

Contents page

- AI Guidance
- Part 1
- Part 2

AI Cover Sheet

I acknowledge the use of Copilot and ChatGPT to search for references and research in relation to this module, including creating a logo and images on my PowerPoint

I used the prompts:

- Please find me references for the last 10 years in relation to sustainability, including policies within Wales and international policies

**SCRIPT****Reflection**

Hello, my name is Helen Wright, and today my presentation will first be my personal reflection on my scrapbook and the journey I took while exploring Llandegfedd Reservoir. Followed by a critical evaluation of how my experience could support the philosophy and principles of early childhood education for sustainability. When I first began this project, I thought I was just going to discuss a familiar place somewhere I had visited since I was a little girl. But as I worked through the scrapbook, I could see that I was revisiting memories, reconnecting with nature and discovering why this place holds so much meaning to me.

I chose Llandegfedd Reservoir because it has always been part of me and my life, when I was growing up it was always somewhere my family would take us all together- we would walk the

pathways in the cold winter mornings and have family picnics in the warm summer months. As I got older and had children of my own, it became a place, I naturally introduced them too. There is something special about watching your own children play, explore and ask questions in the same place that you did once.

The reservoir itself is located just outside Pontypool in a small rural village called Coed Y Paen and surrounded by rolling hills, woodlands, and grasslands. Even though it is close to towns and villages, it still feels peaceful, somewhere you can easily escape to. As I began to explore the site in more detail for my scrapbook, I realised how much I did not know about the reservoir. Despite visiting the area all my life. I discovered the different habitats that exist around the reservoir, the grasslands, the woodlands and the water. Each area supports its own ecosystem and supports its own biodiversity. It is a place that provides shelter for insects, amphibians, and small animals. Breeding grounds for frogs, toads, and newts. Feeding areas for birds and plant life that stabilise the soil, which filters the water, all this amongst the grasslands that frame the water and the woodlands that shelter the animals.

What struck me the most was how everything is interconnected with nature. Birds rely on insects. The fish rely on the plants, and the plants rely on the water levels and the soil. All of this relies on people caring for their environment. Seeing the ecosystems working like this has made me consider how easy it would be for this to be disrupted. It is so important for the next generation, our children and our children's children, to grow up understanding the importance of conserving our natural world and how fragile it is.

Working on my scrapbook, I have realised how powerful being outdoors with nature is. It is not just about learning facts about habitats or wildlife; it is about developing a sense of connection, confidence, imagination, and responsibility. By allowing children to navigate through the natural world around them, they are learning to care for something bigger than themselves.

This assignment has also changed the way I think about nature. Even though I have always valued nature, I have not always stopped to understand it. I have enjoyed spending time at the reservoir for years, and it holds so many memories that I have held dear since my father passed away. But now I feel it is my duty to find out more about the ecosystems, the different species that live there, and how the site is managed. I would like to find out more about what I can do to support this and make a valuable contribution to this wonderful place. Nature provides so much to us all, and being outdoors has so many benefits for both children and adults alike. This has made me want to explore more places, ask more questions, and bring more of this kind of learning into my work with the children I teach.

Ultimately, my scrapbook became more than just a record of my visits. It has become a reflection on my past, my family, my values, and my hopes for children growing up today. I have created a record that captures both. Llandegfedd Reservoir will always be special to me, but now I understand it more deeply. It is not just a place that is full of memories, but a living environment that continues to connect generations.

## **Part 2 of 2**

### **Now the philosophy and principles for early education for sustainability**

Sustainability has become a central principle in global, national and local frameworks, helping shape education systems into influencing teaching approaches across all phases, including the early years. The urgency of the environmental deterioration, climate change, and biodiversity loss has made education the central driver for enabling children and communities to develop the knowledge and values needed to support a more sustainable future (UNESCO, 2020).

Early childhood education recognises sustainability not as an environmental concern but as a holistic concept which encompasses ecological integrity, social justice, economic responsibility and wellbeing (Ärlemalm–Hagsér, 2013).

This essay will critically examine the relevance of sustainability to early years of education, focusing on Welsh policy and international frameworks. While also evaluating how experimental, child-led learning aligns with education for Sustainable Development (ESD) principles, and the opportunities and challenges that are faced in practice. The sustainability agenda is widely traced back to Our Common Future (Brundtland Commission, 1987). Which defined sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs. Although this was published over four decades ago, it remains foundational. The 1992 Earth Summit in Rio de Janeiro further strengthened global commitments, producing Agenda 21, which initiates sustainability as a priority (United Nations, 1992).

The United Nations Sustainable Development Goals (SDGs) was adopted in 2015, marking a major development in global sustainability. The SDGs comprise 17 goals that address poverty, climate action, biodiversity, education, gender equality and global partnership (United Nations, 2015). SDG 4.7 highlights that education systems must

ensure learners develop the knowledge and skills needed to promote sustainable development. This includes human rights, gender equality, peace, cultural diversity, and global citizenship. Furthermore, SDG 4.2 points out the importance of quality early years provision, recognising the foundational role of early learning in shaping lifelong learning and behaviour, meaning that sustainability is not an optional addition to the early years curriculum but a central expectation which is embedded in international policies.

Closer to home, Wales is globally recognised for its continuation of sustainability legislation. Most notably the Well-being of Future Generations (Wales) Act 2015 places a statutory duty on all public bodies to work towards seven well-being goals. To improve long term social, economic, environmental, cultural well-being and a globally responsible Wales. (Welsh Government, 2015).

The United Nations Convention on the Rights of the Child (UNCRC) further reinforces that children's rights to participation, protection, education, and wellbeing (UNICEF, 2016). Particularly articles 12 and 29, where it states that children have the right to express their views. Along with having an education that teaches them to respect the natural environment. These rights-based principles reinforce the importance of children having an active participation in sustainability learning.

Education for Sustainable Development (ESD) and Global Citizenship (GC) operate as an interconnected teaching framework within early childhood, where sustainability and citizenship are both reinforcing dimensions of children's learning. ESD provides ecological and ethical foundations, focusing on environmental care, interdependence, and long-term well-being. Global Citizenship extends these principles further into human rights, equity, cultural diversity, and collective responsibility (Welsh Government, 2021). In practice, young children's encounters with sustainability are inseparable. When children explore the natural environment and participate in decision making, and responsibility, they are developing an awareness of both ecological and civic identity. The Curriculum for Wales further strengthens sustainability through its four purposes, particularly the aim to develop "ethical, informed citizens of Wales and the world" (Welsh Government, 2022). As for a non-maintained setting, the Curriculum for Funded Non- Maintained Settings (CFNMS) highlights Cynefin, which is a Welsh concept referring to place, belonging and identity- this provides children from an early age to develop a sense of connection to their environment, community and cultural heritage (Early Years Wales, 2022). Additionally, this Welsh policy landscape, which is shaped by the Future Generations Act, the UNCRC, ESD and GC guidance, along with the Curriculum for Wales, is grounded in the belief that young learners are capable, curious

and competent individuals who can meaningfully engage with sustainability concepts when supported through developmentally appropriate teaching methods (Davis & Elliott, 2014). These principles connect strongly with early childhood teaching methods that hold significant importance on experiential, relational, and inquiry-based learning. Young children learn through sensory engagement and direct interaction with materials, environments, and people (Whitbread, 2017). To illustrate this point further, Elliott & Arlemalm-Hagser (2014) believe that when children investigate natural things happening within nature, for example, bees pollinate flowers and observe ecological processes, such as watching how plants, animals, and the environment work together in nature or engage in collaborative problem-solving, they are developing foundational scientific thinking and gaining environmental awareness such as care, empathy and responsibility.

To illustrate this point further, the John Muir Award provides a compelling example of how structured experiential learning can support ESD. Although not designed specifically for early years childhood education, the award's four components, which are Discover, Explore, Conserve and Share, align closely with ESD principles (John Muir Trust, 2025). The award focuses on sustained engagement with natural environments, supporting learners to develop an ecological understanding through regular observation, exploring more in-depth and practical conservation activities. One that relates to these principles is the Friedrich Fröbel Froebelian Approach. Froebel's principles of **play, nature, creativity, relationships, and gentle guidance** align with having nature as a foundational context for early learning (Froebel, 1887) and resonate with the Well-being of Future Generations Act's emphasis on long-term thinking and environmental responsibility (Welsh Government, 2015). The John Muir Award also links to Cynefin within the NMS in Wales, which encourages learners to develop. (p a sense of belonging, identity and responsibility within their local environment (Early Years Wales, 2022). Furthermore, it also supports UNCRC principles by enabling children to participate actively and engage in decision-making related to their environment (UNICEF, 2016). However, it must be noted that the award's strong environmental focus may overshadow the social and economic dimensions of sustainability. Borg *et al* (2022) state that this would require adaptation to ensure that it is appropriate for younger learners. For example, young children learn in shorter bursts and require more frequent repetition, and further opportunities to revisit experiences as well as focus more on sensory-rich experiences. Also access to suitable natural environments may also vary across different communities, for instance, a setting within a city will be different to a rural setting where there are more outdoor spaces. Waite *et al* (2016) point out that these limitations can create inequities in participation. Despite this, the John Muir Award

provides a valuable framework for supporting experiential, play-based sustainability learning when implemented with consideration within an early years' context.

Having these outdoor experiences and learning about the world around us helps children understand ecological relationships, biodiversity, and human impact, while strengthening their sense of place and belonging. Purdon (2014) states that sustained shared thinking further enhances ESD by enabling children to engage in deeper dialogue and develop critical thinking skills. Through this collaboration of play, it allows learners to build understanding that is essential for values-based sustainability learning.

Furthermore, nature-based learning supports children in understanding ecological systems, as Froebel emphasised the importance of nature in early education; he highlights that nature's experiences promote wellbeing, curiosity, and environmental awareness (Uluay 2024). Another similar theory is the Reggio Emilia philosophy, which further emphasises the environment as a third teacher, also encouraging exploration, creativity, and connection. However, despite strong policy support and clear teaching methods, the implementation of ESD in early childhood remains uneven. Research shows that many practitioners feel uncertain about how to teach sustainability, especially its social and economic principles. Both international and UK research highlights that early years' practice tends to prioritise environmental activities. For example, recycling, gardening or nature walks – while global citizenship, equity and economic responsibility receive far less attention, as stated by (Arlemalm-Hagser 2017). Similarly, there are also practical barriers such as limited time, competing with curriculum demands, and insufficient professional development for sustained engagement (McClure *et al* 2023).

Finally, sustainability is central to early childhood education, with the support of global and Welsh policies, along with child-led teaching on nature-based theory to further strengthen ESD. Also, adapting frameworks like the John Muir Award to early education would provide the foundational grounding needed to further support children in developing the values and competencies needed for a resilient future.

## Reference list

Ärlemalm-Hagsér, E. (2014) 'Respect for nature – a prescription for developing environmental awareness in preschool', *Centre for Educational Policy Studies Journal*, 3(1), pp. 25–44. <https://files.eric.ed.gov/fulltext/EJ1129478.pdf>

Ärlemalm-Hagsér, E. and Elliott, S. (2017) '*Special issue: Contemporary research on early childhood education for sustainability*', *International Journal of Early Childhood*, 49(3), pp. 267–272. <https://doi.org/10.1007/s13158-017-0207-3>

Borg, F., Winberg, M. and Vinterek, M. (2017) 'Children's Learning for a Sustainable Society: Influences from home and preschool', *Education Inquiry*, 8(2), pp. 151–172. <https://doi.org/10.1080/20004508.2017.1290915> [Assessed 11<sup>th</sup> July 2026].

Davis, J. and Elliott, S. (2014) *Research in early childhood education for sustainability: International perspectives and provocations*. London: Routledge, Taylor & Francis Group.

Early Years Wales (2022) Foundation Learning, Early Years Wales. Available at: <https://www.earlyyears.wales/en/foundation-learning> [Accessed: 11 July 2026].

Muir, J. (2025). John Muir Trust. *Protecting and repairing wild places*. Available at: <https://www.johnmuirtrust.org/> [Accessed: 11 July 2026].

Purdon, A. (2014) '*Sustained shared thinking in an early childhood setting: An exploration of practitioners' Perspectives*', *Education 3-13*, 44(3), pp. 269–282. <https://doi.org/10.1080/03004279.2014.907819> [Assessed 11<sup>th</sup> July 2026].

Uluay, G. (2024) 'Nature-based learning in Early Childhood Education', *Transforming Early Childhood Education: Technology, Sustainability, and Foundational Skills for the 21st Century* [Preprint]. <https://doi:10.58830/ozgur.pub534.c2205>.

UNESCO (2020) *Global Education Monitoring (GEM) Report 2020* | UNESCO, Available at: <https://www.unesco.org/en/articles/global-education-monitoring-gem-report-2020> [Accessed: 09 July 2026].

United Nations (1993) *Agenda 21, Programme of Action for Sustainable Development: Rio declaration on environment and development*. New York, Blue Ridge Summit: United Nations Publications National Book Network Distributor.

United Nations (2015). *The Sustainable Development Goals: Steering the United Nations towards 2030*. Available at:

<https://www.unodc.org/unodc/en/frontpage/2015/September/the-sustainable-development-goals-steering-the-united-nations-towards-2030.html> [Accessed: 10 July 2026].

UNICEF (2016) *The United Nations Convention on the Rights of the Child*. Available at:

<https://www.unicef.org.uk/wp-content/uploads/2016/08/unicef-convention-rights-child-uncrc.pdf> [Accessed: 10 July 2026].

Waite, S., Bølling, M. and Bentsen, P. (2015) 'Comparing apples and pears? A conceptual framework for understanding forms of outdoor learning through comparison of English forest schools and Danishhudeskole, Environmental Education Research, 22(6), pp. 868–892. <https://doi.org/10.1080/13504622.2015.1075193>

Whitebread, D., Neale, D., Jensen, L. H., Solis, L., Hopkins, E. (2017). The role of play in Children's development: A review of ... Available at:

[https://www.ucviden.dk/ws/portalfiles/portal/234719430/role-of-play-in-childrens-development-review\\_web.pdf](https://www.ucviden.dk/ws/portalfiles/portal/234719430/role-of-play-in-childrens-development-review_web.pdf) [Accessed: 11 July 2026].

Welsh Government (2015) *Well-being of Future Generations (Wales) Act 2015: The essentials* [HTML] | GOV.WALES. Available at: <https://www.gov.wales/well-being-future-generations-act-essentials-html> [Accessed: 10 July 2026].

Welsh Government (2022) *Curriculum for Wales: Framework* | GOV.WALES. Available at: <https://www.gov.wales/curriculum-wales-framework> [Accessed: 11 July 2026].