

# STEM Enrichment events for Year 9 girls and schoolteachers

presented by Flinders University  
STEM Enrichment Academy





# Professional development program for teachers

Throughout 2024 we are running free teacher professional development (PD) programs on STEM topics. These programs will assist the teaching of STEM topics using hands-on learning resources. Resources will be made available for the teachers (online and print) to use in their classrooms. Our PD workshops are designed to integrate with the SA curriculum so that teachers can implement the hands-on activities in their classrooms. Please see the table in the workshop description section to check the curriculum links for student enrichment workshops as an example.

Event	Date	Time
Teachers Professional Development Workshop	February	TBA
Teachers Professional Development Workshop	April	TBA
Teachers Professional Development Workshop	July	TBA
Teachers Professional Development Workshop	Nov	TBA

**We can cater our workshops to times that suit you, please scan the QR code to a short survey to indicate your preferred times of day for the teacher professional development workshops.**



Please note: This booklet is subject to change.





# About STEM Day Enrichment program for Year 9 girls

## We engage Year 9 girls to explore STEM through monthly STEM enrichment Days and Conference

Through:

- range of hands-on STEM activities.
- mentorship by STEM role models.
- experiencing state-of-art-facilities.

Our day enrichments allow students to perform hands-on experiments in science, computing, mathematics, chemistry, and engineering topics at Flinders University facilities.

Our 3-day conference allows students to perform a series of hands-on STEM workshops, mentorship by scientists, role model talks, and industry immersion tours.

In 2024, we are introducing STEM Day incursions, with hands-on workshops for rural and regional schools. Please reach out to our email [stemenrich@flinders.edu.au](mailto:stemenrich@flinders.edu.au) and we will share more information on our rural and regional school visits.





Here's a sneak peek of some of the workshops that we deliver in our enrichment events:

Title	Description	Curriculum link
Light and lasers	Using laser beams and spectroscopic techniques to explore the total internal reflection of light and interference phenomena. Learn how these techniques are used in everyday technologies such as laser printers, internet fibre optics cables etc.	Stage 1 & 2 Physics*
Green Chemistry	Learn how chemistry can be used to perform sustainable development. Perform chemical experiments to make sustainable bottles using seaweeds and sustainable soap solutions.	Stage 1 & 2 Chemistry, Earth and Environmental Science*
Electrochemistry	Developed to help achieve, cement and extend knowledge of some of the electrochemical techniques explored in the SACE Stage 2 curriculum. Study oxidation and reduction reaction at a polarised electrode surface. Make your own jewellery using redox reaction.	Stage 1 & 2 Chemistry*
Matter, Space and Photons	Explore the quantum theory of light and relativity through hands-on learning resources. Learn how these concepts are important for the understanding of our universe as well as for their immense applications in modern technology such as GPS and space science.	Stage 1 & 2 Physics*
Energy and Forces	Explain how scientific understanding of energy conservation, transfers and transformations is applied in physical systems. Use hands-on learning resources to explore these concepts.	Year 9 Science
Cybersecurity	Delve into the world of ethical hacking, encryption basics, and real-world cyber threats. Participants will be involved in activities for understanding online safety and essential digital safety skills.	Year 9 – 12 Computer Science & Technology
Maths & Geometry	Students engage in interactive activities that bring abstract concepts to life. From geometric puzzles to real-world problem-solving, participants will discover the fun side of mathematics through hands-on learning resources.	Year 9 – 12 Maths

**More topics to be added...**

**\*Content is precursor to these subjects**

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Student feedback

**“I developed an interest in STEM because I was able to see numerous different career pathways and developing my interest in STEM.”**

Teacher feedback

**“Practical activities were engaging, and speakers were helpful in discussing different career options.”**

Sometimes we can repeat our most popular workshops. If you are interested in bringing the same cohort of students to multiple enrichment days, get in touch so we can tailor your experience and offer other STEM topics. The availability of all workshops is subject to time and resources.

Event	Date	Time
<b>TERM 1</b>		
STEM Enrichment Day # 1	Thursday 15 February	9 am to 2 pm
STEM Enrichment Day # 2	Tuesday 19 March	9 am to 2 pm
STEM Enrichment Day # 3	Thursday 11 April	9 am to 2 pm
<b>TERM 2</b>		
STEM Enrichment Day # 4	Tuesday 14 May	9 am to 2 pm
STEM Enrichment Conference	18 – 20 June	3 days
<b>TERM 3</b>		
STEM Enrichment Day # 5	Thursday 4 July	9 am to 2 pm
STEM Enrichment Day # 6	Friday 23 August	9 am to 2 pm
STEM Enrichment Day #7	Thursday 26 September	9 am to 2 pm
<b>TERM 4</b>		
STEM Enrichment Day # 8	Friday 25 October	9 am to 2 pm
STEM Enrichment Day #9	Thursday 7 November	9 am to 2 pm



# Exciting opportunity for teachers

We are launching a STEM Enhancement Certificate course for teachers starting July 2024. The course is designed for teachers to teach science with a focus on physics and maths concepts using simple hands-on activities. Anyone with or without undergraduate science degree can undertake this course. This course can also be undertaken as Micro-credentials. This is an excellent opportunity for anyone who wishes to hone their skills in using hands-on resources for teaching science in middle and high schools. Please get in touch with us to know more on this or to register your interest.

Student feedback

**“Now I know better about what I want to do and that uni will always be an option.”**

**“My favourite part was doing physics practical workshop.”**

Teacher feedback

**“I enjoyed and learned a lot from, your presentation last Thursday at the Teacher PD session. Many ideas to suggest to/set up for the Teachers here.”**

## Scholarships

We can also offer scholarships for rural schools to support their students with travel and accommodation costs to attend our STEM Enrichment events. Interested schools will need to apply for these scholarships. Please contact us for more information.



Email [stemenrich@flinders.edu.au](mailto:stemenrich@flinders.edu.au) with your contact details (including details of your school and teaching area) to book a spot and we will keep you up to date on activities and events.

[flinders.edu.au/stemenrich](https://flinders.edu.au/stemenrich)

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