EAUC's response to the autumn 2024 Curriculum and Assessment Review call for evidence

Please note – this was submitted using an online form. Only questions we answered are outlined below. Where numbered questions are missing, we felt there wasn't strong alignment between the question and EAUC's experience and expertise.

Section 1: About you

1. Are you responding as an individual or on behalf of an organisation?

Organisation

3. If you are responding on behalf of an organisation, which of the below best describes which part of the sector your organisation represents?

Charity, social enterprise organisation or non-profit organisation

4. What is the name of your organisation?

The Environmental Association for Universities and Colleges (EAUC)

9. Would you like us to keep your responses confidential?

No

Section 2: General views on curriculum, assessment, and qualifications pathways

10.What aspects of the current a) curriculum, b) assessment system and c) qualification pathways are working well to support and recognise educational progress for children and young people?

Curriculum

- There is potential for curricula to integrate Education for Sustainable Development (ESD), across different subject areas and in different qualification types. Examples of how this can and is being done can be found in the Realigning Curricular for the Future series (https://www.eauc.org.uk/realigning_curricula_for_the_future) and ETF's subject specialism guide which EAUC contributes to (https://www.et-foundation.co.uk/resources/esd/esd-resources/esd-in-different-subject-areas/).
- There is a good range of subjects for students to study and they have an opportunity to choose optional subjects aligned with their interests, supporting the development of a broader set of skills and their overall educational progress.
- Students interested in vocational careers also have the opportunity to gain hands-on experience through taking BTEC or T Levels, equipping them with practical skills directly applicable to related industries. The range of technical qualifications available enhances accessibility and inclusivity of education.
- Programmes such as the DfE funded National Education Nature Park, Climate Ambassadors and Sustainability Support for Education provide support across education settings as do the resources and support available from non-government sources like EAUC (https://www.eauc.org.uk/).

Assessment:

- The focus on applied knowledge in assessments such as T Levels and apprenticeship standards allows students to demonstrate their skills in real-world contexts, particularly important for sustainability-related education and a feature of high quality ESD.
- The use of practice/model papers/questions in class so students can understand the format and what they'll be up against before taking the assessment helps to build confidence. The use of foundation and higher papers helps all students progress in their educational journey by ensuring students with a weaker grasp on a subject can still perform and be differentiated between while also allowing students with a better grasp of the subject to demonstrate their full understanding and aptitude.

Qualification pathways:

- Pathways like T Levels, apprenticeships, and higher-level technical qualifications offer clear progression routes into 'green skills' sectors, fostering alignment with labour market needs. There are plentiful options available for learners to specifically choose a climate/sustainability education.

11.What aspects of the current a) curriculum, b) assessment system and c) qualification pathways should be targeted for improvements to better support and recognise educational progress for children and young people?

The Curriculum and Assessment Review presents an important opportunity to ensure that education equips all learners with the knowledge, skills, and broader attributes needed to thrive in a rapidly changing world. Embedding sustainability across curricula, assessments, and qualification pathways is essential to equip young people (and indeed adult learners) to address the intertwined challenges of climate change, biodiversity loss, and social inequality while supporting their academic attainment, future employability, and wellbeing.

Curriculum

Sustainability remains inconsistently integrated into curricula with a current weighting of content in STEM subjects and geography. Expanding sustainability as a cross-curricular theme - similar to the approach adopted by Wales' Curriculum for Future Generations (https://www.futuregenerations.wales/impact/curriculum/) can ensure that all students develop critical thinking, problem-solving, and collaborative skills that are central to sustainable development. This is not only an environmental priority but also an academic one: project-based and experiential learning approaches linked to sustainability have been shown to increase student engagement and improve attainment outcomes, particularly for disadvantaged learners (e.g. https://publications.naturalengland.org.uk/publication/6636651036540928; https://www.outdoor-learning.org/community/sector-specialist-groups/nature-premium/why/evidence-supporting-the-nature-premium.html).

Assessment

Assessment systems often fail to recognise broader competencies vital for a sustainable future, such as systems thinking, adaptability, and teamwork. A shift from high-stakes exams to more portfolio-based or modular assessments would allow learners to demonstrate their competencies through interdisciplinary, real-world challenges. Evidence shows that these approaches enhance learner outcomes and resilience, equipping them with skills needed for the 21st century (e.g. https://www.worldbank.org/en/topic/education/publication/education-for-climate-action). However, evidence also shows that many educators need support to adopt these teaching methods: A global survey of 58,000 teachers shows that teachers feel more comfortable with teaching cognitive skills through teaching content, than with facilitating the social, emotional and behavioural learning needed for collaborative problem solving and taking action (https://unesdoc.unesco.org/ark:/48223/pf0000379914?3=null&queryId=1a252df5-ceac-440e-9574-e6f5c42c2583). We will go into this in more depth in our response to question 54.

Qualification pathways

Qualification pathways must better reflect societal, environmental and economic needs and support diverse learner aspirations. Current pathways often silo academic and technical learning, creating barriers for students seeking hybrid options. Providing greater flexibility, such as enabling students to combine A levels with technical qualifications, would allow for more inclusive and relevant education. Additionally, fewer than 1% of post-16 learners are enrolled in qualifications with broad Education for Sustainable Development (ESD) content (https://www.et-foundation.co.uk/wp-content/uploads/2021/11/Leadership-for-ESD-in-the-FE-curriculum-report.pdf), highlighting the urgent need to embed green skills across all pathways.

Confusion around the definition of green skills, both within and across government departments and society more broadly, has also created challenges in aligning efforts to develop the workforce for a sustainable future. Green skills are often narrowly interpreted as technical abilities for specific jobs, such as renewable energy installation, yet they must also include transferable competencies like critical thinking and systems analysis. In line with UNESCO, (https://www.unesco.de/sites/default/files/2018-08/unesco_education_for_sustainable_development_goals.pdf) EAUC advocates for a universal entitlement to ESD for all learners, paired with well-promoted, high-quality technical green skills qualifications that meet national skills and workforce needs (e.g. https://www.eauc.org.uk/lfs_and_esd_in_colleges_report, https://www.eauc.org.uk/fusion_skills_education_for_sustainable_develop).

The broader case for sustainability education

Sustainability education offers a pathway to inspire learners while addressing critical economic challenges. The UK government is committed to achieving the UN Sustainable Development Goals (SDGs) by 2030, particularly SDG 4.7 which ensures all learners acquire knowledge and skills needed to promote sustainable development. This includes education on sustainable lifestyles, human rights, gender equality, peace, global citizenship, and cultural diversity (https://www.gov.uk/government/publications/implementing-the-sustainable-development-goals, https://sdgs.un.org/goals/goal4#targets_and_indicators). This will be measured by the extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment

The International Labour Organization states that both green and digital transitions can provide opportunities for a large-scale job creation if effective policy measures and investment are undertaken. The occupations benefiting from employment gains are observed at all skill levels, with the most significant gain in the medium-skilled occupations (https://www.ilo.org/publications/navigating-future-skills-and-jobs-green-and-digital-transitions). However, numerous briefings from academia, industry and trade show existing as well as projected skills gaps related to climate, and broader sustainability, action in the UK. They also stress the economic benefits of transitioning to a sustainable economy and the need for investment in skills and training to enable that transition. A policy briefing from the Aldersgate Group, a membership organisation of some of the largest businesses in the UK with a collective global turnover of over £550bn as well as leading NGOs, professional institutes and academic institutions, calls for "sustainability and net zero delivery [to be embedded] across the whole education system and in training and lifelong learning" (https://www.aldersgategroup.org.uk/asset/1702). Embedding sustainability across education levels is essential to preparing young people for these opportunities and ensuring the UK remains competitive in a low-carbon global economy.

The Committee on Climate Change recommends using education to support the transition to a net-zero economy and ensuring a 'just transition' for workers transitioning from high-carbon to low-carbon or climate resilient jobs (https://commonslibrary.parliament.uk/research-briefings/cdp-2021-0164/).

The public also believe the curriculum doesn't sufficiently address sustainability issues, and in particular climate change, and would like to see this change as demonstrated through Climate Assembly findings (https://www.climateassembly.uk/report/).

Longitudinal data shows learner demand for ESD is strong (e.g. https://www.gov.scot/publications/learning-sustainability-young-people-practitioner-perspectives/, https://www.sos-uk.org/research/sustainability-skills-survey), and that ESD improves learners' action competence, which can support learners to thrive and succeed in their education and future employment (https://www.tandfonline.com/doi/full/10.1080/13504622.2022.2033170).

Lifelong learning also plays a crucial role in ensuring the UK meets its sustainability goals. Beyond the classroom, sustainability education should extend into apprenticeships, adult education, and upskilling opportunities for workers transitioning from high-carbon industries, supporting a just transition. Supporting these transitions through education will not only ensure economic resilience but also promote social equity as the UK moves toward its net zero and broader sustainability ambitions.

EAUC supports this transformation, offering expertise and proven approaches to embedding sustainability into education, specifically within the post-16 landscape. By making these changes, the education system can better support and recognise the progress of all learners, equipping them to lead in a sustainable and equitable future.

Section 3: Social justice and inclusion

12.In the current curriculum, assessment system and qualification pathways, are there any barriers to improving attainment, progress, access or participation (class ceilings) for learners experiencing socioeconomic disadvantage?

Socioeconomic disadvantage remains a major barrier to equitable educational outcomes, with the current curriculum, assessment systems, and qualification pathways often perpetuating disparities rather than reducing them. Learners from disadvantaged communities are particularly vulnerable to missing out on sustainability education, which has the potential to provide critical skills for future employability and economic mobility.

Barriers to access and participation

One of the most pressing barriers is the cost associated with technical and vocational pathways, including equipment, trips, and materials. These expenses disproportionately affect learners from low-income families, limiting their ability to participate fully. Similarly, socioeconomic factors influence participation in green skills courses, which are often perceived as less lucrative than traditional career pathways, despite the growing demand for these skills in emerging industries (e.g. https://researchbriefings.files.parliament.uk/documents/POST-PN-0711/POST-PN-0711.pdf, https://www.gov.uk/government/publications/green-jobs-taskforce-report) and reports finding that median advertised wages are higher in green jobs than in non-green jobs (https://www.skillsdevelopmentscotland.co.uk/media/q2lhg1v5/green-jobs-in-scotland-report_final-4.pdf).

Unequal access to resources exacerbates these issues. Education settings in low-income areas frequently lack the funding and capacity to deliver sustainability-focused programmes, which are often perceived as optional extras. Colleges also face severe challenges around staff recruitment and retention in light of long term funding cuts alongside increased student numbers and student support and wellbeing needs (https://www.aoc.co.uk/news-campaigns-parliament/aoc-newsroom/worst-staffing-crisis-in-two-decades-in-englands-colleges, https://www.eauc.org.uk/lfs_and_esd_in_colleges_report). Initiatives such as the National Education Nature Park, which aim to distribute funding to marginalised and disadvantaged communities, are vital steps in addressing these disparities. By combining experiential learning, practical applications of sustainability and targeted funding, such initiatives engage learners who might otherwise feel disconnected from traditional education models.

Curriculum and green skills development

Another significant barrier is the limited integration of sustainability into the core curriculum. Without universal inclusion, learners from disadvantaged backgrounds are less likely to access these themes,

perpetuating inequities in green skills development. Studies such as the Natural Connections Demonstration Project (https://publications.naturalengland.org.uk/publication/6636651036540928) have shown that place-based learning can bridge these gaps by linking global sustainability challenges to local contexts. For instance, and more recently, the Morecambe Bay Curriculum (https://www.lancaster.ac.uk/morecambe-bay-curriculum/) demonstrates how connecting sustainability to the lived experiences of learners fosters engagement and improves outcomes.

Addressing inequities in representation

Disparities in the uptake of green skills pathways also persist based on gender, race, and other personal characteristics. Certain industries, such as construction, energy, environmental management and agriculture, demonstrate significant gender and racial imbalances, suggesting structural inequities in both access and progression opportunities (e.g. https://policyexchange.org.uk/wp-content/uploads/2017/03/The-two-sides-of-diversity-2.pdf, https://ww3.rics.org/uk/en/journals/construction-journal/gender-imbalance-construction.html). Supporting further research to better understand these dynamics and designing action research projects to create more inclusive interventions will be essential for achieving balance.

Recommendations

To address these systemic barriers, we recommend targeted funding to ensure that all schools, particularly those in low-income areas, can access sustainability education resources and programmes. Embedding sustainability as a core theme across curricula, assessments, and qualification pathways is also essential to creating equitable access for all learners. Parallel to this, policymakers must prioritise robust research into inequalities within sustainability-focused industries and education pathways to inform evidence-based interventions that promote diversity and inclusion.

By addressing these systemic issues, the education system can ensure that all learners, regardless of background, have the opportunity to acquire the skills and knowledge they need to thrive in a sustainable, equitable future.

13. In the current curriculum, assessment system and qualification pathways are there any barriers to improving attainment, progress, access or participation which may disproportionately impact pupils based on other characteristics (e.g. disability, sexual orientation, gender, race, religion or belief etc.)

Disparities in attainment exist for learners with disabilities, minority ethnic backgrounds, and gendered participation in STEM subjects. For example, women are underrepresented in engineering and technology pathways linked to sustainability. Proactive measures such as role models, inclusive teaching, and targeted outreach programmes can address these gaps (https://education.ec.europa.eu/news/new-report-addresses-the-gender-gap-in-stem-education-across-educational-levels). Education must also address how boys and men can support gender equality, especially in fields where they are overrepresented (https://www.insightintodiversity.com/stem-fields-need-male-allies-to-advocate-for-greater-gender-equity/, https://time.com/6295453/modern-gender-equality-must-include-men/).

. Sustainability education has inclusivity and equality at its heart. However, a lack of knowledge among educators and a lack of explicit prioritisation by education systems means that sustainability education is often only delivered in fragmented forms, or focuses heavily on environmental elements of sustainability, and thus fails to address these disparities, limiting its potential to empower all learners.

One critical barrier is the lack of integration of climate justice into the curriculum. Climate justice explores how environmental issues disproportionately impact marginalised communities, such as low-income or racially diverse groups, both globally and within the UK. For example, data shows that environmental professions remain one of the least racially diverse in the UK, with only 4.81% representation from Black, Asian, or other minority ethnic groups compared to 12.64% across all sectors (https://www.sos-uk.org/research/racial-diversity-in-environment-professions). Without explicit teaching about these inequalities, learners are not equipped to understand or address systemic injustices.

Additionally, resources and teaching practices rarely reflect diverse cultural perspectives that contribute critical insights into sustainability. Communicating climate change in this way represents a more diverse set of voices and experiences, meaning students are more likely to see themselves and their cultures represented (https://www.tandfonline.com/doi/full/10.1080/13549839.2023.2187363). Incorporating these perspectives could make sustainability education more inclusive, relevant, and inspiring for all learners. Work such as that done by De Montfort University in their 'Decolonising and Decarbonising DMU' project demonstrates ways that this can be achieved (https://www.greengownawards.org/de-montfort-university3).

Addressing these issues requires integrating social justice as a core theme in the curriculum, with explicit attention to the intersections between environmental, social, and economic inequalities, their root causes, and the development and implementation of solutions. Education settings must also receive support to adopt universal design principles and accessible teaching methods, ensuring that learners from all backgrounds and abilities can engage meaningfully with sustainability education.

14. In the current curriculum, assessment system and qualification pathways, are there any barriers in continuing to improve attainment, progress, access or participation for learners with SEND?

Many SEND learners face challenges accessing technical pathways due to inflexible entry requirements. Tailored support, flexible assessment formats, and adaptive resources are necessary to ensure equitable participation in education more broadly, as well as to ensure engagement and attainment in relation to sustainability education. Albeit with small sample sizes, educators that support leaners with SEND have cited the needs of their students made engagement with sustainable development issues difficult, challenging or inappropriate (e.g. https://www.et-foundation.co.uk/wp-content/uploads/2021/11/20210824-Experiences-of-ESD-in-FE-Report-August-2021.pdf, https://www.eauc.org.uk/lfs_and_esd_in_colleges_report). Other educators have found that engaging SEND learners in outdoor and hands-on sustainability learning can be beneficial to their development (https://www.sustainabilityexchange.ac.uk/rcff_support_learning). Specific support for SEND coordinators, teachers and learners to explore the links between sustainability and inclusion, as well as to embed ESD in their work while also meeting learners' needs, would be welcome.

Section 5: Curriculum and qualification content

22.Are there particular curriculum or qualifications subjects where: a. there is too much content; not enough content, or content is missing; b. the content is out-of-date; c. the content is unhelpfully sequenced (for example to support good curriculum design or pedagogy); d. there is a need for greater flexibility (for example to provide the space for teachers to develop and adapt content)? Please provide detail on specific key stages where appropriate.

The curriculum currently lacks the depth, coherence, and adaptability necessary to prepare learners for the complex and interconnected challenges of the modern world. While subjects such as geography and science address aspects of sustainability and climate change, they often focus on understanding impacts rather than exploring actionable solutions, or in some cases focusing on opportunities without also considering threats and risk. To ensure learners are equipped for a sustainable future, targeted improvements across all aspects of the curriculum are essential.

<u>Content overload and gaps</u>

Subjects like GCSE science and geography include dense material, limiting opportunities for practical, place-based learning that is vital for engaging students in sustainability. The emphasis on theoretical knowledge often overshadows critical topics such as renewable energy systems, the circular economy, and biodiversity conservation, which remain underrepresented or entirely absent from curricula (https://www.sos-uk.org/research/sustainability-state-of-the-sector). Moreover, sustainability content is

disproportionately concentrated in these subjects, with little integration across other areas such as creative arts, business studies, or vocational training (e.g. https://www.et-foundation.co.uk/wp-content/uploads/2021/11/20210824-Experiences-of-ESD-in-FE-Report-August-2021.pdf, https://www.eauc.org.uk/lfs_and_esd_in_colleges_report). Integration is needed not just in early years and schools but in technical and vocational education pathways, too (https://www.aldersgategroup.org.uk/asset/download/1702/Upskilling%20the%20UK%20workforce%20for%20the%2021st%20century.pdf).

The Department for Education's Sustainability and Climate Change Strategy (https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy/9317e6ed-6c80-4eb9-be6d-3fcb1f232f3a) states that "sustainability and climate change will touch every career." Yet, the curriculum does not currently reflect this ambition. Relevant, explicit, and solutions-focused sustainability content must be embedded across all subjects to ensure students acquire the skills, knowledge, and attributes needed for a wide range of careers.

Out-of-date content

Much of the curriculum fails to reflect the urgency and realities of the range of sustainability challenges we face. For example, many GCSE Geography textbooks predate the UK's declaration of a climate emergency in 2019, perpetuating outdated narratives that do not align with the latest science or policy priorities (https://cdn.prod.website-files.com/5f8805cec9a94e60b31d616b/66c6f338683bf473a17f0a10_SOS-UK_%20Teach%20the%20Future_%20Geography%20and%20climate%20change_Report.pdf).

Learning about solutions and taking action, developing skills and agency, is just as important as knowledge and has co-benefits - a subjective sense of agency is a major factor in wellbeing (e.g. https://www.climatepsychologyalliance.org/images/files/handbookofclimatepsychology.pdf). ESD has been shown to be effective in developing action competency (https://www.tandfonline.com/doi/full/10.1080/13504622.2022.2033170)

The curriculum (and qualification) creation and review cycle is simply too long. Curriculum development must be agile enough to respond to new scientific findings, emerging technologies, and evolving societal needs. Without this responsiveness, students risk being underprepared for rapidly changing global conditions with knock-on impacts for our communities, environment and economy.

Inconsistent sequencing

Sustainability topics are often introduced late in the learning journey (https://www.sos-uk.org/research/sustainability-skills-survey). This means learners are gaining only foundational sustainability knowledge and skills as part of their FE and HE experience. Key concepts related to sustainability are also often treated as standalone topics, given the lack of consistent attention within the curriculum, limiting opportunities for interdisciplinary learning. Sequencing sustainability as a cross-cutting theme throughout all key stages would enable learners to build a deeper understanding of how these issues intersect with all aspects of life and work.

Integrating sustainability earlier in primary and secondary education would also lay a stronger foundation for advanced learning in post-16 education.

Lack of agility

Educators often cite the inflexibility of their curriculum, and/or the lack of available guided learning hours due to the 'fullness' of their curriculum, as being a significant barrier in their ability to embed ESD meaningfully. The rigid structure of the curriculum limits educators' ability to adapt sustainability content to local contexts, which is critical for making learning relevant and engaging. Greater flexibility in curriculum and qualification design would allow teachers to incorporate place-based and project-based learning approaches.

Allowing for flexibility in assessment design is equally important. Educators need freedom to explore creative solutions and real-world applications of sustainability, which can foster innovation and engagement

across a wider range of subjects. This adaptability will be crucial as education evolves to meet the demands of a rapidly changing society and economy, yet a lack of capacity due to too many rigid requirements stifles educators' ability to be creative and adaptable. (https://www.eauc.org.uk/lfs_and_esd_in_colleges_report).

Recommendations

To address these issues, the curriculum should:

1. Embed sustainability as a cross-cutting theme in all subjects and key stages, for example moving beyond the current concentration of environmental sustainability content in science and geography.
2. Ensure agility in curriculum development to reflect the latest science and emerging solutions.
3. Sequence sustainability education across different educational stages, from early years through to higher education and lifelong learning.
4. Support teachers with resources and flexibility to adapt sustainability content to local and sector-specific contexts.
5. Use sustainability education as a way of enhancing other skills such as interdisciplinarity and citizenship.

These reforms will ensure that learners acquire not only the knowledge but also the practical skills needed to thrive in a sustainable, equitable future.

23.Are there particular changes that could be made to ensure the curriculum (including qualification content) is more diverse and representative of society?

The current curriculum does not adequately reflect the diversity of perspectives and lived experiences needed to address the societal challenges of sustainability and social justice. Incorporating a wider range of voices and narratives, particularly those from marginalised and underrepresented communities, is essential for a more inclusive and representative education system.

Integrating diverse voices and knowledge systems

Greater representation of diverse voices, such as indigenous knowledge systems and perspectives from the Global South, is particularly needed in subjects like geography, citizenship, and history. Indigenous knowledge often offers sophisticated approaches to biodiversity conservation, sustainable land use, and climate resilience. Despite this, it is rarely featured in mainstream curricula. Including these perspectives would enrich learners' understanding of sustainability challenges while promoting cultural diversity and respect (*e.g.* https://link.springer.com/article/10.1007/s11159-019-09770-9, https://www.tandfonline.com/doi/full/10.1080/18117295.2024.2374133). For example, highlighting the contributions of indigenous communities to ecosystem management could challenge the dominant narratives of environmental degradation and offer practical, solutions-oriented learning.

Addressing climate justice and wider social sustainability themes

Embedding climate justice as a core theme in the curriculum would allow learners to explore how environmental challenges disproportionately affect marginalised communities. This could include examining local and global inequalities, from the impacts of air pollution in urban areas of the UK to the vulnerabilities of low-income nations to extreme weather events. Without this lens, learners are denied a holistic understanding of the systemic issues underpinning sustainability challenges, and are unlikely to develop the skills, knowledge and attributes needed to address inequalities that often directly affect their life and education.

Representation in teaching materials

Teaching materials often fail to reflect the lived experiences of underrepresented groups, both in the UK and globally. A more inclusive curriculum would feature narratives that emphasise the intersectionality of

social justice and sustainability, ensuring students see themselves and their communities represented. For example, the aforementioned decolonisation work by De Montfort University (https://www.greengownawards.org/de-montfort-university3) illustrates how embedding diverse voices into sustainability education can inspire learners and broaden participation.

27. In which ways do the current qualification pathways and content at 16-19 support pupils to have the skills and knowledge they need for future study, life and work and what could we change to better support this?

Our responses to questions 22 and 23 are also relevant here.

The current qualification pathways at 16-19, while addressing some future needs, lack sufficient alignment with the demands of a green economy and the UK's broader sustainability goals. Fewer than 1% of post-16 learners are enrolled in qualifications that provide broad coverage of ESD (https://www.et-foundation.co.uk/wp-content/uploads/2021/11/Leadership-for-ESD-in-the-FE-curriculum-report.pdf). This leaves us poorly equipped to respond to sustainability challenges, and also creates skills gaps and workforce pipeline shortages. Numerous papers highlight key sectors requiring urgent intervention (e.g. https://www.gov.uk/government/publications/green-jobs-taskforce-report/green-jobs-taskforce-report, https://economicgraph.linkedin.com/research/global-green-skills-report, https://www.ilo.org/publications/navigating-future-skills-and-jobs-green-and-digital-transitions, https://www.iema.net/all-jobs-greener, https://www.aldersgategroup.org.uk/asset/download/1702/Upskilling%20the%20UK%20workforce%20for%20the%2021st%20century.pdf). Comprehensive ESD also equips learners with the agency to navigate and mitigate the impacts of climate change, contributing to fair and just transitions for their families and communities (*Climate Change Committee, 2023*).

Sustainability is often too implicit within qualification standards, leaving educators without clear guidance on how to embed it meaningfully. This results in inconsistent implementation and misses opportunities to develop learners' knowledge, skills, and behaviours essential for a green economy. This challenge is evident even in prominent qualifications such as T Levels, which, while offering valuable opportunities to develop technical skills, often treat sustainability themes as peripheral rather than integral. To better prepare learners for future study, life, and work, sustainability must be embedded explicitly as a foundational competency across all pathways, rather than being treated as a secondary consideration or tick-box addition.

The Institute for Apprenticeships and Technical Education's Sustainability Framework (https://www.instituteforapprenticeships.org/developing-new-apprenticeships/resources/sustainability-framework/) is a promising step forward, supporting the integration of sustainability into apprenticeships through its "shades of green" spectrum. By identifying how different roles contribute to sustainability goals, the framework has the potential to improve the alignment of qualifications with green skills needs. However, its advisory nature limits its impact and requires stronger incentives for adoption, including support for trailblazer groups and route panels to do ensure sufficient sustainability expertise and capabilities.

One potential lever for change is a policy update to Section D of the Ofqual Handbook (https://www.gov.uk/guidance/ofqual-handbook/section-d-general-requirements-for-regulated-qualifications), requiring new and revised qualifications to explicitly demonstrate how they support the delivery of UK and global sustainability goals and support learners' development of sustainability related knowledge, skills and behaviours. This would ensure that sustainability is embedded systematically across all qualifications.

30.To what extent do the current qualifications pathways at 16-19 support learners to study a broad curriculum which gives them the right knowledge and skills to progress? Should anything change to better support this?

As articulated in our response to other questions, narrow specialisation in pathways (e.g., A levels) or the delivery of sustainability in isolation from substantive subjects limits exposure to sustainability topics and

creates barriers to learning due to lack of perceived relevance as well as to the development of key ESD competencies such as interdisciplinarity, systems thinking etc. (e.g. https://unesdoc.unesco.org/ark:/48223/pf0000381228, https://sustainabledevelopment.un.org/content/documents/5859Aichi-Nagoya_Declaration_EN.pdf).

A broader core curriculum (not just across the 16-19 landscape) should include ESD to mitigate this.

34.To what extent does the current pre-16 vocational offer equip pupils with the necessary knowledge and skills and prepare them for further study options, including 16-19 technical pathways and/or A levels?

Our response to questions 27 and 30 is also relevant here.

The current pre-16 vocational offer partially equips pupils with the knowledge and skills needed to progress into 16-19 technical pathways, A levels, and future careers, but significant gaps remain. Sustainability is not consistently embedded across vocational qualifications, despite the growing demand for green skills. Aligning pre-16 curriculum more closely with post-16 vocational pathways would ensure learners are better prepared for future study and work. Embedding sustainability explicitly into these qualifications, rather than treating it as a peripheral theme, would provide clear and actionable learning outcomes that support progression.

Another key limitation of the current system is the fragmented sequencing of sustainability education across learners' educational journeys. Opportunities to build progressively on early exposure to environmental stewardship and sustainability concepts are inconsistent – anecdotally it becomes harder beyond primary school until university where there is more flexibility in curriculum offering. A cohesive approach to sustainability education, starting in early years and extending through primary, secondary, and post-16 education, would ensure learners develop the knowledge, skills, and behaviours necessary for lifelong learning and adaptability. For example, secondary vocational pathways could focus on practical applications like water management in plumbing or circular economy principles in business studies, while post-16 pathways could refine these skills in more specialised contexts. A structured framework that links these stages would provide clarity and coherence, preparing learners not only for further study but also for future careers and citizenship.

By embedding sustainability into pre-16 qualifications, strengthening CIAG provision, and creating a coherent progression of sustainability education across all stages of learning, the education system can better prepare learners for the challenges and opportunities of a sustainable future. These changes would empower young people with the skills, knowledge, and confidence to succeed in a green economy while fostering their ability to contribute meaningfully to societal and environmental well-being.

41.Are there particular GCSE subjects where changes could be made to the qualification content and/or assessment that would be beneficial for pupils' learning?

Comprehensive work has been undertaken by Students Organising for Sustainability and Teach the Future into ways sustainability can be integrated across GSCE subjects. This doesn't add content, nor require 'trade offs' but reorients the existing curriculum (https://www.teachthefuture.uk/tracked-changes-project).

Similarly work undertaken by the Royal Meteorological Society and others, as part of the National Climate Education Action Plan, provides detailed mapping showing where and how climate can fit into the curriculum (https://static.reading.ac.uk/content/PDFs/files/Planet/climate-education-in-curriculum.pdf) across all levels – from early years to Level 3. This report would therefore also be of use in response to questions 28, 29 and 30 of this call for evidence. These changes could be implemented quickly while a more comprehensive review takes place. The report also highlights how greater inclusion of climate education fits with the desire of the new government to make the curriculum rich, broad and inclusive.

47.To what extent does the range of programmes and qualifications on offer at each level meet the needs and aspirations of learners?

The current range of programmes and qualifications on offer partially meets the needs and aspirations of learners, but significant gaps remain, particularly in ensuring inclusivity and preparing all learners for the demands of a sustainable economy.

A diverse suite of qualifications, including options such as BTECs, T Levels, and apprenticeships, is essential to accommodate varied learner demographics, circumstances and aspirations. While T Levels offer rigorous pathways for technical and career-focused education, other qualifications provide the flexibility and accessibility needed by learners, and particularly those from disadvantaged backgrounds or non-traditional pathways. Removing qualifications that cater to these needs risks narrowing opportunities, limiting inclusivity, and undermining efforts to address skills shortages and socio-economic disparities.

Additionally, sustainability education must be embedded across all levels of technical education to meet the growing demand for green skills and prepare learners for the challenges of climate change. Anecdotally, Levels 1 and 2 often lack adequate sustainability content, despite their importance in equipping learners with foundational knowledge and skills that support progression into higher levels of study or employment. This omission excludes many learners from engaging with green skills, reducing their readiness to contribute to a sustainable economy. Ensuring sustainability is integrated at all qualification levels, with clear progression pathways, will create an inclusive system that meets the needs of all learners and supports the UK's transition to a more equitable and sustainable future.

49.How can we improve learners' understanding of how the different programmes and qualifications on offer will prepare them for university, employment (including apprenticeships) and/or further technical study?

Careers information, advice, and guidance (CIAG) plays a vital role in equipping learners for future study and work, yet provision in this area remains inconsistent. Many young people lack exposure to the wide range of opportunities within green careers, leaving them unprepared to navigate emerging pathways. The Green Jobs Taskforce Report highlights how a lack of knowledge among career advisors, teachers, and even parents contributes to poor progression into sustainability-focused education and roles (https://www.gov.uk/government/publications/green-jobs-taskforce-report/green-jobs-taskforce-report). Addressing this requires investment in training for career advisors and educators, alongside initiatives to engage parents and guardians in understanding the importance of green careers. Incorporating sustainability-related careers advice into broader curricula would ensure all learners, regardless of their subject focus, are exposed to opportunities within the green economy. Many of the recommendations within the Green Jobs Taskforce Report have yet to be acted upon but should be with urgency.

More than 90% of schools and colleges now measure their careers provision using the eight Gatsby Benchmarks (https://www.gatsbybenchmarks.org.uk/updated-benchmarks/). As is often argued with the existing curriculum, there are plentiful opportunities for the benchmarks to be used to support and promote sustainability in the CAIG learners are provided – for example using relevant labour market insights to demonstrate local demand for certain green skills, which could demonstrate Benchmark 2: Learning from Career and Labour Market Information (LMI), or having a visit from a STEM Ambassador who works in renewable energy within a careers fair for learners which could demonstrate Benchmark 5: Encounters with Employers and Employees. However, as argued in our response to question 27, implicit opportunities often result in sustainability being missed completely or addressed in a piecemeal or tokenistic manner. Therefore, we recommend the more explicit inclusion of sustainability within expectations of learner CAIG as another lever of change.

51.Are there additional skills, subjects, or experiences that all learners should develop or study during 16-19 education, regardless of their chosen programmes and qualifications, to support them to be prepared for life and work?

As we have emphasised throughout our response, sustainability competencies should be a core component of all 16-19 education pathways. These competencies encompass the knowledge, skills, and behaviours needed to navigate sustainability challenges and contribute meaningfully to solutions in learners' personal, professional, and civic lives. Embedding sustainability within the context of core subjects ensures learners

see its relevance to their disciplines and understand how their studies can address real-world challenges. This is supported by research into learner preferences for how they develop sustainability competencies (https://www.sos-uk.org/research/sustainability-skills-survey).

Frameworks such as UNESCO's Education for Sustainable Development (ESD) competencies (https://unesdoc.unesco.org/ark:/48223/pf0000247444), the Brookings Institution's green skills framework (https://www.brookings.edu/articles/a-new-green-learning-agenda-approaches-to-quality-education-for-climate-action/) provide clear guidance on what sustainability competencies should entail. These include technical skills for the green economy, such as those needed for net-zero careers, alongside interdisciplinary and transferable skills like systems thinking, communication, and critical analysis. Similarly, the QAA/Advance HE guidance (https://www.qaa.ac.uk/the-quality-code/education-for-sustainable-development) provides a robust framework for embedding ESD in higher education that could inform approaches other levels of education. These skills not only prepare learners for green jobs but also empower them to drive meaningful change within their communities.

Non-technical green skills are equally essential. The transformative potential of ESD to prepare learners for complex societal challenges, rather than focusing solely on employability or environmental issues, is often overlooked in policy and practice. For example, communication and behaviour change skills are critical in roles requiring public engagement with green technologies and sustainable practices. Likewise, championing diversity and inclusion is vital for a green workforce that reflects society. Education providers can address gender imbalances in green industries, for instance, by equipping students to support and advocate for underrepresented groups, creating inclusive environments across sectors.

Despite the clear need for these skills, sustainability frameworks like ESD are often disconnected from green skills in policy discussions. For example, ESD is absent from key documents like the UK Parliament briefing on green skills (https://post.parliament.uk/research-briefings/post-pn-0711/) despite being an established and extensive field in both academia, policy and practice. This lack of connection leaves untapped potential for ESD to support learners in building both technical and transferable skills that are critical for life and work. EAUC has been working with its network to create this connection (e.g. https://www.sustainabilityexchange.ac.uk/files/esd__green_skills_-_diagram_1.png).

Sustainability competencies are interconnected with other cross-cutting skills such as citizenship, creativity, financial literacy, and digital literacy, which we recognise are equally critical. However, these agendas often compete for priority within the curriculum, creating challenges for educators and learners. A common framework and shared language around essential skills across all phases of education would help integrate these priorities, reducing competition and fostering collaboration. The work led by the City of London Corporation in the development of the Fusion Skills concept could inform this work (https://findfusion.org.uk/).

53.How could technology be used to improve how we deliver the curriculum, assessment and qualifications in England?

Technology can enhance personalised learning, remote access to specialist educators, and the integration of ESD through digital simulations or gamified approaches. Platforms supporting collaborative, project-based work on sustainability challenges should be prioritised.

Ed-tech solutions, such as virtual labs or simulations, as well as well-resourced educator-employer partnerships such as those delivered through Newcastle College Group (https://www.ncl-coll.ac.uk/world-class-facilities/renewable-and-subsea-engineering/), Sparsholt College (https://www.greengownawards.org/sparsholt-college) South Devon College (https://www.southdevon.ac.uk/employers/business-partners) can support sustainability learning. Sparsholt College note that the development of centralised, consortium-based, open-source learning materials provides for major savings in public expenditure, improves size of the audience with access to learning (hence addresses UK skills shortfalls, particularly in the adoption of green skills and green tech) and serves to drive up quality and breadth in learning content.

This aligns with our points on flexibility above - giving educators more tools (and the training and professional development to use them) to deliver interdisciplinary content.

If well resourced, this could also help reduce inequalities - particularly in regions with limited access to industry in particular sectors, or in education settings with limited resources to purchase equipment and demonstrators.

54.Do you have any further views on anything else associated with the Curriculum and Assessment Review not covered in the questions throughout the call for evidence?

The Curriculum and Assessment Review presents a significant opportunity to transform the education system, aligning it with the demands of the 21st century, ensuring it prepares learners for a rapidly changing world whilst also shaping society for the better. Below, we outline additional considerations that have not been covered elsewhere but are critical for achieving this vision.

1. Collaboration and systemic change

We welcome the Curriculum and Assessment Review and are committed to supporting its success. A systemic shift is needed to ensure sustainability becomes a central, cross-cutting theme across all levels of education, delivered at a pace and scale that meets the urgency of climate and societal challenges.

For those who are note familiar with our work, EAUC is the leading body for sustainability in the post-16 education sector in the UK and Republic of Ireland. We've been promoting sustainability in post-16 education for over 20 years. Primarily a membership body, we serve 300 organisations whilst also working to change systems that enable sustainability action. We achieve our goals by supporting our members to create meaningful sustainability change; convening our network to generate solutions to shared challenges; and creating systems change to establish a more enabling environment for sustainability action.

Individual interest and personal commitment have often driven the innovative integration of sustainability into curricula historically. Supportive senior leaders can amplify these efforts through advocacy and strategic prioritisation. This is happening across the sector despite the presence of many barriers. What's now needed is a standardisation of sustainability, and the raising of the bar so that it's considered common practice, business as usual, rather than an 'add on'.

EAUC stands ready to collaborate with the review team, offering evidence, expertise, and practical solutions to embed sustainability meaningfully into the curriculum, assessment systems, and qualifications.

We are supportive of the student led shadow curriculum and assessment review, as well as the responses to the call for evidence of EAUC's partners the Association of Colleges (which spans a much broader remit than sustainability education), Teach the Future and the National Climate Education Action Plan Group.

2. Specialist expertise and advisory groups

There are currently no panel members with expertise in climate or sustainability education. To ensure sustainability is integrated effectively, we recommend establishing a specialist advisory group on climate change and sustainability education. This group should guide the integration of sustainability across all aspects of the curriculum, assessment, and qualifications. Additionally, at least one expert with sustainability expertise should join the review panel.

As a membership organisation that spans post-16 education organisations across the UK and Republic of Ireland, EAUC has a unique role in connecting policymakers with institutional leaders and experts who are already driving change in their organisations and so offer DfE our support in this aspect.

3. No trade-offs

We challenge the reductive view that integrating sustainability into the curriculum requires sacrificing other learning areas. Sustainability is not a standalone topic but a framework for thinking and learning that enhances all subjects. Reforms should focus on embedding sustainability across disciplines, enabling learners to see its relevance to their chosen pathways and equipping them with the knowledge and skills

needed to address interconnected environmental, social, and economic challenges. This was outlined in more depth in a recent op-ed article with a college principal (https://www.fenews.co.uk/exclusive/sustainability-in-the-curriculum-why-we-dont-need-to-sacrifice-content-to-prepare-for-tomorrow/).

4. Educator training and support

"If one wants to change … society and education, one of the cornerstones to start with is the education and training of already qualified teachers and teacher educators" (https://journals.sagepub.com/doi/epub/10.1177/0973408215588255). Teacher capacity remains a significant barrier to embedding sustainability into education. Many educators feel underprepared to teach climate-related topics, with a 2021 UCL survey revealing that 70% of teachers lack adequate training (https://www.ucl.ac.uk/news/2023/dec/teacher-education-imperative-climate-change-and-sustainability-education). This was supported by similar research undertaken by ETF (https://www.et-foundation.co.uk/resources/esd/esd-research/experiences-of-esd-in-the-fe-and-training-sector/) with other barriers to educator engagement outlined within academe (e.g. https://sustainableearthreviews.biomedcentral.com/articles/10.1186/s42055-022-00050-3).

Structured professional development, ring-fenced time for training, and CPD resources such as curriculum mapping tools are essential so that educators are equipped with the confidence, capacity, and competency to embed sustainability meaningfully across qualifications. Quality CPD that has high satisfaction and impact rates exists – both that develops understanding of core sustainability concepts (such as Carbon Literacy) as well as how to embed ESD within teaching and learning practice (such as Embedding ESD - https://www.eauc.org.uk/new_course_launch_embedding_education_for_s). This is supplemented by resources such as curriculum mapping tools and ESD toolkits. Subject associations also have an important enabling role to play in subject-specific support. What's now needed is mechanisms to support the role out of this at scale and pace.

As well as CPD for existing educators, learning about sustainability and ESD should be a substantive and compulsory part of teacher education. There are promising signs that this is becoming the case – for example within the minimum core (https://www.et-foundation.co.uk/resources/teacher-education/the-minimum-core/) and level 5 apprenticeship standard for learning and skills teacher within the FE sector (https://www.instituteforapprenticeships.org/apprenticeship-standards/learning-and-skills-teacher/).

This means a high priority should be support for teacher educators, who need to be able to adapt their curriculum to meet this welcome emerging trend. Similarly, sustainability leads within schools and colleges must also be supported through dedicated funding, development and networking opportunities. EAUC provides plentiful opportunities for those in post-16 education.

Alongside wider training provision, the role of sustainability leads in schools must be fully funded, either as a job in its own right, or within the senior leadership team. The role should provide time for networking, sharing of ideas and resources, encouraging collaboration with other sustainability leads to exchange ideas and potential coaching of subject teachers.

5. Lifelong and cross-phase learning

Although the curriculum review is focused on education for 5-19 year olds, a common approach to sustainability education is needed as a continuum, spanning early years through to higher education and lifelong learning. Qualification pathways should support career changes and upskilling in response to the green economy's evolving demands (https://economicgraph.linkedin.com/research/global-green-skills-report). Ensuring that vocational qualifications include flexible, sustainability-focused modules would improve their adaptability and relevance (ibid). Collaboration between sectors is vital to ensure coherence and continuity in sustainability education across all phases. There are levers of change that could influence the mainstreaming of sustainability education within higher education too – such as by expanding the mandate of the Office for Students (as was previously the case with the Higher Education Funding Council for England) and through engagement with Professional, Statutory and Regulatory Bodies (PSRBs) and

their accreditation frameworks (https://www.stgeorgeshouse.org/wp-content/uploads/2024/02/20240227-St-Georges-House-consultation-EAUC-SOS-UK-PSRBs.pdf).

6. Whole organisation approaches

Education settings have influence far beyond the curriculum. They can act as catalysts for change in their communities by modelling sustainable behaviours, engaging families, and promoting public acceptance of sustainability action. Whole organisation approaches which corporate sustainability into governance, estates, operations, and partnerships, maximise opportunities for learners to engage with real-world sustainability challenges (e.g. https://www.gov.scot/publications/target-2030-movement-people-planet-prosperity/pages/3/, https://link.springer.com/article/10.1007/s11625-022-01226-8). The EAUC's Green Gown Awards provide examples of impactful and innovative practice, showcasing how institutions can embed sustainability across all aspects of their operations (https://www.greengownawards.org/green-gown-awards-uk-ireland) including specific initiatives which link curriculum, teaching and learning with other aspects of an education institution and broader societal benefit (e.g. https://www.yorksj.ac.uk/news/2024/green-gowns-winners/, https://www.greengownawards.org/university-of-east-london, https://www.greengownawards.org/university-of-st-andrews1). Many of EAUC's resources integrate sector-specific insights to align with institutional strategies, ensuring sustainability education is embedded holistically across governance, operations, and pedagogy (e.g. https://www.eauc.org.uk/fe_roadmap).

7. Ofsted and other regulatory and accountability measures

Ofsted ratings (and indeed regulation by the Office for Students) should be adjusted to reflect the outcomes of the review, incorporating metrics that assess how well education settings prepare learners for life and work in a sustainable world. This includes evaluating interdisciplinary approaches, such as integrating sustainability across subjects, and ensuring learners acquire critical competencies like systems thinking and adaptability. Despite it no doubt being controversial, we are regularly told that this would be the biggest lever for substantive pro-sustainable change across the sector.

8. Beyond curriculum content: pedagogy

Sustainability education is as much about how learners are taught as what they are taught. Innovative pedagogies, such as project-based, problem-based, and reflective learning, have been proven effective for fostering sustainability competencies (e.g. https://www.cambridgeinternational.org/Images/707181-climate-change-education-introduction-paper.pdf, https://www.mdpi.com/2071-1050/13/5/2854, https://www.mdpi.com/2071-1050/11/6/1602, https://www.emerald.com/insight/content/doi/10.1108/IJSHE-09-2019-0273/full/html). These methods encourage active engagement, collaboration, and critical thinking, equipping learners to navigate complex, real-world challenges.

9. Community and civic engagement

The influence of education extends far beyond the curriculum. Educational institutions are often anchor organisations within their communities, shaping not just individual learners but also the broader social fabric. Learners can act as powerful conduits for change, influencing their families, networks, and wider communities. By empowering students to see themselves as active citizens, education can drive societal transitions toward sustainability and net zero targets.

Achieving these goals (and indeed our broader sustainability goals) requires increased public awareness (https://www.lse.ac.uk/granthaminstitute/news/public-behaviour-in-the-uks-net-zero-strategy-the-government-must-work-out-how-to-bring-people-with-it/). Education has a proven capacity to foster social change (https://www.bloomsbury.com/us/education-for-social-change-9781350192843/), and education providers play a vital role in ensuring fair and just transitions to net zero by 2050 due to their reach and role. This includes equipping learners with the knowledge, skills, and values to make informed, sustainable decisions that shape their lifelong career and personal choices.

To fulfil this potential, greater support and coordination from the government is needed to enable education providers to embed sustainability as a core institutional principle. Through initiatives that raise awareness and deepen knowledge, students and their education providers can act as catalysts for change within their communities, driving progress toward a more equitable, sustainable future.

10. Integrated funding and strategy

Sustainability must be consistently prioritised in funding strategies, policies and national frameworks. Institutions need resources to implement whole organisation approaches, provide educator training, and develop sustainability-focused modules. Aligning ESD and green skills more closely in policy and funding mechanisms will enable institutions to create lasting impacts, equipping learners to thrive in a sustainable economy.

By adopting these recommendations, the Curriculum and Assessment Review can deliver a transformative education system that not only prepares learners for the challenges and opportunities of the future but also empowers them to lead a sustainable, equitable, and prosperous society.