

# Fe STEM

## Teacher Challenge

**Briefing Session**  
Friday 9th May 2025



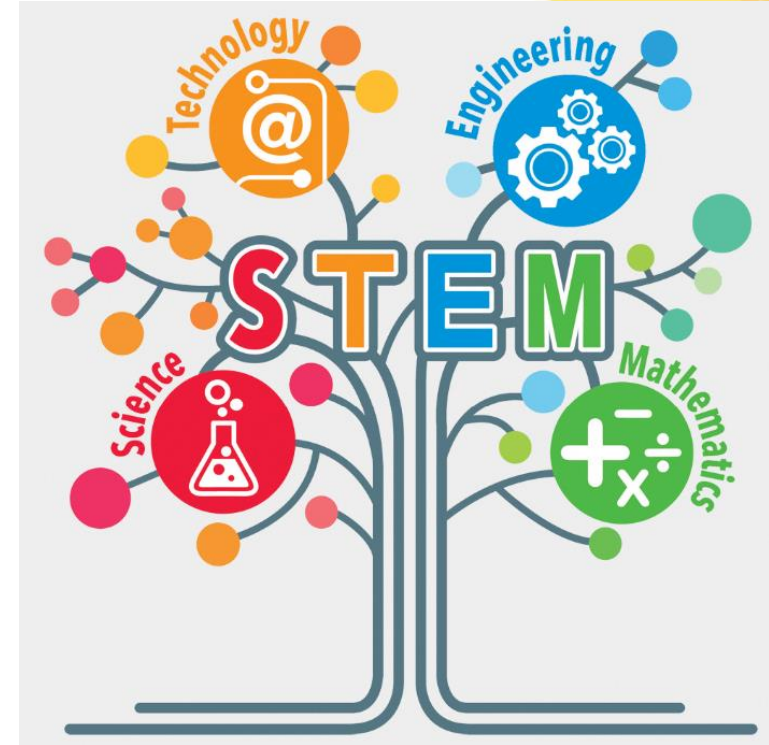
# Objectives

- ✓ To provide a platform to recognise and celebrate innovation and creativity in STEM education in Singapore
- ✓ To augment existing efforts in STEM related professional learning (PL) for educators
- ✓ To facilitate sharing and cross-pollination of ideas for STEM learning among the education fraternity

# History and Background

- ❖ Inspired by Iron Science Teacher competition organised by the Exploratorium in San Francisco since 1998
- ❖ Science Centre Singapore organised the Iron Science Teacher competition in Singapore from 2005 to 2008
  - Showcasing science teachers as they devise classroom activities using a particular “secret” ingredient — an everyday item such as a plastic bag, milk carton, balloon etc.

In 2023, the competition returned with the name Fe STEM Teacher Challenge.



***Fe***

- Iron
- Facilitate exchange; Facilitate engagement
- Fellowship of educators; Fun elements...

# Who can participate?

- ❖ **ALL** in-service teachers & STEM Instructors from:
  - MOE schools (Government, Government-aided, Autonomous)
  - MOE HQ / Seconded MOE Officers
  - Independent Schools
  - Specialised Schools and
  - International Schools
- ❖ Pre-service teachers (NIE)
- ❖ Members of Young Educators in Science programme (NUS)

**Not limited to teachers of  
STEM subjects**



# Qualifying Round Submission

**5 May to 11 July 2025**

- ❖ Participation can be as an **individual** or a **pair**.
- ❖ Submit the **link to video** using the **Form.sg** (link & QR code in the information sheet).
- ❖ You may submit **multiple entries**. All links to be provided in **ONE form** submission.

## 7. Demo (Video) Submission

Please upload your video on Youtube and provide your Youtube link here. If you have multiple videos, please number them and provide all the links in one form.



**Video should show** a **demonstration** using **materials that can be easily found daily**. The video should be **hosted on Youtube** and clearly illustrate/adhere to the following:

- ☐ **Clear visual** of demonstration / good quality
- ☐ Not more than **5 minutes** duration
- ☐ **Presence of the educator** in the video
- ☐ Indication of **target audience** (lower pri, upp sec etc.)
- ☐ **Explanation** of the principle(s) or concept(s) in STEM
- ☐ The **materials used/involved** in the demonstration

# Qualifying Round: Judging Criteria

Entries will be evaluated based on the following:

- ☐ Accuracy of content
- ☐ Application to real-world context
- ☐ Clarity and coherence
- ☐ Creativity and showmanship



# Resources for Reference

Resource	Link
<b>2023 Fe STEM Teacher Challenge Grand Final Videos</b>	STEM CeLL Professional Development Website <a href="#">Competition for Teachers</a> Click on the hyperlink under 'Award'
<b>Tik Tok Competition Videos</b>	STEM CeLL Tik Tok @stem.cell5
<b>Science Centre Singapore Science o'Clock Youtube Series</b>	<a href="#">Magnetic Cereal</a> <a href="#">Upside Down Water</a> <a href="#">Etching with Electricity</a>

# What do participants do at the Grand Final?

- ❖ The category for the ‘special ingredient’ will be revealed to finalists during the ‘Finalists engagement’ session on 22 Aug 2025. Finalists can **use any ONE item** from the category to incorporate into your demonstration.
- ❖ A maximum of **10 minutes** will be given for finalists to carry out your demonstration **on stage in front of a live audience**. The Grand Final will take place on **18 Nov 2025 at Nanyang Polytechnic Auditorium**.
- ❖ Demonstrations will be evaluated by a **judging panel** (*representatives from NIE, AST, CPDD, SCB*).

# Prizes

Awards	Remarks	Prize
Champion	Based on scoring from judging panel	\$500 worth of vouchers + Medal + Certificate
1 <sup>st</sup> Runner-Up		\$300 worth of vouchers + Medal + Certificate
2 <sup>nd</sup> Runner-Up		\$200 worth of vouchers + Medal + Certificate
People's Choice Award	Based on voting from live audience	\$100 worth of vouchers + Medal + Certificate

# Sharing by 2023 Fe STEM Teacher Challenge Champion

**Mr Jansen Tan**  
Senior Teacher (Chemistry)  
**Gan Eng Seng School**



# Key Dates

Item/Activity	Date(s)	Venue
Briefing on Fe STEM Teacher Challenge	Fri 16 May 2025	MSTeams
Submission of Videos for Qualifying Round	Mon 5 May to Fri 11 July 2025	Form.Sg
Finalist announcement	Fri 15 August 2025	Email
Finalist engagement session	Fri 22 Aug 2025 (PM)	Science Centre Singapore
Fe STEM Teacher Challenge Grand Final and Prize Presentation	Tue 18 November 2025 (PM)	Nanyang Polytechnic Auditorium



# Why participate in the Fe STEM Teacher Challenge 2025?

- **Showcase your creativity** as a teacher and **share your ideas** with the larger education fraternity.
- Opportunity to **network with other educators at the STEM Teacher FeST** who share a passion for STEM education.



# Q&A

# Q&A

## Must the video include all elements of STEM?

- Not necessarily. Your video can choose to focus on 2 or more elements of S-T-E-M.
- Subject disciplines could include Biology, Chemistry, Physics, Mathematics, Nutrition & Food Science, Design & Technology, Exercise & Sports Science etc.

# Q&A

**To what extent must the demonstration be an original idea?  
Could we take reference from content that we come across  
online and adapt it to the Singapore context?**

It is not necessary for the demonstration to be a completely original idea. However, we do not encourage participants to submit demos which are exact replicates of what others have done and shared.

Participants can take reference from available content, and make adaptations to the Singapore context, or even incorporate their own ideas and 'flavour' to enhance the content and delivery.

# Q&A

## Do we need to explain the concept in detail in the video?

The judging criteria includes the following:

- accuracy of content
- clarity and coherence

We leave it up to the discretion of the participant to decide on the level of details to be included in explaining the concept, while making effective use of the time for the video (not more than 5 minutes).

# Q&A

## Are we allowed to use editing software to edit the video?

Yes, participants are allowed to use editing software to edit the video, especially if it enhances the flow and engagement quotient of the video. However, do take note of the requirements for the video, e.g. the face of the educator should be clearly visible, and that the editing does not distract the viewer from the main focus of the video or affect its educational value.

# Q&A

## Do we use / bring our own materials / equipment for the Qualifying Round and Grand Final?

- Yes, participants are expected to use / bring your own equipment / materials for your demonstration for the qualifying round and grand final. However, no electrical items or open fire will be allowed in the Grand Final for safety purpose.
- Finalists (Pair/Individual) will be provided vouchers to support your transport (\$80) and procurement of materials (\$80) for the Grand Final.



# Q&A

## Is there a particular theme for this competition?

- There is no particular theme for this competition. As long as your demonstration involves S-T-E-M components.
- Demos could be from any subject disciplines (e.g. include Biology, Chemistry, Physics, Mathematics, Nutrition & Food Science, Design & Technology, Exercise & Sports Science etc.) or interdisciplinary.

# Q&A

**For participants joining as a pair do they need to be teaching in the class/level?**

- No. Participants joining as a pair can be from different levels/subject areas.
- However, the demonstration should be STEM related and focus on the same target audience, featuring the pair in the video.

# Q&A

**Will the demo for the qualifying round and grand final be the same or different?**

- The demonstrations will be different as the grand final involves the incorporation of a special ingredient which will be revealed a month before the finals. The demo is given a longer time (10 min) and involves the engagement of the live audience.
- Participants, however, can do a demo at the grand final which is an extension of the video they submitted for the qualifying round.

# Q&A

**Is the Fe STEM Teacher Challenge more of a teacher demo or a STEM activity students can do on their own?**

The Fe STEM Teacher Challenge is a demonstration done by the teacher. The teacher should be featured in the video submitted.

Students do not need to be featured in the video. Please refer to the judging criteria.

# Q&A

**If I have a few demonstrations, do they all have to be related or follow the same theme/concept?**

- You may submit a single video with a few demonstrations where the concepts are related
- Or you may submit multiple videos of unique demonstrations to increase your chances of qualifying for the finals.
- Each demonstration submitted is evaluated separately.

# Q&A

**Must the concept(s) covered in the video be related to the syllabus?**

Not necessary, as long as they are age-appropriate to your selected target audience.



# Q&A

## What is the programme flow for the Grand Final?

The Grand Final will be a segment of the STEM Teacher FeST and the tentative programme is appended below:

Time	Programme
11.30 am to 12.30 pm	Registration + Lunch + Networking + Industry & Student Booths
12.45 pm to 1.30 pm	Welcome & Opening Address Live Fe STEM Teacher Challenge
1.30 pm to 2.30 pm	Keynote Address + Q&A
2.30 pm to 3.00 pm	Awards Presentation for Fe STEM Teacher Challenge
3.00 pm to 3.45 pm	Tea
4.00 pm to 5.15pm	Concurrent Sessions

**Thank you and we look  
forward to your submissions!**