

QUEENSLAND

Wednesday, 25 June 2025
Mini-Spark Conference

It Takes a Spark! STEM Conference

Dream, Discover, Do!

The theme for Queensland's **Mini-Spark** conference highlights how STEAM is dynamic and fun, and empowers and develops people to dream and shape the future.

The It Takes a Spark! STEM Conference inspires and engages forward thinking Year 4 to 10 students, teachers and leaders in STEAM.

The **Mini-Spark** is a shorter version of the full-day event. Beginning at 10.25am this vibrant day of learning, connection, excitement, and imagination includes one keynote speaker, STEM Expo hands-on activities, lunch, Problem Solver design challenge workshops for students and teachers, plus teacher professional learning stream. The day ends at 2.00pm

Teacher Professional Development from leading STEM experts on topics as diverse as...

- Sustainability Innovation Challenge
- Creating Impactful STEM Programs with a Digital Technologies Approach
- Sustainability - Entrepreneurship and innovation for sustainability
- Integrating Enterprise Skills in the Classroom

Hands-on STEM Expo activities area for students and teachers, examples...

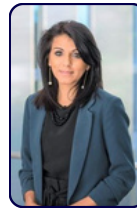
- Batteryless Wearable Health and Fitness Monitoring
- Explore Electronics!
- Mars AI Rover and AI SMART Home Demonstrations
- Unleash Your Sustainability Superpowers!
- Insect Pest Management for Australian Cotton
- Highly autonomous robots assisting humans
- Artist Challenge
- Paper Plane Launcher
- Cyber Guardians: Crack the Code to Online Safety!
- Epic Garden
- Spot the Robot Dog!

Problem Solver sessions: design challenges taking students and teachers through the design process including...

- Scribbly Gum STEAM
- Moving and Grooving with Granny: Creating digital solutions to help our elderly exercise
- Digital Frontier: Design Thinking for Innovative Solutions
- Autonomous Vehicles Challenge
- Bridging the Gap
- Creating a healthy food future
- Being Real World Problem Solvers with Citizen Science
- Sustainable Sparks: Dream, design, do for global goals impact
- Emergency Water Filtration Challenge
- Code Red: Design a Flood-Rescue Drone Prototype
- Becoming a Game Designer and Entrepreneur

...continue to see the full programme

Outstanding Keynote Speaker



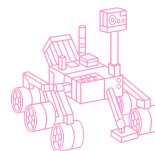
ASSOCIATE PROFESSOR ANITA PARBHAKAR-FOX

Mine Waste Geoscientist & Superstar of STEM, University of Queensland

Waste from mining isn't just the mining sector's problem. It is our problem too. We need a new generation of sustainability experts, geoscientists and engineers to combat Australia's mining waste.

Associate Professor Anita Parbhakar-Fox has an Environmental Geosciences PhD and has spent several years at the Centre for Ore Deposit and Exploration Studies (CODES) at the University of Tasmania. Working with industry she has examined how tools used to find new ore deposits could be used to characterise mining waste. This helps with site rehabilitation after mining and the use of greener technologies when mining.

Anita leads the Mine Waste Transformation through Characterisation (MIWATCH) Group at the University of Queensland. Working with many industry and government partners they have already identified rare and critical minerals. We need to find these if we want to make the technologies needed to sustain humankind. Leading the MIWATCH team has enabled Anita to mentor and train a new generation of environmentally-focused geoscientists and STEM researchers.



Contact

Rachel Manneke-Jones

Registration, Booking, Questions

P: 0411 270 277

E: rachel@spark-educonferences.com.au

W: spark-educonferences.com.au

Host School



GRACE
LUTHERAN
COLLEGE
EST.1978

Senior Campus
Mewes Rd & Anzac Ave,
Rothwell QLD 4022

Conference Coordinator



Dr Adrian Bertolini

E adrian@spark-educonferences.com.au



Register: spark-educonferences.com.au/queensland-mini-spark-2025/

Sustainability Innovation Challenge



STEM Punks

Using the UN Sustainable Development Goals as a frame for problem solving, this session explores the use of SMART Sensor Boards and micro:bits as a prototyping tool. Teachers will learn coding techniques and how to collect real-time environmental data with sensors and explore the use of actuators in a SMART Reef model.

This is a great session that showcases how teachers can integrate sustainability, data analysis and visualisation, mathematical modelling, coding, and design thinking in one project.

Suitable for Primary & Secondary Teachers

Integrating Enterprise Skills in the Classroom



Academy for Enterprising Girls

Entrepreneurial education is about developing our students' ability to create social, cultural, or economic value while developing critical and creative thinking, undertaking complex problem solving, negotiating, communicating and leading.

This interactive workshop equips you with the tools and resources to foster entrepreneurial education in students using the FREE Academy for Enterprising Girls' Online Classroom. You will explore practical strategies for integrating enterprise skills—such as problem-solving, creativity, and financial literacy—into the curriculum. Teachers will leave with ready-to-use lesson plans, developed by STEM and enterprise educators, and strategies to inspire the next generation of female leaders and entrepreneurs.

Suitable for Primary and Secondary Teachers ^recommended to BYO laptop

Sustainopreneurship - Entrepreneurship and innovation for sustainability



Young Change Agents

This concept has emerged from the earlier concepts of social entrepreneurship and ecopreneurship and means to use creative business organising to solve problems related to social and environmental sustainability as a strategic objective and purpose. In other words, it is a "business with a cause" – where the world problems are turned into business opportunities by deployment of sustainability innovations.

Learn WHAT, WHY & HOW to embed entrepreneurial design thinking in STEM to design real-world solutions (invention, innovation or campaign) for the Sustainable Global Goals.

Suitable for Primary and Secondary Teachers

Creating Impactful STEM Programs with a Digital Technologies Approach



Australian Computer Society

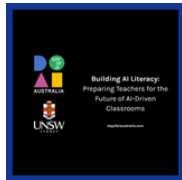
This hands-on workshop is designed to help primary school educators plan exciting lessons and units that integrate the Digital Technologies Curriculum in meaningful ways into everyday learning.

Discover practical strategies to design technology-rich activities that spark curiosity, creativity, and problem-solving in young learners. You'll leave with easy-to-implement ideas and a clear approach to connecting classroom learning to real-world applications.

Whether you are introducing coding, robotics, or digital tools for the first time, this workshop provides the support and inspiration to engage your students in innovative and fun learning experiences.

Suitable for Primary Teachers

Building Global AI Literacy: Preparing Teachers for the Future of AI-Driven Classrooms



Day of AI Australia

As AI continues to reshape society, equipping K–12 educators with the knowledge and confidence to teach AI literacy to students is essential. This interactive workshop draws on the Day of AI Australia program to provide basic AI literacy for teachers, explore tools to support teachers' everyday work and how to guide students to be responsible users of the technology.

Participants will engage in collaborative discussions around overcoming barriers such as limited technical background or time constraints. The session will address misconceptions, share adaptable resources, and highlight successful models of professional learning. Attendees will leave with practical ideas and a stronger network to support AI literacy across diverse educational contexts.

Suitable for Primary and Secondary Teachers

Teacher Networking and STEM Pathways session



Dr Adrian Bertolini, Intuyu Consulting + It Takes a Spark STEM Conference

This session will be an opportunity to connect and network with representatives from other schools, universities, industry, and STEM organisations. The intention is to explore and discuss the latest STEM programs and pathway possibilities that schools can connect to. This session runs parallel to the Problem Solvers Design Challenges.

Suitable for Primary and Secondary Teachers

STEM Expo: hands-on activities - Teacher and/or Student

Batteryless Wearable Health and Fitness Monitoring



CSIRO

In the movie The Matrix, the main character discovers that the intelligent machines use humanity as an energy source to power their machine society and a simulated reality to control the humans. Generating energy from humanity doesn't have to be like this dystopian future but can have huge benefits to our health and well-being! In this hands-on expo activity, you will try out the latest in batteryless wearable technology and learn how you harvest the kinetic energy from movement to monitor and improve your health and well-being. This is a great activity to discover how physics, technology, using data, and exercise can improve our health in an innovative way

Suitable for Year 7 to 10 students and/or teacher

Unleash Your Sustainability Superpowers



Academy for Enterprising Girls

The Academy for Enterprising Girls is a fun and exciting entrepreneurship program, available FREE to all young women in Australia aged 10 – 18, funded under the Australian Government's Women's Leadership and Development Program. The Academy is designed to cultivate young women's skills in design thinking, entrepreneurial and business skills. In this Expo you will explore and discover the 17 United Nations Sustainable Development Goals. You will have an opportunity to create a list of things you care about under the umbrella of your chosen SDG goal and then using rapid ideation, list 5 innovative/enterprising solutions to help reach the goal.

Suitable for Year 4 to 10 students and teachers

Golden Ratio in Nature



Grace Lutheran College

The Fibonacci sequence or the "Golden Ratio" is one of the most famous formulas in mathematics. Each number in the sequence is the sum of the two numbers that precede it. So, the sequence goes: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, and so on. It's been called "nature's secret code," and "nature's universal rule." This famous pattern shows up everywhere in nature including flowers, pinecones, hurricanes, huge spiral galaxies in space, and even the human body!

In this expo activity you will have the opportunity to explore the Golden Ratio as seen in nature and in our bodies. Learn the beauty of mathematics and how it is all around us in the world!

Suitable for Year 4 to 10 students and teachers

Cyber Guardians: Crack the Code to Online Safety!



EdTech Group

Explore the world of digital privacy and security through fun, hands-on challenges! From cracking secret codes to spotting phishing scams, from spotting deepfakes to identifying malware, you will have the opportunity to test your cybersecurity skills through interactive mini-games.

Can you outsmart the hackers and become a Cyber Guardian?

Suitable for Year 4 to 10 students and teachers

Explore Electronics!



Integrated STEM

Get a glimpse of the world of electronics engineering. In this Expo activity you will explore various types of electronic components and build your own simple circuits using a breadboard, with the assistance of experienced facilitators and circuit-building aides. You will learn about the principles of circuit design, including resistance, voltage, and current, and how these components can be combined to create a functioning circuit. This activity will challenge you to think on your feet, work quickly and collaboratively in small teams, and develop your problem-solving skills.

Suitable for Year 4 to 10 students and teachers

Mars AI Rover and AI SMART Home Demonstrations



STEM Punks

At the STEM Punks Expo stand, you'll discover how micro:bit-based Mars Rovers and SMART Homes can be integrated with AI to perform real-world tasks. Students and teachers are invited to get hands-on with interactive kits and tackle challenge-based activities using our AI Machine Learning Tool and IoT Dashboard. Come explore the exciting possibilities of coding, robotics, and AI—all in one fun, educational experience!

Suitable for Year 5 to 9 students and teachers

Highly autonomous robots assisting humans



CSIRO Data 61

CSIRO's Data61 is one of the leading robotics and autonomous systems research labs in the world, based in Brisbane. We comprise of two research groups, Robotic Perception and Autonomy and Robotic Design and Interaction, part of the Cyber-Physical Systems Research Program. In this Expo activity we will demonstrate the action and mechanics behind a robot we built. This will showcase the potential of how robots can be used to support humanitarian missions.

Suitable for Year 7 to 10 students and teachers

Insect Pest Management for Australian Cotton



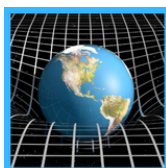
Bayer Crop Science

Australian cotton is in high demand around the world because of its high-quality, sustainability, and traceability. To achieve this, cotton crops need to be protected from pest moths which can cause extensive damage. Bayer Crop Science breed, raise and monitor the different life stages of colonies of *Heliothis* moths to learn best how to protect crops like cotton.

In this expo activity you will have a hands-on opportunity to touch and play with cotton, moth pupae and larvae, as well as determine the sex of the pupae using a scientific microscope. You can also race against each other with scientific pipettes to see who can dispense all of a solution the quickest!

Suitable for Year 4 to 10 students and teachers

Can we actually defy Gravity?



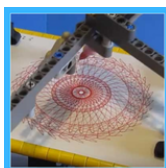
Students from Islamic College of Brisbane

Everyone has heard of the concept of gravity. Many might be aware that it is an acceleration towards the centre of the earth. But how did we get to 9.81ms^{-2} as a value without the precision tools that we have today?

In this hands-on expo activity you will make use of low-tech tools and data to obtain the value of g , and demonstrate that our ancestors were able to innovate and discover laws not because of their tools, but because they were able to work with what they had.

Suitable for Year 7 to 10 students and teachers

Artist Challenge



BotBuilders

A Spirograph is a geometric drawing tool that uses rotating gears and shapes to create intricate, mathematically-derived patterns known as hypotrochoids (when the pen rotates inside the larger shape) and epitrochoids (when the pen rotates outside the larger shape).

In this fun Expo activity learn how Art and Maths combine by creating your own piece of art using LEGO built spirographs! Choose your colours and design away. You can choose to keep your artwork or add it to the art wall.

Suitable for Year 4 to 10 students and teachers

Future You – Where is the STEM in that?



Future You Australia

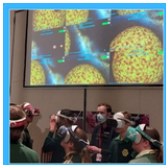
In this hands-on activity, you will explore detailed scenes from everyday places—like a bustling zoo or a high-stakes footy game. Your mission? Find the hidden STEM. From ticket scanners to food courts, exhibits to engineering—you will use sticky notes and Sharpies to mark where you see Science, Technology, Engineering and Maths at work. The more you look, the more you will find.

This activity helps you realise one thing: STEM isn't just in labs. It's in life. Come see how a sticky note can lead to a STEM career.

Teachers can access to free resources from Future You that make these links stick—and spark conversations that break stereotypes and open minds.

Suitable for Year 4 to 7 students and teachers

Blast Off to the Virtual Universe!



OzGrav (ARC Centre of Excellence for Gravitational Wave Discovery)

In the Universe, massive objects warp the fabric of space-time and colliding black holes create waves that spread out over millions of light years in space! In this expo, you will explore the planets of our solar system, the varieties of stars in our universe, and beyond to exotic objects such as black holes! Using virtual reality exploration, you will observe and learn about: differences and similarities among planets, why stars have different sizes and colours, how stars change over time, how stars affect the motion of objects in space, and how scientists observe dark objects like black holes.

Suitable for Year 4 to 10 students and teachers

SPOT the Robot Dog!



University of Southern Queensland

Robots are becoming a more integral part of the fabric of society. In the industrial world, SPOT can perform inspections at construction and manufacturing sites as well as facilities such as oil rigs and nuclear plants, all potentially dangerous operations for humans. QLD universities are exploring other uses such as modifying SPOT to act as a guide dog to improve choice and accessibility for people with impaired vision. Come along to the Expo and meet SPOT with Dr Derek Long from the University of Southern QLD and find out about advances in robotics and how they are applied in QLD.

Suitable for Year 4 to 10 students and teachers

Design + Build a Wooden Pull-String Spinner



Make+Meld

Make+Meld's school incursions provide young people with opportunities for hands-on learning across disciplines – melding design thinking + woodwork with science, maths, engineering and more!

In this exciting expo activity, you will have the opportunity to get hands-on using real woodworking tools to build your own wooden pull-string spinner and battle it out in the Make+Meld arena. Can you design a spinner that wins the most battles?

Suitable for Year 4 to 7 students and teachers

Build your own habitat with Augmented Reality



Islamic College of Brisbane

Augmented reality (AR) integrates virtual content with the real world, which enhances the user's perception of reality in the physical world. It offers various applications in gaming, marketing, education, and training.

Join us in this journey where you can participate in part of one activity that the Islamic College of Brisbane runs with its students. Build your own habitat and see it come to life in front of you.

Suitable for Year 4 to 10 students and teachers

Epic Garden



Epic Card Games

At the age of 6, Jade embarked on a journey around Australia with her family, living in a converted school bus. During this time, they stayed with farmers on their properties and they learnt how hard it could be to grow food and harvest crops. Inspired by the resilience of farmers Jade designed 'Epic Garden', a card game aimed at educating young people about farming and gardening all while having fun playing an awesome game! Come along and meet Jade, learn about how she became a game designer, and have a go at the game. \$1 of every game sold will go towards Farm Angels – a charity that supports Aussie Farmers.

Suitable for Year 4 to 6 students and teachers

Paper Plane Launcher



BotBuilders

Paper planes are a great way to learn about Science and Engineering while having a lot of fun. To build a great plane you will need to understand concepts such as aerodynamics, centre of gravity, wing design, good construction techniques, as well as how the process of testing and refining your design. In this Expo activity you will use the handheld 3D printed launcher made for a First Tech Challenge Centre stage challenge to launch your own paper plane. Can you build an effective paper plane? You will have the opportunity to test your launch against a couple of the FTC robots as well!

Suitable for Year 4 to 10 students and teachers

The Tower Triumph Challenge

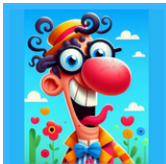


Students from Islamic College of Brisbane

Engineering is the application of science, maths, and design in the creation of real-world structures. Engineers not only have to understand the underlying theories but to collaboratively work with others to problem solve possible solutions to challenges that may arise. In this workshop you will be challenged to work in teams to build the tallest and strongest tower, using the provided common materials, within the time frame of 15 minutes. The towers will be tested with as many 50-gram weights it can withstand. Extra points will be given depending on the durability and height of the tower. Will you triumph?

Suitable for Year 4 to 10 students and teachers

Test your tastebuds, win a prize!



University of Queensland / Sustainable Minerals Institute

The tongue is an amazing organ! Your taste buds are invisible to the naked eye. Contrary to popular belief, those little bumps on your tongue are not taste buds. These are hair-like projections known as papillae. Your taste buds are microscopic and live on the ends of your papillae. In this nifty expo activity, you will taste test a small sample of food and try and determine what its pH level is (we will explain what this means during the activity). We will then use litmus paper to check. If you guess correctly, you will win a prize! Who said Science can't be fun!

Suitable for Year 4 to 6 students and teachers

Queensland Minerals



University of Queensland / Sustainable Minerals Institute

In this fabulous Expo activity, you'll learn about Queensland's complex geology and investigate the relationship between the geology and mineral deposits. You'll have the chance to try and work out which minerals from Queensland are used for making various items used for transport, infrastructure and consumer items. You also discover how the properties of minerals can help with mineral identification but also investigate how these properties are related to their end use in society.

Suitable for Year 7 to 10 students and teachers

Problem Solvers Design Challenge - Student and Teacher

Each session has a different real life design or STEAM challenge to solve aimed at Year 4 to 10 students and teachers. You will be posed with a real life design challenge and lead through the design process to ideate and present possible solutions.



Gen AI – saviour or scam?

University of Southern Queensland

Large Language Models and Generative AI do have the capacity to help us achieve great things. They can be great from assisting you with an essay, or finding information quickly, or creating cool images, or interpreting and summarizing information. However, they also can generate information that appears factual but is often inaccurate, and can be dangerous when used incorrectly.

In this workshop you will discover what Gen AI can and cannot do and what proper use of it as a student looks like. Come and learn from an expert in the field!

Suitable for Year 7 to 10 students and teachers



Emergency Water Filtration Challenge

Grace Lutheran College

Queensland has experienced yet another devastating cyclone and this time the region's water purification stations have stopped working. Access to clean drinking water is critical.

In this hands-on problem-solving workshop, you will take on the role of emergency response engineers tasked with designing a water filtration system to purify contaminated water, ensuring it is safe for consumption. Through experimentation, collaboration, and real-world problem-solving, you will gain insight into water purification methods, engineering design principles, and the importance of clean water in crisis situations.

Suitable for Year 5 to 7 students and teachers



Code Red: Design a Flood-Rescue Drone Prototype

Beenleigh State High School

As many of you are aware, the increasing frequency of floods and extreme weather events is leading to a range of ethical and logistical challenges when communities are isolated or unable to access essential supplies during these climate change emergencies. What we require are innovative, science-based solutions to support these vulnerable communities.

In this hands-on STEM workshop, you will use the Design Thinking process to prototype a drone that delivers essential supplies during floods. You will brainstorm, build, and test a model using simple materials, linking real-world disaster resilience with forces, motion, and emerging technologies. You also will have the opportunity to co-create your own design thinking process activity based on the Science curriculum to take back and present at your school.

Suitable for Year 5 to 9 students and teachers



Becoming a Game Designer and Entrepreneur

Epic Card Games

Jade Catania is the 18-year-old entrepreneur who has created the game, Epic Garden, made for kids by kids, to educate children on the struggles farmers endure across the seasons.

In this workshop you will discover how the Epic Garden card game took shape from a concept to final production. Along the way you will learn game design, playtesting, and the educational benefits of farming and gardening. Perfect for young creators and educators, this hands-on session explores strategy, sustainability, and fun—turning ideas into reality. You will also have a chance to play the game in teams. Will you be the first one to deliver 10 crops?

Suitable for Year 4 to 10 students and teachers



Is someone out there?

Griffith University

Humanity seems to be on the edge of a new age of space travel. Venturing into space presents numerous challenges, including the harmful effects of radiation, the physical impact of microgravity, and the psychological effects of isolation and confinement.

In this problem solver workshop, you will explore how people in space are able to take care of their wellbeing and still remain connected to each other and Earth. Using design thinking and your problem solving you and your team of designers and engineers will figure out ways to engage future astronauts with each other and people back on Earth.

Suitable for Year 4 to 10 students and teachers



Autonomous Vehicles Challenge

STEM Punks

Imagine a world where cars drive themselves, reducing accidents and traffic congestion. This “dream” future isn't as far away as we think!

In this hands-on workshop you will learn about designing and programming vehicles that navigate independently while solving real-world problems as you go. This is a fabulous session for teachers to witness how STEM Punks Autonomous Vehicles challenge can foster innovation, creativity, and teamwork, and prepare future change-makers to address challenges in autonomous systems and smart technologies.

Suitable for Year 5 to 10 students and teachers



Scribbly Gum STEAM

Megan Forward

Scribbly gum is a name given to a variety of different Australian Eucalyptus trees which play host to the larvae of scribbly gum moths which leave distinctive scribbly burrowing patterns on the bark.

In this fantastic hands-on workshop, you will discover how fact, fiction, science & art can come together in a picture book...and in life. Working with Scribbly Gum Secrets by Dannika Patterson & Megan Forward as a reference text, you will be invited to hypothesize, problem-solve, experiment and get creative as you explore engineering & design in nature. It is also a great workshop for teachers to discover how to lead STEAM lessons using picture books.

Suitable for Year 4 to 6 students and teachers

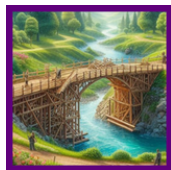


Digital Frontier: Design Thinking for Innovative Solutions

Living Faith Lutheran Primary School

We live in a brave new world with current and emerging technologies predicted to enable us to meet problems big and small. For example, Red Cross Drones for Blood in Uganda or robots supporting individuals with disabilities to work. In this exciting workshop you will use the design thinking process to explore how these current and emerging technologies could be used to tackle a problem of your choosing. You'll also consider the ethical considerations and impacts on individual people and societies. We don't want to accidentally create the next problem!

Suitable for Year 6 to 9 students and teachers



Bridging the Gap

Matthew Flinders Anglican College

A bridge is a structure built to span a physical obstacle (such as a body of water, valley, road, or railway) without blocking the path underneath. It is constructed for the purpose of providing passage over the obstacle, which is usually something that is otherwise difficult or impossible to cross.

In this hands-on workshop you will work in teams as civil engineers who have the task of designing and constructing a bridge to span a set gap. How effective will your team be at using design thinking and your construction skills to achieve the goal? Will your bridge pass the test?

Suitable for Year 7 to 9 students and teachers



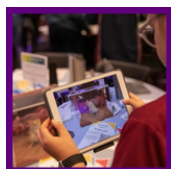
Creating a healthy food future

Professor Lindsay Brown, Griffith University

Since the arrival of fast food in Australia in the 1970's and increasing sedentary lifestyles started becoming more normal there has been a rise in obesity in all Australians. Data shows that approximately 1.2 million children and adolescents are living with overweight or obesity. What can we do about this?

In this challenge, you will explore the extent and the cost on people's well-being and health of the problem, look how functional foods can make a difference and brainstorm how to overcome a range of barriers to make a difference to this growing issue.

Suitable for Year 6 to 10 students and teachers



Being Real World Problem Solvers with Citizen Science

Australian Citizen Science Association

Citizen science involves public participation and collaboration in scientific research with the aim to increase scientific knowledge.

Citizen scientists work with scientists or the scientific framework to achieve scientific goals.

In this fascinating hands-on challenge, you will become citizen scientists helping to solve an issue at your school. Come and learn about the practical applications of citizen science and how you can be the problem solvers we need!

Suitable for Year 6 to 9 students and teachers



Sustainable Sparks: Dream, design, do for global goals impact

Young Change Agents

The 17 Sustainable Development Goals (SDGs) are an urgent call for action by all countries. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

In this hands-on workshop you will explore the 17 Sustainable Development Goals and develop innovative, real-world solutions to tackle global challenges. Through creativity, collaboration, and critical thinking, you will design an invention, innovation, or campaign driving positive change & contributing to a more sustainable future.

Suitable for Year 4 to 10 students and teachers



Moving and Grooving with Granny: Creating digital solutions to help our elderly exercise

Australian Computer Society

About half of the physical decline associated with ageing may be due to a lack of physical activity. Without regular exercise, people over the age of 50 years can experience a range of health problems including: reduced muscle mass, strength and physical endurance, reduced coordination and balance.

In this session you will investigate the real-life scenario of how current technologies have been used to support and assist the elderly to engage with exercise. Using these solutions as inspiration, you will design a new technology used to promote exercise for the elderly.

The session will follow the design thinking framework and is taken from a term unit of work created by ACS. Teachers will be provided with the complete unit of work and resources within the session.

Suitable for Year 4 to 6 students and teachers



Book Now or Hold Places

spark-educonferences.com.au/queensland-mini-spark-2025/

Flow of the day....

10.00am	Sign-in, coffee and networking	*Listed program is subject to change
10.25am	Master of Ceremonies - Welcome, set up for the day and housekeeping	
10.35am	KEYNOTE SPEAKER	
11.10am	ROTATION ONE - 60 minute parallel sessions	
	>> Teacher only Mini-Master Classes	
	◦ Hands-on masterclass on STEM topic that will make a difference for teachers to enact in their school	
	>> Student and/or Teacher hands-on STEM Expo	
	◦ Hands-on STEM activities for Year 4 to 10 students and teachers	
	◦ Opportunity to engage in multiple STEM experiences	
	◦ Presented by students / educators / universities / sponsors / organisations	
	◦ 10-15 min activity, moving between activities during the 60 minute session	
12.10pm	LUNCH - An opportunity to network with other teachers and students, and explore EXPO	
12.35pm	PROBLEM SOLVERS DESIGN CHALLENGE - 70 minute parallel sessions	
	>> Design challenge sessions for Year 4 to 10 students and teachers	
	◦ This session involves real life design challenges where attendees are led through the design process to ideate and present possible solutions	
12.35pm	TEACHER ALTERNATE SESSIONS - 70 minute parallel sessions	
	>> Teacher Mini-Master Classes	
	◦ Hands-on masterclass on a STEM topic that will make a difference for teachers to enact in their school	
	>> Teacher Networking	
	◦ Opportunity to connect with other teachers and presenters to share ideas, possibilities and practices.	
1.50pm	WHERE TO NEXT, FEEDBACK AND CLOSE OF QLD MINI-CONFERENCE	
	>> Completion of feedback form	
	>> Invitation to be on the 2026 Steering Committee	
2.00pm	END OF THE CONFERENCE	

The theme 'Dream, Discover, Do!' will highlight how STEAM is dynamic and fun, and empowers and develops people to dream and shape the future.

The MINI 'It Takes a Spark! STEM Conference' on Wednesday, 25th June is a shorter version of the full-day event. This vibrant day of learning, connection, excitement, and imagination.

- **Engage** your students with innovative hands-on STEM learning allowing them time to 'Discover' new interests and further their ability to 'Dream and Do'!
- **Students and teachers** Problem Solver Design Challenges. Be posed with a real life design challenge and lead through the design process to ideate and present possible solutions.
- **Teachers** tap into the latest developments, innovations, tips, and tools in STEM from experts and practitioners.
- Professional Development stream including **Teacher Mini-Master** Classes gaining access to a broad range of STEM resources to implement back in the classroom.
- **Network and collaborate** with peers and industry experts, and gain insight into their STEM activities and programs.

Who the conference is for...

- **Year 4 to 10 students** - those who are already (or aspire to be) STEM Leaders in your school OR students' schools wish to spark an interest in, and engagement in STEM
- **Teachers** - those who have little experience and those who have a lot, looking to be inspired, participate in hands-on professional learning and network with peers
- **Heads of Learning Areas / Curriculum** - who wish to connect and elevate their STEM discipline
- **Principals and Deputy Principals** - to witness what is possible by embedding STEM authentically in your school
- ...and the event is a 3.5 hour Professional Learning day for teachers - **certificate provided**

Further information

- In 2025 the It Takes a Spark STEM Conferences are being held in Queensland (one Full-day Spark, and a Mini-Spark conference), and a Full-day Spark in Victoria and Western Australia.
- FAQ's, Impact, Media and News appearances can be found on our website.

Registration

- Begins at 10.25am / completes at 2.00pm
- Early bird registration is recommended **closing 23/05/2025**
- Book Now or Hold places: you can hold early-bird places whilst you gain approval. Complete the Registration form and select 'hold place'.
- **Teachers** can attend without students.
- **Students** must attend with their teachers.
- Excursion pack available
- **Lunch** included for students and teachers.

Cost

- Educator / Teacher: **Early bird \$137.00** / Regular fee \$165.00
- Teacher presenter: complimentary*
- Pre-service, Aide/Support staff, Homeschool educator: **Early bird \$51.00** / Regular fee \$65.00
- Student: **Early bird \$20.00**
Regular fee \$25.00
- Student presenter: \$18.50*
- Scholarship may be available upon application

Contact

Rachel Manneke-Jones

Registration, Booking, Questions

P: 0411 270 277

E: rachel@spark-educonferences.com.au

W: spark-educonferences.com.au

Host School



GRACE
LUTHERAN
COLLEGE
EST.1978

Senior Campus
Mewes Rd & Anzac Ave,
Rothwell QLD 4022

Conference Coordinator



Dr Adrian Bertolini

E adrian@spark-educonferences.com.au

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WEDNESDAY 25 JUNE 2025

HOST SCHOOL: GRACE LUTHERAN COLLEGE, ROTHWELL
MEWES RD & ANZAC AVE, ROTHWELL QLD 4022

Register: spark-educonferences.com.au/queensland-mini-spark-2025/