# It Takes a Spark! STEM Conference

## The Knox School, Wantirna South Thursday 24 October 2024

# Workshop Room and Participant Numbers

**Notes**:
- T = Teacher, PS = Primary School Student, SC = Secondary College Student. Also note for some schools we can't tell as they don't inform us so it is a guess.
- If you have Secondary students in a session that is mostly Primary focused they are Year 7 students
- If you have Primary students in a session that is mostly Secondary focused they are extension Primary students

**Workshop Rotation One: 9.40am – 10.20am** (40 min) **– 3T to distribute still**

| Teacher Mini-Master Classes | Room | Presenting | Attending | Extra Space |
|---|---|---|---|---|
| **Implementing a school(s) wide approach to design thinking using a Community of Practice** <br> Oakleigh Education Plan <br> Primary and Secondary | Art Room AR2 | Jennifer Palisse <br> Peter Hough | 20T | 5 |
| **Immersion in Education** <br> Mindflight7 <br> Primary and Secondary | Art Room AR3 | Kajal Pala <br> Meeti Shah | 6T | 9 |
| **Storming the Classroom: A student-led journey in creating a real-world solution** <br> The Knox School <br> Primary and Secondary | Year 7 Classroom 501 | Marissa Thomas <br> Carol Cartwright <br> + 3 Year 9 students | 10T | 5 |
| **Digi-Design Mini-Workshops** | Room | Presenting | Attending | Extra Space |
| **CyberHero: Keep the cyber space safe** <br> La Trobe University – School of Computing, Engineering and Mathematical Sciences <br> Year 7 - 10 | Computer Lab | Jabed Chowdhury <br> Mary George | 3T + 17SC (20) | 4 |
| **Lego and Design Thinking** <br> Australian Council for Educational Research <br> Year 4 - 10 | Art Room AR1 | Belinda Rhee | 7T + 20PS (27) | **FULL** |
| **Coding with Dash Robots** <br> Flinders Christian Community College <br> Year 4 - 7 | Auditorium Music Room MR6 | Brooke Dornan <br> Matthew Smith <br> +4 students | 4T + 14PS + 6SC (24) | **FULL** |
| **Railway Signalling with Puffing Billy** <br> Puffing Billy Railway <br> Year 5 - 7 | Auditorium Gallery | Peta Howard | 11PS + 3SC (Tyson) (14) | 6 |
| **Engineering design and drawing using Splat 3D** <br> Tony Doyle <br> Year 4 - 6 | Year 7 Classroom 502 | Tony Doyle | 5T + 18PS + 1SC (24) | **FULL** |
| **LiveBinders** <br> McKinnon Primary School <br> Year 4 - 7 | Year 7 Classroom 503 | Julianne Power <br> Diana Tuyau <br> + 6 students | 2T + 11PS (13) | 7 |
| **NASA spaghetti/marshmallow tower challenge** <br> Deakin University <br> Year 7 - 10 | Year 7 Classroom 504 | Rachael Martin <br> Ehsan Motlagh <br> Mariana Paulino <br> Michael Pereira | 1T + 2PS + 22SC (25) | **FULL** |
| **Designing For Community Connectedness** <br> Akorn Education <br> Year 5 - 10 | Upper Senior School Classroom 203 | Adam Oldmeadow | 3T + 7PS + 7SC (17) | 8 |

| Session | Location | Presenters | Attending | Extra Space |
|---|---|---|---|---|
| **Making Microbit Companions**<br>Kilvington Grammar School<br>Year 7 - 9 | Upper Senior School Science Lab 2L1 | Joanne Low<br>Will Frantz | 4T + 3PS + 5SC<br>(12) | 8 |
| **Pixel Power-Up: Arcade Game Design!**<br>Boneo Primary School<br>Year 4 - 7 | Upper Senior School Science Lab 2L2 | Antonia Scandizzo<br>Kieran Nolan | 4T + 16PS + 1SC<br>(21) | **FULL** |
| **Gears in motion!**<br>STEMed Kits<br>Year 5 - 7 | Multipurpose area MPA1 | Nash Naidoo<br>Linga Naidoo | 2T + 13PS + 4SC<br>(19) | 1 |
| **STEAM Expo** | **Auditorium Foyer** | | **Attending** | **Extra Space** |
| **Australian STEM Video Game Challenge**<br>Australian Council for Educational Research<br>Year 4 – 10 | | Lisa Van Beeck<br>Sally Gridley | 11T + 34PS + 23SC<br>(68) | 12 |
| **The STEAM Journey at Puffing Billy**<br>Puffing Billy Railway<br>Year 4 - 6 | | Kim Dunstan | | |
| **Get STEMed – Start with first principles thinking**<br>STEMed Kits<br>Year 4 - 9 | | Sara Naidoo | | |
| **Drone Experience**<br>Pakronics<br>Year 4 – 10 | | Pathik Shah<br>Anita Freitag | | |
| **Data Analysis & AI Technology**<br>Elastik<br>Year 4 - 10 | | Jarrod Main<br>Damien Brooks | | |
| **Inspired by Nature: Discovering design secrets from the natural world**<br>Royal Botanic Gardens Victoria<br>Year 4 - 10 | | Sally-Anne Fierenzi<br>Amanda Knights<br>Emma Melder | | |
| **STEAM: From an acronym to real world thinking**<br>MakerDojo<br>Year 4 - 10 | | Jeremy Kalbstein<br>Alon Manker | | |
| **Class VR and Promethean Interactive Panels**<br>EduNet<br>Year 4 – 10 | | Kristian Liddiard<br>Georgia Fennessy | | |
| **The Martian Garden**<br>ARC Centre of Excellence for Plants for Space<br>Year 4 – 10 | | Fraser Thorpe | | |
| **STEMpal: You can't be who you can't see!**<br>Curiosity Factory<br>Year 5 - 8 | | Viktoria Schram<br>Julia Baumann | | |
| **Indigenous Creativity**<br>Creative Actions<br>Year 5 - 10 | | Dr Tim Patston | | |
| **Engineering in Action!**<br>University of Melbourne<br>Year 4 – 10 | | Charlotte Jones<br>Alex Everett<br>Natalie Smith<br>Eva Yu Han<br>Apurva Lekkala | | |
| **Augmented Reality Live**<br>Worley<br>Year 7 – 10 | | Jessica Pascolo<br>Isabelle Kua<br>Caitlin Grant<br>Khalid Abdurahman<br>Jamila Alarkan | | |
| **Unleash Your Sustainability Superpowers!**<br>Academy for Enterprising Girls<br>Year 4 – 10 | | Sally Wagnon<br>Paige Ellis | | |
| **Play and Learn with Questacon**<br>Questacon<br>Year 4 – 8 | | Melissa Gatt<br>Kaleen Tison Povis | | |

| STEMPower – from concept to reality<br>Orchard Grove Primary School<br>Year 4 - 6 | | Bec Bird<br>Matt Anthony<br>+ 10 students rotating through and visiting other expos | | |
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| Blast Off to the Virtual Universe!<br>OzGrav (ARC Centre of Excellence for Gravitational Wave Discovery)<br>Year 4 - 10 | | Jackie Bondell<br>Bailee Wolfe<br>Christine Lee<br>Olivia Vidal Velazquez<br>Ashwathi Nair | | |
| Amba Press – all day promo | | Alicia Cohen | | |
| Deakin Uni – all day promo | | Robert Lovett<br>Leanne Farago | | |

## Problem Solvers Session: 10.50am – 12.10pm (80 min) – 5T still to distribute

| Teacher Only PD Stream | Room | Presenting | Attending | Extra Space |
|---|---|---|---|---|
| Teacher Networking (10.50 – 11.30am)<br>STEM Pathways session (11.30 – 12.10pm)<br>Facilitated by: | Pavilion, Auditorium Foyer | Adrian Bertolini | 20T | 5 |
| Reimagining STEM: Definitions and Disruptions<br>Siena College<br>Primary and Lower Secondary | Year 7<br>Classroom 503 | Roxanne Summer | 10T | 10 |

| Problem Solvers | Room | Presenting | Attending | Extra Space |
|---|---|---|---|---|
| Become a disease detective- solve an outbreak!<br>Rladies-Melbourne<br>Year 7 - 10 | Computer Lab | Dionne Argyropoulos<br>Kathleen Zeglinski | 19SC | 5 |
| Game on! Using table top games to plan and design video games<br>Australian Council for Educational Research<br>Year 4 - 10 | Art Room AR1 | Lisa Van Beeck<br>Belinda Rhee | 9T + 16PS + 5SC<br>(30) | **FULL** |
| STEM for Wildlife Conservation<br>Zoos Victoria<br>Year 5 - 10 | Art Room AR2 | Nicole Cowan<br>Francesca Lennie<br>Kimberley Clayton | 4T + 15PS + 10SC<br>(29) | **FULL** |
| What's the Solution to Plastic Pollution?<br>Cetacean Science Connections<br>Year 4 - 10 | Art Room AR3 | Dr Sue Mason | 5T + 11PS + 6SC<br>(22) | 3 |
| Creativity in Indigenous STEM<br>Creative Actions<br>Year 5 - 10 | Auditorium Music Room MR6 | Dr Tim Patston | 5T | 5T |
| Indigenous Inventors<br>The Maker Difference<br>Year 4 - 6 | Auditorium Gallery | Emily Ross<br>Anne Harris<br>Katelyn Rodwell | 3T + 13PS<br>(16) | 4 |
| Mental Health and Wellbeing Youth Design Challenge<br>Young Change Agents<br>Year 7 - 10 | Auditorium Backstage | Janine Farah | 2T + 3PS + 13SC<br>(18) | 2 |
| Designed by Nature: Innovating with Biomimicry<br>Royal Botanic Gardens Victoria<br>Year 4 - 10 | Year 7<br>Classroom 501 | Sally-Anne Fierenzi<br>Amanda Knights<br>Emma Melder | 7T + 18PS + 3SC<br>(28) | **FULL** |
| Lift off! Design your own satellite<br>Swinburne Youth Space Innovation Challenge<br>Year 4 - 10 | Year 7<br>Classroom 502 | Nimas (Ni Putu Audita Placida Emas)<br>Antonia Figueroa | 7T + 15PS + 7SC<br>(Tyson)<br>(29) | **FULL** |
| Artificial intelligence; Real Emotions: Chatbots Changing Mental Health<br>John Monash Science School<br>Year 4 - 10 | Year 7<br>Classroom 504 | Penny Hale<br>David Albrecht<br>+ 3 students | 5T + 14PS + 9SC<br>(28) | **FULL** |

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| **Space Design: Humans on the Moon**<br>Scienceworks/Museums Victoria<br>Year 4 - 8 | Upper Senior School Classroom 203 | Sophie Oakes<br>Anna Luhrmann | 5T + 14PS + 4SC<br>(23) | 2 |
| **Sustainable engineering in action**<br>Worley<br>Year 7 - 10 | Upper Senior School Science Lab 2L1 | Jessica Pascolo<br>Isabelle Kua<br>Caitlin Grant<br>Khalid Abdurahman<br>Jamila Alarkan | 2T + 1PS + 13SC<br>(16) | 4 |
| **Design for reuse – egg drop challenge**<br>University of Melbourne<br>Year 4 - 8 | Upper Senior School Science Lab 2L2 | Katja Holtta-Otto<br>Jillian Kenny<br>Melissa Kozul | 3T + 22PS + 2SC<br>(27) | **FULL** |
| **Moonbase – Designing to Survive and Thrive**<br>ARC Centre of Excellence for Plants for Space<br>Year 4 - 10 | Multipurpose area MPA1 | Fraser Thorpe | 4T + 19PS + 5SC<br>(28) | **FULL** |

## Workshop Rotation Two: 1.45pm – 2.25pm (40 min) – 3T still to distribute

| Teacher Mini-Master Classes | Room | Presenting | Attending | Extra Space |
|---|---|---|---|---|
| **First Steps to designing a well-planned STEM program**<br>Intuyu Consulting Pty Ltd<br>Primary | Auditorium Backstage | Dr Adrian Bertolini | 8T | 7 |
| **Writemark: Marking writing in the blink of an AI**<br>Elastik<br>Primary and Secondary | Year 7 Classroom 501 | Jarrod Main | 5T | 5 |
| **Cyber Team Red**<br>Questacon<br>Upper Primary and Secondary | Year 7 Classroom 503 | Melissa Gatt | 15T | 5 |
| **Digi-Design Mini-Workshops** | **Room** | **Presenting** | **Attending** | **Extra Space** |
| **Exploring the World of AI**<br>STEM Incubators<br>Year 4 - 6 | Computer Lab | Sricharan Karthikeyan<br>Rehaan Salil<br>Aneka Subramanian<br>Naishadha Thiyagarajan | 5T + 19PS<br>(24) | **FULL** |
| **Introduction to design thinking**<br>Australian Council for Educational Research<br>Year 6 - 8 | Art Room AR1 | Dharshani Chandrasekara | 3T + 9PS<br>(12) | 8 |
| **Microbit Cardboardtronics**<br>Mazenod College<br>Year 4 - 6 | Art Room AR2 | Pravin Vaz | 8T + 13PS + 5SC<br>(26) | **FULL** |
| **STEAM Power!**<br>Mindflight7<br>Year 4 - 10 | Art Room AR3 | Kajal Pala<br>Meeti Shah | 4T + 24PS + 3SC<br>(31) | **FULL** |
| **Coding with Dash Robots**<br>Flinders Christian Community College<br>Year 4 - 7 | Auditorium Music Room MR6 | Brooke Dornan<br>+2 students | 4T + 13PS + 1SC<br>(18) | 2 |
| **Railway Signalling with Puffing Billy**<br>Puffing Billy Railway<br>Year 5 - 7 | Auditorium Gallery | Peta Howard | 1T + 3PS + 7SC<br>(11) | 9 |
| **Engineering design and drawing using Splat 3D**<br>Tony Doyle<br>Year 4 - 6 | Year 7 Classroom 502 | Tony Doyle | 4T + 7PS<br>(11) | 9 |
| **NASA spaghetti/marshmallow tower challenge**<br>Deakin University<br>Year 7 - 10 | Year 7 Classroom 504 | Rachael Martin<br>Ehsan Motlagh<br>Mariana Paulino<br>Michael Pereira | 1T + 3PS + 8SC<br>(12) | 8 |
| **Designing For Community Connectedness**<br>Akorn Education<br>Year 5 - 10 | Upper Senior School Classroom 203 | Adam Oldmeadow | 1T + 4PS + 5SC<br>(10) | 10 |

| | | Presenting | Attending | Extra Space |
|---|---|---|---|---|
| **Detecting the Unseen: Dark Matter**<br>ARC Centre of Excellence for Dark Matter Particle Physics<br>Year 7 - 10 | Upper Senior School Science Lab 2L1 | Jackie Bondell<br>Bailee Wolfe<br>Olivia Vidal Velazquez<br>Ashwathi Nair | 3T + 10SC<br>(13) | 7 |
| **An Introduction to the Arduino Magic**<br>University of Melbourne<br>Year 7 - 10 | Upper Senior School Science Lab 2L2 | Matheus Xavier<br>Shiva Balendhran | 4T + 5SC<br>(9) | 11 |
| **Gears in motion!**<br>STEMed Kits<br>Year 5 – 7 | Multipurpose area MPA1 | Nash Naidoo<br>Linga Naidoo | 1T + 20PS<br>(21) | 4 |
| **STEAM Expo** | **Auditorium Foyer** | **Presenting** | **Attending** | **Extra Space** |
| **Australian STEM Video Game Challenge**<br>Australian Council for Educational Research<br>Year 4 – 10 | | Lisa Van Beeck<br>Belinda Rhee<br>Sally Gridley | 17T + 28PS + 30SC (Tyson)<br>(75) | 10 |
| **The STEAM Journey at Puffing Billy**<br>Puffing Billy Railway<br>Year 4 - 6 | | Kim Dunstan | | |
| **Get STEMed – Start with first principles thinking**<br>STEMed Kits<br>Year 4 - 9 | | Sara Naidoo | | |
| **Drone Experience**<br>Pakronics<br>Year 4 – 10 | | Pathik Shah<br>Anita Freitag | | |
| **Data Analysis & AI Technology**<br>Elastik<br>Year 4 - 10 | | Damien Brooks | | |
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| **STEAM: From an acronym to real world thinking**<br>MakerDojo<br>Year 4 - 10 | | Jeremy Kalbstein<br>Alon Manker | | |
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| **Augmented Reality Live**<br>Worley<br>Year 7 – 10 | | Jessica Pascolo<br>Isabelle Kua<br>Caitlin Grant<br>Khalid Abdurahman<br>Jamila Alarkan | | |

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|---|---|---|---|
| **Unleash Your Sustainability Superpowers!**<br>Academy for Enterprising Girls<br>Year 4 – 10 | | Sally Wagnon<br>Paige Ellis | |
| **Play and Learn with Questacon**<br>Questacon<br>Year 4 – 8 | | Kaleen Tison Povis | |
| **Making with Makey Makey**<br>Siena College<br>Year 4 – 8 | | Roxanne Summer +<br>Nicholas Harvey + 11<br>students rotating and<br>visit other expos | |
| **Immersive Virtual Reality Experience in Construction Training**<br>La Trobe University – School of Computing,<br>Engineering and Mathematical Sciences<br>Year 7 – 10 | | Ali Rashidi<br>Yee Sye Lee<br>Dr Elsuida Kondo<br>Zai Dashi Naw | |
| **An Electrifying Experience!**<br>Cranbourne West Primary School<br>Year 5 – 10 | | Thomas Brennan<br>David Sarah<br>+ 9 students | |
| **Amba Press – all day promo** | | Alicia Cohen | |
| **Deakin Uni – all day promo** | | Robert Lovett<br>Leanne Farago | |

## Completing the Day: 2.30pm – 2.45pm (20 min)

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## Arrive from 7.45am

### Parking and Drop Off Points – Enter via Burwood Highway.

- **All attendees, presenters and parental and bus drop offs to enter via Burwood Highway**

- **Parental and Large Bus Drop-offs** at the designated turning circle indicated (top right of map).  They will need to then exit via the back gate of the school (Merryn Grove) not Burwood Highway. There will be guides to direct attendees towards the Auditorium area

- **Conference Parking for all attendees and presenters** on the Hockey Field – Attendee / Presenter Parking Area (see map)

  - Mini-buses up to 13 seaters can park on the Hockey Field. Larger buses need to drop off at the designated turning circle and park elsewhere if staying at the conference

  - People arriving to park in hockey pitch will need to **follow the directions** of the traffic management staff stationed there.

  - **EXPO presenters:** If you need to drop off materials for your Expo session - park near the Pavilion and bring your materials to the Auditorium Foyer to set up. THEN park your vehicle on the Hockey Field – Attendee / Presenter Parking Area (see map).

  - **All other presenters:** park vehicle on the Hockey Field – Attendee / Presenter Parking Area (see map) THEN make your way to the registration area outside the Resource Centre to sign-in.

  - **There is a disabled parking spot** next to the Pavilion for those with wheelchair access who need to be dropped off. **Drop off and then** park your vehicle on the Hockey Field – Attendee / Presenter Parking Area (see map).

- **At the end of the conference**

  - Large buses can pick up at the designated turning circle and exit via the back entrance to the school

  - All parked vehicles will need to follow the arrows marked on the road to leave the school (i.e. via the exit on the bottom right hand side of the map)

### Sign-in first

- **All attendees and workshop and STEM Expo presenters**: Sign-in is at the registration area outside the Resource Centre. You must sign in and get your nametags and conference booklets before setting up.

- **STEM Expo and First Rotation Workshop presenters**: after signing in go and set up in the assigned rooms before returning for the conference opening and first keynote speaker in the Auditorium.
- All non-presenting attendees should enter the Auditorium for the start of the conference.
- If you are arriving later in the day to present then please make your way to Auditorium Foyer where there will be a presenter table with your name tags and conference booklet, etc.

## Presenting Information

- **STEM Expo presenters:** bring your own trestle cloths, power boards, and extension cords for your table(s)
- **Workshop presenters**: The Knox School will have HDMI cables available to connect to the TVs in each room.  If you have a Macbook then bring your own dongle to connect to the HDMI cable.

**SSID: TKS-BYOT    Username:  Wifi.Events     Password:  Gr33nCatsRunW1d3**