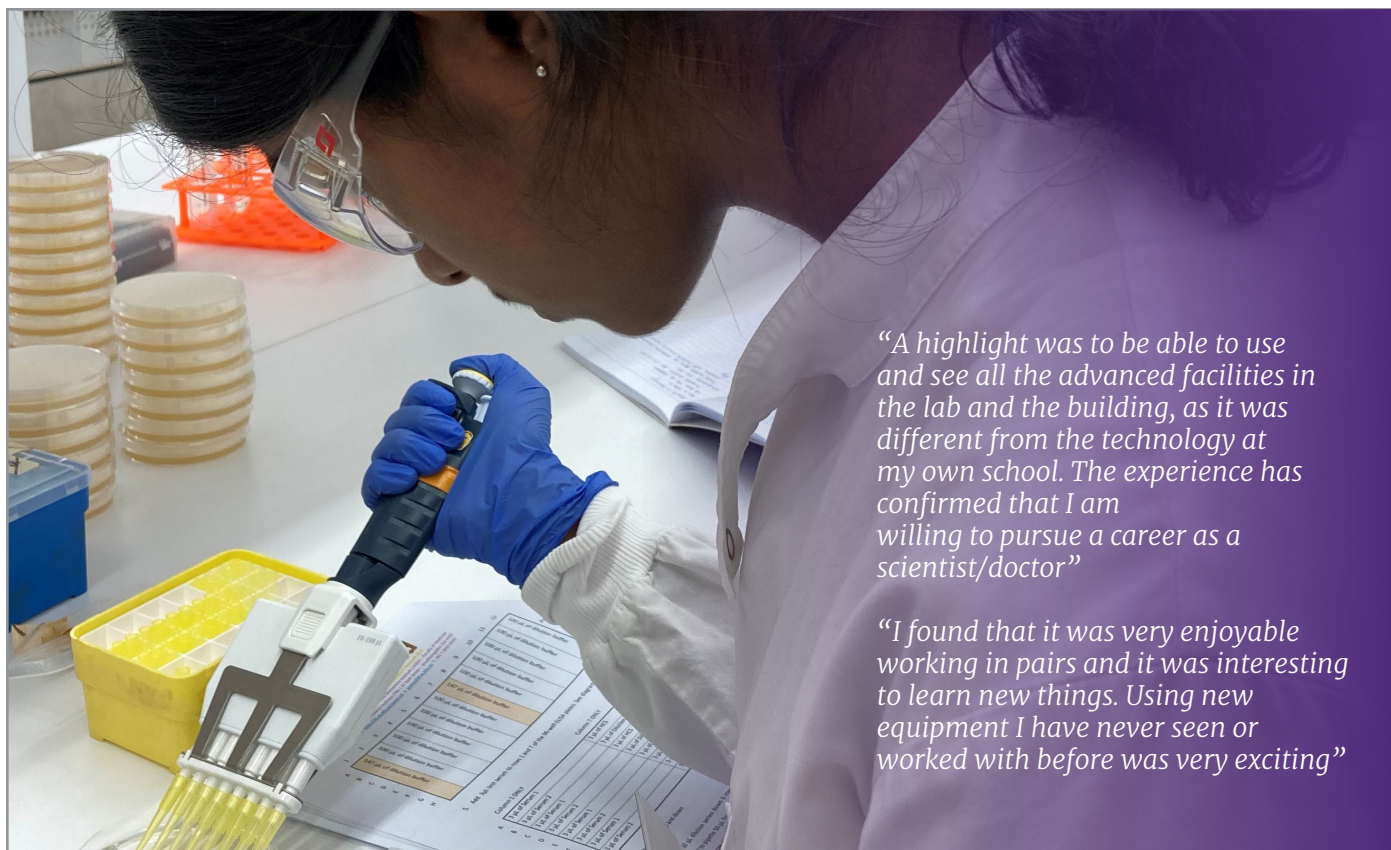
All bookings are supported with a resource pack including:

- Excursion preparation resources. Designed by our teaching staff, you will receive a PowerPoint presentation and accompanying worksheets to assist in making the most of your excursion.
- Curriculum Activity Risk Assessment documents, COVID safe plan and Excursion Permission Letter template.



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“A highlight was to be able to use and see all the advanced facilities in the lab and the building, as it was different from the technology at my own school. The experience has confirmed that I am willing to pursue a career as a scientist/doctor”

“I found that it was very enjoyable working in pairs and it was interesting to learn new things. Using new equipment I have never seen or worked with before was very exciting”

Full day Workshop experiences (see our website for costs and booking information):

Workshop	Description	Curriculum links	VET UoC
Working with DNA	Participants will extract recombinant plasmid DNA from transformed bacterial cells. They will then do a restriction enzyme digest before separating the DNA fragments using gel electrophoresis.	10 Science Biology: Unit 1 & 4	MSL973016 MSL974021
Enzyme Inhibitors	β -galactosidase catalyses several reactions, including lactose digestion in humans. Participants will explore how its action can be inhibited competitively or noncompetitively. There is scope in this workshop to develop and complete student-led modifications as part of a student experiment assessment task	9, 10 Science Biology: Unit 1 Chemistry: Units 2 & 4	MSL973014 MSL974019
Cell Biology	Participants will expose HeLa cells to varying concentrations of salt. Using light and fluorescence microscopes, they will draw conclusions about osmolarity of solutions. In the second part, they will explore the cell cycle.	7, 8, 9 & 10 Science Biology: Units 1 & 2	MSL974025 MSL973019
Customised excursion	Contact SPARQ-ed staff to design a bespoke experience for your students.		

Alternatively, schools can book a 2-hour mini workshop where our expert teachers will bring SPARQ-ed to you.

Topics include: Bacteria Transformation, Separating Proteins, Analysing Proteins, Working with Enzymes and Introduction to Microbiology

For further details, please contact:

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