

NEWSLETTER

February 2024



STEAM-ED



'Growing curious, innovative minds.'

At STEAM-ED, our vision is to ignite critical thinking and passion for STEAM based principles.

Our mission is to equip students with the skills and mindset needed to thrive in tomorrow's rapidly evolving world, through the delivery of high-quality STEAM programmes.

STEAM-ED works hand in hand with the community to deliver education services to all walks of life to allow a STEAM focused future for everyone.

Our Programmes:

1. Homeschool Classes
2. Afterschool Classes
3. In-school Classes
4. Holiday Programmes
5. Competitive Robotics Club



Our January Holiday Programme

What a way to start 2024! Our team come up with some great activities each holidays, and one of the highlights in January was a two-day 'Build a very Tiny House' challenge. Each house incorporated a plumbing system and an electrical circuit to run LED lights. Children needed to think about how to secure/hide water tubing and wires on the inside walls, and what type of electrical circuit they needed to switch on individual lights rather than all the bulbs coming on at once.

On another day we were excited to be joined by University of Waikato Marine Studies student, Claire Shellem, down at Memorial Park, where the children explored the estuary mudflats uncovering many crabs, shellfish and other treasures. Thanks Claire, for volunteering your time to educate and share your enthusiasm with our attendees!

Every second holiday programme we have two days of 'Combat Robotics' in which the children pair up to build a robot to compete in our very own version of 'Battlebots'.

These holidays we were happy to see that one third of the participants were girls, with these two pictured doing a



great job of meeting the brief of developing a team theme for their bot. Each robot has to have an active weapon and the robot brain needs to be adequately 'armoured' to prevent damage to the brain. Each time we do this the designs become more elaborate and effective which shows lots of critical thinking, planning and communication between the participants. All crucial skills for the future!



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Another Flies From Our Nest...

In 2019, young Sam Orsler joined our robotics club and in his very first year won the prestigious Excellence Award at VEX Nationals! This is the highest overall award given, and Sam would be part of our team that would go on to win it for the next 4 years! He took on the role of ensuring his team mates regularly contributed to their Engineering Design notebook, as well as becoming the primary robot builder for the team. Team mentor, Paul de Rijk, recognised early that Sam had great problem-solving skills & effective ideas which he quickly learned to apply to their robots. The team were extremely successful at Nationals, repeatedly winning the Robot Skills (driving & programming) as well as Excellence, qualifying the team for VEX World Championships in which they represented NZ for four years. Sam was also always happy to volunteer time to assist in our holiday programmes, eager to pass on knowledge to the next group of children coming through. When we needed a new robotics teaching assistant, it was a 'no-brainer' to employ Sam who was by then in Year 12. Over the past 18 months he has been a valued member of our team, but now we have no choice but to replace him as he heads off to the University of Canterbury, to begin an engineering degree.



We wish you all the best for your studies Sam, and hope you will find time to come and visit us during your holidays.

For STEAM-ED it is a very proud time when we see youngsters 'age out' equipped with the skills to thrive in a rapidly evolving world!

Our new website is live!

We love the look and functionality of our recently launched website! Check it out at <https://steamed.nz/>



STEAM Workshops in Schools

During 2024 we are hoping to extend our offerings to schools. Our awesome new Electricity and Magnets sets are an example of what our educators can take into a school to work with a class group. It is difficult for schools to provide these sorts of resources and teachers are already busy teaching the basics.

Unfortunately, as we are unable to access Ministry of Education funding, we are reliant on schools being able to find funding to pay for our services, or perhaps a friendly school sponsor will extend their generosity to this.

In-School Robotics 2024

Late in 2023, we were thrilled to have our funding approved to continue our 8-week in-school robotics programme, after successfully reaching approximately 450 children in low socio-economic communities last year. This term we are going out to five schools (one school twice a week) which are low on the equity index. The schools this term are: Arataki School, Welcome Bay School, TKKM o Te Kura Kokiri, Gate Pa School and Greerton Village School. Gate Pa and Greerton were very eager to have us back again to work with a different group of students after we commenced lessons with them in Term 4 last year.

In term two we are planning to expand to six schools, with Te Kura Kaupapa Maori O Otepuou already grabbing a time slot.

It is such a rewarding programme for our educators as well as the students, as we teach them skills we hope they will continue to utilise as they progress through their schooling.

Thank you for your support as we ignite critical thinking and passion for STEAM based principles!



Thank you Datacom!

When we are out in schools, we identify a number of students who show huge enthusiasm and potential, which we would love to cultivate further in our on-site programmes. Unfortunately, often the parents just cannot afford the fees to enable them to attend, so we have set up an 'Equity Fund' which supporters can donate funds to and we can use to substantially reduce the fees for these children's parents.

Datacom became the first major supporter of this fund with a lovely donation just prior to Christmas.

Thank you Datacom for helping us meet one of our values - Inclusion.



Please contact us if your company would also like to contribute to this fund.

VEX Robotics Nationals - Highschool

A couple of weeks ago we had two teams compete at Nationals. They came away with two awards, the 'Think Award' for high quality, consistent programming, and the 'Amaze Award' for original design solutions. Both teams made it through to elimination rounds with the B team just missing out on World Championships qualification when they were narrowly beaten in the semi-final. We are excited to have 6 of our junior team move up to the senior ranks this year, so will have at least 3 robots at the 2025 Nationals.



New Team Member

We have recently welcomed Josephine Glover to our team. Josephine is a qualified teacher who has worked with Zero Waste Education as well as various relief teaching roles. She is currently assisting Barbara Cook with our Homeschool and Afterschool STEAM classes.

Term Two Topic - Forests and Fungi

We have found that a large number of our students have a fascination for mushrooms, so by popular demand we have incorporated this into our Term two topic. Hopefully the weather and parents will be kind enough to allow us to do at least one field trip into a bush area to hunt for fungi.

April Holiday Programme

Planning is already underway for the April school break. We are excited about including a two-day "Town Planning" activity where students will be each given a household budget, which they need to control to pay expenses for their house & section as well as contributing both financially and with ideas to develop their neighbourhood. We will look at roading, providing a park, school, supermarket and hospital.

It should be fun to see what they create!

Other activities will include robotics, a reverse engineering day, and a Forest & Bushcraft day as an intro to our Term 2 topic.

What's next for 2024?

- STEAM-ED is collaborating with Tauranga City Library to provide fun, educational workshops at the library during the school holidays. This is in addition to our programme at our own venue so we will be very busy!
- Work continues on developing our own unique curriculum which we hope to have completed by the start of Term 2.
- An activity on 21st May for Tech Week where parents can work with their child on a robot. We see parents come in and collect their children and we just know they would love a try themselves. This is their chance!



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