

PART 1



Hughes (2023)

PART 2

Today, I (Miss Hughes), Mrs Jones and Mrs Evans will be taking three groups of 4 children from year one class (aged 6) outside onto the big yard to participate in some group activities. Upon arriving to year one class, we are greeted by happy smiling faces on a very cold, crisp but sunny October morning. We help the children to put on their warm coats, gloves and wellies and head outside to the big yard. Mrs Jones takes a head count of the children; we then divide the twelve children into three groups of four and head to the hilly grassed area of the yard. There are many things to see here to spark curiosity and engage young minds. I begin by asking my group what they can see around them, "I can see big, huge tyres, says James", "Look here Miss Hughes, there are lots of logs, why are they there? What do we use them for?" Asks Gabi. We head over to the pile of logs, I

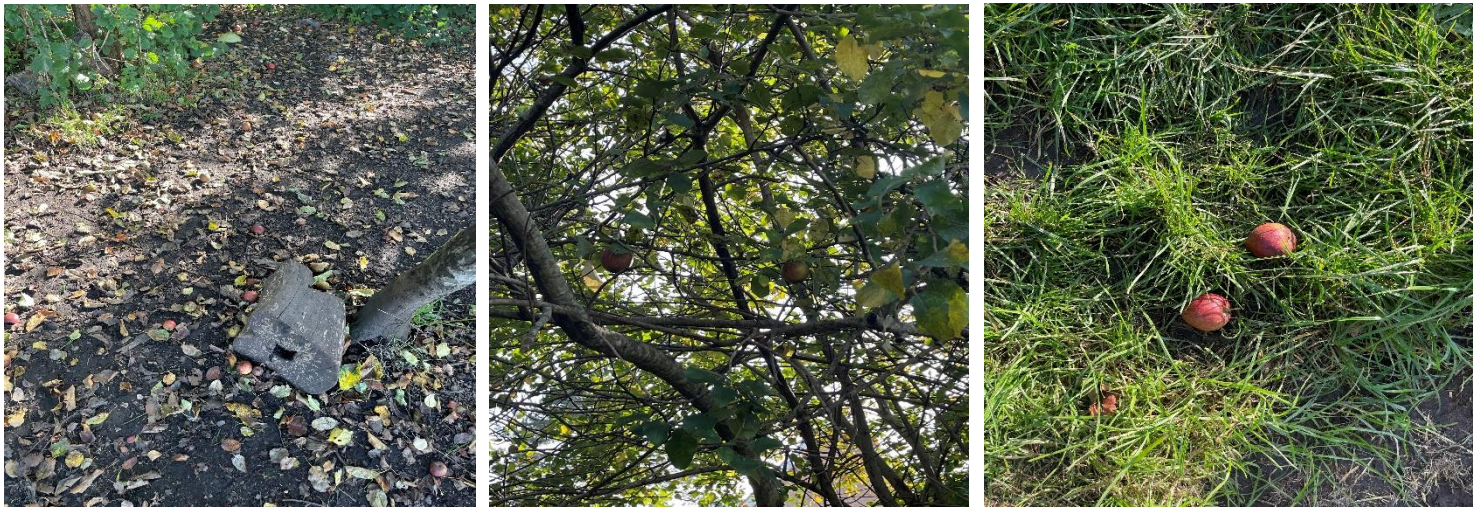
explain what logs can be used for, they can be used for heating our homes which keeps us warm during winter, paper is made from logs, they can be used to make the furniture we sit on, like in our firepit area, Nikara jumps up and down with excitement, “are we toasting marshmallow’s today Miss?” That’s a very good example Nikara of how wood is used, we can use it to light a fire to keep us warm and cook our marshmallow’s, but we won’t be making those today, but you can see a tree has many uses.



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“Miss, yes Nikara? So, what are logs made from?” Logs come from trees, if you look around the yard boys and girls you will see many trees, and these logs are the tree trunks which are wood. Trees also have another very important job, does anyone know what that job is? “They grow leaves, says James” Yes James that is correct trees do grow leaves but that’s not all. Trees are living things that breathe in a type of gas, that we can’t actually see, which is called carbon dioxide. Has anybody ever heard of carbon dioxide? Well boys and girls carbon dioxide is a gas which is poisonous to humans, trees breathe in carbon dioxide then they breathe out oxygen which is what we need to be able to survive! They also provide us with many fruits and vegetables, like this tree here, can anyone see anything unusual about this tree? Roland quickly spots apples on the ground, whilst Gabi shouts with excitement, “there’s apples in the tree, look up there”! Apples grow on trees, and so do many other delicious fruits and vegetables, and when an apple is ready to pick,

it will sometimes fall to the ground. But I wonder boys and girls, why does the apple fall to the ground and not float in the air? Very mysterious isn't it.



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We headed back up to the pile of logs and I set a challenge for the children, can you climb to the top of these logs? Think about how you will get to the top? How many logs will you climb? Will you need to move any logs to make them sturdy? How will you help one another reach the top? This is introducing an element of risk for the children to navigate. The children start to work with one another to figure out the best way to navigate themselves to the top of the logs. James thinks it's best to take it in turns and go up one at a time. Many skills are needed here, the children need to use their gross motor skills to climb the logs. They will need to use their senses, their sight and touch to look at the logs, which ones are sturdy and which ones are not. They will need to work as a team and listen to one another, using their problem-solving skills. The children are given plenty of time to figure out the best way to get to the top, making many trips halfway up and back down again and learning what works and what doesn't. After around 15 minutes Gabi is the first to make it to the top "WOW, I made it, Miss Hughes, look I made it to the top! Well done, Gabi, that's amazing! One by one they all take turns and make it to the top of the log pile, feeling a sense of achievement and pride.

Once the children navigate their way down from the log pile, Roland asks questions about the shape of logs, "do logs roll Miss"? That's a good question Roland, shall we try it and see what happens? "Yes please!" From the pile of logs there are many pathways which are all on a decline. I ask the children to each pick a log, now you have chosen your logs, where do you think we should stand to see if they roll? Nikara exclaims! "Right at the top of the hill!". We head to the top where Nikara wants to start, Nikara then places her log onto

its side vertically and pushes the log with great strength. The log rolls down the hill with Nikara running after it shouting and laughing, “why is it rolling so fast?” Well boys and girls, do you remember seeing the apples over there on the floor? And I asked you why the apples fell to the floor and didn’t float in the air. This happens because there is an invisible force called gravity all around us which is how we stay touching the ground and not floating in the air. “Miss”, Yes James, “in space you fly in the air”, yes you do and that’s because in space there is no gravity to keep your feet on the floor, like we have on earth. The children begin to take it in turns to experiment with different, rolling the logs down the hill then swapping for different ones, different shapes, surfaces, and sizes. Taking the opportunity to use different slopes, some with higher gradients and some with lower, realising that the higher the gradient, the faster the log will roll. “Miss” shouts Gabi, why is this log not rolling? Can anybody see anything a bit different about this log? What is stopping this log from rolling? James points out that this log has “something sticking out of it”, they are part of the branches that have broken off, I said. If you all come and see, when I try to roll this log the branches that are sticking out are stopping this log from rolling, it hasn’t got a smooth surface like many of the other logs you have used.



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What if we head down to the bottom of the slope to roll our logs, lets see what happens. The children begin to head down to the bottom of the slop carrying their chosen logs. Once there they begin to find a space and take turns to roll. It is quickly noticed that these logs are very hard to roll up the hill, they roll straight back to them at the bottom of the slope. Why are they not rolling up the hill Miss Hughes? This is happening because the gravity is forcing the log to roll down and not up. If we push these logs as hard as we can up the

slope, they will always roll straight back towards us. I ask the children if they can see anything else that may roll down the slope, with many suggestions, such as apples, tyres, and conkers. The children are then given time to roam and experiment with the loose parts they can find around them, before heading back into the classroom to get ready for lunch. The new curriculum for Wales, emphasises the importance of science for children, implementing physics, biology and chemistry into activities and play can have a positive influence for the rest of a child's life. Implementing science through play can present many opportunities for children to take risk, embrace challenge, be innovative, evaluate outcomes and allow children to become more resilient in all areas of learning (Welsh Government, 2022).

PART 3: RISK BENEFIT ASSESSMENT

Location / Activity:	Penygaer Primary School yard – Team building activities – log climbing and rolling – using loose parts found outside.	Date:	17/10/2023
Assessor:	2200358	Review date:	

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity?	Hazards and associated risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk rating: L/M/H
Climbing the pile of logs	Children will benefit from this activity by using their fine and gross motor skills. Learning to co-ordinate and balance. Children will also be exploring gradients, gravity, and force – science. Direction. Exploring with an element of risk and working as a team.	Logs – may be slippery. A child could fall and hurt themselves whilst climbing the logs. There is also risk of children getting splinters. Some logs may have sharp bits sticking out of them which could cause a child to be hurt. The logs may move when the children are climbing them.	Adults and children	All logs will have been checked and climbed by an adult to make sure they are secure and not wet and slippery. Logs will also be checked by an adult to make sure there are no logs present with sharp edges or loose bits of wood that could cause splinters. Children will be wearing gloves. A discussion and demonstration will take place with the children to warn them of the dangers of climbing logs. We have spoken about taking your time, go slow and test each log to make sure if can hold your weight.	Low

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity?	Hazards and associated risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk rating: L/M/H
				A trained first aider will be present at all times to assist and follow protocol if any injuries may occur.	
Exploring the outdoor space freely	Freedom to make big broad exaggerated movements, jump, play, exercise. Be able to shout or whisper quietly. Learn about nature and to feel different textures, for example tree trunks, flowers, conkers, or grass.	Trips and falls may occur. Could step in or fall in cat/fox/dog poo. Children leaving the school grounds. Stranger danger. Sharp sticks may have fallen from trees. Children could wave these around and potentially hurt someone. Slippery leaves on the ground as well as apples and conkers. Small objects, bugs, apples, leaves and	Adults and children	Every morning two teachers are present at both the main entrance and nursery gates. Those teachers are the last people to enter the school and make sure the gate is locked behind them. If anyone else enters or leaves the school after 9.05am, that isn't a member of staff within the school, the receptionist will check the gates are locked behind them. The school caretaker every morning checks the school grounds for any animal mess that may be present and disposes of this appropriately. The caretaker will also remove anything that children may trip or fall on which could potentially be dangerous, for example sharp sticks. Leaves, apples, and conkers are also swept from the paths and onto the grassed areas. The school does have visitors who the children may not have seen before, before heading out to the yard the children will be told if anyone enters the school grounds who they do not know or recognise, they should not approach or speak with them. Children will be made aware of conkers and apples on the ground and to be cautious of these when they are walking and running. Children will be shown that there may be sharp sticks on the floor, or	Low

Experience exploring outdoor space in photograph	How will young people BENEFIT from this activity?	Hazards and associated risks	Who is at risk?	PRECAUTIONS in place to reduce the risk of injury	Overall risk rating: L/M/H
		conkers that children could put into their mouths and potentially choke. Small objects on the floor, children could potentially throw them at one another. Uneven ground.		on trees. Children will be told not to wave these around in any way, with a demonstration on how to safely hold them. Children will be shown the small objects and be told not to throw them, eat them, or put them into their mouths. Staff ratios of consisting of one adult per four children will be put in place. A trained first aider will be present at all times to assist and follow protocol if any injuries may occur.	
Lifting and rolling logs up and down several slopes	The children will learn about gradient, force, gravity, team building skills. They will also begin to understand the concept of force, and how this impacts the log rolling. Balancing skills. Curiosity. Team building skills. Predicting and evaluating.	Children could drop a log that is too heavy for them to carry. Trip or fall whilst carrying or pushing the log. Splinters.	Adults and children.	A trained first aider will be present at all times to assist and follow protocol if any injuries may occur. Children will be wearing gloves. A demonstration will take place to show the children how to carry a log safely. Children can carry the logs with a partner.	Low

PART 4

During the late 1990's there was an increasing amount of research and literature undertaken, looking into the importance of outdoor learning for children in the early years. A lot of the research discusses potential barriers such as bad weather, time, attitudes and under educated staff not having a clear understanding of the guidance or benefits the outdoors can have for children (Bilton and Waters, 2016). Research carried out in 2018 documented that teachers and practitioners alike could not see how outdoor learning could be implemented alongside an already demanding curriculum that needed to be facilitated along with other pressures. It was noted that teachers and practitioners considered outdoor learning to be supplementary to classroom based activities and to be able to implement regular outdoor learning, another teacher would need to be in charge of organising this to meet the needs of the curriculum (MacQuarrie, 2018). In contrary to this, in 2022, a new Curriculum was rolled out for maintained settings in Wales . The new Curriculum places such emphasis on the importance of an outdoor environment and the positive outcomes this has for children and their futures. Incorporating the natural world into learning subjects such as maths and science through nature and its available resources whilst demonstrating clear and concise guidance for practitioners (Welsh Government, 2022).

According to Redman (2022) a persistent barrier to learning outdoors is time. Extra time is needed to prepare children for being outside for extended periods of time, extra layers of clothes and the pressure on teachers and practitioners to efficiently help the children, takes away from the time learning and playing outside (Redman, 2022). An integral part of effective outdoor learning is the children being comfortable and suitably dressed for the weather conditions. If children are not dressed appropriately, it will affect the child's engagement in activities, if they are too cold or too warm they may feel uncomfortable (Redman, 2022). Many children may not have the appropriate clothing that may be needed in colder months, such as hats, gloves, wellies and a warm waterproof coat. These children may come from families who are struggling. Parents can also fail to provide spare clothes in case their child's clothes get soaking wet or very muddy. However, teachers can overcome this as most schools and childcare settings have an extra supply of clothing that may have been donated, or clothes that have simply not been claimed when lost (Redman, 2022).

Natural resources are known to be amongst the most influential learning experiences for children (White, 2019). Research previously suggested that adults remember more of the outdoor learning activities they participated in when they were younger, as apposed to activities they participated in, in a classroom setting (Waite, 2007). Many outdoor objects are seen as natural loose parts, such as leaves, wood, conkers and stones, which are available freely for children to play, learn and engage with. Nature provides a multi-sensory experience with endless open-ended play opportunities, whilst offering a multitude of visual experiences, sounds and textures, and objects that are different weights, sizes and shapes (White, 2019). Flannigan & Dietze (2018) explain how natural loose parts can trigger curiosity in children. The outdoors can provide an experience for children, curiosity inspires children to be intrigued, discover and explore. This multi-sensory experience cannot be mimicked fully in an indoor environment. Natural loose parts offer a sense of wonder in an ever changing environment (Flannigan & Dietze, 2018). Allowing the children to explore open-ended unstructured play without the need for dominated adult intervention (Ridgers, Knowles and Sayers, 2012).

Teachers and practitioners can use this time to take a step back and observe children's play and behaviours. Evaluating this can then allow teachers and practitioners to learn how to facilitate and implement the use of loose parts in maths and science outside says Flannigan & Dietze (2018). The Welsh Assembly Government (2009) suggests the use of synthetic items such as spades for digging and buckets to capture rain can be added to outdoor areas to enhance a child's learning. Teachers and practitioners observing what children do during the outdoors freely, will allow them to cater activities to the needs of the children and evaluate what interested the children most during free play (Welsh Assembly Government, 2009). Adding synthetic items will allow teachers and practitioners to enhance the learning outcomes for the children, whilst making good use of the uncertainty, seasons, weather and excitement that nature provides to teachers and practitioners for free (Welsh Assembly Government, 2009). The ever changing environment brings different seasons and many weather changes, meaning the environment naturally changes, providing children with different shapes, colours, textures and patterns which are all attributes teachers and practitioners can use to underpin the basic foundation of maths in the early years (Robertson, 2017). Robertson (2017) says that maths is an integral part of life for both children and adults. Believing that maths is a physical, emotional and social experience, not solely a process of cognitive development. Teachers and practitioners can enable connections to be made between maths and the outdoors by using natural loose parts and expand the learning by providing synthetic items. Providing a child with a bucket

in the rain will enable them to explore weight and depth, what items sink and which float, sparking curiosity whilst understanding mathematical concepts (Robertson, 2017).

Furthermore, Piaget referred to children as “little scientists”, believing that children could learn through exploring the world to understand concepts, people and objects; making observations and performing experiments. However, Piaget also believed that children could do this naturally without any adult intervention or facilitation taking place (Bates, 2019). Teachers and practitioners can ask children to go on a hunt to find natural materials and be provided with synthetic items to fulfil a task such as building outside (Canning, 2013). Robertson (2014), explains that giving children the tools and materials to build what they please, allows for self-expression through hands on learning. Simply asking questions such as ‘why do you think the clouds are grey today?, why is it raining?, what could be built outside to protect everyone from the rain?’ allows for curiosity, responses and wonder. Providing materials and a hands on child led search for natural materials for a task such as den building can teach children about shelter, materials, team work and self-reflection. Children will also need to use problem solving skills whilst learning about shapes and sizes, ‘what will fit? how will it all stay together? what will keep the water out?’ (Robertson, 2014).

Teachers and practitioners can also teach children about living things outside and how to care for them. Conducting an activity such as building a bird feeder, will implement excitement and achievement for the children, when they see birds feeding from what they have built and achieved whilst science and maths is being implemented throughout the process, activities such as this can be child led with guidance from an adult (Robertson, 2014). Edwards and Cutter-Mackenzie (2011) suggest that teachers and practitioners, when required, should guide play and provide children with the required environment to ensure a deeper understanding of what’s being taught. For children in the early years this could be learning about how to care for living things and the environment they live in (Tinney, 2020). According to Bates (2019), Vygotsky said that children should be supported by ‘the more knowledgeable other’, thus, believing that knowledge and thought are learnt through social interactions with peers, teachers, practitioners, friends and family. Vygotsky based his theory on ‘the Zone of Proximal Development’ which determines what more can a learner achieve with the support from a more knowledgeable other, underpinning a scaffolding affect (Bates, 2019). Jumaat and Tasir (2014) say that teachers and practitioners can take advantage of the zone of proximal development by supporting and guiding children whilst learning and playing. Teachers and practitioners displaying a

can do, positive and nurturing attitude will reflect on other adults and the children around them, having a positive impact on play and learning (Hakim and Dalli, 2018).

Teachers and practitioners should allow children to engage freely and make their own choices when learning and playing outside. Teachers and practitioner's should take a step back and allow children to display and explore their interests, with guidance, support and information from adults when it's needed. Being able to freely explore with little intervention from adults will allow children to take their own risks and learn from them. Children learn and develop extensively in nature and teachers and practitioners should take the time to overcome barriers that may arise to allow a child the chance to experience the extensive benefits of learning and play in nature.

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