

Time with STEM

A Professional Development Series
Specially Curated for Educators

2025 PD Sessions

Save your weekday afternoons for a date with us! Gain insights into the latest developments in STEM through our webinars, learning journeys and workshops!

Sessions are free for all MOE educators, STEM instructors and ETPS students.

For more enquiries, please contact us at stem_cell@science.edu.sg



17 Jan 2025, Friday



2.30 pm to 5.00 pm



Science Centre Singapore

Origami Gaining STEAM!

Origami is an ancient art that has emerged as a powerful inspiration for solving modern day STEM problems. Engage in a series of hands-on activities to explore the principles of origami, its link to Mathematics and its applications in STEM. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines.

[Register here](#) for the session.



6 Feb 2025, Thursday



2.30 pm to 5.00 pm



Science Centre Singapore

"Beefing Up" on Alternative Proteins

This workshop takes participants through a culinary and sensory experience where they will get to explore the STEM in alternative proteins. Participants get to try different types of alternative proteins (plant-based, insect-based, fermented, etc.) and compare how these alternative proteins measure up against proteins from animal sources. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines.

[Register here](#) for the session.



12 Feb 2025, Wednesday



2.30 pm to 5.30 pm

















GlobalFoundries













Experiential Learning Journey to GlobalFoundries (GF)













Believe it or not, semiconductors are a major part of our daily lives. Join us to learn more about how GF-manufactured semiconductor chips power devices across many key market segments including smart mobile phones, next-generation of automotives, home IoT devices, and many more. Participants will get the rare opportunity to visit the state-of-the-art fabrication plant and laboratories, get a glimpse into the cutting-edge global technology solutions in a world-class manufacturing facility, and interact with the directors, technical staff, and engineers. Participants will get an overview of the wafer fabrication processes and understand the various job roles at GF, which they can then bring back to inspire students on subjects of interest, and provide guidance for their future career choices. This learning journey is suitable for MOE educators and STEM instructors from all levels and disciplines, and ETPS scholars.

[Register here](#) for the session.

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|  21 Feb 2025, Friday  3.00 pm to 5.00 pm  Science Centre Singapore | Mentoring School-Based Science Research Projects for SYSF <p>The "Mentoring and Research Skills for Teachers" workshop introduces educators to key aspects of mentoring in research projects. It outlines roles that teachers play as a mentor and how to overcome challenges faced as a mentor, alongside an overview of the different components of a student research project. Participants will explore and crafting potential research questions before looking at how experiments can be designed within the constraints of the school environment. The workshop aims to provide a foundation for teachers interested in developing their mentoring capacity. This workshop is suitable for teachers mentoring students on their SYSF projects.</p> <p>Register here for the session.</p> |
|  21 Feb 2025, Friday  2.30 pm to 5.00 pm  Singapore Polytechnic | STEM Learning Journey – Railway <p>The rail industry plays a vital role in modern cities like Singapore, serving as a backbone for urban mobility. With its extensive Mass Rapid Transit (MRT) system, it offers efficient, reliable, and environmentally friendly transportation options that reduce traffic congestion and minimize carbon emissions. It connects key areas, enhancing accessibility and supporting economic growth by facilitating the movement of commuters. Join us on this Learning Journey to Singapore Polytechnic to learn about the STEM behind our Railway Systems. This learning journey is suitable for MOE educators and STEM instructors from all levels and disciplines, and ETPS scholars.</p> <p>Register here for the session.</p> |
|  26 Feb 2025, Wednesday  9.00 am to 5.00 pm  Science Centre Singapore | Facilitating STEM Learning Experiences Through PBL <p>Problem-based learning (PBL) is a student-centred pedagogical approach that facilitates the acquisition and application of 21cc that allows students to become concerned citizens and active contributors in the real world. Through experiential learning that incorporates customised hands-on and reflective activities, teachers will gain greater awareness of the stages of PBL and a deeper appreciation of their role as facilitators in PBL classrooms. In this full day face to face workshop, teachers will also have the opportunity to design and craft learning experiences that facilitates STEM learning through PBL, so as to develop students into self-directed and collaborative learners and effective problem-solvers. This workshop is suitable for MOE educators.</p> <p>Register on OPAL 2.0 [OPAL code PED-000165]</p> |
|  27 Feb 2025, Thursday  2.30 pm to 5.00 pm  Science Centre Singapore | Discovering Kombucha <p>This hands-on workshop offers an exploration of Kombucha. Participants will embark on a journey, discovering the history of Kombucha. The session delves into the brewing process, unravelling the science behind fermentation. Attendees will gain insights into the potential nutritional benefits of Kombucha. It features practical demonstrations of brewing basics, allowing participants to understand the process of creating their own Kombucha at home. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.</p> <p>Register here for the session.</p> |

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|  7 Mar 2025, Friday  2.30 pm to 5.00 pm  HSA | <h3>U to Health Science Authority (HSA)</h3> <p>This learning journey provides Science educators with an unique opportunity to witness first-hand the real-world applications of physics and chemistry in forensics, including crash reconstruction and trace evidence analysis. Gain valuable insights into the production of forensic collection kits and tour the cutting-edge labs at HSA where scientists bring science to life by turning evidence into truth in forensic investigations. Join us for an immersive and informative experience to enrich your teaching with practical examples of science in action! This learning journey is suitable for MOE educators teaching Upper Secondary/JC/MI sciences.</p> <p>Register here for the session.</p> |
|  10 Mar 2025, Monday  2.30 pm to 5.30 pm  TBC | <h3>Artificial Intelligence (AI) for Lesson Planning and Creation</h3> <p>Unlock the power of Generative AI (GenAI) to revolutionise your teaching! This workshop introduce AI tools that streamline lesson planning, spark creative ideas, and design engaging class activities. Learn how AI complements your expertise, enhancing your ability to cater to students' unique learning needs. Participants will explore practical applications of AI to elevate their teaching. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.</p> <p>Register here for the session.</p> |
|  11 Mar 2025, Tuesday  Option 1: 9am to 5 pm Option 2: 2.30pm to 5 pm  Bernina | <h3>Using TurtleStitch to Code Geometric Patterns for Embroidery</h3> <p>Learn TurtleStitch to code geometric pattern and translate your digital designs into tangible embroideries</p> <p>AM session will explore basic and advanced functions of a modern sewing machine</p> <p>PM session will focus on TurtleStitch and digital embroideries</p> <p>This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to Educators from STEM ALP schools.</p> <p>Register here for the session.</p> |
|  13 Mar 2025, Thursday  2.30 pm to 5.00 pm  Science Centre Singapore | <h3>Tinkering with Sweeteners</h3> <p>Explore different sweeteners and concoct a blend to create your own uniquely flavoured drink. Gain an understanding of the caloric values and health effects of various non-sugar sweeteners. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines.</p> <p>Register here for the session.</p> |

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|  26 Mar 2025, Wednesday  2.30 pm to 5.00 pm  Science Centre Singapore | Connecting Maths and Science Concepts with micro:bit <p>Explore how to apply computational thinking using micro:bit in your lessons! Math and Physics: the gradient of a slope and trigonometry Biology: the spread of an infectious disease</p> <p>This workshop is suitable for MOE educators and STEM instructors from secondary schools and above. Participants should be familiar with basic block coding. Explore the free canvas course, "Exploring Micro:bit - Basic & Intermediate". Please note that priority will be given to educators from STEM ALP schools.</p> <p>Register here for the session.</p> |
|  28 Mar 2025, Friday  2.30 pm to 5.30 pm  Science Centre Singapore | The Gamification Bootcamp <p>Transform your lessons with gamification! This workshop equips educators with strategies to make learning fun and engaging through practical gamified techniques. Highlights include "Principles of Gamification" where participants learn the fundamentals and real-world applications and "Motivation Drivers" where participants explore extrinsic vs intrinsic motivation and their impact on student engagement. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.</p> <p>Register here for the session.</p> |
|  4 Apr 2025, Friday  2.30 pm to 5.00 pm  Rosyth School | STEMStrong: Adaptive and Inventive Thinking with Smart Materials <p>Participants will learn how P3 students are enriched, and challenged in the topic of Diversity of Materials. They will explore smart materials like thermochromic and waterproof coatings, discovering how these can inspire innovative problem-solving. Hands-on activities will showcase strategies to develop adaptive and inventive thinking through practical STEM applications. This workshop is suitable for MOE educators.</p> <p>Register here for the session.</p> |
|  10 Apr 2025, Thursday  2.30 pm – 4.30 pm  Innovate 360 | Driving Sustainability through Innovation – Learning Journey to Innovate 360 <p>Driving food innovation, promoting sustainability, and transforming businesses to be future-ready. This journey will equip educators with insights into food tech innovation, offering tangible examples to integrate into their teachings and inspire students about future opportunities in the sector. This learning journey is suitable for MOE educators and STEM instructors from all levels and disciplines, and ETPS scholars.</p> <p>Register here for the session.</p> |

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|  16 Apr 2025, Wednesday  3.00 pm to 4.30 pm  Webinar Sharing | Webinar Sharing by Altimate Nutrition <p>Discover the future of sustainable nutrition in this engaging webinar tailored for educators. Learn about the science-backed nutritional benefits of insect protein, its role in promoting sustainability, and the regulations shaping its global adoption. Gain behind-the-scenes insights into the challenges and successes of running Altimate Nutrition, a pioneer in insect-based solutions, and explore how entomophagy—eating insects—can revolutionize food systems for a greener future. This session will equip you with valuable knowledge to inspire and educate students about innovative, sustainable food sources. This sharing is suitable for MOE educators and STEM instructors from all levels and disciplines, and ETPS scholars.</p> <p>Register here for the session.</p> |
|  24 Apr 2025, Thursday  2.30 pm to 4.30 pm  Science Centre Singapore | Keeping the Skies Safe: The Essential Role of Aircraft Engineers by Mr Nicholas Tan, Singapore Institute of Aerospace Engineers (SIAE) <p>Join us for a sharing by Mr Nicholas Tan, Honorary Vice President of the Singapore Institute of Aerospace Engineers (SIAE), on how aircraft engineering can serve as a powerful tool to spark students' interest in math and science. Learn about how math and science concepts are applied in the design, maintenance and flying of an aircraft, and the future career options in the aerospace industry for students. Case studies of recent aircraft incidents will be shared to emphasise the importance of human factors in aviation safety. This sharing is suitable for MOE educators and STEM instructors from all levels and disciplines, and ETPS scholars.</p> <p>Register here for the session.</p> |
|  29 Apr 2025, Tuesday  2.00 pm to 5.00 pm  Weston Robot | Robotics in Action: Unveiling STEM Innovations in Real-World Industries <p>Discover robotics with Weston Robot: fundamentals, Modmi demo, lab tour, hands-on Robot Dog session, and challenge. Gain practical skills and insights into advanced robotics through this immersive experience.</p> <p>This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to Educators from STEM ALP schools.</p> <p>Register here for the session.</p> |
|  30 Apr 2025, Wednesday  2.30 pm to 5.00 pm  Science Centre Singapore | Smart Making: Bridging STEM and Creativity with NFC-Enhanced Cricut Projects <p>This hands-on workshop empowers educators to integrate STEM concepts into their classrooms using Cricut machines and NFC tags. Participants will embark on a journey of designing and embedding NFC tags while mastering essential crafting techniques, unlocking their potential to implement innovative, technology-driven projects that inspire and engage students. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines.</p> <p>Register here for the session.</p> |



6 May 2025, Tuesday



2.30 pm to 5.30 pm



Science Centre Singapore

AI in Health and Food Science with PictoBlox

This workshop delves into the world of Artificial Intelligence (AI) using PictoBlox, a user-friendly programming platform. Participants will explore how AI technologies can be applied to address pressing challenges in health and food sciences. Through hands-on activities and demonstrations, attendees will learn to create and implement AI models to develop innovative solutions for Health and Food-related issues. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.

[Register here](#) for the session.



7 May 2025, Wednesday



9.00 am to 5.00 pm



Science Centre Singapore

Designing STEM Problem Scenarios

Problem-based learning is often used as a pedagogical approach for STEM education. This, however, requires teachers to find an authentic and meaningful problem that promotes the acquisition and application of STEM concepts. In this full day face-to-face hands-on workshop, teachers will collaboratively engage in STEM Spotting, be introduced to the G.R.A.S.P.S framework and have opportunities to craft real-world STEM problem scenarios for their profile of students. This workshop is suitable for MOE educators.

Register on OPAL 2.0 [OPAL Code: PED-000164]



27 May 2025, Tuesday



2.00 pm to 5.00 pm



Science Centre Singapore

Fast Prototyping with 2D

Learn 2D Computer-Aided Design (CAD) software and start creating projects with precision! You won't need stencils, compasses or protractors. This powerful drawing application has the tools to take care of it all! By focusing on basic mathematical concepts, drafting skills and design techniques, you can design and create 2D components in a matter of minutes or, sometimes, in seconds.

This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.

[Register here](#) for the session.



8 Jul 2025, Tuesday



2.00 pm to 5.00 pm



Science Centre Singapore

STEM+Arts Teaching and Learning using GEMS

This course addresses the current need and interests of upper primary and secondary school teachers in learning how to teach interdisciplinary topics in science, technology, engineering, mathematics, and arts (STEM+Arts). One innovative way of teaching these topics is by using various gems or gemstones and their properties. The course involves hands-on activities and laboratory experiments to demonstrate key concepts in STEM, and in visual art designs (jewellery). Some activities involve real-life examples of natural gemstones and their fakes extending beyond the syllabus as informal science learning. Participants will be given opportunities to discuss how to use gemstones to teach in their science lessons. This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines.

[Register here](#) for the session.



9 Jul 2025, Wednesday



2.30 pm to 5.30 pm



GlobalFoundries

Experiential Learning Journey to GlobalFoundries (GF)

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[Register here](#) for the session.



16 Jul 2025, Wednesday



2.30 pm to 5.00 pm



Innovate 360

Driving Sustainability through Innovation – Learning Journey to Innovate 360

Driving food innovation, promoting sustainability, and transforming businesses to be future-ready. This journey will equip educators with insights into food tech innovation, offering tangible examples to integrate into their teachings and inspire students about future opportunities in the sector. This learning journey is suitable for MOE educators and STEM instructors from all levels and disciplines, and ETPS scholars.

[Register here](#) for the session.



17 Jul 2025, Thursday



2.30 pm to 5.30 pm



Nanyang Polytechnic

Harnessing AI to Create an Enhanced SMART Living Environment

This workshop explores the transformative potential of artificial intelligence (AI) in creating smart living environments. Participants will learn how AI technologies can enhance daily life, sustainability, and well-being. Key topics include smart home automation, energy efficiency, predictive maintenance, and AI-integrated urban planning. Attendees will participate in hands-on activities to design AI-powered systems for personalized spaces and brainstorm innovative community applications. By the end, participants will have actionable strategies to integrate AI into modern living for a smarter, more sustainable future.

This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.

[Register here](#) for the session.



14 Aug 2025, Thursday



2.30 pm to 5.30 pm



Nanyang Polytechnic

Discover the Thrills of Material Science with Piezoelectricity!

This workshop explores the discovering how these materials generate electrical charges under mechanical stress and their real-world applications, from wearable devices to sustainable energy solutions. Through interactive demonstrations and hands-on experiments, you'll learn to harness their unique properties for innovative designs. This workshop is perfect for science enthusiasts, educators, and innovators alike, showcasing the exciting potential of piezoelectric materials in modern technology. Discover the Thrills of Material Science with Piezoelectricity!

This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.

[Register here](#) for the session.



3 Sep 2025, Wednesday



2.00 pm to 5.00 pm



Science Centre Singapore

3D Design Fundamentals

The impact of 3D printing on manufacturing has positively impacted the affordability of 3D printers. However, basic 3D design principles tend to be neglected. 3D printed objects work well only when the basic fundamentals of 3D design are followed. In this workshop, you will apply the skills and knowledge learnt, to design a 3D object that can be 3D printed.

This workshop is suitable for MOE educators and STEM instructors from all levels and disciplines. Please note that priority will be given to educators from STEM ALP schools.

[Register here](#) for the session.