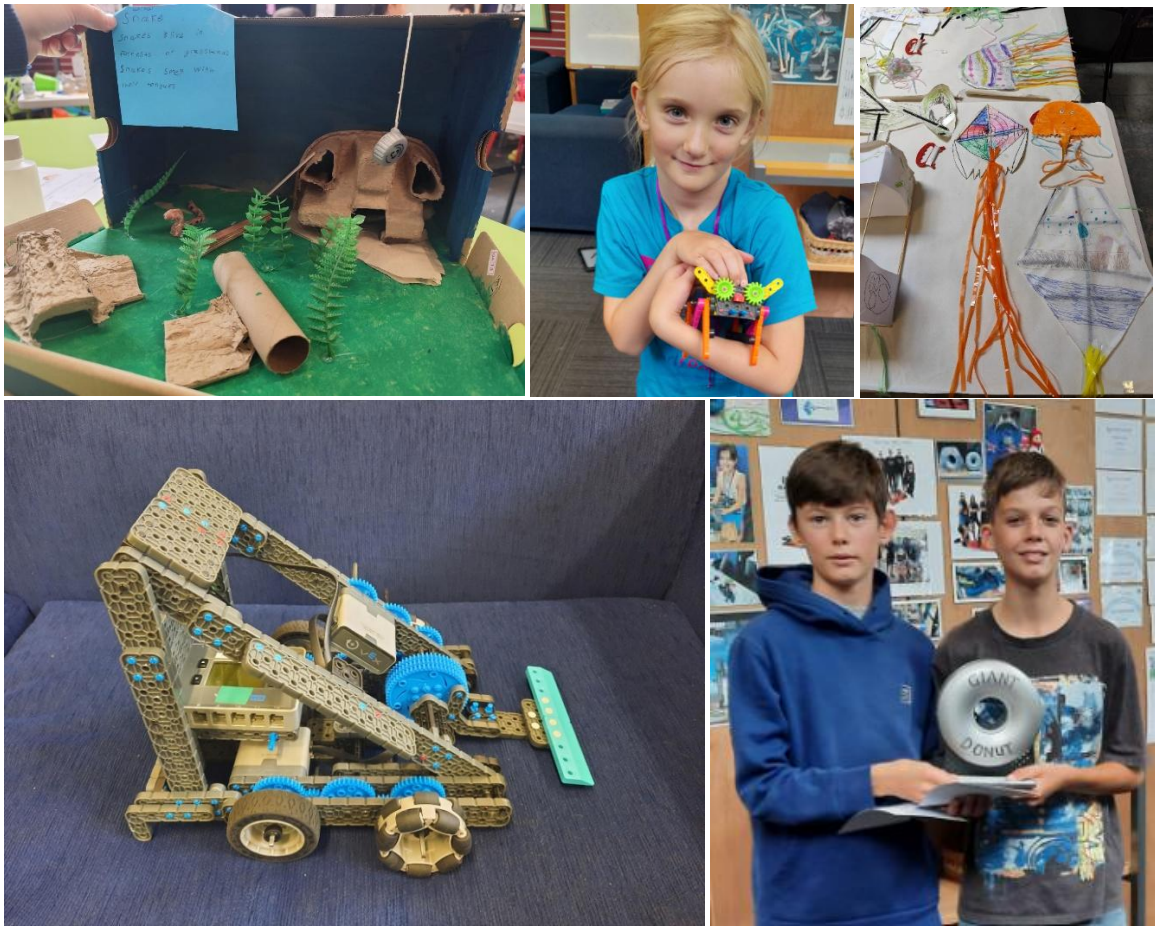
Newsletter – March 2025

What an awesome start to the year we have had at STEAM-ED, with the momentum built up in the second half of 2024 rolling on into 2025 and still building!

January Holidays

The January holiday programme was the busiest ever with us needing to increase our daily capacity to try to accommodate as many as possible on the waitlist. The kids were so enthusiastic as they became zookeepers, AI users, built theme park rides and kites, spent a full day immersed in their Minecraft worlds, and developed their engineering skills using our robots for challenges and in battle during our two days of Combat Robotics.



January Holidays – Zoo enclosure, Robot creature, Kites and Combat Robotics winners!

Term One – Afterschool and Homeschool Classes

Our Term one robotics classes have had the theme of Waste Recycling. The students have the challenge of building a robot that can pick up different coloured Jenga blocks. Once the block is on board the robot the students need to programme it to detect whether the block is red

(waste), green (recyclable) or blue (reusable) and autonomously take it to the correct zone. A huge thank you to Mitika Chaturvedi, the Sustainability Lead from Foster Construction Group for coming to talk to all three classes about the significant amount of waste created during construction projects and how they go about minimizing this. Mitika spent considerable time with our students which we really appreciate as we try to build real life links between our programmes and industry.

Our Term one STEAM programme kicked off 2025 with Gadgets, Gizmos, and Gears. This has been a highly engaging topic for students, who are exploring the 6 simple machines (inclined planes, levers, wheel and axle, pulleys, screws, and wedges) and how they change forces. We have used unnecessarily complex gadgets to deliver name badges and folders to open each class, and had physical challenges like inclined push ups or dragging heavy things and comparing that with using a lever, pulley, ramp, or wheel and axle. Students have completed simple machine builds with our VEX kits, and by making their own gadgets and gizmos they are learning about forces and how we can manipulate forces through engineering. They're also learning the highly transferrable engineering skill of designing, building, testing, failing, learning, and trying again as they make cool gadgets that, ultimately, work!

And speaking of gears, we'll be switching them in **Term 2**, when we dive into a fascinating, strongly science-focused topic: **"Fossils and Forensics".** In this term, students will explore ancient and present-day mysteries and discover how scientific methods and technologies can help us understand evidence about fossils, dinosaurs, mummies, ancient civilizations, and crimes.

April Holiday Programme out now!

Our April Holiday programme will be even more action packed than usual needing to fit all the excitement into just 7 days due to Easter and ANZAC Day. Week one is our STEAM week – On Monday Ella will help us explore the Ocean depths, Tuesday we make movies using AI for the storyboard, Wednesday we will explore simple reactions with Kitchen Chemistry, and Thursday takes us into the creative world of Minecraft Education. Week 2 will be all about robots for the 3 days – Tuesday is Robot Discovery day which is ideal for beginners and fun for the more experienced, Wednesday is Hands-on Robotics where each student gets to experiment with a robot kit by themselves, and Thursday is our 'Robo-code Adventure' which is a great opportunity for students to learn about programming a robot to perform a task.

If you would like your child to attend any of our holiday programme days then please book now to avoid disappointment. Spaces are filling fast and waitlists will apply.



NZ VEX Robotics National Championships – 14-16 February 2025

Our senior (high school students) robotics team competed in the National Championships in mid-February up at Lynfield College. We had eight students with three robots that they had designed, built, programmed and for 10months in preparation for the competition. As well as the robot, most teams also create an Engineering Notebook which documents progress and details their build over the period. Students meet with judges who are engineers or similar from a range of industries and need to be able to explain their decision making and logic behind their programming and game play. All three of our teams (two competing at this level for the first time) made it through to the top 16 in game play and two of our teams finished in the top 10 for Robot Skills which combines points from driving skills and then programming skills over a one minute test. Congratulations to these young men who represented STEAM-ED in a very respectable manner and made us proud of all the work they had out in during the 10months, meeting twice a week throughout that time, and thanks to Paul de Rijk for coaching/mentoring.

Did you know?

- We regularly cater for children from 51 different schools around the Bay, as well as a smattering of children from all over the rest of the North Island who attend our holiday programmes while visiting relatives.
- Attendance in our holiday programmes rose 35% in 2023, then a further 29% in 2024. We thought we were full in October'24 but managed to squeeze a few more in in January'25.
- Our afterschool/homeschool robotics classes grew 75% in 2023, then another 60% in 2024 after we added an additional afterschool class each week to meet demand.
- During 2024 we provided 688 students in schools in low socio-economic neighbourhoods with an 8 week/1hour per week robotics programme, absolutely free of charge to the schools.
- If you wish to make a donation to us, you are able to claim 1/3 back as a tax credit as we are a registered charitable trust.

As we spread the word about our STEAM learning to more schools and early childhood centres, we're looking forward to expanding our community and making new connections with families who don't yet know about our programmes or have the opportunity to attend on site. This is all part of our mission to make quality STEAM education accessible and affordable, and it feels great to see it developing!

Thank you to our latest Funders and Sponsors!

Lion Foundation – Six months Rent and Rates

Zespri – General Sponsorship of our Robotics programmes

BECA - Sponsorship of VEX Robotics 2025-26 Competition Game elements

Tauranga City Council Creative Communities Fund – Funding for Term 3 programme resources.

STOP PRESS!

We were very proud winners of the 'Diversity and Inclusion Award' at the Western Bay Community Awards on Thursday evening!

We strive to give equal opportunity to all children whether they be neuro-diverse, have anxiety issues, be gifted, from a poorer family or just your regular average child. This award is recognition of all the hard work put in by our small team (5 part timers & 3 casuals) of Educators and Teaching Assistants every day of every week!

Congratulations to all the not-for-profits and volunteers doing such a wide range of wonderful work in the community. It was truly inspirational hearing about just some of the great work at the Awards evening tonight. And thank you to TECT, Bay Trust, Acorn Foundation, Western Bay Council and Tauranga City Council for bringing everyone together for this celebration

STEAM-ED Senior staff: Toni de Rijk, Jason Edgecombe, Barbara Cook, Ella Dunlop

Thank you for your ongoing support! We hope to see you soon.