

Learning for Sustainability across Scotland:

**Understanding opportunities to
further support school teachers**

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Executive Summary

Education is widely recognised as fundamental to global efforts to address interconnected and complex environmental and sustainability challenges¹. Recent EU-led research has identified Learning for Sustainability (LfS) as a key educational approach for cultivating a broad range of knowledge, skills, and competences through whole-school practices. This includes integrating sustainability across curricula, pedagogy, school leadership, teacher professional learning and policy-making².

In Scotland, for more than a decade, LfS has been embedded across education for children and young people aged 3–18, recognised as an approach to learning and life, and an entitlement for all learners³. LfS is part of the Professional Standards for teachers and college lecturers in Scotland, as set out by the General Teaching Council for Scotland⁴ and the College Development Network⁵.

This report provides early insights concerning the LfS practices and experiences of school teachers in Scotland. Findings are drawn from initial analyses of responses to a national survey of educators gathered during August – November 2025, with contributions from all 32 local authorities in Scotland and over 300 responses from school teachers. Further reporting stages will take a more holistic view of the dataset (~545), including all educational settings, such as community, college and university environments.

¹OECD (2025), Education for human flourishing: A conceptual framework, OECD Publishing, Paris, <https://doi.org/10.1787/73d7cb96-en>.

²OECD (2025), Education for human flourishing: A conceptual framework, OECD Publishing, Paris, <https://doi.org/10.1787/73d7cb96-en>; European Commission/ EACEA/ Eurydice, 2024. Learning for Sustainability: Building competences and supporting teachers and schools. Eurydice report. Luxembourg: Publications Office of the European Union. Available at: <https://op.europa.eu/en/publication-detail/-/publication/dc327457-f875-11ee-a251-01aa75ed71a1/language-en>.

³<https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf>

⁴<https://www.gtcs.org.uk/knowledge-base/sections/the-standards>

⁵GTC Scotland & College Development Network. (2021, September 14). Professional Standards for Lecturers in Scotland's Colleges (Full Registration) (<https://www.gtcs.org.uk/documents/professional-standards-for-lecturers-in-scotlands-colleges>)

Three findings emerged:

1. Education and/or training in LfS is limited in the school sector with only one third of respondents reporting participation in such activities.
2. School teachers who responded to this survey are confident to teach LfS in their classrooms and nearly nine out of ten participating teachers welcome learners' questions about sustainability issues.
3. Constraints to realising LfS as an entitlement for all learners persist and investment in career-long professional learning is vital.

Five key learnings for policy makers are:

1. Learning for Sustainability is recognised by teachers in Scotland as integral to their professional role, suggesting that LfS is understood to be part of what it means to be a teacher in Scotland today.
2. Teachers with prior education and/or training in LfS have greater confidence to take forward LfS as part of their professional role than those who do not.
3. Initial Teacher Education has a critical role in ensuring that teachers are supported to understand and embed LfS from the start of their careers.
4. There is clear evidence that comprehensive LfS-focused professional learning is needed to support teachers at varied points in their careers.
5. Greater policy integration and coherence - including within the Curriculum Improvement Cycle together with sustained, LfS-focused professional learning, are essential to achieving the Target 2030.

Context

Education is widely recognised as fundamental to global efforts to address interconnected and complex environmental and sustainability challenges⁶. Recent EU-led research has identified Learning for Sustainability (LfS) as a key educational approach for cultivating a broad range of knowledge, skills, and competences through whole-school practices. This includes integrating sustainability across curricula, pedagogy, school leadership, teacher professional learning and policy-making⁷.

For more than a decade, LfS has been embedded across education for children and young people aged 3–18 in Scotland, recognised as an approach to learning and life, and an entitlement for all learners⁸.

LfS is, 'a cross-curricular approach which enables learners, educators, learning settings and their wider community to build a socially-just, sustainable and equitable society; and as an effective whole-setting approach which weaves together global citizenship, sustainable development and outdoor learning to create coherent, rewarding and transformative learning experiences'⁹.

LfS is woven across the Professional Standards for teachers and college lecturers in Scotland, as set out by the General Teaching Council for Scotland¹⁰ and the College Development Network¹¹.

In 2023, Scotland's Learning for Sustainability Action Plan (Target 2030) set a national target for all learners to receive their entitlement to LfS, and for every 3–18 learning setting in Scotland to become a Sustainable Learning Setting by 2030¹².

Recent efforts to advance this ambition have included a new National Framework for Learning for Sustainability in Initial Teacher Education. This work was co-created by all eleven institutions which provide Initial Teacher Education (ITE) in Scotland and supported by the Scottish Council of Deans of Education¹³.

Across Scotland, the Curriculum Improvement Cycle - led by Education Scotland¹⁴ - offers a vital opportunity to strengthen and achieve the Target 2030 ambition by further embedding LfS across all curricular areas; as well as its proposed inclusion as one of eleven 'key competencies'. Strengthening integration would ensure that all learners receive high-quality education, including their entitlement to LfS as an integrated approach woven throughout the 3–18 curriculum.

⁶OECD (2025), Education for human flourishing: A conceptual framework, OECD Publishing, Paris, <https://doi.org/10.1787/73d7cb96-en>.

⁷OECD (2025), Education for human flourishing: A conceptual framework, OECD Publishing, Paris, <https://doi.org/10.1787/73d7cb96-en>; European Commission/ EACEA/ Eurydice, 2024. Learning for Sustainability: Building competences and supporting teachers and schools. Eurydice report. Luxembourg: Publications Office of the European Union.

Available at: <https://op.europa.eu/en/publication-detail/-/publication/dc327457-f875-11ee-a251-01aa75ed71a1/language-en>.

⁸<https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf>

⁹<https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf> (page 5).

¹⁰<https://www.gtcs.org.uk/knowledge-base/sections/the-standards>

¹¹GTC Scotland & College Development Network. (2021, September 14). Professional Standards for Lecturers in Scotland's Colleges (Full Registration) (<https://www.gtcs.org.uk/documents/professional-standards-for-lecturers-in-scotlands-colleges>)

¹²Scottish Government (2023). "Target 2030" A movement for people, planet and prosperity.

Scotland's Learning for Sustainability Action Plan 2023-2030. Available online.

¹³Rushton, E.A.C., Aldous, S., Christie, B., King, B., Leask, K. & Ramjan, C. (2025). A National Framework for Learning for Sustainability in Initial Teacher Education. Scottish Council of Deans of Education. Available online.

¹⁴<https://education.gov.scot/curriculum-for-excellence/about-curriculum-for-excellence/the-curriculum-improvement-cycle-cic/>

Despite LfS being established in Scotland for over a decade, there are relatively few published empirical studies which have explored educators' experiences and practices of LfS holistically, and which extend across Scotland¹⁵.

In response to this gap, we conducted a national survey of educators' LfS conceptualisations and practices. The survey aimed to understand how LfS is interpreted, explore the diverse professional approaches in use, identify persistent challenges and barriers, and consider the support needed to address them and progress the Target 2030 ambition.

Given ongoing educational reform in Scotland and including the Curriculum Improvement Cycle, the analysis presented from this National Survey on LfS, drawn from the first phase of reporting, focuses on insights and learnings particularly relevant to educators working in school settings. Further reporting stages will take a more holistic view of the dataset, including all educational settings, such as community, college and university environments.

Drawing on learning from recent previous studies, including surveys of teachers in England¹⁶, we developed a digital survey instrument which could capture insights from and the experiences of educators working in formal (e.g. schools, colleges, universities) and informal (e.g. communities, science centres, non-governmental organisations [NGOs]) settings across Scotland.

Following ethical approval and a pilot phase, the survey was open for responses during the period 7 August – 11 November 2025. The survey was designed to allow respondents to remain anonymous and to choose which questions to answer or skip. They were also free to withdraw at any time.

¹⁵Ward, K. S., Purcell, M., Beresford Dey, M., Searle, B., Birch, R., & MacDonald, T. (2025). Learning for sustainability in Scotland: when best practice is not enough. *Environmental Education Research*, 31(6), 1099-1116.

¹⁶Greer, K.; Sheldrake, R.; Rushton, E.; Kitson, A.; Hargreaves, E.; Walshe, N. (2023) *Teaching climate change and sustainability: A survey of teachers in England*. UCL Centre for Climate Change and Sustainability Education: London, UK. Available online; Howard-Jones, P., Sands, D., Dillon, J., & Fenton-Jones, F. (2021). The views of teachers in England on an action-oriented climate change curriculum. *Environmental Education Research*, 27(11), 1660-1680.

Survey Respondents

The survey received 545 responses, including contributions from educators in all thirty-two local authorities in Scotland, covering those from early years, nursery or primary schools, secondary schools, colleges and universities, and other work settings.

Of the 545 responses received, 313 participants reported working at school settings (early years, nursery or primary schools, or secondary schools), where 170 only worked at early years, nursery or primary schools and 136 only worked at secondary schools (while the remainder reported working across both settings).

These educators from school settings reported that they had a range of professional experience, encompassing their current and previous educational roles, with 14% reporting 1-5 years, 14% reporting 6-10 years, 18% reporting 11-15 years, 20% reporting 16-20 years, and 33% reporting 20+ years (across 311 who answered this question). They also conveyed expertise in a range of subjects including: English and literacy; expressive arts, including art and design, dance, drama and film; health and wellbeing; mathematics and numeracy; modern foreign languages; physical education; religious and moral education; social studies, including history and geography; and technologies, including food, textile, design and computing (across 302 educators who answered this question).

Given the ongoing review of the 3-18 school curriculum in Scotland, our initial analysis focuses on emerging insights most relevant for educators working in school settings, and for policy makers and other stakeholders responsible for school education in Scotland. As respondents working in settings other than schools are well represented in the data, future analysis will take a more holistic approach and consider specific learnings and insights from formal settings including colleges and universities, as well as informal settings including communities, NGOs, science centres.

1. Education and/or training in LfS is limited in the school sector

Across those working only in school settings (n=301), 28% reported prior education and/or training related to LfS. Of those currently working in a secondary setting, only a quarter (25%) reported having any prior education or training in LfS and this was only slightly higher (29%) for those in early years/nursery or primary settings.

This suggests that the survey has reached those who have not actively engaged with LfS professional learning and networks and, therefore, provides an important opportunity to understand experiences across a spectrum of engagement.

Reporting prior education and/or training in LfS tended to be more prevalent for those with 1-5 years of professional experience (most apparent when comparing those with 1-5 years of experience against everyone else). 44% of respondents with 1-5 years of professional experience reported prior education/training in LfS, while 25% of respondents with 6+ years of professional experience reported prior education/training in LfS.

These findings suggested that access to, and engagement with, LfS-focused education and/or training is low and is a key priority area for development. Teachers with more extensive professional experience are less likely to have engaged in prior education and/or training in LfS than those with less professional experience. This could suggest that whilst access has increased in the last five years, this could be limited to Initial Teacher Education, and that LfS-focused professional learning remains a priority within formal education settings.

2. School teachers are confident to teach LfS in their classrooms

Respondents were invited to indicate their level of agreement on a five-point scale, ranging from strongly disagree to strongly agree, with items asking about their confidence to discuss and address sustainability issues with both learners and fellow educators (Table 1).

Q17 Items	All school-based respondents (number)	All school-based respondents (percentage agreement)	Early years/nursery and/or primary only (percentage agreement)	Secondary only (percentage agreement)
a. Although sustainability issues are complex, I feel prepared to address them through my role as an educator	173	66%	72%	62%
b. I feel confident to answer learners' questions about sustainability issues	173	70%	75%	66%
c. I feel confident to answer questions other educators have about LfS	172	36%	40%	32%
d. I welcome learners' questions on sustainability issues	172	88%	93%	84%
e. I have the necessary skills to integrate LfS in my professional role as an educator	173	53%	59%	46%
f. I have a good understanding of current sustainability issues	174	64%	64%	66%
g. I am able to use examples of local and national sustainability issues in my professional role as an educator	172	68%	69%	67%

Table 1. Teachers' confidence to teach LfS

Responses indicate that teachers both welcome and express confidence in their ability to answer learners' questions about sustainability issues (Table 1, items d and b). Teachers in early years/nursery or primary settings reported slightly higher levels of agreement compared to their secondary colleagues for both welcoming learners' questions (93% compared to 84%) and confidence to answer learners' questions (75% compared to 66%). We suggest that this shows that teachers value and recognise the place of LfS in Scotland's schools.

Responses also indicate that many teachers feel prepared to teach complex sustainability issues, that they have a good understanding of sustainability issues, and can draw on examples at local and national scales (Table 1, items a, f and g)

We suggest that these results show that many teachers recognise the importance of teaching sustainability issues in their classrooms, despite the lack of reported engagement in prior education and training related to LfS. These findings could also underline the place that LfS has in teachers' understandings of what it means to be a teacher in Scotland, and in shaping the learning experiences of children and young people in Scottish schools.

However, these findings highlight that teachers in school settings require further support to enable them to integrate the necessary skills in relation to LfS across their practice and engage in professional dialogue about LfS with other educators.

3. Constraints to realising LfS as an entitlement for all persist

Firstly, teachers reported markedly different levels of confidence depending on the audience of LfS-related questions. While confidence was high when responding to learners' questions (93% in early years/nursery/primary and 84% in secondary), it was considerably lower when addressing questions posed by other educators (Table 1, item c). In secondary schools, fewer than one-third of teachers (32%) felt confident in this regard, compared with 40% in early years/nursery and primary settings. The relationship between confidence in answering colleagues' questions and prior education and/or training in LfS was statistically significant (Table 2, item c).

Secondly, confidence in possessing the skills necessary to integrate LfS into professional practice also varied by context. A majority of respondents in early years/nursery and primary settings (59%) agreed they had the requisite skills, whereas less than half of secondary teachers (46%) expressed the same view (Table 2, item e).

Taken together, these findings suggest that teachers are less assured when engaging with other educators about LfS and that their confidence tends to diminish outside the immediate context of classroom practice. As presented in Table 2, where teachers' confidence is compared with levels of reported education and/or training in LfS, this pattern appears linked to the limited prior education and training in LfS reported by most respondents working in school settings. Notably, teachers with prior education or training in LfS consistently reported higher levels of preparedness: they felt more capable of addressing sustainability issues in their role, more confident in responding to colleagues' questions, more skilled in integrating LfS into their practice, and more able to draw on relevant examples (Table 2).

Question (reported value)	No	Yes	D	Sig. (p)
Q11. Do you have prior education and/or training in LfS? (% yes)	0%	100%	-	-
Q17 a. Although sustainability issues are complex, I feel prepared to address them through my role as an educator (% agreement)	60%	80%	.430	.006
Q17 b. I feel confident to answer learners' questions about sustainability issues (% agreement)	66%	78%	.264	.094
Q17 c. I feel confident to answer questions other educators have about LfS (% agreement)	27%	55%	.587	.001
Q17 d. I welcome learners' questions on sustainability issues (% agreement)	88%	87%	.024	.887
Q17 e. I have the necessary skills to integrate LfS in my professional role as an educator (% agreement)	44%	69%	.506	.002
Q17 f. I have a good understanding of current sustainability issues (% agreement)	61%	73%	.242	.131
Q17 g. I am able to use examples of local and national sustainability issues in my professional role as an educator (% agreement)	63%	80%	.368	.019

Table 2. A comparison of school teachers' confidence to teach LfS with prior education and/or training in LfS

Consistent with previous research, these early findings underline the continued need for career-long professional learning (CLPL) focused on LfS. Such CLPL has substantial potential to increase teachers' confidence in responding to colleagues' questions, enhance teachers' skills to integrate LfS and increase the extent to which teachers can include examples of local and national sustainability issues as part of their teaching.

The specific needs-based insights gained through this survey suggest that effective CLPL would include developing peer-to-peer professional enquiry, collaborative learning and curriculum making to further foster teacher agency in the context of LfS.

Key learning for policy makers includes:

1. Recognition of LfS

Early findings show that teachers in Scotland view LfS as integral to their professional role, regardless of whether they have formally engaged in LfS education or training. This suggests that embedding LfS within the GTCS professional standards is now visibly shaping teachers' practices, reinforcing that LfS is part of what it means to be a teacher in Scotland.

¹⁷Christie, B., Higgins, P., King, B., Collacott, M., Kirk, K. and Smith, H. (2019). From rhetoric to reality: Examining the policy vision and the professional process of enacting Learning for Sustainability in Scottish schools. *Scottish Educational Review* 51(1):44-56. Available online; McGregor, C., & Christie, B. (2021). Towards climate justice education: Views from activists and educators in Scotland. *Environmental Education Research*, 27(5), 652-668. Available online; Ward, K. S., Purcell, M., Beresford Dey, M., Searle, B., Birch, R., & MacDonald, T. (2025). Learning for sustainability in Scotland: when best practice is not enough. *Environmental Education Research*, 31(6), 1099-1116. Available online.

¹⁸Rushton, E. A., & Walshe, N. (2025). Curriculum making and climate change and sustainability education: a case study of school teachers' practices from England, UK. *Environmental Education Research*, 31(5), 1083-1097. Available online.

2. Impact of prior education and/or training

Teachers with prior LfS education or training demonstrate: greater confidence in supporting colleagues' questions on sustainability; enhanced ability to integrate LfS across their professional responsibilities; and stronger capacity to use local and national sustainability examples in teaching.

3. Role of Initial Teacher Education (ITE)

Findings illustrate the critical role ITE plays in preparing teachers to embed LfS from the outset of their careers. This focus should be retained and strengthened, including through the National Framework for LfS in ITE.

4. Need for comprehensive LfS-focused professional learning.

Findings underline the necessity of strengthening LfS provision as an entitlement for all teachers, delivered through diverse and accessible approaches to career-long professional learning (CLPL). Teachers with fewer years of experience (1-5 years) are more likely to have participated in LfS-related education or training compared to those with longer professional experience (6+ years). This highlights the importance of ongoing professional learning opportunities to ensure all teachers can engage with LfS-focused CLPL throughout their careers.

5. Policy integration, coherence and alignment with Target 2030 ambitions:

With the national ambition that by 2030: all learners receive their entitlement to LfS, and all learning settings become sustainable learning environments, these findings provide clear insights into the actions required to meet these ambitious goals within the next five years. The ongoing Curriculum Improvement Cycle offers a key opportunity to further embed LfS across all subject areas, whilst strengthening the successful integration of LfS across the GTCS professional standards ensures LfS remains at the heart of what it means to be a teacher in Scotland. Such a comprehensive approach - increased policy integration and coherence alongside sustained, LfS-focused professional learning - is imperative if the Target 2030 ambition is to be realised.