

Exploring a personal John Muir Award experience in the context of sustainability education in the early years.

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Introduction

As part of my level 6 module Sustainability in the Early Years I had an opportunity to undertake the John Muir Award. This article reflects and evaluates how the Award and wider opportunities to explore the natural environment could support practitioners lead early childhood sustainability practice. This article also includes a personal account of my John Muir experience in the context of relevant literature.

The John Muir Award

The John Muir Award 'encourages awareness and responsibility for the natural environment through a structured yet adaptable scheme, in a spirit of fun, adventure and exploration' (John Muir Trust, 2021a, no page). The Award involves discovering, exploring, conserving a wild area or natural space, and sharing the experience with others (John Muir Award, 2021b). I chose to complete the John Muir Award in my grandmother's garden and the Award allowed me to re-connect with nature and the natural surroundings. My grandmother's garden in a special place for me as I have many fond memories growing up there and I can now watch my daughter grow up in the same environment. My grandmother takes great pride in her garden and the John Muir Award experience has allowed me to appreciate her garden and has encouraged me to want to care, protect and conserve it.

The Curriculum Context

Opportunities to engage in the natural environment such as provided during the John Muir Award has links to Education for Sustainable Development and Global Citizenship (ESDGC) (Welsh Government, 2008a) as it is situated in caring and protecting the natural environment and nature. ESDGC is viewed by the Welsh Government (2008b) as an integrated approach to everyday life rather than an additional subject within any curriculum. The John Muir Award experience also supports this ethos by supporting an awareness of a sustainable practice, in a way which is meaningful to the individual, as participants can discover and explore a place which is significant to them. Donaldson (2015) suggests that education needs to support an awareness of sustainability and global citizenship. However, Ward (2017) found, there are concerns from educators that sustainability is viewed as something extra that they need to fit into their learning. In addition, Tinney and Hirst (2018) suggested practitioners may not engage with this area as they feel it is too complicated or is too much to include in an overly full curriculum. Furthermore Witoszek (2018) suggested that teaching sustainability poses extra demands on the teacher. If practitioners feel this way about incorporating ESDGC into the curriculum it could prevent them from engaging with this area. Experiences such as undertaking the John Muir Award or open-ended experiences outdoors, where practitioners can lead their own learning, could be significant, as was the case for the author, when finding out about local ecology, gardening and conservation. For sustainable development and global citizenship to work, Sustainable Wales (2020) and the Welsh Government (2008b) emphasise that everyone must take a lead role protecting the environment. Sustainable Wales (2020) go on to add that their mission is to ignite a passion for sustainable living practices. This creates an opportunity to learn from the past and for individuals to show leadership and ambition as stated by the Welsh Government (2009) in One Wales: One Planet. However, to do this, practitioners need confidence, and thus small steps, such as the opportunity to connect with the environment and explore local sustainability issues through the John Muir Award or similar outdoor experience, may be significant to gaining new knowledge and understanding. For example, in my own experience, I noticed that there are a significant number of hedgerows and trees in the garden which provide habitat for wildlife. My observations of the garden allowed me to identify birds using the hedgerows as their habitat such as Kestrels, Crows and Magpies. I had the pleasure of sitting in the garden alone listening to the birds and forgot

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about the world around me for a few minutes. After an uncertain year with restrictions due to Covid-19, this was a moment which allowed me to reflect upon the positives and made me appreciate my natural environment and urged me to want to protect it even more. I have been able to identify different types of birds and was motivated to research and take more of an interest in these animals as I felt a personal connection to the environment. Whilst re-discovering the garden, I also found that the structure of the garden has hardly changed since my own childhood. For example, the hedgerows have had simple maintenance over the years, and for over 20 years they have been providing habitats for local wildlife. It appears therefore that some aspects of my grandmothers' garden provide opportunity to protect nature and preserve the natural environment. After researching the types of birds which lived in the hedgerows, I researched other types of wildlife which use the hedgerows as part of their habitat. I discovered that hedgehogs, field mice and bats are just some of the animals that depend on hedgerows for food and shelter. Therefore, outdoor experiences such as the John Muir Award, will allow children and practitioners to connect with the natural outdoor environment, with opportunities for them to explore and conserve, as well as reflect upon their values and attitudes. As noted by Tinney and Hirst (2018) this links with early years' pedagogy and the principles of education for sustainability where child-led learning, cross-curricular experiences and holistic development interweave. Furthermore, it supports the Foundation Phase (Welsh Government, 2015a) curriculum where children are active learners across areas of learning.

ESDGC highlights opportunities for out of the classroom learning and a holistic approach (DCELLS, 2007). For practitioners and setting leaders who may be nervous or less confident, using the outdoor environment approaches such as the John Muir Award could provide opportunities for practitioners, children and families to learn together supporting a more democratic leadership style and allow for a socio-cultural approach (Vygotsky, 1978) where the different stakeholders in the setting community can scaffold each other's learning. My own personal experience allowed me to learn from my grandmother's extensive gardening knowledge, and by doing this it became apparent how the effort my grandmother puts into growing her own produce each year has a benefit on the environment.

Taking Action and Making Sustainability Visible

Outdoor experiences such as gardening or making bug hotels birdfeeders or litter picks can make sustainability issues visible as was the case in my own experience. For example, the John Muir Award or other outdoor experience support children and practitioners to have the chance to connect with the non-human world and use a range of methods and senses to demonstrate their learning. This links to both the Reggio Emilia approach in terms of the '100 languages of learning' and the Montessori (1912) approach where children explore using their senses. Miller (2012), suggests, a holistic path to sustainability enables children and their educators to have opportunities for rich and deep explorations which are relevant to the children's lives. Thus, by providing opportunities to expand the curriculum with the inclusion of experiences such as those during the John Muir Award, Effin and Sheaffer (2000, cited in Warner and Elser 2015, p.2) believe that this could create a better environment. This also ties in with Froebel's (1826) belief that children learn with direct experiences, through a hands-on approach where the children will have a sense of place and the chance to re-connect with nature. Furthermore, Louv (2010) explains that children are now facing a nature deficit disorder due to a lack of connection with the outdoors. Therefore, by being able to re-connect with nature, children will be spending more time outdoors and could become aware of their impact on their environment.

The John Muir Award also gives a chance for creative thinking and reflection as the award provides opportunities to adapt it to the individuals needs and what they wish to explore and conserve. DCELLS (2008) emphasises that ESDGC enables children to become critical thinkers

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as it builds upon their skills and prepares them for new challenges. This is also one of the key aims of the Curriculum for Wales in 2022 proposed by Donaldson (2015). Donaldson (2015) proposes that through hands-on-challenges children will begin to understand how things work and apply their understanding. The John Muir Award and ESDGC support this type of enquiry as the children can explore and discover the world through first-hand experiences, similar to those of the author in her grandmother's garden. Article 29 of the UNCRC helps to build a child's personality, helping them to respect themselves and others around them. Therefore, children need a balance between intellect and holistic learning, which then supports them to reflect upon their own mental health. The Mental Health Foundation (2020) recommend interacting with nature as it has a benefit on the well-being of a person but also will help to restore nature and the condition of the planet for future generations. This also reflects McNichol, Davis and O'Brien (2011)'s view on intergenerational equality, as they believe that future generations should have access to at least an equivalent of the environment the generations today have. Therefore, in the context of ESDGC, the John Muir Award or open-ended outdoor exploration could provide opportunities for children to think about issues such as loss of habitat, climate change and pollution; allowing them to experience these issues in a practical way, through exploring declining habitats such as hedgerows, being aware of changing weather and seeing litter, respectively. According to the Welsh Government (2008a) opportunities like these allow settings to be able to adapt accordingly to what is relevant to their context. However as noted by White (no date) children will not be able to experience different ways of thinking and behaving without access to the outdoors.

The John Muir Award or similar environmental education focused experiences allow opportunities for settings to explore loss of habitat and the impact on biodiversity. The World Animal Foundation (2020) state that habitat destruction mainly occurs through human activity. Furthermore, World Wildlife Fund (WWF) (2020) state species are losing their habitats because of the growing needs of humans for land and resources. Therefore, by including ESDGC as part of the curriculum, Porter (2010) suggests that it creates a need to think long-term about the number of demands humans put on the Earth. Supporting the need to reduce the demand for resources Lambertini (2014, cited in Drouin, 2014, p.22) also highlights that to stabilize and reduce the loss of biodiversity, some human society's have to reduce their ecological impact. He proposes that this is done by producing and consuming less and using less resources such as energy, land and water.

The themes of the ESDGC curriculum in Wales and the John Muir Award can provide the opportunity to look at ecological footprints in terms of considering the way the non-human world is viewed and utilised. Carrington (2016) argues that humans in industrialised society's take an anthropocentric approach where the Earth is seen as a resource, that can be manipulated or damaged for short term human benefits. However, Moren et al., (2008) found that the human species was using 25% more resources than the biocapacity of the Earth. Therefore, Fiala (2008) suggested there was a need to look at sustainable measures to reduce the ecological footprint. Furthermore, Shaw (2018) suggests a posthumanism viewpoint where the non-human world is valued intrinsically and is therefore used and viewed by humans as precious and finite. The John Muir Award with a focus on exploration and discovery could provide a lens to see the uniqueness of the non-human world for children and adults, and in doing so contributes to changing perceptions of the significance of the non-human world, such as other animals, plants, habitats and landscapes. My grandmother grows fruit and vegetables in her greenhouse and raised beds. Carrots, potatoes, swede, tomatoes, cucumber are just some examples of what types of vegetables are grown in the garden. Before undertaking the John Muir Award, I understood the effort that was put in to growing vegetables. However, the opportunity to revisit the garden with a sustainability lens has encouraged me to explore food and the way in which it is sourced and consumed. I have found that there are many benefits of growing your own food, such as improving health and well-being and reducing carbon emissions and waste which can also support current

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climate change discourse. Another important factor is there are no pesticides or fertilizers in my grandmother's garden, thus producing the food is not contributing to further pollution. The opportunity for real outdoor experiences was essential for me to reflect deeply on personal sustainability action.

Significance for Children

The John Muir Award or similar outdoor experiences can help children in making their own decisions in line with Article 12 of the UNCRC which gives them the right to have their opinions and decisions respected. Hart (1997) believes that young children have the capacity for active participation in decisions and actions about their futures. GOV UK (2012) implies being a sustainable school enhances young people's well-being which will then help motivate them into leading healthy lifestyles and looking after their environments. Furthermore Chawla (1998) highlighted that significant life experiences in childhood, where children connected to more natural environments, was linked to positive environmental behaviour and actions as adults. Prince (2010) and Reunamo and Suomela (2013) also suggest education for sustainable development to be a fundamental part of a child's life at an early age, as Prince (2010) suggests children will be the decision makers of the future. This also supports the Curriculum for Wales (2022) purpose of creating ethical citizens who have opportunities for hands-on experiences with the real world. Furthermore Davis's (2005) research demonstrated that by undertaking projects with links to sustainability within early childhood settings, had an impact on the child, not only in the setting but at home too. She highlighted, that the children she observed took their learning about topics such as water consumption into their home life. One child demonstrated this during bath time, as he was concerned about the amount of water he used and resulted in him using less water than previously. Furthermore, Gunton (2020) suggests that children, as young as seven, can understand complex ecological ideas by watching a David Attenborough documentary. The John Muir Award also helps to support children's understanding of complex topics by allowing them to be curious and to explore things of interest, similar to the compost and hedgerows in the author's own John Muir Award experience. Such learning for practitioners will also develop understanding and confidence to develop more sustainable practice. In doing so the John Muir Award has strong connections to themes within ESDGC (2008) and the UN Sustainable Development Goals (2015). For example, as was the case in the author's personal experience, the John Muir Award, provides an opportunity to reflect upon consumption and waste, and consider opportunities to take positive action to conserve. Both ESDGC and the UN Sustainable Development Goals both urge humans to consume wisely, with the United Nations (2015) claiming the world used natural resources unsustainably. Therefore, when exploring a specific outdoor area, as part of the John Muir Award there is an opportunity for the children to explore issues such as how their own choices and decisions, the natural environment, health and consumption and waste all interconnect. Therefore, the John Muir Award or similar experiences in the natural environment can support practitioners lead and support discussions with children on key sustainability themes with links to sustained shared thinking and scaffolding each other's learning. The John Muir Award has allowed me to think creatively and work alongside my grandmother and daughter. Covid-19 restrictions have also resulted in us spending more time in the garden. Together, we decided that we would trial composting ready for next year when my grandmother plants new fruit and vegetables. Before the John Muir Award, I would not have given this option a second thought and would have helped my grandmother to buy compost from a local Garden Centre instead. The John Muir Award has allowed me to think of many ways I can help conserve the environment. Some of the following strategies are ways in which my family are going to continue to concentrate on protecting our environment including installing a water butt, building a birdhouse, and providing a permanent food source for wildlife by making bird feeders. Engaging with the garden and discussing with my grandmother and daughter was key to planning these actions.

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Additionally, the John Muir Award could also support the integrated goals of the Well-being of Future Generations (Wales) Act (2015) (Welsh Government, 2015b) and complying with Article 24 of the UNCRC of children having the right to a healthy life, for example a clean environment. The Curriculum for Wales (2022) aims to create an individual who can make sense of their life. The John Muir Award or other explorative outdoor experience can support this as children will be able to reflect upon issues which are important to their future, such as sustainability, citizenship and well-being. Furthermore, Bushby's (2003) review of the John Muir Award found that the participants were meeting the aims of the Award with 90% being encouraged to value wild places and take personal responsibility.

Evaluating the wider implications of the Award

Although the John Muir Award has the benefits outlined previously from the perspective of ESDGC there could be concern that it takes an overly romantic view of nature as something separate from human society, and therefore does not look at the interconnectedness of sustainable development. The John Muir Award concentrates on exploring wild areas or natural spaces which could suggest human beings are not part of nature. However, UNESCO (2002) states that for sustainable development to be achieved there must be three equal tiers, where environmental quality, economical security and social justice and fairness are interlinked and interdependent. Another concern is that John Muir, after whom the John Muir Award is named, had views and values which were not acceptable in terms of race and First Nations rights. The John Muir Award do acknowledge and discuss this in their website (John Muir Trust, 2021c), however such considerations especially in the context of democratic and inclusive approaches to early years would need to be considered. However, the ethos promoted by the John Muir Award in terms of exploring the outdoors and a natural area are the types of experiences that could provide children and practitioners opportunities to explore sustainability in accessible, relevant and practical ways.

Conclusion

The John Muir Award has provided me with opportunities which I will be forever grateful for. My grandmother and daughter are the most important people to me, so to share my experience of the Award with them is something I will treasure. Without the outdoor experiences provided by the Award, I would probably not have re-connected with nature in the way I have recently. The Award has provided me the opportunity to think about the environment and made me think differently about my impact on the world. Having completed the Award, I am now considering my own future in the early years sector. In doing so I have considered how first-hand experiences with the nature / non-human world, such as the John Muir Award can help lead sustainability practice in early years settings.

The opportunity to undertake the discover, explore, conserve, and share aspects of the John Muir Award was very valuable to the author in terms of engaging in sustainability discourse. The opportunity to share such an experience in an early years' education and care context could provide an opportunity for practitioners to develop the confidence and interest to lead aspects of ESDGC with the children and families they work with.

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References

- Bushby, R. (2003) *An investigation into the John Muir Award and its relationship with outdoor environment and environmental education*. Available at: https://www.johnmuirtrust.org/assets/000/000/522/RB_Thesis_Summary_original.pdf?1435770115 (Accessed: Wednesday 25th November, 2020).
- Carr, K. (2016) 'Leading sustainability in schools', *Management in Education*, 30(3), pp. 126-130. DOI: 10.1177/0892020616653177
- Carrington, D. (2016) 'The Anthropocene epoch: scientists declare dawn of human-influenced age', *The Guardian*, 29th January. Available at: <https://www.theguardian.com/environment/2016/aug/29/declare-anthropocene-epoch-experts-urge-geological-congress-human-impact-earth> (Accessed: Monday 23rd November, 2020).
- Chawla, L. (1998) 'Significant Life Experiences Revisited: a review of research on sources of environmental sensitivity', *Environmental Education Research*, 4(4), pp. 369- 382. DOI: 10.1080/1350462980040402
- Davis, J. (2005) 'Education For Sustainability in the Early Years: Creating Cultural Change in a Child Care Setting', *Australian Journal of Environmental Education*, 21(1), pp. 47-55. DOI: 10.1017/S081406260000094X
- DCELLS (2007) *Out of classroom learning*. Available at: https://dera.ioe.ac.uk/8430/9/A9R10F4_Redacted.pdf (Accessed: Monday 16th November, 2020).
- DCELLS (2008) *Education for Sustainable Development and Global Citizenship*. Available at: https://gov.wales/sites/default/files/publications/2018-02/education-for-sustainable-development-and-global-citizenship-in-the-further-education-sector-in-wales_0.pdf (Accessed: Monday 2nd November, 2020).
- Donaldson, D. (2015) *Successful Futures*. Available at: <https://gov.wales/sites/default/files/publications/2018-03/successful-futures.pdf> (Accessed: Wednesday 4th November, 2020).
- Drouin, R. (2014) 'What would John Muir do now?', *Scientific American*, 311(6), pp. 22. Available at: <https://web.a.ebscohost.com/ehost/detail/detail?vid=1&sid=4a9aea7b-f239-4da0-a5b2-c8ca49df41c7%40sdc-v-sessmgr01&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#AN=99562162&db=bth> (Accessed: Saturday 21st November, 2020).
- Early Childhood Education (2020) *The Steiner Education Approach*. Available at: <http://www.earlychildhoodeducation.co.uk/steiner-education-approach.html> (Accessed: Monday 2nd November, 2020).
- Fiala, N. (2008) 'Measuring Sustainability: Why the ecological footprint is bad economics and bad environmental science', *Ecological Economics*, 67(4), pp. 519-525. DOI: <https://doi.org/10.1016/j.ecolecon.2008.07.023>
- Froebel, F. (1826) *The Education of Man*. USA: Dover Publication Inc.

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GOV UK (2012) Top Tips for Sustainability in Schools. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/187037/DFE-32056-2012.pdf (Accessed: Thursday 19th November, 2020).

Gunton, E. (2020) *David Attenborough films should be made mandatory in schools*. Available at: <https://www.tes.com/news/david-attenborough-films-should-be-mandatory-schools> (Accessed: Monday 2nd November, 2020).

Hart, R. A. (1992). *Children's participation: From tokenism to citizenship*. Florence, Italy: United Nations Children's Fund International Child Development Centre. Available at: <https://www.unicef-irc.org/publications/100-childrens-participation-from-tokenism-to-citizenship.html> (Accessed July 10th, 2021).

John Muir Trust (2020a) 'The John Muir Award' <https://www.johnmuirtrust.org/john-muir-award> (Accessed July 10th, 2021).

John Muir Trust (2020b) 'Four Challenges' <https://www.johnmuirtrust.org/john-muir-award/get-involved/four-challenges> (Accessed July 10th, 2021).

John Muir Trust (2020c) 'Inclusion in wild places: Addressing the past, present and future. Inclusion, Black Lives Matter and John Muir - a response from the John Muir Trust' <https://www.johnmuirtrust.org/whats-new/news/307-addressing-inclusion-in-wild-places> (Accessed July 10th, 2021).

Louv, R. (2010) *Last Child in the Woods*. Great Britain: Atlantic Books.

McNichol, H. and Davis, J. M. and O'Brien, K. R. (2011) 'An ecological footprint for an early learning center: identifying opportunities for early childhood sustainability education through interdisciplinary research', *Environmental Education Research*, 17(5), pp. 689-704. DOI: 10.1080/13504622.2011.572161

Mental Health Foundation (2020) *Thriving with Nature*. Available at: <https://www.mentalhealth.org.uk/campaigns/thriving-with-nature/guide> (Accessed: Monday 23rd November, 2020).

Miller, M. (2012) 'Sustainability initiatives in early years settings', *Educating Young Children: Learning & Teaching in the Early Childhood Years*, 18(1), pp. 39-42. Available at: https://whelf-uwtسد.alma.exlibrisgroup.com/leganto/readinglist/citation/5900335480002421?institute=44WHELF_UWTSD&auth=LOCAL (Accessed: Monday 2nd November, 2020).

Montessori, M. (1912) *The Montessori Method: Scientific pedagogy as applied to child education in the children's houses*. Cambridge: Robert Bentley.

Moran, D. D. *et al.* (2008) 'Measuring sustainable development – Nation by Nation', *Ecological Economics*, 64(3), pp. 470-474. DOI: <https://doi.org/10.1016/j.ecolecon.2007.08.017>

Porter, I. (2010) *Opportunities for sustainability*. Available at: <https://blog.geographydirections.com/2010/09/17/opportunities-for-sustainability/> (Accessed: Friday 20th November, 2020).

Prince, C. (2010) 'Sowing the seeds: education for sustainability within the early year's curriculum', *European Early Childhood Educational Research Journal*, 18(3), pp. 273-285. DOI: 10.1080/1350293X.2010.500082

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Reunamo, J. and Suomela, L. (2013) 'Education for Sustainable Development in Early Childhood Education in Finland', *Journal of Teacher Education for Sustainability*, 15(2), pp. 91-102. DOI: 10.2478/jtes-2013-0014

Shaw, D. (2018) *Anthropocene*. Available at: <https://criticalposthumanism.net/anthropocene/> (Accessed: Sunday 22nd November, 2020).

Sustainable Wales (2020) *Home*. Available at: <https://www.sustainablewales.org.uk/> (Accessed: Wednesday 4th November, 2020).

Tinney, G and Hirst, N (2018) Early Childhood Education for Sustainability Within Wales in Boyd, D, Hirst, N. and Siraj-Blatchford, J. *Understanding sustainability in early childhood education: case studies and approaches from across the UK*. Abingdon: Routledge pp. 104 – 138.

UNESCO (2002) *Four Dimensions of Sustainability*. Available at: http://www.unesco.org/education/tlsf/TLSF/theme_a.mode04/uncom04t01s03.htm (Accessed: Thursday 26th November, 2020).

UNICEF (1992) *A Summary of The UN Convention Of The Rights Of The Child - (UNCRC) - UNICEF UK*. Available at: <https://www.unicef.org.uk/rights-respecting-schools/wp-content/uploads/sites/4/2017/01/Summary-of-the-UNCRC.pdf> (Accessed: Friday 6th November, 2020).

Vygotsky, L. S. (1978) *Mind in Society: Development of Higher Psychological Processes*. London: Harvard University Press.

Ward, K. (2017) 'Econnection in Early Childhood Education: Research Report 2017 Dr. Kumara Ward Western Sydney University Synergies in Inquiry Arts Pedagogies and Experiential Nature Education'. DOI: 10.4225/35/5a39a42c85b42

Warner, B, P. and Elser, M. (2015) 'How Do Sustainable Schools Integrate Sustainability Education? An Assessment of Certified Sustainable K–12 Schools in the United States', *Journal of Environmental Education*, 46(1), pp. 1-22. DOI: 10.1080/00958964.2014.953020

Welsh Government (2020) *Curriculum for Wales A Guide to 2022*. Available at: <https://hwb.gov.wales/api/storage/cbe5e2c9-16cf-4eb7-87a1-c1a64fc598d8/the-journey-to-2022.pdf> (Accessed: Tuesday 24th November, 2020).

Welsh Government (2016) *Environment (Wales) Act*. Available at: <https://www.legislation.gov.uk/anaw/2016/3/contents/enacted> (Accessed: Saturday 7th November, 2020).

Welsh Government (2015a) *Foundation Phase Framework*. Available at: <https://gov.wales/sites/default/files/publications/2018-02/foundation-phase-framework-revised-2015.pdf> (Accessed: Wednesday 4th November, 2020).

Welsh Government (2015b) *Well-being of Future Generations (Wales) Act*. Available at: <https://www.futuregenerations.wales/about-us/future-generations-act/> (Accessed: Tuesday 3rd November, 2020).

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Welsh Government (2009) *One Wales: One Planet*. Available at: <https://senedd.wales/Laid%20Documents/GEN-LD7521%20-%20One%20Wales%20One%20Planet%20-%20The%20Sustainable%20Development%20Scheme%20of%20the%20Welsh%20Assembly%20Government-22052009-130462/gen-ld7521-e-English.pdf> (Accessed: Saturday 21st November, 2020).

Welsh Government (2008a) *Education for Sustainable Development and Global Citizenship*. Available at: <https://hwb.gov.wales/api/storage/66a188a2-144c-4584-a223-b371b40f6632/information-for-teacher-trainees-and-new-teachers.pdf> (Accessed: Friday 20th November, 2020).

Welsh Government (2008b) *Developing our Evidence Base*. Available at: https://dera.ioe.ac.uk/524/7/091124evidencebaseen_Redacted.pdf (Accessed: Monday 16th November, 2020).

Witoszek, N. (2018) 'Teaching Sustainability in Norway, China and Ghana: challenges to the UN programme', *Environmental Education Research*, 24(6), pp. 831-844. DOI: 10.1080/13504622.2017.1307944

World Animal Foundation (2020) *Habitat Destruction*. Available at: <https://www.worldanimalfoundation.com/advocate/wild-earth/params/post/1285590/habitat-destruction> (Accessed: Monday 24rd November, 2020).

WWF (2020) *Habitat Loss*. Available at: https://wwf.panda.org/discover/our_focus/wildlife_practice/problems/habitat_loss_degradation/ (Accessed: Monday 23rd November, 2020).