

Enhancing Physical Literacy and Well-being: A Proposal for Developing Cynefin Grounds to Support Adventure Activities and Outdoor Learning for Children 12+.

Introduction:

The current Cynefin grounds consist of a range of areas and therefore access to different activities. This includes a bike track, bushcraft area, open fields, concrete spaces and a willow patch. Please see appendix 1.0 - 1.5 for photos of all of Cynefin's current grounds.

At present, the site provides a basic outdoor environment but lacks a large quantity of dedicated facilities for adventure activities to develop and allow structured outdoor learning environments for children aged 12+. Recognising Cynefin's potential, this proposal aims to transform these grounds into a purposeful space that supports adventurous activities and outdoor learning specifically for children aged 12 and above to develop their physical literacy and overall well being. It is important that physical literacy and overall well being is developed as "physical literacy (PL) is a multifaceted conceptualisation of the skills required to fully realise potentials through embodied experience." (Whitehead, 2010, P. 5 - 13). It is important that children's overall health is increased and developed as "In 2022, one in six children aged 7 to 16 had a mental health problem," (NHS DIGITAL, 2017) which "increased from one in nine in 2017, and one in ten in 2004". (NHS DIGITAL, 2017)

Due to the large increase in mental health issues for young people it is important that they have outdoor spaces to them, this is because green spaces have been associated with the development of self-perceived general health and better mental health overall. (Dobson et al., 2019). Therefore the developments at Cynefin that this report will explore will be as accessible to all as possible and will also be designed for all weather situations. This would allow members of the local communities to have access to a local green space in which they would be able to engage with a range of outdoor adventurous activities as well as nature based therapy.

A higher level of physical literacy means that children are more proficient in fundamental movement skills, possess greater confidence and motivation to engage in physical activities, and have a deeper understanding of the importance of a physically active lifestyle. (Liu and Chen, 2021, p.96-112). It signifies not only the mastery of basic motor skills like running, jumping, and throwing but also the ability to apply these skills in various contexts, such as sports, recreational activities, and everyday life. Additionally, children with a high level of physical literacy tend to have improved physical fitness, better overall health, and a greater capacity to enjoy and sustain an active lifestyle throughout their lives.

Outdoor learning specifically benefits child development as it provides a rich and multisensory environment that engages children in their learning experiences. Access to natural settings has been linked with improved cognitive function, enhanced problem-solving skills, and increased creativity (Kellert, 2005). The dynamic and unstructured nature of outdoor environments promotes physical activity, contributing to the development of motor skills, coordination, and overall physical health (Pretty et al., 2005). Outdoor learning encourages social development by emphasising collaboration, communication, and teamwork among children (Bartlett, 2017). The exposure to nature also positively influences emotional well-being, reducing stress and promoting a sense of connection with the environment (Wells & Evans, 2003).

As mentioned earlier the current Cynefin grounds consist of a bike track, bushcraft area, open fields, concrete spaces and a willow patch. These facilities, although available, are quite basic. For example, the bushcraft area consists of a firepit, log seats and a firewood shed. Therefore this report will now discuss the potential areas for development to allow maximum use of the area to ensure being physically literate and outdoor learning can happen for young people in the community.

Development 1: - direct river access

The first development that should be considered for Cynefin's grounds is direct access to the river. This would allow boats and crafts to get on and off the water without any issue. Having access to the river will not only allow people and a range of crafts to access the water for paddling experiences, but will also provide natural blue areas. These have been shown to reduce mental health issues and increase people's overall well-being. (Hermanski et al. P.203-217, 2022) Research also shows that people who have regular access and involvement within watersports are happier overall.

At Cynefin, water access would ideally be gained from the back garden of the 'house'. See appendix 1.5. This would allow a substantial sized concrete slipway to be built, whilst not disrupting the current regularly used Cynefin grounds. As the house's garden isn't currently used for anything at Cynefin, it allows this space to become the perfect water sports zone. This is because it would allow for boats to easily be carried or transported from the stores to the new slipway with ease.

To build on this, several studies support the positive impact of paddling on physical health. A study published in the Journal of Sports Science and Medicine (Smith et al., 2017) found that regular canoeing improved cardiovascular fitness, leading to reduced risks of heart disease and obesity. Research also supports the theory of the therapeutic benefits of water-based activities. A study conducted by the University of Essex (Barton and Pretty, 2010) revealed that outdoor activities, particularly those involving water, were associated with improved mood and decreased symptoms of depression. Paddling, with its combination of physical exertion and exposure to natural environments, has been shown to have positive effects on mental well-being (Focht, 2009).

Relating this research back to Cynefin, having river access will increase the social aspect of the children aged 12+ in the local community. There should also be an area developed where benches and natural log seats overlook the river. This is important as if people were nervous or not willing to go onto the water in a boat, then this can be a place for them to relax, whilst still receiving the benefits of being near blue spaces.

Development 2: - low ropes course

The second development that would make a difference to children's physical literacy and their time spent outdoors is a low ropes course. This is a very low risk way of incorporating a range of fundamental movement skills and challenges into a child's life. By remaining at a low level rather than an on site high ropes course, means that there is not a need for a qualified expert to be present to ensure safe and correct use of equipment and to oversee all safety of the activity. This means that the activity is more accessible for everyone and easier to facilitate overall.

Low ropes courses have gained recognition as valuable tools in promoting physical, cognitive, and social development in children. This type of experiential learning (Kolb, 1984) combines elements of adventure and teamwork to create a unique environment that fosters personal growth and skill development. Participating in low ropes courses requires children to engage in a variety of physical activities, such as climbing, balancing, and crawling. “These activities contribute to the development of motor skills, coordination, and overall physical fitness” (Gill, 2017).

Low ropes courses also offer cognitive challenges that encourage children to subconsciously develop their problem-solving, critical thinking, and decision-making skills. As children navigate through the course, they encounter obstacles that require strategic planning and adaptability. Research by Priest and Gass (2018) suggests that such activities enhance cognitive abilities by promoting a deeper understanding of spatial awareness and evolving their sense of overall spatial intelligence.

Participating in low ropes courses provides a platform for children to develop emotional resilience and self-confidence. Overcoming challenges and obstacles in a supportive environment helps build a sense of accomplishment and self-efficacy (Brown, 2019). Furthermore, the collaborative nature of low ropes courses encourages teamwork, communication, and cooperation, fostering positive social interactions (Priest & Gass, 2018).

The proposed low ropes course in Cynefin is anticipated to incorporate an array of diverse obstacles, including; balance beams, tight ropes, spider webs, stepping stones, wobbly horizontal ladders, hanging tires, a climbing wall, monkey bars, among others. This comprehensive assortment of activities is strategically designed to foster outdoor engagement among children while concurrently facilitating the development of fundamental movement skills. The inclusion of such obstacles and challenges is intended to create an environment wherein children can relish their outdoor experiences, enjoying a sense of unencumbered play without necessitating an abundance of safety rules or additional safety equipment. This approach aims to strike a balance between recreation and skill development, providing a conducive and enjoyable outdoor space for children to actively participate and cultivate essential fundamental movement skills.

The proposed location for the new low ropes course, would be near to the fence in the field adjacent to the willow at the front of Cynefin. See appendix 1.2 for location. This is strategically chosen to ensure that children can engage in play safely, distanced from the road. By situating the course within the confines of Cynefin's gates, where children are granted the freedom to play unsupervised, parents and caregivers can enjoy a heightened sense of reassurance regarding their children's safety.

In addition to addressing safety concerns, a paramount feature of the low ropes course design is the implementation of an impact-attenuating surface encompassing the entire area. An impact-attenuating surface is defined as a playground surface with shock-absorbing properties, assessed through a testing method simulating the impact of a child's head with the surface (SafeLandings, 2023). This safety measure is integral to minimising the likelihood of injuries during play.

Additionally, knowledge of established standards is evident in the stipulation that the maximum free fall height on the low ropes course will not exceed 2000mm, as recommended via guidelines set by organisations and companies such as Support Adventure (2021). This commitment to compliance further underscores the project's dedication to maintaining safety standards and prioritising the well-being of children engaging in outdoor activities and adventure within the proposed low ropes course.

Development 3: - sensory trails.

The third and final development is sensory trails/ walks around the local area and Cynefin grounds. Sensory trails and walks have gained recognition as effective tools for enhancing the well-being and development of children. These immersive experiences are designed to stimulate and engage multiple senses, providing a myriad of benefits for physical, cognitive, and emotional development. Sensory trails contribute significantly to children's physical development by promoting gross motor skills, balance, and coordination. The varied terrain and elements encountered during a sensory walk challenge children to navigate uneven surfaces, improving their spatial awareness and motor planning. These activities are essential for fostering a strong foundation for future physical activities and sports. This develops the children's overall "mountain of motor skills" developed by Clark and Metcalfe in 2002, this is a conceptual model that describes the development of motor skills in children. The model is represented as a mountain, with the base representing fundamental motor skills, and the peak representing advanced motor skills. Therefore the higher up the mountain, the more developed the children are.

Sensory trails represent a cost-effective and accessible option for the community, making them a highly advantageous addition to the developmental initiatives for Cynefin. The construction and facilitation of sensory trails align seamlessly with the objectives of encouraging child development in both the Cynefin site and neighbouring outdoor spaces within the community.

Furthermore, the concept of sensory trails at Cynefin with the existing woodland therapy training provided by the university creates an additional resource for both students and the wider community. Therefore this can foster OAE students to actively participate in the facilitation of sensory trails for their local communities. The addition of these elements not only contributes to the enrichment of the educational experience but also enhances the overall impact of the developments at Cynefin for the community.

Moreover, the simplicity and intuitiveness of sensory walks make them easily comprehensible to members of the community. This understanding facilitates community members' ability to partake in these walks at their convenience, promoting a sense of autonomy and encouraging regular engagement with outdoor activities. This means that the incorporation of sensory trails at Cynefin holds the potential to serve as a community-building element, empowering individuals to explore and appreciate the natural surroundings in both organised and self-directed experiences.

Conclusion:

In conclusion, the proposal to enhance Cynefin grounds for the development of physical literacy and well-being in children aged 12 and above represents a crucial initiative. The

existing facilities, while functional, lack the dedicated spaces required for a young child's regular outdoor learning and physical literacy development. Recognising the significance of physical literacy in holistic development, especially in the face of rising mental health issues among young people, the proposed developments aim to create an environment that fosters not only physical fitness but also emotional resilience and cognitive skills.

The inclusion of direct river access provides an opportunity for water-based activities, known for their positive impact on cardiovascular fitness and mental well-being. Additionally, creating a space for relaxation near the river ensures that individuals who may be hesitant to participate in water activities can still benefit from the calming effects of blue spaces.

The introduction of a low ropes course addresses the need for a low-risk, accessible adventure activity that promotes fundamental movement skills, cognitive development, and teamwork. Placing it strategically within Cynefin's gates enhances safety and encourages unsupervised play, contributing to the overall goal of fostering a sense of accomplishment and self-efficacy in children.

Lastly, the incorporation of sensory trails not only enriches the physical and cognitive development of children but also serves as a cost-effective and community-friendly addition. The trails not only align with the educational goals of Cynefin but also create opportunities for collaboration with the local community and outdoor adventure education (OAE) students. This dual-purpose approach reinforces the proposal's commitment to community building and educational enrichment.

In essence, the proposed developments at Cynefin aim to transform the grounds into a purposeful space that not only addresses the current gaps in outdoor facilities but also actively contributes to the well-being and development of the community, particularly the children aged 12 and above. By combining the therapeutic benefits of nature, the excitement of adventure activities, and the accessibility of sensory experiences, Cynefin has the potential to become a model space for nurturing physical literacy and overall well-being in the community.

Appendices:

1.0 - the Cynefin bike track area



1.1- the willow area at the front of Cynefin.



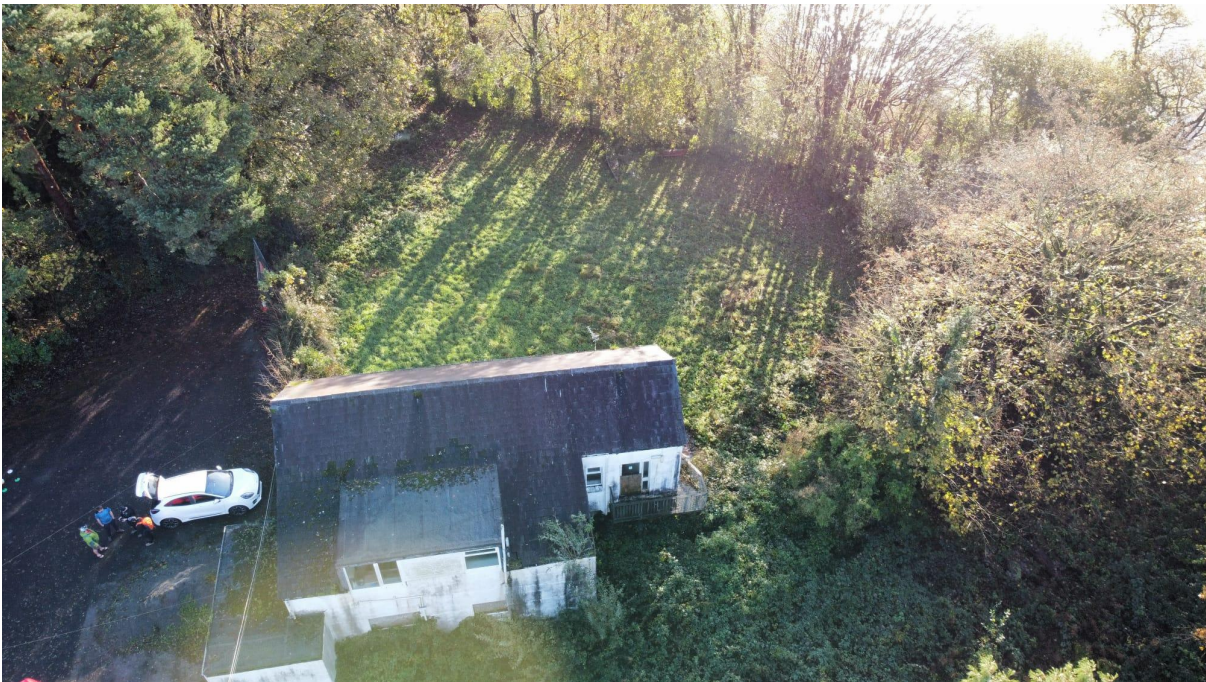
1.2 - the bushcraft and yurt area in Cynefin.



1.3 - aerial view of Cynefin.



1.4 - the 'house' and back garden



1.5 - view of the river and how close it is to the 'house'



Reference list

- Bartlett, J. *Outdoor learning in the early years: Management and innovation*. Routledge, 2017.
- Barton, J., and J. Pretty. "What is the best dose of nature and green exercise for improving mental health? A multi-study analysis." *Environmental Science & Technology*, vol. 44, no. 10, 2010, pp. 3947-3955.
- Brown, C. "The impact of adventure education on children's self-esteem and locus of control." *Journal of Outdoor and Environmental Education*, vol. 22, no. 1, 2019, pp. 45-60.
- Clark, J., and J. Metcalfe. "the mountain of motor skills." *THE MOUNTAIN OF MOTOR DEVELOPMENT: A METAPHOR* Jane E. Clark Jason S. Metcalfe ABSTRACT, 2002, https://edisciplinas.usp.br/pluginfile.php/7960251/mod_resource/content/1/the%20mountain%20of%20motor%20development%20-%20a%20metaphor.pdf.
- Dobson, Julian, et al. "Space to thrive_2019, A rapid evidence review of the benefits of parks and green spaces for people and communities." *SHURA - Sheffield Hallam University Research Archive*, . The National Lottery Heritage Fund and The National Lottery Community Fund,, 2019, <https://shura.shu.ac.uk/25904/1/space-to-thrive-2019-evidence-review.pdf>.
- Focht, B. "Brief walks in outdoor and laboratory environments: Effects on affective responses, enjoyment, and intentions to walk for exercise." *Research Quarterly for Exercise and Sport*,, vol. 80, no. 3, 2009, pp. 611-620.
- Gill, T. *Adventure Therapy: Theory, Research, and Practice*. routledge, 2017.

Hermanski, A., et al. "The effects of blue spaces on mental health and associated biomarkers." *International Journal of Mental Health*, vol. 51, no. 3, 2022, pp. 203-217.

Keller, S. R. *Building for Life: Designing and Understanding the Human-Nature Connection*. Island Press, 2005.

Kolb, D. A. "(PDF) Experiential Learning: Experience As The Source Of Learning And Development." *ResearchGate*, 1984,
https://www.researchgate.net/publication/235701029_Experiential_Learning_Experience_As_The_Source_Of_Learning_And_Development.

Liu, Yang, and Senlin Chen. "Physical literacy in children and adolescents: Definitions, assessments, and interventions." *European Physical Education Review*, vol. 27, no. 1, 2021, pp. 96-112,
<https://journals.sagepub.com/doi/full/10.1177/1356336X20925502>.

NHS DIGITAL. "Mental Health of Children and Young People in England 2022 - wave 3 follow up to the 2017 survey." *NHS Digital*, 29 November 2022,
<https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2022-follow-up-to-the-2017-survey>.

Pretty, J., et al. *Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy and planning*. 48 ed., vol. 3, Journal of Environmental Planning and Management, 2005.

Priest, S., and M. Gas. *Effective Leadership in Adventure Programming*. 3rd ed., Human Kinetics, 2018.

SafeLandings. "Impact Attenuation." *SafeLandings*, 2023,
<https://safelandings.com/impact-attenuation/>.

Smith, A. J., et al. "Canoeing and kayaking for health improvement: Physical activity perceptions of participants." *Journal of Sports Science and Medicine*,, vol. 12, no. 2, 2017, pp. 259-267.

support adventure. "Low Ropes and Confidence Courses." *Support Adventure*, 2021,
<https://www.supportadventure.co.nz/assets/GPGs/GPG-Low-Ropes-Confidence-Courses-Version-2-2021-v2.pdf>.

Wells, N., and G. Evans. *Nearby nature: A buffer of life stress among rural children*. Environment and Behaviour, 2003.

Whitehead, M. *Physical literacy: throughout the lifecourse*. London Routledge, 2010.