

2026 Quantum Victoria STEM Conference

Engage, Explore, Excel: STEM Learning that Matters

High-Impact STEM Teaching & Learning

Data, Evidence & Digital Insights

STEM In Action

Problem Solving, Creativity & Critical Thinking



Friday 20th November 2026

Quantum Victoria, 235 Kingsbury Drive, Macleod

A Conference for Primary and Secondary Teachers of Science,
Maths and STEM, Lab Techs, and Pre-Service Teachers

 **Quantum**
VICTORIA

STEM education continues to play a vital role in preparing young people for a rapidly changing world. This conference brings together primary and secondary educators from across Victoria to explore innovative approaches to teaching and learning that engage students, build essential skills, and connect classroom learning to real-world challenges. Through practical workshops, inspiring presentations, and opportunities to collaborate with colleagues, participants will discover new ways to strengthen student achievement and foster curiosity, creativity, and critical thinking. Whether you are looking to enhance classroom practice, leverage emerging technologies, or expand STEM opportunities in your school, this conference offers ideas and strategies you can put into action in your classroom.

Linda Arthurson

Conference Convenor and Director, Quantum Victoria

Proudly Supported by the Victorian Department of Education



Department
of Education

The Victorian Department of Education leads the delivery of education and development services to Victorians both directly through government schools and indirectly through the regulation and funding of early childhood services and non-government schools. The Tech School Branch supports students to develop contemporary skills, knowledge, and capabilities through innovative STEM education provision. Through a network that currently includes 10 Tech Schools, 6 science and mathematics specialist centres and 2 STEM centres of excellence, we design and implement a unique model of schooling to deliver applied STEM learning students need to succeed in the 21st century world. Another 6 Tech Schools will soon be opening across Victoria.



Australian
National
University

School of
Cybernetics



Dr Ben Swift

Senior Lecturer, School of Cybernetics, Australian National University

Dr. Ben Swift is an academic, educator, artist and maker of open source tools for creative computing and generative AI. He's a Senior Lecturer at the ANU School of Cybernetics, where he leads the Cybernetic Studio: a cybernetic community that makes things out of hardware/software/people/stuff to explore cybernetic systems/ideas and their impact on the world.

His hands-on keynote will show you how large language models (LLMs) work - no computers or coding required. He'll do more than just describe them, though - you'll get to participate in a whole-room pen-and-paper LLM and generate a brand new story from our own 'Quantum AI'. You'll walk away with a concrete understanding of how ChatGPT, Claude, Gemini and the rest actually work under the hood: the probabilistic nature of LLMs, the importance of training data, and how bias and design decisions show up in the output. And you'll be better equipped to wrestle with the challenges and opportunities posed by AI in our classrooms.

BEYOND HORIZON VR

**Free-Room VR School Incursions made easy.
Built by teachers for teachers.**

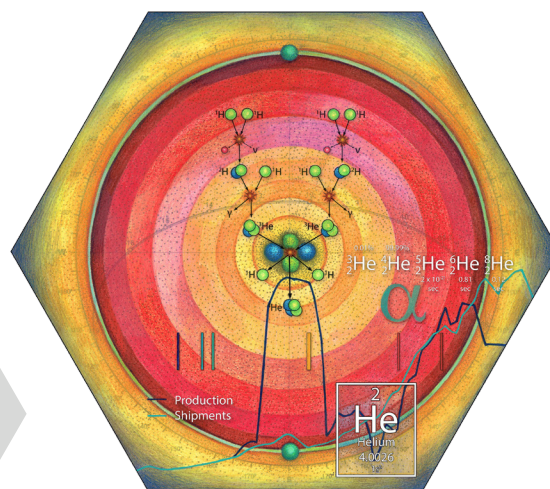
Our educational VR experiences let students explore everything from the universe to the tiniest atoms in an immersive way. With free-roam technology, they can move naturally within the virtual world while guided by an educator, building engagement, collaboration, and social skills through hands-on learning.

What is Free-Room VR Education?

Unlike stationary VR (where students stand in one spot), FREE-ROAM VR allows students to walk, explore, and collaborate inside a virtual world. It transforms abstract lessons into HANDS-ON EXPERIENCES.

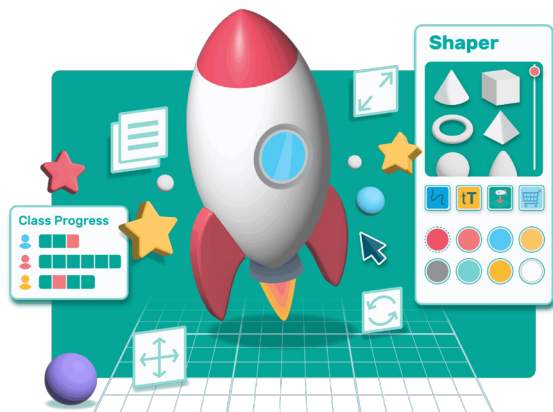
Why VR in Education?

- Better comprehension through interactive visuals
- Stronger engagement for all learning styles
- Practical, Immersive lessons students remember
- Encourages teamwork & critical thinking



MAKERS EMPIRE

Makers Empire is a 3D design and printing program that immerses students in design thinking and STEM in a fun and engaging way.



Our program offers educators the tools, resources, knowledge and support they need to design authentic STEM experiences for students. It helps them efficiently and effectively plan, teach and assess student work made with 3D technology. It also aligns with design and technologies curriculum and embraces maker pedagogy.

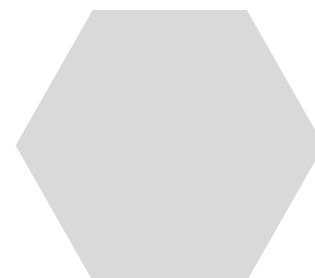
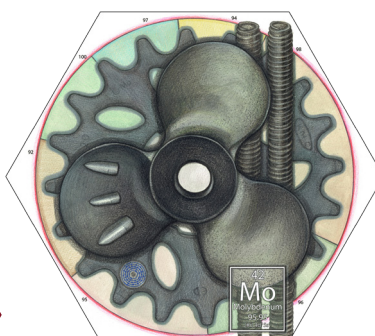
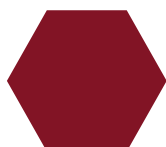
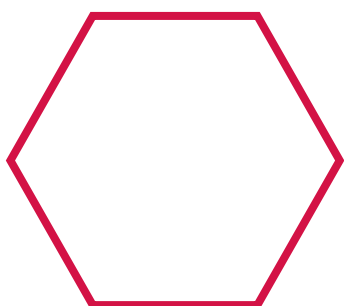
With Makers Empire, educators can help to develop the next generation of creators, innovators and problem solvers. Students can make anything they can imagine in a fun and educational environment.

Special Offer

We are giving attendees a special deal to help bring design thinking and printing into their classrooms.

New customers can receive a fast and efficient 3D printer (Flashforge Adventurer 5M Pro) and a Makers Empire Class Plan for just \$699. Existing Makers Empire customers can purchase a Flashforge Adventurer 5M Pro for just \$517.

Scan the QR code and fill out the form to receive this offer.



CONFERENCE PROGRAM

8:00 am - 8:45 am	Registration & Exhibitors - Gallery
8:45 am - 9:00 am	Welcome - Linda Arthurson, Quantum Victoria Director
9:00 am - 9:55 am	Keynote - Dr Ben Swift, Senior Lecturer, School of Cybernetics, Australian National University LLMs Unplugged: A tech-free guide to understanding (and teaching) AI
9:55 am - 10:30 am	Meet Exhibitors & Morning Tea - Gallery & Cafeteria
10:35 am - 11:35 am	1A Beyond Horizon VR - Explore the Solar System in VR Dominic Pye & Nixon Lem, Beyond Horizon VR (Primary and Secondary 2-10) 1B Building Confidence and Belonging in STEM Leanne Robertson & Michelle Hamill, Education Services Australia (Get into STEM) (Pri and Sec F-10) 1C Student Lead Hands on Workshop Mark Dixon and students, Dallas Brooks Community Primary School (Primary and Secondary 5-8) 1D High Ability 7-12 STEM: Evidence-Based Enrichment Andrew Tadros, ID STEM Lab (Secondary 7-12) 1E e-Measure: Data Science to Excite Enquiring Minds Doug Bail, Cider House Tech (Primary and Secondary 4-10) 1F 3D Modelling in Tinkercad and Fusion Hanifa Shaqiri, Quantum Victoria (Primary and Secondary 5-10)
11:40 am - 12:40 pm	2A LLMs Unplugged: A tech-free guide to understanding (and teaching) AI Ben Swift & Cole Cooney, School of Cybernetics (Primary and Secondary 5-12) 2B Little Thinkers, Big Designers: A Curriculum-Aligned STEM Approach in P-2 Richard Giarrusso & Nicola Davidson, Hume Anglican Grammar (Primary F-3) 2C Unlocking the power of the Victorian Lesson Plans Sam Haberman, Department of Education (Primary and Secondary F-10) 2D Hands-on inquiry designed for the primary classroom Tony Chiovitti & Renata Blanco, GTAC (Primary 5-6) 2E From Support to Mastery: Responsive Teaching in the Science Classroom Rebecca Hellweg & Caitlin Barry, Blackburn High School (Secondary 7-10) 2F 3D Printing and Slicing Anthony Simcox, Quantum Victoria (Primary and Secondary 5-10)
12:40 pm - 1:25 pm	Meet Exhibitors & Lunch - Gallery & Cafeteria
1:30 pm - 2:30 pm	3A Escape the Box: A Native Grassland STEM Adventure Julie White & Janelle Spierings, Ecolinc Science Centre (Primary and Secondary 5-10) 3B SailLAB - Bringing Sailing to the Classroom through STEM Jessica Lundh, Australian Sailing (Primary and Secondary 5-12) 3C Into the Unknown: How to teach what you don't know Paul Taylor, Rolling Hills Primary School (Primary F-6) 3D Using AI to deliver STEM Tooba Awais, Mooroolbark College (Primary and Secondary 7-10) 3E Be Confident Navigators of an AI-Powered World with LEGO® Education Computer Science & AI Libby Moore, Moore Educational (Primary and Secondary 3-9) 3F 3D Print-Off: Comparing Today's Best Classroom 3D Printers (and how to make the most of yours!) Luke Henderson, Makers Empire (Primary and Secondary F-12)
2:35 pm - 3:35 pm	4A Integrity and Creativity: Keeping students (and ourselves!) honest while using AI Stuart Fankhauser, Nossal High School (Primary and Secondary 6-12) 4B Growing Critical Thinkers - Real Research. Real Data. Real Thinking. Frazer Thorpe & Jordan Wichtard, Plants for Space ARC Centre of Excellence (La Trobe Uni) (Pri & Sec 5-10) 4C Code to Canvas Isabella Tutas & Kim Bruce, Casey Tech School (Secondary 7-12) 4D Designing the Future of Learning - a Speculative Design Sprint Phil Thomas & Andy Ding, The Victorian Academy of Teaching and Leadership (Primary and Secondary 3-12) 4E STEM with LEGO and Everyday Materials Stephen Young, Hampton Primary School (Primary F-6) 4F Educational Escape Rooms to Captivate Your Learners Robert Ross, La Trobe University (Primary and Secondary 5-11) 4G Computational thinking with block-coding Jakim Stasce, Quantum Victoria (Primary F-6)

EXHIBITORS



BEYOND HORIZON
VR



Get into
STEM
Diversity in STEM Toolkit



PRESENTERS

Tooba Awais, Mooroolbark College

Doug Bail, Cider House Tech

Caitlin Barry, Blackburn High School

Renata Blanco, GTAC

Kim Bruce, Casey Tech School

Tony Chiovitti, GTAC

Cole Cooney, School of Cybernetics, Australian National University

Nicola Davidson, Hume Anglican Grammar

Andy Ding, The Victorian Academy of Teaching and Leadership

Mark Dixon, Dallas Brooks Community Primary School

Stuart Fankhauser, Nossal High School

Daniel Faoro, Dallas Brooks Community Primary School

Richard Giarrusso, Hume Anglican Grammar

Sam Haberman, Department of Education

Michelle Hamill, Education Services Australia (Get into STEM)

Rebecca Hellweg, Blackburn High School

Luke Henderson, Makers Empire

Nixon Lem, Beyond Horizon VR

Jessica Lundh, Australian Sailing

Libby Moore, Moore Educational

Dominic Pye, Beyond Horizon VR

Leanne Robertson, Education Services Australia (Get into STEM)

Robert Ross, La Trobe University

Hanifa Shaqiri, Quantum Victoria

Anthony Simcox, Quantum Victoria

Megan Simkin, Cider House Tech

Janelle Spierings, Ecolinc Science Centre

Jakin Stasce, Quantum Victoria

Ben Swift, School of Cybernetics, Australian National University

Andrew Tadros, ID STEM Lab

Phil Thomas, The Victorian Academy of Teaching and Leadership

Frazer Thorpe, Plants for Space ARC Centre of Excellence (La Trobe University)

Isabella Tutas, Casey Tech School

Julie White, Ecolinc Science Centre

Jordan Wichtard, Plants for Space ARC Centre of Excellence (La Trobe University)

Stephen Young, Hampton Primary School

Session 1 Workshops

1A

Beyond Horizon VR - Explore the Solar System in VR

Dominic Pye & Nixon Lem, Beyond Horizon VR (Primary and Secondary 2-10)

Calling all Science Teachers from both Primary and Secondary! Join Beyond Horizon VR as we walk across the Solar System using FREE-ROAM VR.

What is FREE-ROAM VR? Unlike Stationary VR (where students stand in one spot), FREE-ROAM VR allows students to walk, explore, and collaborate inside a virtual world. It transforms abstract lessons into HANDS-ON EXPERIENCES.

In this Session you will embark on an educational journey like never before with our immersive "Tour Through the Solar System" activity.

In this teacher-led tour, you will experience the wonders of our cosmic neighborhood, gaining a deeper understanding of each planet and its unique characteristics as they compare to Earth.

1B

Building Confidence and Belonging in STEM

Leanne Robertson & Michelle Hamill, Education Services Australia (Get into STEM) (Pri and Sec F-10)

This workshop explores practical ways to strengthen engagement and achievement in STEM through inclusive teaching approaches aligned to curriculum and real world contexts. Drawing on free resources from the Get into STEM web site, participants will unpack key principles, explore lesson plans and classroom tools, and trial student facing activities including STEM career resources. The session offers adaptable strategies to enhance challenge, confidence and belonging in STEM learning.

1C

Student Lead Hands on Workshop

Mark Dixon and students, Dallas Brooks Community Primary School (Primary and Secondary 5-8)

Grade 5-6 students from Dallas Brooks Community school will lead participants through four STEM activities. Participants will rotate between the four activities which will include Sphero RVR, Edison, Dash and Dot and Microbit. Each of these devices use block coding, are durable, affordable and cater for a range abilities and can be used in upper primary and lower secondary settings.

1D

High Ability 7-12 STEM: Evidence-Based Enrichment

Andrew Tadros, ID STEM Lab (Secondary 7-12)

To ensure advanced learners excel, we must move beyond next year's textbook. In this inter-disciplinary STEM workshop, educators play the role of a student, where they attempt a short task that 'extends' them. Eventually, educators discover pedagogical pitfalls of these tasks, including lack of scaffolding and exploration. Thus, they discover that high achieving students can disengage from unstructured tasks, as evidenced by Tamara Stambaugh's research. Thus, attendees learn through self-discovery and evidence-based research.

Using these leanings, participants apply frameworks to previous lessons of their choice, collaborating with peers to cater activities for all learners, with a focus on advanced learners. Workshop discussions include: 'low floor high ceiling' activities, productive failure and finding the balance between open-ended exploration and level of scaffolding. Lastly, whether you are a technology, science, or mathematics expert, this workshop enables all disciplines to engage with the material.

1E

e-Measure: Data Science to Excite Enquiring Minds

Doug Bail & Megan Simkin, Cider House Tech (Primary and Secondary 4-10)

Discover how PASCO wireless sensors bring STEM learning to life by enabling students to collect, visualise and interpret real-world scientific data with confidence.

How cold is my milk? How fast is my heart beating? How fast can I run? These everyday questions become authentic STEM investigations as students use digital technology to gather accurate, real-time data across a wide range of contexts, including motion, force, energy, temperature, physiology, light and environmental science.

By removing the barriers of manual data collection, students can focus on scientific inquiry, data analysis and evidence-based decision-making. This hands-on workshop demonstrates how sensor technology strengthens data literacy, critical thinking and problem-solving while supporting authentic scientific practice.

1F

3D Modelling in Tinkercad and Fusion

Hanifa Shaqiri, Quantum Victoria (Primary and Secondary 5-10)

Join us for a hands-on 3D modelling workshop where you'll choose between Tinkercad and Fusion 360 to develop skills that will enhance your teaching toolkit. Whether you're a beginner or looking to deepen your expertise, you'll learn the basics and useful intermediate techniques to support your students in creative projects. This session is perfect for educators eager to inspire students through innovative and hands-on learning experiences.

Session 2 Workshops

2A

LLMs Unplugged: A tech-free guide to understanding (and teaching) AI

Ben Swift & Cole Cooney, School of Cybernetics (Primary and Secondary 5-12)

Despite the rapid uptake of AI around the globe, most people still have little understanding of what is actually happening inside the tools they use every day.

Building on the ideas introduced in the keynote, this hands-on workshop gives participants the opportunity to experience how large language models (LLMs) work by taking part in a series of unplugged activities that model the processes behind tools such as ChatGPT, Claude, Gemini and Copilot. Working collaboratively, you'll explore how language models are trained, how they generate responses, and how design choices and training data influence the outputs they produce.

Rather than relying on technical explanations or coding, the workshop uses accessible, human-scale activities to help participants develop a practical understanding of the core concepts behind modern AI systems. Along the way, you'll build the language, confidence and critical perspective needed to discuss AI with colleagues and students.

By the end of the session, you'll have a deeper understanding of the probabilistic nature of LLMs, the role of data in shaping model behaviour, and the ways bias and engineered decisions can emerge in AI-generated content.

2B

Little Thinkers, Big Designers: A Curriculum-Aligned STEM Approach in P-2

Richard Giarrusso & Nicola Davidson, Hume Anglican Grammar (Primary F-3)

This professional learning session showcases an approach to building a sustainable STEM program in the primary years, with a particular focus on P-2 learners. Grounded in the Design Thinking process and aligned with the Australian Curriculum, the session demonstrates how Science, Technologies and key General Capabilities can be meaningfully integrated through authentic learning experiences. Students in P-2 engage with rich, story-based provocations inspired by fairy tales and real-life contexts to investigate authentic problems. Through hands-on challenges, they design, build, test, and refine solutions while developing essential skills such as creativity, collaboration, resilience, and problem-solving. Digital Technologies is introduced through early coding experiences, where students learn to create, sequence and communicate instructions, building foundational computational thinking skills. The session highlights practical strategies for embedding curriculum links, scaffolding Design Thinking for young learners and fostering student agency. Participants will leave with adaptable ideas, practical examples, and ready-to-use strategies for implementing engaging, purposeful, and sustainable STEM learning in their classrooms.

2C

Unlocking the power of the Victorian Lesson Plans

Sam Haberman, Department of Education (Primary and Secondary F-10)

Discover how to make the most of the Victorian Lesson Plans in this practical crash course designed to get you confidently using them in your classroom. We'll unpack what the lesson plans are, how they're structured, and how they can support implementation of the Victorian Curriculum 2.0 and the Victorian Teaching and Learning Model (VTLM) 2.0. With a particular focus on Science and Technologies, you'll explore practical examples and see how the resources can support curriculum planning, evidence-informed teaching and classroom practice. Leave with a clear understanding of what's available and practical ideas for putting the VLPs to work straight away.

2D

Hands-on inquiry designed for the primary classroom

Tony Chiovitti & Renata Blanco, GTAC (Primary 5-6)

Give your students the confidence to think like scientists and give yourself a program that makes it simple to teach.

GTAC's new interactive resources bring the excitement of scientific discovery into your classroom, using everyday materials and online tools that make inquiry-based learning easy to teach, even if you're not a science specialist.

Your students won't just learn about science, they'll do it! They'll ask testable questions, make reasoned predictions, plan and conduct their own fair tests, and represent their results through tables, graphs and diagrams. Then they'll share their discoveries with a scientific poster or report using our templates.

We will also showcase some digital technologies that augment experimental design and data collection.

2E

From Support to Mastery: Responsive Teaching in the Science Classroom

Rebecca Hellweg & Caitlin Barry, Blackburn High School (Secondary 7-10)

Responsive Teaching is most effective when it is embedded into everyday classroom practice rather than treated as an add-on. In this practical session, explore science-specific strategies that make checking for understanding, uncovering misconceptions and adapting instruction both manageable and impactful. Through a collection of simple, low-preparation classroom routines, participants will discover how to gather meaningful evidence of student thinking, respond in real time, and build students' confidence and independence. Designed for secondary science teachers, this session focuses on high-impact approaches that can be implemented immediately to strengthen learning, improve engagement, and support students in progressing from supported practice to genuine mastery.

2F

3D Printing and Slicing

Anthony Simcox, Quantum Victoria (Primary and Secondary 5-10)

Come for a practical introduction to the complete 3D printing workflow, from designing models with 3D printing in mind through to producing a successful print. Participants will explore key design considerations such as tolerances, overhangs, supports and print orientation, then put these into practice within slicing software to prepare a model to print.

You'll also learn about common 3D printing problems like poor bed adhesion, failed supports, stringing and warping, with practical strategies to diagnose and resolve them.

The session will conclude with basic operational and maintenance procedures to give you confidence in keeping your school's printers up and running.

Session 3 Workshops

3A

Escape the Box: A Native Grassland STEM Adventure

Julie White & Janelle Spierings, Ecolinc Science Centre (Primary and Secondary 5-10)

Discover a hands-on way to bring Victorian native grasslands to life! This ready-to-use mystery challenge turns biodiversity, threatened species and ecosystem science into an engaging STEM investigation.

Students receive clues that lead them to explore the contents of this mystery box. Along the way they crack QR codes and solve questions to unlock the next stage. They investigate native grassland plants, animals, adaptations, food webs, threats and conservation strategies.

Designed for both primary and secondary students, the activity can be easily adapted to suit different ages, curriculum levels and learning goals. No quadrats required!

Come and experience the Grassland Guardians Escape Room in a Box, explore how we use mystery, problem-solving and technology to spark curiosity, and discover how one portable box can transform a classroom into a native grassland investigation.

3B

SailLAB - Bringing Sailing to the Classroom through STEM

Jessica Lundh, Australian Sailing (Primary and Secondary 5-12)

Introducing SailLAB, an innovative and free STEM education program that brings the sport of sailing into the classroom through engaging, curriculum-aligned learning experiences for both primary and secondary students. Using sailing as a real-world context, the program supports practical exploration of key STEM concepts.

The workshop will include hands-on demonstrations using radio control yachts and wind measurement tools. It will also explore practical ways the program can be implemented across a range of year levels and subject areas, providing teachers with ready-to-use resources, lesson ideas, and strategies for the classroom.

Participants will leave with full access to the online platform, implementation ideas, and a clear understanding of how SailLAB can engage students. The session will also highlight opportunities to connect with local clubs across Victoria to deliver hands-on STEM excursions, including on-water sailing experiences.

3C

Into the Unknown: How to teach what you don't know

Paul Taylor, Rolling Hills Primary School (Primary F-6)

Join us on an adventure into the world of teaching STEAM and project-based learning when it's not your specialisation. The good news is you don't need to be an encyclopedia of knowledge; that ended with the internet. The better news is teaching STEAM gives you a change to connect with students in a new cross-curriculum context and create unstoppable learners for life.

As we examine what learning is, how it sticks, and how we can foster it, you'll see what a can-do attitude in your classroom can do to build and extend student capacity while engaging students with your chosen (or given!) subject.

3D

Using AI to deliver STEM

Tooba Awais, Mooroolbark College (Primary and Secondary 7-10)

In this presentation, I will showcase how students in a year 9 STEM elective use AI tools to co-design their own learning pathways around topics they are passionate about, including aviation, sports science, architecture, sleep science, and space exploration.

The elective is structured around the Engage, Explain, Action, and Review model, where students investigate real-world problems, develop creative solutions, and apply STEM knowledge through hands-on projects. AI is used to personalise learning, support research, generate prototypes, scaffold literacy, and encourage critical thinking while maintaining authentic, student-driven outcomes.

Participants will gain practical strategies for embedding AI into STEM classrooms in meaningful and ethical ways while increasing student agency, creativity, collaboration, and curiosity.

3E

Be Confident Navigators of an AI-Powered World with LEGO® Education

Libby Moore, Moore Educational (Primary and Secondary 3-9)

Explore the new LEGO® Education Computer Science & AI kit through one of 90 curriculum-aligned lessons. Using LEGO models, coding and AI-powered activities, you'll investigate how students can explore data, recognise patterns and understand how computers make decisions.

Designed for teachers of all experience levels, this session showcases practical and engaging ways to develop computational thinking, digital technologies skills and AI literacy. Participants will also receive an AI Duck model to take away and continue exploring with the new Coding Canvas app.

3F

3D Print-Off: Comparing Today's Best Classroom 3D Printers (and how to make the most of yours!)

Luke Henderson, Makers Empire (Primary and Secondary F-12)

In this workshop, Luke Henderson - 3D printing specialist educator from Makers Empire - will guide you through the current state of classroom 3D printers. Over the past few years, printers have become significantly more affordable, reliable, and capable, making them far easier for schools to adopt and maintain.

This session features live demonstrations of multiple leading 3D printer brands, highlighting the differences that matter for teachers: print quality, speed, durability, ease of use, and ongoing maintenance. You'll learn what to look for when evaluating printers, how to match the right model to your school's needs, and what emerging technologies are just around the corner. This is a brand-agnostic, practical session designed to help educators make confident, informed decisions about 3D printing in their primary and secondary STEM programs.

Session 4 Workshops

4A

Integrity and Creativity: Keeping students (and ourselves!) honest while using AI

Stuart Fankhauser, Nossal High School (Primary and Secondary 6-12)

As generative AI becomes increasingly embedded in teaching and learning, schools face a difficult question: how do we preserve authentic thinking, creativity and academic integrity while embracing AI's opportunities? At Nossal High School, recent work has focused on modelling transparent and ethical AI use as educators, alongside student accountability. This session explores a practical AI transparency framework that helps teachers communicate the extent and purpose of AI involvement in resource creation. Rather than viewing AI as simply "good" or "bad", the framework encourages reflective professional judgement, from efficiency-focused uses through to AI-generated content requiring rigorous teacher quality assurance.

The presentation will examine how transparency, metacognition, and explicit modelling can help students develop honest and critical approaches to AI-assisted learning. Participants will leave with practical strategies for fostering integrity while still supporting creativity, experimentation, and future-focused learning in today's classroom.

4B

Growing Critical Thinkers - Real Research. Real Data. Real Thinking.

Frazer Thorpe & Jordan Wichtard, Plants for Space ARC Centre of Excellence (La Trobe Uni) (Pri & Sec 5-10)

Move beyond cookbook practicals to develop students who think like scientists. Using authentic research from the ARC Centre of Excellence for Plants for Space, teachers will explore free classroom-ready resources featuring real datasets, experimental protocols and contemporary research questions. Developed with lead author of the Australian Curriculum's Critical and Creative Thinking capability, these investigations explicitly embed critical thinking into scientific experimentation. Aligned with the Victorian Curriculum 2.0, the session strengthens Science Inquiry through experimental design, data analysis, evidence evaluation and scientific reasoning while connecting space research to sustainable agriculture on Earth.

4C

Code to Canvas

Isabella Tutas & Kim Bruce, Casey Tech School (Secondary 7-12)

In this hands-on workshop, teachers step into the role of learner — picking up coding skills to produce anaglyphs, the classic red-cyan 3D images familiar from pop-up books and cinema. Facilitated by Casey Tech School, participants explore the elegant intersection of mathematics, art and design as they write code to manipulate colour channels, apply geometric transformations and render layered images that trick the eye into perceiving depth. No prior coding experience is required. The workshop models how STEAM integration can feel purposeful and creative rather than forced, giving teachers an authentic, low-barrier entry point into computational thinking. Participants leave with a finished artefact, transferable classroom ideas and renewed confidence to blend creative arts with digital technologies in their own teaching practice.

4D

Designing the Future of Learning - a Speculative Design Sprint

Phil Thomas & Andy Ding, The Victorian Academy of Teaching and Leadership (Primary and Secondary 3-12)

Speculative thinking asks us to imagine new possibilities and design the pathway to our preferred future. Participate in an exciting Design Sprint to reimagine the future of schooling, education and learning. Explore how speculative thinking can be used as inspiration for creativity and agency for both students and teachers, investigating themes of advancing technology, sustainability, social inclusion, and multiculturalism. You will be given the opportunity to consider how to use design sprints and speculative thinking in your own setting and context, using tools from Google's Design Sprint Kit, and linking activities and resources to the Victorian Curriculum 2.0.

4E

STEM with LEGO and Everyday Materials

Stephen Young, Hampton Primary School (Primary F-6)

This hands-on workshop immerses educators in the Engineering Design Process through engaging, classroom-ready challenges using LEGO and everyday materials. Grounded in the Victorian Curriculum (Design and Technologies), participants will explore how to design meaningful, inclusive STEM learning aligned to real-world contexts. Through rapid prototyping, testing, and iteration, the session models high-impact STEM teaching practices that develop problem solving, creativity, and critical thinking. Participants will experience strategies that are immediately transferable across Foundation to Year 6, using both specialised and low-cost resources.

4F

Educational Escape Rooms to Captivate Your Learners

Robert Ross, La Trobe University (Primary and Secondary 5-11)

Educational Escape Rooms are highly engaging, team-based learning experiences where students work together to solve problems within a time-critical narrative. Educational escape rooms are a new frontier within game-based learning and are widely applicable across age groups and discipline domains. In this seminar we will map out what educational escape rooms are, how they can be used and a series of STEM based example puzzles for participants to stretch their minds on. We will also cover best practice for puzzle design, how to use the electronic decoder box, tips for making escape rooms run smoothly and the new frontiers we are looking towards for further research in educational escape rooms. Find out how you can integrate the next generation of educational escape rooms into your classroom and re-engage your students.

4G

Computational thinking with block-coding

Jakin Stasce, Quantum Victoria (Primary F-6)

Students are often already seen as proficient digital users, but this doesn't guarantee that they are engaging in effective problem-solving, creating practical solutions, or developing computational skills. This workshop explores the evidence-informed pedagogy around block-coding, with specific activity examples using Scratch and robotics, and will provide you with ideas on how you can create meaningful learning experiences.

Conference Venue

Quantum Victoria
235 Kingsbury Drive, Macleod
VIC 3085
[Google Maps](#)

Contact Details
Phone: 03 9223 1460
Email: admin@quantumvictoria.vic.edu.au
ABN 65 029 766 137

Parking

Free parking onsite; entry to Quantum Victoria can only be accessed via Kingsbury Drive eastbound. There is a left turning lane into the Charles La Trobe P-12 College & Quantum Victoria car park.

Please park in non-designated bays.

There is also plenty of free street parking to the east and south on side streets off Waiora Rd and Ruthven St within a five-minute walking distance.

Registration

Register [here](#) or scan the QR code.
Registrations will be accepted up until Friday 13th November 2026.



Conference Cost

Primary/Secondary Teachers	\$275 for the first teacher
Additional Teacher	\$150
Lab Technicians	\$150
Pre-Service Teachers	\$95

All prices are inclusive of GST. Morning tea, lunch and satchel are included in the cost of registration.

Refund and Attendance

Notice of cancellation is required by Friday 6th November 2026 for a full refund. Cancellation after this date will incur the full attendance cost.

Attendance at the QV STEM Conference without a confirmed place will result in you being turned away.

