

‘Bringing the STEM Curriculum to Life: Learning for a Sustainable World’

About the programme

The ‘Bringing the STEM Curriculum to Life: Learning for a Sustainable World’ programme developed by Learning for Sustainability Scotland in partnership with Dumfries and Galloway and North Ayrshire Councils, is part of Education Scotland’s STEM professional learning programme 2023/24.

The programme offers a blended mix of self-led and facilitated online professional learning across a four-module, facilitated online programme. Senior leadership teams, teachers and early years practitioners are supported to weave together STEM, Learning for Sustainability (LFS) and DYW-related learning across their practice and the wider life of their learning communities.

Aligned with Scotland’s education priorities, the UN Sustainable Development Goals, and the National Model for Professional Learning, the **overall course learning outcomes** are to:

- Critically reflect on the values, knowledge, skills and abilities required of teachers and learners to enable them to:
 - Consider real-world local and global challenges in the context of LFS and the STEM curriculum
 - Participate successfully in a fair and green society and contribute to a net-zero economy by taking meaningful action appropriate and relevant to their context.
- Develop and apply practical activities in school and reflect on the impact on self, learners and learning community
- Develop confidence in teacher leadership for STEM and LFS and engage in peer learning
- Collaborate with others to reflect on and evaluate their own and their students’ learning and plan for future development.

The programme, currently hosted on GLOW Teams, provides participants with approximately fortnightly inputs through a series of self-accessed on-line materials; with support from dedicated tutors as they experiment with their approaches to delivery and practice.

Fortnightly, hour-long, facilitated online ‘real-time’ collaboration opportunities are offered; providing support and opportunities for sharing ideas and reflections with peers as well as tutors.

A core element of the programme includes an on-going opportunity for participants to develop, share, evaluate and reflect on a unit of STEM-related learning with their own learners; again supported by their assigned tutor. We are particularly keen to encourage interdisciplinary, whole-setting, cross-sectoral and inter-authority collaboration and networking.



**Education
Scotland**
Foghlam Alba

Module	Learning Outcomes
<p>1. Introduction to Learning for Sustainability in STEM</p>	<ul style="list-style-type: none"> • Understand the context for Learning for Sustainability and STEM in Scotland and their connection to broader Scottish education priorities including the GTC Scotland Professional Standards. • Consider the global context for LfS including the UN Sustainable Development Goals. • Reflect on what connecting Learning for Sustainability and the STEM curriculum could look like in your own practice and across your setting. • Identify opportunities for children and young people to engage with sustainability issues in your locality.
<p>2. Learning for the 21st century: skills, values, knowledge and agency</p>	<ul style="list-style-type: none"> • Explore and reflect on the nature of personal, professional and societal values for a sustainable world. • Critically reflect on the meta-skills and qualities required of learners to engage with, and be empowered to take action for, a fair and green society and a net zero economy. • Consider how you can promote equity, address inequality and challenge stereotypes through LfS in STEM. • Reflect on the challenges and opportunities to support students in taking responsible action on local and global issues in the context of STEM.
<p>3. ‘Real-life’ teaching and learning: engaging STEM learners in meaningful, contextualised learning</p>	<ul style="list-style-type: none"> • Explore ways to deepen learning and bring about critical engagement with ‘real life’ issues and consider how to bring about change in your own teaching context. • Review issues surrounding the meaningful engagement of learners in relation to Learning for Sustainability and STEM. • Plan the future development of an aspect of your Learning for Sustainability and STEM practice within your setting.
<p>4: Reflection and collaboration: looking to the future</p>	<ul style="list-style-type: none"> • Reflect on how you have deepened your own learning by critically questioning your assumptions and how this has impacted on your thinking and practice. • Evaluate and evidence the impact on pupils’ learning in relation to your small-scale activity focused on Learning for Sustainability in the STEM curriculum, and share this with the other participants. • Engage in discussions with other participants about the impact of your learning and how you might work together with others to further develop Learning for Sustainability in the STEM curriculum. • Use your reflections to consider how you will continue to embed Learning for Sustainability in your practice and take action beyond the course.