

# Outdoor Learning Briefing Paper



Policy Scotland

The UK Government and the devolved Governments of Scotland, Wales, and Northern Ireland have all recently released their plans for schools re-opening. These plans acknowledge this will not be business as usual but may involve ‘blended learning’ of online classes at home, and in-school classes, smaller class sizes, staggered start, end, and break times, and a focus on hand hygiene and social distancing. To ensure smaller class sizes, one suggested measure is utilising alternative spaces such as community locations and outdoor learning. The latter is of particular importance given the acknowledgement that risk of virus transmission outdoors is significantly lower (Freeman and Eykelbosh, 2020).

The suggestion for schools to utilise outdoor learning in Scotland precedes the COVID-19 crisis. *Inspiring Scotland* and *Learning for Sustainability Action Plan* (Scottish Government, 2016, 2018, 2019) promoted the adoption of outdoor environments for learning purposes. It also can be seen to complement the Curriculum for Excellence (Scottish Government, 2010) with the promotion of a holistic, flexible approach to teaching and learning intertwined with real-life contexts. Learning Teaching Scotland (2007) described ways in which the four capacities can be seen to easily integrate into the outdoor learning ethos:

- Successful learners (developing new knowledge and skills; positive impact on memory and cognition, improves attainment)
- Confident individuals (positive impact on attitudes, confidence, and independence)
- Responsible citizens (social development and community involvement increases, improves attitudes towards environment and increases sense of belonging)
- Effective contributors (impacts positively on interpersonal skills such as communication and teamwork)

This briefing paper will provide comment on selected international events as to the benefits and barriers of outdoor learning, and some points of reflection regarding how outdoor learning can be managed.

## International evidence on benefits of outdoor learning

*“The outdoor environment can be more than a place to burn off steam, with more educators and architects and designers embracing the ideas that outdoor play space provides chances for the highest level of development and learning. When used best, it can be a place for investigation, exploration and social interaction” (CCRU, 2008)*

The use of outdoor learning environments within the education system varies globally, with some countries such as Denmark, Sweden, and Australia being held as leaders in the approach. The evidence base surrounding outdoor learning has promoted its utility in improving physical and mental health of pupils (Fjortoft, 2004, Mereweather, 2015), particularly with reference to reductions in stress levels (Kelz, Evans and Roderer, 2015, Kuo, Barnes and Jordan, 2019) and motor skills and co-ordination (Fjortoft and Saggie, 2000, Wells and Evans, 2003). Work with younger pupils, in a child-care setting found increasing exposure to natural environment led to increase in imaginary play and social interaction (Nedovic and Morrissey, 2013). Outdoor learning is also connected to decreases in sedentary behaviour, with Lovell (2009) work in Forest Schools suggesting that sedentary time decreased from three quarters to one third of the school day. It also found that there was equity between boys and girls' physical activity in this context. As well as the wider health impacts, studies have also shown that utilisation of natural environments increased concentration (Wells and Evans, 2003), and led to improvements in reading, writing, and numeracy attainment (Quibell et al, 2017).

The outdoor environment can be utilised in learning in a number of ways, for example in play-based learning pupils can learn woodland crafts, build shelters, cook outdoors, free play (Riley, 2007, O'Brien, 2009) but there are also possibilities for teachers of older pupils to make use of the local environment to teach specific curriculum subjects, although some subjects such as STEM or PE may lend themselves easier to this model (e.g. connect biology lesson with a visit to a local wetland, or connect mathematics to a task where pupils calculate the volume of trees in a woodland (Bentsen and Jensen, 2012)).

International literature also highlights several barriers to engagement in outdoor learning that should be taken into consideration. In particular, issues relating to teacher confidence, and parental engagement. For many teachers, transferring their classroom lessons to the outdoor context will be a massive change, particularly for more established teachers, with some evidence suggesting staff finding natural environments difficult to use or to prepare lessons in advance for, with some suggesting that more commercial space (i.e. swing parks) were easily to adapt to (Elliot and Davis, 2008, Richson et al, 2004). Elliot and Davis (2008) described this attitude as having the power to hinder implementation of outdoor learning. This is in part due to the lack of explicit qualification offered in outdoor learning, and that it is not universally covered in Initial Teacher Education (Nicol, Higgins, Ross and Mannion, 2008).

Another barrier was in discussions of parental attitude and buy-in to outdoor learning. Parents are a key gatekeeper in this conversation, particularly in terms of a blended learning approach where pupils may be asked to split their time between classroom learning, home learning, and outdoor learning. Parents may show anxiety around unsupervised outdoor play (Giddings and Yarwood, 2005, Groves and McNish, 2009), or may have limited knowledge or exposure to outdoor activities which may influence child's attitudes towards extended periods outdoors (Gaster, 1991).

## Examples of outdoor learning providers

### Scotland

Inspiring Scotland works with communities, charities and public bodies to address issues of social deprivation. Part of their work, *thrive outdoors*, works to embed outdoor play and learning for children in Scotland. They work with outdoor organisations, public bodies, schools, and charities (such as PEEK, Jeely Piece Club in Glasgow, Smart Play Network in Dundee, and CALA in Highlands) to develop outdoor play practices and share best practice. Their active play programme, offered to 139 schools in Glasgow, uses using physical activity to promote positive attainment and mental alertness in the classroom. This focused on primary 3 or 4 classes, participating in a weekly one-hour session combining semi-structured games led by a play worker, and unstructured child-led play. The organisation offers training for groups wanting to learn this approach. In addition to this, their Play Rangers programme offers access to free play opportunities in playgrounds and open spaces. Key in this approach is the collaboration with local agencies who can bring their knowledge and expertise to the programme. In Edinburgh, the Play Ranger programme is run by three charities and the local authority to reach the most vulnerable families in the area. Inspiring Scotland has released a toolkit for supporting areas wishing to run with this model, and highlighted resources (<https://www.inspiringscotland.org.uk/publication/play-ranger-toolkit>).

In addition to this, the Outdoor and Woodland Learning Scotland organisation have developed Forest Schools (<https://www.owlscotland.org/local-options/forest-schools/>), inspired by the Scandanavian model. Training funded by the Forestry Commission, the programme runs on average for 10 weeks, with activities focusing on conservation, education and development (e.g. shelter-making, fire-making, outdoor cooking, craft activities, woodland exploration). There are also opportunities to link outdoor activities to topics covered in school Delivery is mainly focused on primary school ages, but more recently they have extended their remit to secondary pupils. Resources are available on their website for practitioners to develop activities for various age groups (<https://www.owlscotland.org/resources/resource-library/forest-school-scotland-resource-pack>).

There are currently a number of outdoor nurseries being provided in Scotland. Each nursery is different, some completely take place outside, while others have a base to begin and end the group but spend the rest of the time outdoors. For example, Inspiring Scotland supports eight local authorities to deliver outdoor learning opportunities (including training, promoting partnership working). Through the programmes children in selected nurseries have one day per week where the nursery class is held outside. In Glasgow, these are located in Castlemilk, Drumchapel, and the East End. Woodland Outdoor Kindergartens is another example of outdoor nursery provision in Glasgow (<https://woodlandoutdoorkindergartens.com/kindergarten>). Informed by German and Scandanavian practice, it promotes child-led play, with playleaders ensuring children feel safe and comfortable in directing their own learning. This model also encourages storytelling, singing, and shared mealtimes to encourage social practices.

## England

The Forest Education Network (FEN), previously the Forest Education Initiative (FEI), facilitates communication between various sectors to ensure delivery of high-quality education in woodland settings. It is governed by Woodland Trust, Royal Forestry Society, Forestry England among others. It delivers CPD events, and sharing of good practice and support for teachers, outdoor practitioners, and industry professionals. Similar to Outdoor and Woodland Learning Scotland, it offers a series of resources for those interested in developing the approach (<https://www.lotc.org.uk/category/resources>).

## Australia

Similar to the above, Outdoor Education Australia is a network that facilitates learning, good practice, and support for agencies and schools offering outdoor learning provision. On their website, they provide a set of resources and suggested activities tailored to group ages that can help deliver a holistic curriculum (<https://outdooreducationaustralia.org.au/education/curriculum-guidelines>).

In terms of secondary school provision in Australia, the 'outdoor learning connection' provides a framework for students to experience integrated learning across the curriculum in natural environments enabling skills development while also promoting sustainable use of natural environments. The Australian Curriculum, Assessment and Reporting Authority (ACARA) suggest four dimensions of learning: skills and knowledge (learning about safety, managing hazards, team work, risk management); human-nature relationships (through repeat visits, students learn multiple ways to engage with the natural environment); conservation and sustainability (cultural, historic, and ecological knowledge is learned about conservation and sustainability, building a foundation to critically appraise human interaction with natural world); and health and wellbeing (stress management, social skill development) (<https://www.australiancurriculum.edu.au/resources/curriculum-connections/portfolios/outdoor-learning>). In terms of secondary school pupils, outdoor learning could be offered as a standalone subject (i.e. connected to geography), offered as sequential fieldtrips, or as a teaching method drawing on content from range of learning areas.

## Considerations

While the research evidence highlights the strong link between outdoor learning and health outcomes, and some evidence regarding positive impact on academic performance, there are a number of considerations. For example, in the research literature, there were many different definitions of “outdoor learning” including urban green public spaces, school grounds, woodlands, or private gardens (Gill, 2014). While this may reflect the reality of what may face Scottish schools in terms of accessibility of outdoor space, it does mean that the purported benefits of outdoor learning may be impacted. It also raises a question of how schools can ensure safe social distancing if they are utilising a community green space.

Related to this, is the cost of providing outdoor learning. In Scotland, outdoor learning is likely to take place on wet and rainy days. Consideration should be given to transportation, adequate clothing if pupils cannot afford waterproof jackets and trousers, and potentially the cost of providing shelter.

The majority of the international evidence focuses on the relationship between outdoor learning and outcomes, with relatively little written about the practice of outdoor learning and the underpinning pedagogical drivers (Waite, Bolling and Bentsen, 2015). Also, the majority of evidence exists on younger children (e.g. outdoor nurseries, or primary school activities) (Gill, 2014, Lynch, 2002) with relatively less known about the impact of outdoor learning on secondary age pupils. Where secondary pupils are considered, it is mainly through Danish studies. Given the differences in social and political history, it may be there are a number of issues that would limit the direct transferability of policy from one context to another. Waite, Bolling and Bentsen (2015) highlighted that it is important to acknowledge local history, school diversity, and complexity and to be led by local knowledge and co-construction to create sustainable solutions.

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## Appendix A: Practical Guidance for schools

Curriculum for Excellence offers opportunities for all children and young people to experience the outdoors whether within school grounds, in urban green spaces, or in wider environments (Learning and Teaching Scotland, 2010). There is not a 'one size fits all' approach to implementation across Scotland, or even within a local authority area (given the size, location and geography of the locale), but what is key is well-constructed and well-planned outdoor learning.

- **Addressing skills, confidence, and training needs of teachers:** as previously indicated in the literature, the need for 'buy in' from teachers is key in the transition to outdoor learning. It is important for schools to understand the perceptions of outdoor learning so adequate plans for CPD can be put in place. Learning and Teaching Scotland (2010) suggests that formalisation of outdoor learning (i.e. awards) require collaboration with GTC.
- **Partnership working:** building collaborative networks between schools, other educational settings, private and third sector organisations with expertise in adventure activities or forest school practices (e.g. NNOL and SAPOE), could provide guidance, knowledge, and could also help create professional development opportunities, and therefore improve confidence and capacity of teaching staff to deliver Curriculum for Excellent experiences outdoors
- **Consideration of different opportunities between types of outdoor space:** the activities pupils may engage in outdoors in a playground, and those when they are in a community location may differ. Understanding the variation in learning contexts is vital in developing plans for outdoor learning, particularly when reflecting on how indoor learning can be enhanced or progressed using outdoor contexts.
- **Knowledge mobilisation:** Learning and Teaching Scotland (2010) suggests that Glow could be used by educators to gain access to resources, reflect on accessibility of locations, and rate learning contexts in terms of challenge and activities. Using pupils' own local knowledge may also highlight alternative areas, and could improve their ownership of the activities.
- **Inclusivity:** Building the Curriculum 3 highlights every child is entitled to personal support, and this is also the case for outdoor learning. Therefore every effort should be made to address barriers to participation, and involve agencies/stakeholder/pupils in planning
- **Health and safety in light of Covid-19:** Outdoor learning provides numerous opportunities but also represents new challenges for safeguarding and planning. For example, where the outdoor learning is outwith the school gates, schools should plan how to create visible boundaries of any outdoor site, and how this is signalled to other community members who may be using the site. This will ensure reduced social contact outwith school population. Also to ensure pupils have access to toilets, and there is a sanitary way to ensure toilets can be cleaned after every use (Scottish Government, 2019). The Health Protection Scotland (2018) set out guidance relating to hand hygiene facilities-

including need for children to be able to wash hands independently, and stipulates warm water is provided. If this is not possible, handwipes or alcohol gel should be utilised.

- **Acknowledge economic barrier to outdoor engagement:** the cost of outdoor learning, including transportation, clothing, adequate waterproof shoes may be prohibitive for some families. Some local authorities provide ELC and primary schools with clothing and equipment, either through PEF money or other funding streams. This is done in recognition of the benefits of outdoor learning for Curriculum for Excellence. While this is a useful starting point, it should be the responsibility of Government and all local authorities to ensure that no child is left out of outdoor activities due to reasons of family circumstance.

## References

Bentsen, P., and Jensen, F. S. (2012). The nature of udeskole: outdoor learning theory and practice in Danish schools *Journal of Adventure Education and Outdoor Learning* 12 199-219

Elliot, S., & Davis, J. (2008). Why natural outdoor playspaces. In S. Elliot (Ed.), *The outdoor playspace naturally for children birth to five years* (pp. 1–14). Castle Hill, NSW: Pademelon Press.

Fjortoft, I. (2004). Landscape as Playscape: The Effects of Natural Environments on Children's Play and Motor Development. *Children, Youth and Environments*, 14(2) 21-44

Fjortoft, I., & Sageie, J. (2000). The natural environment as a playground for children: Landscape description and analysis of a natural landscape. *Landscape and Urban Planning*, 48(12), 83–97.

Freeman, S and Eykelbosh (2020) COVID-19 and outdoor safety: considerations for use of outdoor recreational spaces National Collaborating Centre for Environmental Health: British Columbia

Gaster, S. (1991) Urban children's access to their neighbourhood: changes over three generations. *Environment and Behaviour* 23 1 70-85

Gill, T. (2014) The benefits of children's engagement with nature: a systematic literature review. *Children, Youth and Environments* 24 (2) 10-34

Giddings, R., Yarwood, R., (2005) 'Growing up, growing out and growing out of the countryside: childhood experiences in rural England', *Children's Geographies*, 3 (91), pp. 101 –114

Groves, L. & McNish, H. (2011) Natural play: making a difference to children's learning and wellbeing: a longitudinal study of the Forestry Commission-Merrylee Primary School-Glasgow City Council Partnership 2008-2011. Accessed online: <http://outdoorplayandlearning.org.uk/wp-content/uploads/2016/07/naturalplaystudyfull-1.pdf>

Inspiring Scotland, 2019 Scotland's outdoor play and learning coalition. Accessed online: <https://www.inspiringscotland.org.uk/wp-content/uploads/2019/08/Scotlands-Coalition-for-Outdoor-Play-and-Learning-Position-Statement.pdf>

Kelz, C., Evans, G.W. & Roderer, K. (2015). The Restorative Effects of Redesigning the Schoolyard: A Multi-Methodological, Quasi-Experimental Study in Rural Austrian Middle Schools. *Environment and Behavior*, 47 (2), 119-139.

Kuo, M., Barnes, M. & Jordan, C. (2019). Do Experiences with Nature Promote Learning? Converging Evidence of a Cause-and-Effect Relationship. *Frontiers in Psychology*, 10,

Learning and Teaching Scotland (2010) Curriculum for excellence through outdoor learning. Scottish Government: Edinburgh. Accessed online: <https://education.gov.scot/Documents/cfe-through-outdoor-learning.pdf>

Lovell, R., & Roe, J. (2009) Physical and mental health benefits of participation in Forest School. *Countryside Recreation* 17 (1) 20-23

Mereweather, J. (2015) Young children's perspectives of outdoor learning spaces: What matters? *Australasian Journal of Early Childhood*, 40 (1)

Munoz, S (2009) Children in the Outdoors: a literature review Sustainable Development Research Centre. Accessed online <https://www.ltl.org.uk/wp-content/uploads/2019/02/children-in-the-outdoors.pdf>

Nedovic, S. & Morrissey, A.M. (2013) Calm, active and focused: Children's responses to an organic outdoor learning environment. *Learning Environment Research*, 16, 281-295

Nicol, R., Higgins, P., Ross, H. & Mannion, G. (2007). Outdoor education in Scotland. A review of recent research. Glasgow: Learning and Teaching Scotland.

O'Brien, L. (2009). Learning Outdoors: The Forest School Approach. *Education 3-13*, 37(1). 45-60

Quibell, T., Charlton, J. & Law, J. (2017). Wilderness Schooling: a controlled trial of the impact of an outdoor education programme on attainment outcomes in primary school pupils. *British Educational Research Journal*, 43 (3) 572-587

Riley, K (2007) 'Re-connecting with the natural environment –forest schools in Sussex', *Environmental Education*, Spring, p. 7

Waite, S., Bolling, M., Bentsen, P (2014) Comparing apples and pears?: a conceptual framework for understanding forms of outdoor learning through comparison of English Forest Schools and Danish udeskole *Environmental Education Research* 22 868-892

Wells, N. M., & Evans, G. W. (2003). Nearby nature: a buffer of life stress among rural children. *Environment and Behaviour*, 35, 311–330.

Scottish Government, (2020) Out to play: practical guidance for creating outdoor play experiences in early learning and childcare Scottish Government: Edinburgh. Accessed online: <https://www.gov.scot/publications/out-play-practical-guidance-creating-outdoor-play-experiences-children/>