



The goal of the School Collaboration titled **“STEM Education through Education for Sustainable Development (ESD)”** is to enable participants to enhance their teaching practices in a way that is powerful not only to innovate STEM¹ teaching but also to enthuse pro-environmental choices among students. To achieve this, the Collaboration provides thematic and practical capacity-building training opportunities to the participants focusing on SDG 4 (Quality Education) and SDG 13 (Climate Action).

In total, the Collaboration consists of 9 sessions and an independent phase over a period of 11 weeks (end-Sep – mid-Dec 2022). It starts with an official welcome and introduction session. Then it conducts training and learning activities in 3 phases:

- 1) Self-Learning Phase | 3 Thematic Sessions & 2 Practical Sessions
- 2) Team-Learning | 2 Peer-to-Peer Sessions
- 3) Action-Learning | Designing “Innovative Teaching Practices” in groups of 3-5 teachers

After these 3 phases, the project closes with an Evaluation & Feedback session.

The key **thematic and practical training elements** of this Collaboration are designed around **Education for Sustainable Development (ESD)** with a particular focus on **Climate Change Education (CCE)**.

At the end of this Collaboration, we hope that participants will be equipped with the essential knowledge to integrate ESD and CCE in STEM subjects through addressing real-world driven climate challenges. We also hope that participants will form relevant networks, build necessary pedagogical skills, and feel inspired by their peers to independently carry out education initiatives on ESD and CCE to empower ASEM teachers in their own schools and beyond.

PROGRAMME & TIMELINE

Welcome Session | Official Welcome & Introduction

Tuesday, 27 Sep 2022 | SGT 16:00 – 17:00

- Official welcome of Organisers, Facilitators, and the Participants
- Introduction to ASEF, ASEM and ASEFEdu
- Introduction to the Project & the Interconnected System of STEM, ESD & CCE
- Ice-break & getting to know each other
- Expectation setting for participants

Official Welcome Remarks by:

Ambassador Leon FABER
Deputy Executive Director
Asia-Europe Foundation
Singapore

¹ Science, Technology, Engineering & Mathematics

Introduction by the ASEFClassNet Team:**Ms Reka TOZSA**

Actin Director
Education Department, Asia-Europe Foundation
Singapore

Ms Angie TOH

Senior Project Manager
Education Department, Asia-Europe Foundation
Singapore

Ms Jyoti RAHAMAN

Project Executive
Education Department, Asia-Europe Foundation
Singapore

Self-Learning Phase | Learning from Experts**04 Oct 2022 – 01 Nov 2022 | 4 Weeks****▪ 3 Thematic Webinars**

The **Thematic Webinars** (online lectures followed by discussions with subject experts) will provide participants with a solid knowledge foundation on the Collaboration topic.

Thematic Webinar 1 | The Fundamentals of ESD and its Learning Objectives for Climate Action**Tuesday, 04 Oct 2022 | SGT 16:00 – 17:00****Speaker:****Ms Jyoti RAHAMAN [Confirmed]**

ASEFClassNet Project Coordinator
Education Department, Asia-Europe Foundation
Singapore

The 1st part of this webinar is designed to help participants build a knowledge foundation on the origins and framework of ESD and identify its relevant concepts and initiatives. Then it will focus on the importance of ESD and its implications on education, especially at the secondary-level education within the context of SDG-13 (Climate Action). The 2nd part of the session will encourage participants to take part in discussions to deepen their understanding and to reflect on their roles as educators to explore the possibilities and challenges of implementing ESD as part of their classroom/school curriculum.

Thematic Webinar 2 | Climate Change Education (CCE) and its Significance Today**Monday, 10 Oct 2022 | SGT 16:00 – 17:00****Speaker:****Ms Grazyna PULAWSKA [Confirmed]**

Associate Director, Governance & Sustainable Development
Asia-Europe Foundation
Singapore

Mr David CRELLIN [Confirmed]

Founder & CEO
ScienceScope
The United Kingdom

The 1st part of this Webinar is designed to build a good understanding of the key trends and issues related to Climate Change & Global Warming among the teacher participants. The 2nd part of the Webinar highlights the significance of CCE and why should schools and STEM teachers at the

secondary education level focus on it. The webinar concludes with an interactive group discussion with the Speakers.

Thematic Webinar 3 | Methodology for Integrating ESD and CCE in Teaching Practices – Part 1
Tuesday, 18 Oct 2022 | SGT 16:00 – 17:30

Speakers:

Ms Eno NAKAMURA [Confirmed]

Secretary General

Development Education Association and Resource Center (DEAR)

Japan

Ms Yoko ITO [Confirmed]

Project Coordinator

Development Education Association and Resource Center (DEAR)

Japan

Integrating ESD and CCE in teaching practices is still a challenging concept in many ASEM countries. This Webinar engages teachers in meaningful discussion on various frameworks and dimensions of teaching ESD and Sustainable Development. The Webinar concludes with an interactive group discussion with the Speakers.

▪ **2 Practical Webinars**

During these 2 Practical Webinars, participants will learn about teaching methodologies and real-life examples of CCE implemented by the speakers who are innovators and educators. These practical webinars and the discussion afterward are designed to set participants with practical knowledge, reflection exercises, and inspiration on the Collaboration topic. They will learn about impactful initiatives from Asia and Europe and explore practical questions on how to integrate such examples into their teaching practices to help learners be aware of climate change and build sustainability competencies for climate action.

Practical Webinar 1 | Methodology for Integrating ESD and CCE in Teaching Practices – Part 2
Tuesday, 25 Oct 2022 | SGT 16:00 – 17:00

Speakers:

Ms Eno NAKAMURA [Confirmed]

Secretary General

Development Education Association and Resource Center (DEAR)

Japan

Ms Yoko ITO [Confirmed]

Project Coordinator

Development Education Association and Resource Center (DEAR)

Japan

Building upon the 3rd Thematic Webinar on the same topic, this Practical Webinar will explore practical methodologies for integrating ESD and CCE in teaching practices. It engages teachers in team exercises to reflect on the purposes of teaching about Climate Change. Then it offers recommendations, methodologies and pedagogical approaches teachers can adapt to integrate successfully into their teaching. The Webinar concludes with an interactive group discussion with the Speakers.

Practical Webinar 2 | Igniting Interdisciplinary STEM Teaching through ESD & CCE: Real-Life Examples from Asia and Europe – “The V4IoT Project’s Teaching Modules”

Tuesday, 01 Nov 2022 | SGT 16:00 – 17:00

Speakers:

The ASEFClassNet Team

Mr Adam STEPINSKI

The V4IoT Project Coordinator

Teacher & Winner of the European Language Label Award for the V4IoT Project
Copernicus Upper-Secondary School Tarnobrzeg,
Poland

Mr Josh WRIGHT

Software Engineer

ScienceScope [V4IoT’s EdTech Partner]

The Speakers Europe of this Webinar will introduce participants to the V4IoT Teaching Modules that embrace teaching STEM Subjects in an interdisciplinary way by addressing real-world driven climate challenges. The session will also discuss data-driven interesting climate action initiatives that are powerful to shape learners’ mindsets and encourage them to adopt pro-environmental choices. The Webinar concludes with an interactive group discussion with the speakers where participants will have an opportunity to informally interact, learn more about the initiatives, and raise practical questions for group discussion.

Team-Learning Phase | Learning from Peers

08 Nov 2022 – 15 Nov 2022 | 1 Week

▪ 2 Peer-to-Peer Sessions

The peer-to-peer meetings will give participants a safe, engaging, and informal space to follow up on the lessons learned during the Thematic and Practical Webinars and to share their personal perspectives and experiences. Most importantly, they will participate in team-building exercises to build teams for the Action Learning Phase.

Peer-to-Peer Session 1 | Peer-to-Peer Exchange on Webinars & Team Building

Tuesday, 08 Nov 2022 | SGT 16:00 – 17:30

Peer-to-peer group discussions & exchange on lessons learned from all webinars and participate in a team building exercise. At the end of the session, participants will be divided into teams of 3-5 to work on designing an “Innovative Teaching Practice” on Climate Change Education (CCE) during the “Action Learning” phase.

Conducted by The ASEFClassNet Team

Supported by the Facilitators of the School Collaboration:

Mr John Yeo [Asia, Confirmed]

Education & EdTech Consultant

Asian Development Bank

Singapore

Ms Alexia MICALLEF GATT [Europe, Confirmed]

STEM Teacher

St. Paul’s Missionary College

Malta

Peer-to-Peer Session 2 | Ideation & Discussion on Designing Innovative Teaching Practices**Tuesday, 15 Nov 2022 | SGT 16:00 – 17:30**

Participants in allocated teams discuss ideas, pedagogical approaches, timelines, and strategies to design their “Innovative Teaching Practices” on CCE to support their students build “Sustainable Competencies”.

Conducted by The ASEFClassNet Team**Supported by the Facilitators of the School Collaboration****Action-Learning Phase | Spin-Off Activity on Designing “Innovative Teaching Practices”****21 Nov 2022 – 22 Dec 2022 | 1 Month****▪ Spin-off Activity – Designing Innovative Teaching Practices**

After complimenting the thematic training, practical training, and peer-to-peer sessions, participants in teams of 3-5 embark on designing their “Innovative Teaching Practices” on CCE during this phase. The purpose of this phase is to ensure that participants gain a deeper understanding of the topic and develop self-awareness and pedagogical capacities on ESD teaching practices with a strong focus on CCE through active participation and engagement with their peers.

- The “Innovative Teaching Practices” must be designed in a way that can either be implemented in their own classroom or in the whole school environment.
- Designed “Innovative Teaching Practices” must also be innovative in a way that contributes to improving the quality of STEM learning for their students as well as nurturing positive climate actions.

The Dates for this phase are:

- **Check-in Meeting with the Facilitators & the ASEFClassNet Team**
Wednesday, 23 November 2022 [SGT 16:00 – 18:00]
- **1s Draft Submission [Short Summary]**
Wednesday, 30 November 2022 [SGT 10:00]
- **Feedback Meeting on 1st Draft**
Wednesday, 7 December 2022 [SGT 16:00 – 18:00]

Mentored by the Facilitators of the School Collaboration**Conducted by The ASEFClassNet Team****Closing Session | Presentation of the Innovative Teaching Practices, Evaluation & Feedback****Tuesday, 13 December 2022 | SGT 16:00 – 18:00**

Meeting with the ASEF team, Facilitators, and all Participants to present the “Innovative Teaching Practice” designed during the “Action Learning Phase” and give feedback on the overall project. Participants will be encouraged to implement the designed “Innovative Teaching Practices” at their schools as **independent spin-off activities** (individual and/or team) to empower more teachers and students in ASEM countries.

Conducted by The ASEFClassNet Team**Final Submission | Innovative Teaching Practices by Teams****Thursday, 22 December 2022 | SGT 10:00**

ICT TOOLS / DIGITAL RESOURCES REQUIRED

- Internet Access & Computer with Webcam
- ASEF's e-Learning Platform
- Facebook Group
- Google tools (Docs/ slides/ forms)
- Dropbox
- Padlet
- Mentimeter & Mural, etc.

EXPECTED CONTRIBUTION FROM PARTICIPATING TEACHERS

- Full participation in 9 sessions (1 Introduction & Welcome Session, 1 Closing, 3 thematic, 2 practical and 2 peer-to-peer sessions; 1 to 1.5 hours per session; 2 hours for the closing session)
- Successfully design a spin-off activity on "Innovative Teaching Practice" in teams of 5-7
- Complete an online feedback/evaluation (form will be distributed to all the participating teachers and facilitators), including a joint virtual session with all participants.

| End of Programme |
