FERNY GROVE STATE HIGH SCHOOL

An Independent Public School



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APPLICATION FORM Year 9, 2025 STEM× Signature program

Application deadline: Term 3, Week 7 Friday, August 23, 2024

Please email completed applications to <u>jlay27@eq.edu.au</u>

Student Name:	
Form class:	

Application Requirements:

Students, with parental support, may apply to the **STEM*** program. Consideration for entrance into the **STEM*** program is earned through a staged application process with the first phase requiring students to submit this written application.

Student Applications will be assessed against the following criteria:

- Student responses within this form will be assessed via a marking matrix
- Results in Technology subjects in 2023/2024
- Semester 1 Results in Math & Science in 2024
- Effort and Behaviour grades on report cards
- Prepared to commit to the program for 2 years and know that the STEM^x class replaces one of their Technology Electives

Selection Process:

<u>Phase 1:</u> Completion of this form (a questionnaire that is evaluated by a marking matrix and short listed.

<u>Phase 2:</u> Short listed students will be given an engineering build challenge to complete at school during selected sessions at school.

<u>Phase 3:</u> If required, short-listed students will be interviewed by a selection committee of STEMx teachers.

Please NOTE: Only one class of 28 maximum students, that meet the criteria, will be created for the 2025 year. Students who were short listed, but did not make the 28 will be kept on a waiting list for when vacancies arise



Our Vision Our Purpose

Our Motto

Our Values

Our Explicit Improvement Agenda

Our motto in STEMx is "STEMx to make the world a better place". We base this around the United Nations Sustainable Development Goals (SDG's) https://sdgs.un.org/goals#goals

Question 1:

Identify an SDG that you personally relate to and explain how you could make the world a better place.

Note: In your response, explain your understanding of STEM and how you can play a part in having a beneficial impact on the world.









































SUSTAINABLE DEVELOPMENT GOALS



In the STEMx program, we use a Learning Pit model, where your teachers are more like facilitators than instructors. It means we give you a problem to solve and we try to step back and allow you and your group to solve it. As teachers, we move from group to group and offer assistance and tools were needed to help you navigate the learning pit. https://mindfulbydesign.com/get-learning-pit/

Question 2:

Outline in space provided below how you would work with others in groups in this type of learning environment.

Note: Consider how you would need to collaborate and respond to challenges. Provide examples.





In the STEMx program, we sketch ideas to communicate what we are thinking. Often called "blue sky thinking". Sketching hints: https://www.youtube.com/watch?v=M5aGnsxlcm8
Question 3:
Using a blank sheet of A4 sketch a response to the following problem: On the new colony on MARS they require a mechanical device that can be built on the planet to do the
following – be stationed at point A, but lift an object at point B and move it to point C. Sketch your solution and use notes to unpack how it works and what materials are used and why.
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