

Part 1



Part 2

Outdoor play and learning is a fundamental part of children's development, health and wellbeing, therefore it is important that early years' practitioner's recognise and provide rich environments to support holistic learning, curiosity, discovery, exploration and experimentation but also the knowledge of child development. It is important that all children have frequent opportunities for deep involvement to explore in the outdoors, experience stimulating and challenging environments to support physical activity and enjoyment, gain new understanding and develop new skills. Children are inquisitive and will want to go off and explore to see what they can find, being curious and creative and taking the initiative. Outdoor play and learning for children supports them to develop skills so they manage their physical risk but also encourage them to 'have a go'. They will develop a greater awareness of their bodies and coordination when they are able to explore the outdoors, using their muscles and senses constantly also, when they are outside. They are learning without even realising it but the experiences are the most valuable and important.

Early years practitioners' need to provide these opportunities for children to gain the confidence to go and explore, investigate what they find, the more opportunities given to them the better for their development.

The outdoor environment shown in the picture above is quite a small area but within this there are many opportunities for exploration, developing children's social and communication skills through play in the outdoors. It offers a wide range of learning opportunities as there are natural elements, manmade objects and loose parts for children to independently learn, explore and discover new things. There are many different textures within this picture, and a range of shapes, variety of colours and different sized objects to gather the interest of a child so that they will become engaged and go explore and investigate.

The Welsh Government (2022) states that numeracy plays an important part of our daily lives and in the early years, play is identified as being central to children learning the concept of mathematics and is an essential part of development. The activities that the children would take part in, using this picture, would be to do with number. It is important to remember that mathematics is abstract, it is not something that we can see and this can be challenging for children to understand. It is in thought and does not have a concrete existence but it is the first concept that children learn in mathematics and from this comes logical reasoning. There are numerous tree trunks that have been made to create a path, using these tree trunks, I would use nursery rhymes and songs that include number for children to join in. I think this would be a fun activity for them to participate in, showing recognition of number through song. It would support the development of their concentration, use of balance and their senses, all exploring this through number. The children could point and move along the tree trunks in rhythm to the counting song. The same activity would include measure, comparing sizes, biggest and smallest, longest and shortest. Children are naturally curious and are able to learn independently through play. Mathematics is heavily linked to all four purposes in the Curriculum for Wales 2022, identifying how important this subject is for our learners for them to become

ambitious, capable learners, informed citizens of Wales and the world, healthy confident individuals and enterprising, creative contributors.

In the picture above, developing early scientific discovery can be learnt through a numerous amount of opportunities in the natural outdoor environment for young children. We want out children to be curious and ask questions, for them to search for answers is essential to predicting phenomena and learning about the world using logic and creativity. It is important the environment is stimulating and challenging for children to be able to explore, make observations and to communicate their ideas. Children need to have as many experiences outdoors as possible, this will lead to them developing their thinking skills and asking more questions, develop their knowledge and understanding, eventually applying simple methods to their curiosity. There are many activities that can be delivered in the outdoor environment and the activity I have done with many children in the past is the weather and the seasons, this can also incorporate the welsh language. To activate the children's thinking skills I would asked questions starting with WIN. I wonder....I imagine....I notice.... This will lead to children not saying yes or no. Setting up buckets to catch the rain and talk about how much rain has fallen. Put flags in the ground to talk about how the wind is making the flags move. Looking at the shapes of the clouds, and the different colours of them. If it is sunny, get the children's attention and look at their shadows. How your shadow moves with you, follows you, never leaves your side. I wonder how that happens and how the shadows are different sizes at different times of the day? All these concepts link to science and support children's development and their curiosity. Children will discover new ways of doing things in the outdoor environments and exploration is the foundation for learning science. Children will develop resilience when learning different scientific concepts, especially when something doesn't quite work out the way they thought or wanted it to. These experiences will support the development of independence in their learning and importantly interdependence when they work in small groups with their peers. Throughout these opportunities it is essential to be mindful that it is a holistic approach and early learning over time, in the outdoors, children will be able to make links with their prior learning.

The Welsh Government link the subject of science to all four purposes in the new curriculum, like they do all subjects, emphasis on science in particular for children to become ethical, informed citizens of Wales and the world. Exploring the community and further children develop a sense of belonging, emotional health and wellbeing. The principles for providing outdoors experiences are holistic learning, curiosity, discovery, exploration and experimentation. The Curriculum for Wales suggests that learning indoors and outdoors is central to children's learning, emphasising outdoor learning is paramount to their development. Not all children are ready to learn at the same time, children develop at different stages and ages and also have different ways of learning and for some children they cannot sit on a carpet for long periods of time, legs crossed and listening.

Enabling pathways suggest that the outdoors is the main place where learning takes place and for children to develop to their full potential, it is important that all adults understand and value the outdoors. When observing an outdoors environment, it is important to recognise that it is paramount to children's experiences and exploration is central to their development. The environment must promote discovery and independence, using the outdoors as a resource for children's learning, providing and promoting communication skills and giving children opportunities to develop this further. The outdoor environment is there to scaffold and build mathematical and scientific concepts, using a variety of resources when needed to enhance children's learning.

The outdoors is the best playground for children to gain those experiences.

Part 3

RISK BENEFIT ASSESSMENT

The boxes in the table below will expand as you type into them; pre-entered text is simply for illustration. You should delete irrelevant items and replace with text relevant to your circumstances.

Your overall risk rating – Low, medium or high – is based on your judgement about whether the BENEFITS of the activity or opportunity outweigh the RISKS.

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Free outdoor play and learning. Facilitating/encouraging children to explore.	To develop a healthy and active lifestyle while engagement with the outside elements. Children to develop physical literacy and limitations of their own bodies when playing. Understanding of nature and to show respect and care for the environment and living things. To develop communication skills and social skills when with other children or adults. To develop creativity and imagination, inventiveness and resourcefulness. To develop discovery and exploration. To develop sensory and physical experiences. To develop skills and awareness to assess own risks and overcome challenges and limitations. To develop spatial awareness and personal space.	Litter/sharp objects/faeces in outdoor area. Tripping over, losing balance over natural objects. Running into other children or objects. Jumping onto tree trunks and losing balance. Bumping into each other. Children putting things in their mouth. Some objects may be slippery due to rain. Children becoming dysregulated and distressed due to the activity.	Children and adults.	Adults to ensure children are aware of behaviour expectations to keep them safe and to be observant of the children's movements. The correct ratio to be put in place prior to the activity and during the activity. Adults to check and inspect prior to activity taking place, before children accessing outdoor area and remove any objects to reduce risk of injury or accident. Adults to have understanding of children who may find this activity difficult and support the child when needed. For children who find balance difficult, give assistance only when needed. Ensure the activity is specific to the child and encourage participation. Ensure children have understanding of dangers when putting things in their mouth that they do not know about. Ensure children are aware slippery surfaces.	L

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Children to explore mathematics through song and rhymes, using natural elements to support and build knowledge of number.	To take part in number songs and nursery rhymes. To recite numbers independently or with support from an adult. To recite numbers forwards and backwards when ready. To recognise a quantity can be bigger or smaller. To develop cognitive skills when problem solving. To develop fine and gross motor skills using objects to support counting. To transfer mathematical skills to play in the outdoors. To select relevant number facts and use mathematical language.	Slips and trips if using the trunks to jump in rhythm with the numbers. Children jumping from one trunk to another. Ensure children are aware that tree trunks may be uneven.	Children and adults – if assisting.	To ensure clothes and footwear are appropriate for the outdoor activity. To ensure surfaces are not slippery. Show the children that the trunks are a little slippery/uneven before they explore the area independently. To support children if scared or unsure to jump from one trunk to another. Model how to safely jump use rhyme. Adults to give assistance to children who may have balance issues.	L

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity	Hazards and risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk RATING: L/M/H
Children to explore the concepts of the weather, using natural loose parts and manmade objects.	Contact with the natural environment – weather and seasons. Children having the freedom to explore, discover and ask questions. Children will develop curiosity, ask questions and investigate their findings. Children will communicate their ideas from repeated experiences of the changing weather. Children will use knowledge and understanding to predict outcomes Develop problem solving, communication and social skills..	Trips and falls when using the equipment for exploration. Equipment have sharp objects. Ensure monitoring of objects thrown.	Children and adults.	Adults to ensure all children have correct clothes and footwear suitable before activity. Adults to ensure awareness of conditions around the area. Prior to outdoor learning taking place, parents be informed of activity. Ensure all children have access to spare clothes/footwear to participate inactivity. Adults to engage with children when support is needed. All containers of water to be emptied at end of activity to avoid water becoming stagnant.	L

Part 4

Rose and Hatting (2014) and Aubrey and Riley (2020) describe that Piaget had a fascination with how children think and learn, as that develops he created four stages of development with the key theme of his focus on thought, from concrete to abstract. Agbenyega, (2009) identified that the focal point of his work was on processes for children to know, understand and think. Piaget recognised children pass through a fixed sequence of cognitive development which results in them developing the capacity to understand and make sense of their world.

Piaget is well known for identifying that thought is essential for child development, children start to make sense of new experiences, in time children assimilate them and build those experiences into existing schemas with the more experiences they encounter. Sometimes, the child will find an experience difficult to fit into an existing schema, it may be a new or different experience, however the child has not created a schema for it as yet. Piaget called this cognitive conflict, therefore the schema known to the child has to be changed, for there to be no conflict from the experience. For example, a child who comes across a similar experience of rolling down a hill, but the hill is now full of snow because the seasons has changed. The child's schema that has been built up over time has to adapt to the new experience before attempting to roll down the hill again. Schemas are neural connections still reliant on theories we need symbolic representation to help interpret how learning can manifest itself. Help us further understand children's thought development. (Rose and Hatting 2014)

Equally important are the four stages of development, but in particular the first two stages, sensory-motor and pre-operational stage for early years practitioners. The first stage is sensory motor stage, from birth to two years old, focusing on the senses and movement of a child. He suggested that children are fascinated by their bodies and want to explore to see what they can do, the more mobile they become, the more they become curious and will want to explore the environment. His work was influenced by Montessori, in particular, the child experiences to support cognitive development and the value and importance of play. Similarly, Dewey also recognised the importance of a child's curiosity and that drive to learn, giving

children challenges for the child to search and look for answers (Aubrey and Riley, 2020).

Walshaw (2017) and Aubrey & Riley (2020) recognise the importance of the adult and how they have to approach learning and delivering education in a certain way for a child to develop. Vygotsky's ideas have an importance in a way the adult gives that support by scaffolding, to enable the learning to take place and understanding to develop. As that understanding grows and is sustained, the scaffold is removed. Developing sustained shared thinking is a significant part for an adult to recognise and facilitate, giving support, interaction and engagement. Agbenyega, J. (2009) identified Vygotsky seen children acquire and develop understanding from experiences where there was problem solving, but also through play with support from an adult, children learn what is important to them, in their community. Play he believed to be a vital element, learning in play and in school in which they become known as a zone of proximal development. Children build on their social and cultural processes, developing language and understanding (Aubrey and Riley 2020). Vygotsky also proposed that for a child to build knowledge with or without an adult present, there was a great difference between what a child can do without adult supervision and what a child can achieve with an adult's assistance and support. (Moore, 2000:16, cited in Aubrey and Riley, 2020). Mathematical and scientific concepts can be supported with early years practitioners using this scaffolding technique, (Walshaw, 2017).

Historically, Froebel was a founder of kindergartens and recognised the importance of early childhood education and development, his principles of work are still evident and continue today, challenging the way adults play with children. He believed that everything was connected and gave a deep, meaning of all around. He identified that children learn in a holistic way and that everything links together, children are unique and the focus is to celebrate what a child can achieve. Children learn best when they are doing things for themselves, learning from their own ideas in a rich environment, with the adults only there to offer support when needed. He thought play should be free and over time their ideas become meaningful to them and results in play being a learning context. It is essential that early years practitioners guide the children, provide rich environments for real life experiences and identify observation as an

important part of extending their interests. Learning outdoors can stimulate all of the children's senses, absorb them in imagination and curiosity, physically challenge their movement and have good emotional health and wellbeing. (Ascoli and Hunter, no date)

The value of teaching and learning in the outdoors through playful experiences is recognised as meaningful and significant to child development, in addition to learning science and mathematics as part of a daily routine, Welsh Government (2014) and Grigg and Lewis (2016). However, Grigg and Lewis (2016) argue that over the years there has been a deterioration on the focus of play, the main factors being technology and parents who are over protective of their child. Although, Davies (2014) identifies that children growing up in an affluent Western world are called the Ipad generation, it is important to recognise that children need to design and make things from real materials, in the outdoors as well.

Furthermore, research suggests children who acquire repeated, happy experiences of the outdoors can impact on their learning, development, emotional health and wellbeing. A rich environment, full of natural elements and a well-planned activity can support children's thinking skills to make sense of the outdoors and the world around them. However, it is just as important for children to explore freely and discover their own interests, being curious of the open space around them and searching for answers. The outdoors must be purposeful for children to develop skills and knowledge (Welsh Government 2014).

Enabling Pathways (2021) identify the outdoors as one of the key principles for holistic and meaningful learning. Fundamental to this is the adults having the skills and knowledge to deliver these principles, ensuring exploration is evident to the environment and the experiences are stimulating and challenging, children showing deep level involvement with natural elements. The interplay between all three is essential to the Curriculum for Wales. It is essential that learners have the correct support and time to develop their emotional resilience and intelligence, recognise feelings and understand them. It is the responsibility of the early year's practitioners to deliver a pedagogy that can promote children's development.

What's more, Grigg and Lewis (2016) state that for some children education in the classroom can become boring and they become disengaged, for these children they

need the outdoors, to develop social and emotional skills. Out of class learning has no apparent boundaries and it begins in the schools grounds. Children learn about the environment, respect the environment and take responsibility, develop a caring nurturing attitude and feel free to express themselves in different ways. Furthermore, outdoor learning can be an important factor for the holistic development of the child. If a community is to become strong it needs to have a sense of belonging, a vision which is shared by everyone. All this can be universal if there is an environment that is rich, a curriculum to suit every one and equal opportunities are readily available.

The Curriculum for Wales has been created and designed to meet the needs of all children living in Wales and support children to develop the four purposes. Ambitious, capable learners, Enterprising, creative contributors, Ethical citizens of Wales and the world and finally, Healthy, confident individuals. Although there are aspects of core learning that have to be delivered throughout Wales, in line with legislation, schools now have the power to design their own curriculum and how to use assessments to show progression in learning. As a result, all schools will have designed the curriculum differently, to suit the needs of specific learners, choosing topics and activities to best support their learning and creating a school vision which is personal to the children, school and community. These factors contribute to how the learning is designed and planned, and the importance of understanding the principles of progression. (Welsh Government 2021).

Thomas, D (No date) is aware of schools creating their own individual vision, however, she asks, is there a vision for outdoors. To consider this, the outdoors has to promote the development and skills to be in line with the four purposes and six areas of learning, within the Curriculum for Wales. The outdoors needs to motivate, inspire and challenge children, this will develop their curiosity within a natural environment. There should be just as much learning outdoors as there is indoors. In addition to this there is support for descriptions of learning and furthermore the application of statements of what matters to ensure continuum of learning. The expectations are framed broadly, there is no time limit of the steps of progression, it is where the children are now for development and learning, not where children should be. These both are used as a guide for a school curriculum to reflect

progression and then assessments can be used for further planning and learning. For that reason, learning comes from experiences and it is important that all children have the opportunities given to them for exploration and challenge, and support every learner to achieve at their own pace. (Welsh Government, 2021).

The Welsh Government, (2015) state cross curricular planning to gain skills and a framework for development is important for all learners. Children should be given opportunities to develop their skills, knowledge and understanding through outdoor learning environments that are rich in language and transfer those skills when they encounter a new or different experience. A rich environment that will deliver mathematical and scientific language for children, will support and develop new words and extend their vocabulary through playful activities, give opportunities to express their likes and dis-likes and be encouraged in the outdoors to talk about their ideas.

Welsh Government, (2014) identify children gain enjoyment when outdoors which result in understanding new things and developing new skills. The outdoors changes with each season, giving children scientific learning opportunities, being curious and searching for answers, this is essential to children understanding and predicting phenomena. The world is full of beautiful, living things that children will become inquisitive about if the opportunities are given. Additionally, children develop skills to manage physical risk when learning outdoors and learn to identify dangers to themselves and their peers.

Robertson (2015) describes outdoor learning as an umbrella because it covers every type of learning experience there can be and more importantly she says that regardless of the learning it is the experiences that count and is most important. A nurturing, natural environment truly meets the needs of every child.

Reference List

- Welsh Government. (2021). *Enabling Pathways*. Available at: https://gov.wales/sites/default/files/consultations/2021-05/enabling-pathways-consultation-document_0.pdf (Accessed: 18th September 2022).
- Welsh Government. (2014) *Further steps Outdoors*. Available at: <https://hwb.gov.wales/storage/37952a30-6aa6-4a64-be8c-6710dbd25d8c/further-steps-outdoors.pdf>. (Accessed: 20th September 2022).
- Welsh Government. (2022) *Curriculum of Wales*. Available at: <https://hwb.gov.wales/curriculum-for-wales/science-and-technology/statements-of-what-matters/> (Accessed: 18th September 2022).
- Aubrey, K and Riley, A. (2020) *Understanding and Using Educational Theories*. (2nd ed.) London: Sage Publications.
- Russell, T. and McGuigan, L. (2016) *Exploring science with young children :a developmental perspective*. London: SAGE.
- Grigg, R. and Lewis, H. (2016) *A to Z of learning outside the classroom*. London: Bloomsbury.
- Welsh Government (No date) *First Steps Outdoors*. Available at; <https://hwb.gov.wales/storage/79a90e4b-0385-4cc8-be9b-2b20be3a85d0/first-steps-outdoors.pdf> (Accessed: 15th September 2022).
- Welsh Government (2015) *Curriculum for Wales. Foundation Phase Framework*. Available at: <https://hwb.gov.wales/storage/d5d8e39c-b534-40cb-a3f5-7e2e126d8077/foundation-phase-framework.pdf> (Accessed: 21st September 2022).
- Ascoli, H and Hunter, D. (No date) *A Froebelian Approach. Re-engaging with nature*. Available at: https://www.froebel.org.uk/uploads/documents/FT_Re-engaging-With-Nature_Pamphlet_INTERACTIVE.pdf (Accessed: 1st October 2022).
- Davies, D. (2014) *Teaching science and technology in the early years*. New York: Routledge.
- Agbenyega, J. (2009) 'The Australian Early Development Index, who does it measure: Piaget or Vygotsky's child?', *Australasian journal of early childhood*, 34(2), pp. 31–38. Available at: <https://doi.org/10.1177/183693910903400206>.

Walshaw, M. (2017) '*Understanding mathematical development through Vygotsky*', *Research in mathematics education*, 19(3), pp. 293–309. Available at: <https://doi.org/10.1080/14794802.2017.1379728>.

Welsh Government. (2021) *Progression and assessment at the heart of curriculum design*. Available at: <https://hwb.gov.wales/curriculum-for-wales/introduction/#progression-and-assessment-at-the-heart-of-curriculum-design> (Accessed: 2nd October 2022).

Thomas, D. (No date) Embedding learning outside into the new Welsh curriculum (Wales Outdoor Learning Week) Available at: https://www.lotc.org.uk/wp-content/uploads/2020/09/LOtCWales_NatureDays.pdf (Accessed: 22nd September 2022).

Robertson, J. (2014) *Dirty Teaching. A Beginner's guide to Learning Outdoors*. Glasgow: Bell and Bain Ltd.