

# It Takes a Spark!

## STEM Conference

### Peter Carnley Anglican Community School Wednesday 18 Sept 2024

#### 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) – 5 teachers to distribute?

Teacher Mini-Master Classes (80)	Room	Presenting	Attending	Extra Space
<b>Dive into the world of Micromelon Robotics with the Rover and Python!</b> Micromelon Robotics	S8	Adam Stacey	7T	3
<del>After school STEM Clubs – Traps, pitfalls and opportunities</del> Beaconsfield Primary School	S9	Lauren Osborne Molly Geller	Cancelled due to broken ankle	
<b>Hydrogen Grand Prix – Engaging Students with Hydrogen Fuel Cell Technology</b> Australian Earth Science Education	S10	Jo Watkins	4T	6
Digi-Design Mini-Workshops (380)	Room	Presenting	Attending	Extra Space
<b>AI Pets</b> Cultivating Curiosity Teachers to stay – 1 teacher per 10 students (5-6T)	KLC GYM	Amanda Rogers	5T + 47PS + 2SC PCACS teacher to support	1
<b>Meteor Mapper: Collaborating Across Continents in Meteor Detection</b> Perth Observatory	KLC1	Jenny Gull Tilly Ozsdolay	3T + 18PS + 15SC	FULL
<b>How to develop a marketing campaign using AI</b> WA Data Science and Innovation Hub 12 x ACER loaner laptops in room for session	KLC2	Alex Jenkins	2T + 29SC PCACS teacher to support?	FULL
<b>Minecraft – Problem solving with STEM</b> Peter Carnley Anglican Community School	T6 PC Lab	Mark Atkinson	2T + 18PS + 10SC	FULL
<b>Digital Fabrication</b> Peter Carnley Anglican Community School	T Seminar and T3 for manufacturing	Bev Wild + 4 PCACS students	2T + 17SC	3
<b>Virtual and Augmented Reality</b> Dale Christian School	T7 PC Lab	Lindsay Hall + 3 students	3T + 22PS + 5SC	FULL
<b>Virtual pet</b> Grok Academy	TIDES Room	Courtney Weaver, Rob Poulter	2T + 24PS + 3SC	FULL
<b>Wind Turbine Challenge</b> Scitech	S1 Science Lab	Joshua Guy Colin Malcolm	4T + 7PS + 18SC	FULL
<b>Growing food in the future</b> Northam Senior High School	S2 Science Lab	Adrienne Waters + 5 students	4T + 2PS + 22SC	FULL
<b>Drones: Supporting the UN Sustainable Development Goals</b> Al-Ameen College	S7	Marwa El-Ayashy + 8 students	1T + 16PS + 5SC	FULL
<b>Engineering Rules!</b>	S11	Seema Shorey, Mark	4T + 25PS	FULL

Grovelands Primary School		Bradshaw + 8 students		
<b>Solving Challenges in Public Works Engineering</b> Institute of Public Works Engineering Australasia – WA	S12	Cathy Higgs, Mashallah Love, Sinead McGuire	1T + 17SC PCACS teacher to support?	3
<b>Eco-Engineers: Innovating for Our Oceans</b> Harrisdale Primary School	S13	Jason Tate + 5 students	4T + 21PS + 2SC	FULL
<b>STEAM Expo (140)</b>	<b>Moortang Mia</b>		<b>Attending</b>	<b>Extra Space</b>
<b>STEM Outreach Program (AusEarthEd)</b> Australian Earth Science Education		Elysha McAleer Alexis Cutten Claire Curtin	17T + 69PS + 43SC	11
<b>Energy Efficiency – it's not all black and white</b> Tronox		Paul Lever, Jayne Raine, Gabby Maynard, Ethan Cardilini		
<b>VR Stellar Safari: Journey to the Cosmic Frontier</b> Perth Observatory		Matt Woods, Mike Erith		
<b>Travelling Back in Time with WA Organic and Isotope Geochemistry Centre</b> WA Organic and Isotope Geochemistry Centre– Curtin University		Lisa Smith		
<b>Australian STEM Video Game Challenge</b> Australian Council for Educational Research		Toby Simmer		
<b>SPACEJUMP Esports Experience</b> SPACEJUMP		Alyssia Boyer, Roslyn Boyer		
<b>Engineering in Action!</b> Engineering Institute of Technology		Harisinh Parmar		
<b>Drone Experience</b> Pakronics and PCACS students		2 PCACS students		
<b>CME Digital Technologies Program</b> The Chamber of Minerals & Energy of WA		Asta Morton, Emma Davison, Shane Landers		
<b>Be Digitally Future Ready!</b> South Metropolitan TAFE		Peter Owen		
<b>Play and Learn with Questacon</b> Questacon		Jess Silva		
<b>The Martian Garden</b> ARC Centre of Excellence for Plants for Space		Fraser Thorpe		
<b>Discover your future in construction</b> Construction Training Fund		Michael Fredericks		
<b>Emerging Energies</b> Webuild		Laura Loughnan Nicholas Ross Jin Lee		
<b>STEM in Mining – how science, technology and engineering is useful in the real world.</b> Roy Hill		Calvin Wang, Jarred Di Marco, Matt Hamilton, Ben Fosbery, Jasmine Wynen-Gaugg, Lauren Mclean, Courtney Francis, Linh Pham, Ben Charnley		
<b>Data Analysis &amp; AI Technology</b> Elastik		Dahmen Higgs, Jefri Rajan		
<b>Unleashing Creativity and Innovation: A Hands-On Exploration of 3D Scanning and Printing</b> MARS Engineers	Hamed Farahpour Neda Pandarathil Ethan Drown			
<b>Hands on Robotics with Micromelon</b> Micromelon Robotics	Adam Stacey (after morning session)			
<b>First Tech Challenge Robot competition display</b> PCACS	X PCACS students			

**Problem Solvers Session: 11.00am – 12.20pm (80 min) – 3 teachers to distribute?**

Teacher Only PD Stream (60)	Room	Facilitating	Attending	Extra Space
Engaging ways of teaching coding and thinking Grok Academy	T6 PC lab	Courtney Weaver, Rob Poulter	17T	3
Good Design - from Creativity to Reality National Committee of Engineering Design of Engineers Australia	S10	Cliff Geng	8T	7
Problem Solvers (497)	Room	Presenting	Attending	Extra Space
Are we ready for the cyborg revolution? Cultivating Curiosity Teachers to stay – 1 teacher per 10 students (11T)	KLC GYM	Amanda Rogers	9T + 55PS + 47SC PCACS teachers to support	FULL
Building Buzz Design Challenge Bloom	KLC1	Brandon White- Harris + 2	4T + 36SC	FULL
Mars Mission Possible- remote operations in space! AROSE, Engineers Australia & Bloom	KLC2	Martin Van Kranendonk, Michelle Keegan, Finn Manning, Lorian Marshall Susan Kreemer Pickford, Nee Nee Ong, Sonam Zangmo + 2	3T + 12PS + 25SC	FULL
Appropriate Houses by Adaptive Design Curtin Engineers Without Borders	TIDES Room	Ella Waddy +	4T + 30PS + 2SC	FULL
Prosthetic Leg UWA Engineering Without Borders	Common Room 1	Jeslyn Lim, Emily Xiao, Freya Larchet	2T + 29PS	FULL
Refashioning the Future Fibre Economy	Common Room 2	Shannon Itzstein, Molly Ryan	4T + 28PS + 2SC	FULL
Li-ion battery recycling - material science problem solving in action! South Metropolitan TAFE Engineering	S1 Science Lab	Chris Jones	3T + 24SC	FULL
Shaping how we extract minerals for the future Peter Carnley Anglican Community School	S2 Science Lab	Nicholas Rust	1T + 29SC	5
Problem Solving Wicked Global Sustainability Development Goals North Harrisdale PS and Lumos Learning	S7	Jacqui O'Donnell, Sarah Hill	4T + 22PS + 6SC	FULL
Save the Egg Challenge Engineering Institute of Technology	S8	Ana Evangelista	2T + 18PS + 9SC	FULL
Air operated crane design Engineering Institute of Technology	S9	Aravin Aarumugam	3T + 12PS + 13SC	FULL
Using Lego to Prototype & Test the New Swan River Bridge E <sup>2</sup> Young Engineers Australia	S11	Rachael Hughes	4T + 28PS	FULL
Building Bridges Clough Webuild Group	S12	Laura Loughnan Nicholas Ross Jin Lee	2T + 11PS + 20SC	FULL
The STEM Energy Game Woodside Energy Ltd	S13	Kaye De Pardo Wayne Zaccheus Cassie Beattie	1T + 7PS + 22SC PCACS teacher to support	FULL

**Workshop Rotation Two: 1.40pm – 2.20pm (40 min) – 3 teachers to distribute?**

Teacher Mini-Master Classes (80)	Room	Presenting	Attending	Extra Space
<b>Design for Change</b> Frederick Irwin Anglican School	S8	Jonathon Butcher	8T	2
<b>Esports in Education</b> SPACEJUMP	S9	Alyssia Boyer	4T	6
<b>Upcycling textile waste</b> Peter Carnley Anglican Community School	T1 & T5	Vanessa Krollig, Katie Frampton	8T	2
Digi-Design Mini-Workshops (394)	Room	Presenting	Attending	Extra Space
<b>AI Pets</b> Cultivating Curiosity Teachers to stay – 1 teacher per 10 students (3-4T)	KLC Gym	Amanda Rogers	4T + 29PS	16
<b>Meteor Mapper: Collaborating Across Continents in Meteor Detection</b> Perth Observatory	KLC1	Jenny Gull Tilly Ozsdolay	1T + 3PS + 27SC	FULL
<b>Sumo Smackdown Robotics</b> Robogals Perth	KLC2	Ansu Regmi, Dana Khalaf, Manar Vink, N Mathi Parambil Vinod	4T + 26PS	FULL
<b>Minecraft – Problem solving with STEM</b> Peter Carnley Anglican Community School	T6 PC Lab	Mark Atkinson	1T + 21PS + 8SC	FULL
<b>Virtual and Augmented Reality</b> Dale Christian School	T7 PC Lab	Simon Giles + 3 students	3T + 19PS + 9SC	FULL
<b>Cyber Live</b> Grok Academy	TIDES Room	Courtney Weaver, Rob Poulter	2T + 27SC	FULL
<b>Rocket Science Explorers: STEM Adventures in Space Launches</b> Australian Christian College-Darling Downs	Common 1	Jacqui Burrage, Ian Lastrilla + 6 students	4T + 23PS	FULL
<b>Wind Turbine Challenge</b> Scitech	S1 Science Lab	Joshua Guy Colin Malcolm	2T + 4PS + 21SC	FULL
<b>STEM Activities for High School Students</b> Gilmore College	S2 Science Lab	Chris Morgan, German Panopio + 14 students	1T + 1PS + 25SC	FULL
<b>Drones: Supporting the UN Sustainable Development Goals</b> Al-Ameen College	S7	Marwa El-Ayashy + 6 students	1T + 18PS + 4SC	FULL
<b>Fish for the Future</b> South Metro PEAC	S10	Rebecca Moore, Zak Millar	4T + 5PS + 18SC	FULL
<b>Solving Challenges in Public Works Engineering</b> Institute of Public Works Engineering Australasia – WA	S12	Cathy Higgs, Mashallah Love, Sinead McGuire	12SC	8
<b>Eco-Engineers: Innovating for Our Oceans</b> Harrisdale Primary School	S13	Jason Tate + 5 students	3T + 28PS	FULL
STEAM Expo (135)	Moortang Mia	Presenting	Attending	Extra Space
<b>STEM Outreach Program (AusEarthEd)</b> Australian Earth Science Education		Elysha McAleer Alexis Cutten Claire Curtin	12T + 82PS + 36SC	10
<b>Energy Efficiency – it's not all black and white</b> Tronox		Paul Lever, Jayne Raine, Gabby Maynard, Ethan Cardilini		
<b>VR Stellar Safari: Journey to the Cosmic Frontier</b> Perth Observatory		Matt Woods, Mike Erith		
<b>Travelling Back in Time with WA Organic and Isotope Geochemistry Centre</b> WA Organic and Isotope Geochemistry Centre– Curtin University		Lisa Smith		
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<b>Play and Learn with Questacon</b> Questacon		Jess Silva		
<b>The Martian Garden</b> ARC Centre of Excellence for Plants for Space		Fraser Thorpe		
<b>Discover your future in construction</b> Construction Training Fund		Michael Fredericks		
<b>Emerging Energies</b> Webuild		Laura Loughnan Nicholas Ross Jin Lee		
<b>STEM in Mining – how science, technology and engineering is useful in the real world.</b> Roy Hill		Calvin Wang, Jarred Di Marco, Matt Hamilton, Ben Fosbery, Jasmine Wynen-Gaugg, Lauren Mclean, Courtney Francis, Linh Pham, Ben Charnley		
<b>Data Analysis &amp; AI Technology</b> Elastik		Dahmen Higgs, Jefri Rajan		
<b>Hands on Robotics with Micromelon</b> Micromelon Robotics		Adam Stacey		
<b>Inspiring STEM learning and engagement through Robotics Competition and community</b> Gosnells Robotics Clubs		John Townley, Larissa Waghorn + 7 students		
<b>First Tech Challenge Robot competition display</b> PCACS		X PCACS students		

## Completing the Day: 2.25pm – 2.45pm (20 min)

### Arrive from 7.45am

#### Presenter Parking and Drop Off Points – Enter via Abingdon Crescent.

- **EXPO presenters:** If you need to drop off materials for your Expo session - park near Moortang Mia and enter through the rear doors to set up. THEN park your vehicle behind Keith Lindbeck Centre (KLC) in the overflow (see map).
- **All other presenters:** park vehicle behind KLC or in the overflow (see map) THEN make your way to Moortang Mia to sign-in.

NOTE: Attendee parking information

- Parental and large bus drop offs via Abingdon Crescent – there will be people managing traffic and guiding the movement of attendees towards the Keith Lindbeck Centre (KLC)
- Conference parking will be available
  - Big Buses to park on Abingdon Crescent in marked areas
  - Minibuses on the bitumen area next to the KLC
  - Cars in the parking area behind the KLC
  - Overflow parking area (particularly for people arriving later) will be in the parking spaces in the arc running behind the Tech block and S block

#### Sign-in first

- **All Non-school workshop and STEM Expo presenters:** Sign-in is ground floor of Moortang Mia (see map: where the Expo will be held). You must sign in and get your nametags and conference booklets before setting up.
- **School-based presenters (inc. attendees):** Sign-in at the Keith Lindbeck Centre (KLC). Collect nametags and registration folders.
- **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 KLC.
- All non-presenting attendees should enter the KLC for the start of the conference.
- If you are arriving later in the day to present then please make your way to Moortang Mia 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:** Peter Carnley Anglican Community School uses **Vivi software** to connect to the TVs in each room. USE the guide to download and access the TVs when you present.

**NOTE:** Make sure you have the software on your device **prior to the day**. We will have IT support available in the morning to sort out last minute issues.

**Guest SSID: PCACS-Event Password: (none)**

## The Vivi App

<https://vivi.atlassian.net/wiki/spaces/SHUB/pages/1492877313/1.+How+to+Get+Vivi>

Before you start working with Vivi, you will need to download the Vivi app.

There are two ways of getting the Vivi app:

1. **Self-install** - If you manage your own device, install the appropriate software from <https://get.vivi.io> or from your device's app store.
2. **Enterprise Installation** - If your organisation manages the applications on your device, please consult your IT Administrator.

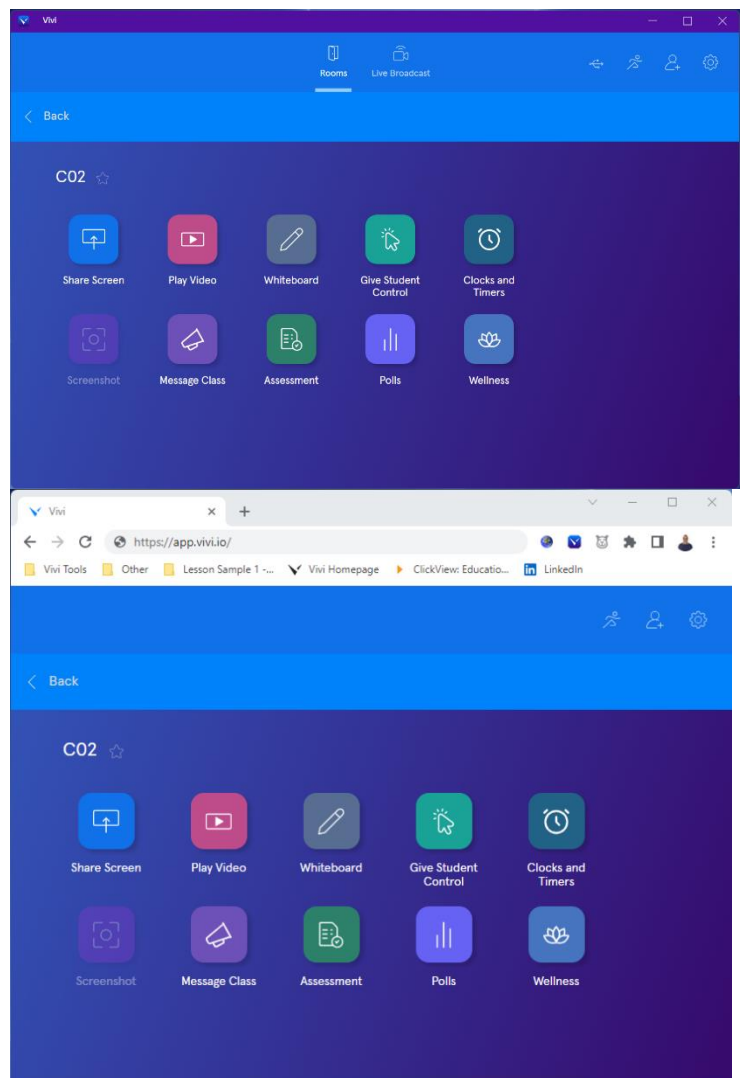
Visiting <https://get.vivi.io> in a web browser on your device will automatically download the appropriate Vivi App for your device. You may need to open or run the Vivi software after the download is complete to complete the installation. Alternatively, download Vivi

from your device's App Store or Google Play store.

The Vivi app will work on most devices - Windows, Mac, iOS (including iPads and iPhones), Android, and Linux.

## The Vivi Web App

If using a device where apps are unable to be installed (including Chromebooks), the Vivi Web App can be used instead. To access, visit <https://app.vivi.io/>.



Most functionality is available however there are some limitations including the inability to use Live Broadcast, USB Passthrough the Floating Toolbar. For a full list, please visit: [Vivi Web App](#)

Screenshots used throughout this user guide are based on the app version of Vivi.

## Connecting to Vivi

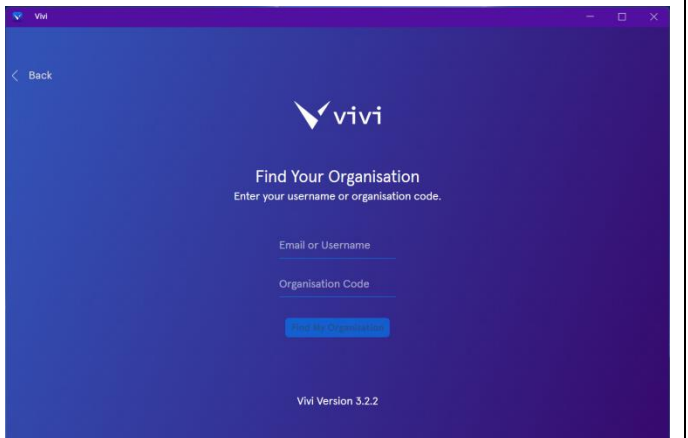
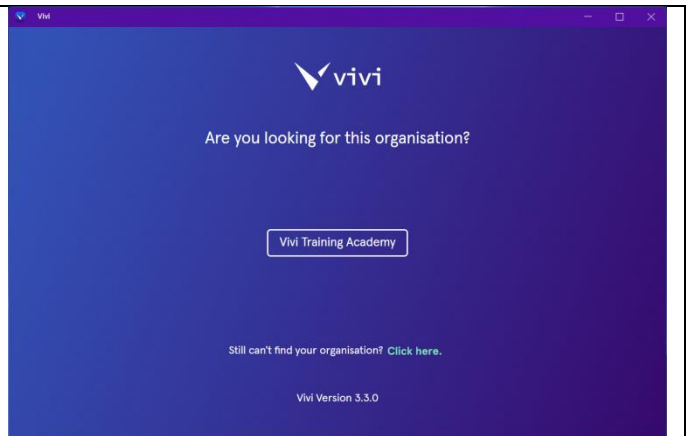
<https://vivi.atlassian.net/wiki/spaces/SHUB/pages/1492877320/2.+Connecting+to+Vivi>

### Organisation Selection

Upon opening the Vivi app you will need to select your organisation – this is usually the name of your school or district. If you are connected to your school network, your organisation should appear automatically.

If your organisation is not shown, select the Find My Organisation button.

If searching for your organisation, you will need to enter either your email or your organisation code which you can obtain from your IT Administrator, then select Search.



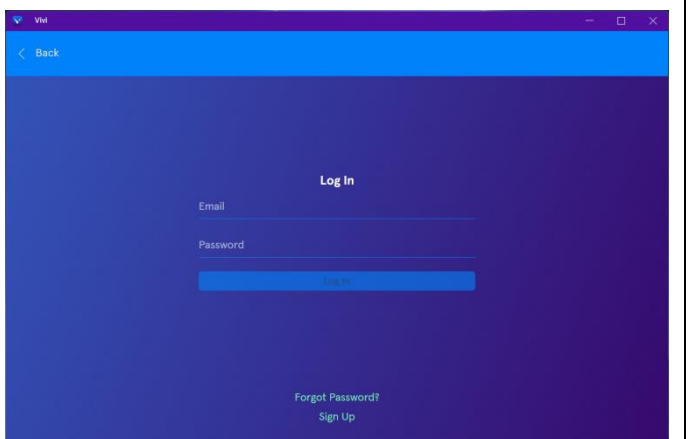
### Login

After selecting your organisation, you will be prompted to log in or sign up.

Organisations are able to integrate Vivi with their single sign on service, which means you are able to use your existing organisation email/username and password to log into Vivi.

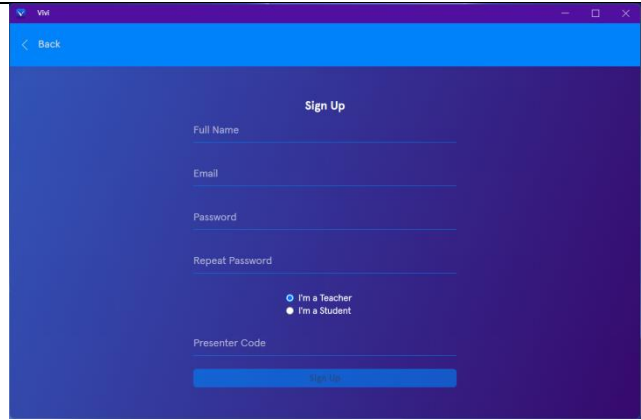
If this has been enabled for your organisation, you will not see the Sign Up button, so instead, select Log In and enter your existing organisation email/username and password.

If you have previously used Vivi, select Log In then enter the email address and password you set up to log into Vivi. If you have forgotten your password, use the Forgot Password? link to reset.



## Sign Up

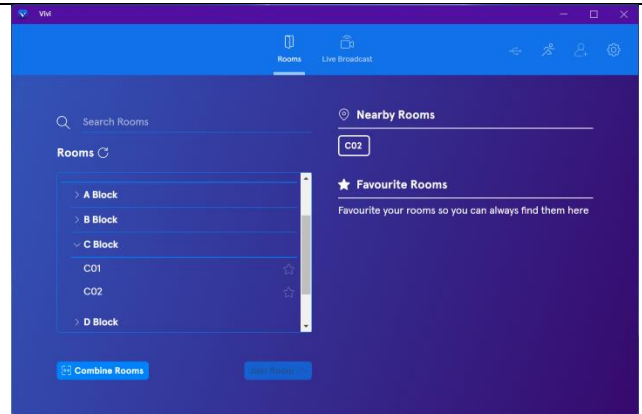
If this is your first time using Vivi, you will need to sign up. To sign up, enter your full name and email address then create a password. Select I'm a Teacher and enter the Presenter Code which you can obtain from you IT Administrator. Once entered, select Sign Up.



## Rooms

Upon logging in, you will be taken to the rooms list. On the left-hand side, you can search for a room, or browse through any locations your organisation has set up. On the right-hand side you will see a list of any favourite rooms.

To connect to a room, either double click on the room name, or click on the room name and select Join Room



## Onboarding

When a teacher connects to Vivi for the first time and then joins a room, they will be presented with a short series of slides on how they can use Vivi in their classroom. Use the Next button to move through, or select Remind Me Later to view at another time.

