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## Part 1



Wiston Woods,  
Haverfordwest

## Part 2

The environment above is a local woodland area. The day started around 9am with getting on all our coats and wellies and heading down to the woods. We first had a walk around 10am through the woods before we reached the large area where we were going to set up a base. Walking through the path gives children the opportunities to explore and be curious. When walking along to enhance the learning I reminded children to use their senses and asked question such as what can you see? what can you hear? what can you smell? One child spotted that there were numbers written on the trees in orange paint and asked what the numbers were for.

Allowing children to ask questions and explore and to be open promotes their metacognitive to improve their thinking and



processes to evaluate their own learning. I answered that sometimes they need cut down trees in the woods, so they mark certain trees with numbers. So, we created out first activity which was each time we saw a number on a tree we would all go off and collect a certain number of items to match that number so the first number we saw was 29 so in our group we went around and gather up 29 twigs and sticks. This links to the curriculum in Maths as children will develop skills such as problem solving, exploring ideas, and working with others as well as independently. It also promotes creativity (Welsh government 2020) At the next number which was 36 we went looking for 36 leaves. We did this activity until we gathered lots of different resources which was to be used in the next activity. This activity was good for the children's mathematic skills as it involved recognising numbers and then counting out to see if we had the right number of items to

match the number on the tree. It gave the children opportunities to explore and be curious in their environment and going off to find different items. This links to the new curriculum as it gives the children opportunities to be creative and innovative learners as well as giving them the freedom to be critical thinkers and problem solvers (Welsh Government, 2020). When we set down all our bags and resources in a large area, we found we split all the children into group, and they were instructed to use the resources we had gathered to make different shaped bug hotels. This encouraged them to use all different kinds of skills, they needed to be creative to build the bug hotel, as well as thinking mathematically to count how many of each stick or leaf or rocks they needed. They also needed to use measuring skills to make sure that the different items would fit in to create the bug hotel and that the bug hotel was secure. We also read a story showing the importance of why bugs need to be protected during the winter. We also learned that the best places to place the bug hotels would be under a tree or somewhere dark and damp. The bug hotels also needed to be placed on a flat surface and have drainage so it wouldn't be flooded in the rain this meant the children needed to use their science skills to figure out the different levels in the woods and find a place on a flat surface and not on an incline and also figure out a way to make sure



raining would not build up and drain. This also links to the curriculum in maths by using Curriculum to allow the children to challenge themselves and figure out and explore the best environment for their bug hotel (Welsh Government 2020) One child suggested using a stick to poke holes into the ground through the hotel so if it rains it will go into the ground and not build up. Once we had created our bug hotels the plan was to come back in the future and inspect what bugs were drawn into the hotels using magnifying glasses. This activity gave children a chance to explore their environment around them and gain a understanding of what's around them. This links to the new curriculum of enabling environments as well as working as a team, problem solving and being creative. We used open ended questions to promote questions and thinking. For example, we asked what kind of bugs do you think would be drawn to the bug hotels? This activity also linked



to the curriculum and linked to science as the children have the opportunities to explore and ask questions to understand about living things and their habitats and environments they live in and also understanding that actions can have impacts on living things around them (Welsh Government 2021). For our next activity we had leaf bashing. We asked the group of children if they might know what this entails. One child suggested it was throwing leaves and one ask if it was hitting leaves. I demonstrated on what leaf bashing entailed; it is where you take a sheet of white fabric or a light colour, I got a white bed sheet and cut it up into small pieces of fabric, you then place flowers or leaves or grass on one half on the fabric and fold the other side over on top, you can then use a small rock or block of wood to then hit the top the fabric and you been hitting it for a few minutes, after a while the colours and patterns from the flowers or leaves will have transfused onto the fabric leaving it imprinted. And it will have left a pretty pattern and ray of colours which will be displayed in our classroom. This links to the curriculum of expressive arts as it is being created and exploring different colours and patterns and materials. It also links to the science part of the curriculum as the dyes from the leaves and flowers are transferring to the fabric. I asked the children to separate the flowers and leaves into different colour categories and also integrated maths to see if we had more of one colour than another and we also linked this to the seasons. We asked questions such as what colour do we see more of? Also why do you think we see more green than brown? Do we think this is related to the season For example, green leaves in summer/spring brown leaves in autumn/winter. We talked about then how the leaves are green from the sunlight as in the summer we have more sunlight, and the leaves are green due to the chlorophyll in the cells that help to turn sunlight into leaves. Learning about the cycle of leaves and sunlight help improve children's scientific skills. Also using symmetry skills so if we fold the fabric over the pattern will be symmetrical on both sides which also looks at patten as well, from this activity the children gained numerous scientific skills. Learning maths and science outdoors can be beneficial to a child's health and wellbeing. Science is about helping the children learn about the world around them and being outdoors promotes that learning and curiosity and gaining direct experiences from



their environment. Allowing children to explore and be curious is vital and also enabling the experiences for them to gain the most out of their experience. Using open ended broad questions will really promote their thinking and get them asking different more focused questions and also to communicate their ideas. Children can also be aware of their surroundings and assess risks themselves.

### Part 3

#### RISK BENEFIT ASSESSMENT

|                             |                     |                     |                               |
|-----------------------------|---------------------|---------------------|-------------------------------|
| <b>Location / Activity:</b> | Local outdoor woods | <b>Date:</b>        | 30 <sup>th</sup><br>September |
| <b>Assessor:</b>            | Apryl Lewis-James   | <b>Review date:</b> |                               |

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.**

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                                                                                                                                                    | <b>Hazards and associated risks</b>                                  | <b>Who is at risk?</b>  | <b>PRECAUTIONS in place to reduce the risk of injury</b>                                                                                                                                                         | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Carry logs or wood                                      | Carrying logs and wood to collect resources will encourage children to determine their own strength to see what they body will allow them to carry as well as working as a team and carrying items together | They can cause injury if they are dropped and could cause a splinter | Children Practitioners. | Model to the children the safest way to pick up and carry the resources they find and remind them not too carry too much at once. Also making sure they know the distance they need to carry the items back too. | L                                                           |

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                                                                                                                                                                                                 | <b>Hazards and associated risks</b>                                          | <b>Who is at risk?</b>     | <b>PRECAUTIONS in place to reduce the risk of injury</b>                                                                                                                                                                                                                                                                                                                                                 | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Picking up leaves, grass and natural resources          | Gather up leaves and grass and natural resources encourages the children to explore and pick out items that they like or find interesting, and it also encourages them to use their senses, as all the materials may have different textures and smells. | Could have hidden thorns or brambles or insects underneath the natural items | Children and practitioners | Remind the children to be aware of what they are collecting and to be aware of what they are picking up from the floor and inform them there could be sharp thorns below or animals, offer the children gloves if they wish to protect their hands and express that if they pick up an item with a living creature on to ensure they place it back down in a safe place as it could be the insects home. | M                                                           |

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                                    | <b>Hazards and associated risks</b>           | <b>Who is at risk?</b>     | <b>PRECAUTIONS in place to reduce the risk of injury</b>                                                                                                                                                                                                 | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Walking through the woods                               | It allows them to explore and be curious and to use their senses and ask questions to learn | Animal Excrement, Slipping, tripping, falling | Children and practitioners | Before we get off the bus we remind the children that if it had been raining the floor could be slippery and muddy and they should take their time and keep their eyes open for any logs or sticks as trip hazard and to watch out for animal excrement. |                                                             |

| 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 after precautions<br>RATING:<br>L/M/H |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Foraging for berries                             | It will give them insight in how berries are grown as we were learning about the different types of berries, we can eat in class the week prior and which are not safe | Choking or poison.           | Children and practitioners | The children are aware of what types of berries they are allowed to eat but if they are unsure, they are to ask a grown up or too not eat it. We also brought along pictures of the safe berries so they can check. | M                                                  |

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                                                                                                            | <b>Hazards and associated risks</b> | <b>Who is at risk?</b> | <b>PRECAUTIONS in place to reduce the risk of injury</b>                                                                           | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Free play in the woods                                  | It will allow them to explore and have self-directed play and be curious. As well as promoting physical activity and have a positive effect on their mental health. | A child could get lost              | child                  | Mark out an area where children should not go pass therefore, they are still in sight and safe.                                    | L                                                           |
| Members of the public walking dogs,                     | It will give them a chance to see members of the public and be kind                                                                                                 | Dogs could be off the lead          | Children               | Ask the member of the public to either place the dog on the lead when they are near us or to just keep outside the coned off area. | L/M                                                         |

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                                                                          | <b>Hazards and associated risks</b>                                        | <b>Who is at risk?</b>     | <b>PRECAUTIONS in place to reduce the risk of injury</b>                                                                          | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Moving vehicles                                         |                                                                                                                                   | The woods are next to a road and sometime maintenance drive into the woods | Children and practitioners | Giving the children a constant reminder to stay away from the road and to be listening out if there are any vehicles approaching. | L                                                           |
| Loose hanging trees or branches                         | This would allow the children to think critically, and problem solve as well as risk assessing a different route around the risk. | Falling trees hurting a child or tripping over.                            | Children and practitioner  | Reminding the children to look at the potential danger and to problem solve and risk assess a safe route                          | L                                                           |

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                                                                             | <b>Hazards and associated risks</b>                    | <b>Who is at risk?</b>     | <b>PRECAUTIONS in place to reduce the risk of injury</b>                                                                                                                                                                                                                                      | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Leaf bashing                                            | It will support their learning and development allowing them to explore colour transfers and patterns.                               | They could bashing the stone or wood on their hands.   | Children                   | Remind the children to ensure their other hand isn't in the way when they are bashing and to be careful. Having a first aid kit available as a precaution.                                                                                                                                    | L                                                           |
| Exploring areas to create bug hotels                    | the children will use their knowledge and learning to explore and use their imagination to assess an ideal place for their bug hotel | The ground could be uneven and have drops or inclines. | Children and Practitioners | Explain to the children that the ground isn't even and to keep there eyes open for any step downs and different levels and to keep well back from large drops or banks, but little banks and drops would be safer. They can risk assess this themselves and ask a grownup if they are unsure. | M                                                           |

| <b>Experience exploring outdoor space in photograph</b> | <b>How will young people BENEFIT from this activity?</b>                       | <b>Hazards and associated risks</b> | <b>Who is at risk?</b> | <b>PRECAUTIONS in place to reduce the risk of injury</b>                           | <b>Overall risk after precautions<br/>RATING:<br/>L/M/H</b> |
|---------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------|------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Balancing on logs                                       | This helps children with their curiosity but imagining and also their balance. | It could be slippery from the rain  | Children               | Model the challenge ot the children and remind them it could be slippery when wet. | L                                                           |

## Part 4

The focus of this section is to explore and evaluate the use of adults supporting children in learning science and mathematics in the outdoors. Frobel saw children as curious and creative people who learn. His concept was giving children the space and environment to learn and explore. Frobel stated that children learn best through their own self-directed play and exploring with their friends. This meant that adults should only be observing and a guide, not be interfering with a child's self-directed outdoor play. (Tovey – No date) Nicholson (2020) states that learning outside the classroom gives children a better opportunity to learn first-hand things about the real world. Being outside the classroom also gives children better engagement and offers more opportunities to use their senses which helps them learn.

Frobel gave children their own sense of responsibility by giving them a garden plot to maintain this helped to give children a sense of belonging and teamwork. They were expected to share and create their own plan of what to plant they were expected to take care of it all year round and they could see the effects when they did not take care of the plants and they could also see the cycle of how the plants develops throughout the seasons. It also gave the children the opportunity to explore and discover they surroundings. (Tovey – no date)

Loose parts are materials that children have access to in order to creative anything their minds wish, with no directions or instructions and can be used freely by the child.(Play Scotland) Nicholson suggest that loose parts is an important part in a child's creative play and learning, he suggest that involving children in the process of creating their outdoor area is important as it would be tailored to their interests and curiosity. He believed that what works in one environment would not work in another they are all different and catered to the child's specific needs. (Creative star learning 2017). Frobel states that the outdoors gives children many opportunities to learn from all areas of the curriculum, it gives them that chance to explore, investigate, challenge themselves, make

risks and have adventures. Frobel also suggested that being outdoors helps children to get stuck into different activities of their interests, this promotes them to move and keep active as well as improving their well-being and mental health. (Tovey- No date). Play Scotland (no date) states that Loose parts can be anything from stones to bits of paper, to boxes to pegs to wood, it could be anything and it helps to promote and develop the curiosity and imagination of children, it can create a better environment for children to play in and loose parts will help to facilitate their play. Loose parts can help children from many aspects of the curriculum as it helps children with sensory, coordination, shapes, textures as well as supporting their maths with counting and patterns, matching and balancing items. (Play Scotland)

Frobel suggests that adults can support the child's learning by asking open questions to help them develop their learning further getting them to think Who? What? When? How? Why?. Frobel also believed that sometimes altering the environment and being flexible and open to new things to suit the child's interests can help to facilitate their learning further. (Tovey- No date). The role of the adult in a child's learning is to create a safe environment for a child to learn and regulate their feelings. Adults need to support children with their routine and any changes. To gain a thorough understanding of a child's learning and interests it is important for an adult to observe the children and react appropriately. They should promote and encourage children to problem solve and be independent and only intervene if necessary. Adults need to respond appropriately to the child's interests and dislikes and show them they have a voice to put their own opinions across. It is important for the adults to create environments to suit the needs of the children and model appropriately. It's the role of the adult to ensure that the learning environment is evolving to build on the knowledge and development of the child and also build on their experiences and make cross-curricular connections and adapt where is needed. The adult should model a positive approach and attitude towards learning and promote curiosity. This can support the child in being more independent and confidence and encouraging them to challenge themselves and take more risks. (Welsh government 2023)

Froebel believed different part of an outdoor space can promote different aspects of learning for example a garden will promote a child's maths and science but discovering the cycle of plants over a period of time, but also supporting maths by knowing when the right time is to plant something and how far apart the seeds need to be as well as over how many days the plant may take to grow, even knowing what temperature a plant can thrive in. uneven ground can support children in learning to balance, climbing or rolling, this also links to the curriculum about connecting it to speed, gravity and heights. (Tovey- no date). Learning science outside the classroom can give children better opportunities for learning and gaining real insight into things happening in the real world. It gives them real first-hand experiences. It can be must more engaging for the children as well as developing skills such as teamwork, observation, and data recording. Children learn through their senses and by getting outside its offers them greater opportunities to support and enhance their learning. Science outside gives children the opportunities to learn about living things and their habitats and their lifecycles and conduct investigations. Sensory walks or creating pictures and natural resources is a good challenge for the children as it promotes curiosity and get them to be independence to from carry out their activity and be imaginative. (Nicholson 2020)

Children should have the freedom to explore their outdoor environments no matter of the weather, and they should be given uninterrupted time in which they can engage and explore. Children should be given access to natural resources which they can use their imaginative to create anything as well as promoting problem solving and creativity. (Tovey – no date). Using maths as outdoor learning can be used in so many ways, mazzocco, et al. (2021) suggests that children who like to collect things can sort the items into patterns or colour or size. Things like density and lengths and gravity and distance can be used in numerous activities in the outdoors. Learning maths outdoors reaps benefits for children as it gives them safer and freedom to learn, as well as being creative and problem solving, this links to curriculum for Wales as the Welsh government (2023) sates that a learning environment can promote their curiosity and creativity and allows for cross-curricular opportunities where the children can explore and learn. Mazzocco, et al. states that learning maths outdoors is also beneficial for children to set their own goals and create their own

questions, this also keeps them more engaged and they are supporting their own learning. Recognizing that maths is in most things and everywhere so often it is used without realising and that is where the cross-curricular comes into place. Learning outdoors also promotes positive mental health and physical activity.

Nicholson also suggested that loose parts can support a child through science as the loose parts can support with cooking and fire, different chemical interactions, life cycles and gravity. Loose part play also supports a child's cognitive development as well as giving them control of self-directed play and imagination. Loose parts enable a child to think outside the box and uses the loose parts resources to create anything. For example, a box could become a car park, or sticks could become a house for animals, this type of play gives the children opportunities to create anything and its constantly evolving as they become older and progress they will gain new ideas or build on what they have previously done so they constantly developing. It also allows them to problem solve as work as a team and communicate. When a child has created something, they often like to show an adult, and this is where an adult can support the child. This will help boost their confidence and having a feeling of self-accomplishment. (Play Scotland)

White conducted an assessment on an outdoor area in a nursery, the staff deemed the area to pose lots of physical play opportunities for the children, however White thought it lacked experiences due to time and organisation. The children expressed they wanted to move at more speed. Have different levels for climbing and seeing up high point of views. A rope and tyre swing were added to the setting and after observations the benefits reaped. There was more enjoyment and movement and exploration. It was note it could have posed a risk, however it argues that the benefits of the challenge trumped the risks. The practitioner modelled some the challenges that could be completed so the children knew safely how to explore and to risk assess themselves. (Duglan 2015). Froebel believes that adults can interfere and restrict a child's potential outside, by observing and listening to the child's interests this can support an adult in help to develop, support and extend with the learning of the child's interests. Observing can also support an adult to tune in to the children's feelings can help them understand what they may be feeling through the outdoor play. (Tovey- No date). The Welsh Government suggests that the adult should offer engaging experiences for the children

this is offer them challenge, promote their independence. The experiences should also offer the child uninterrupted learning, be based on real life experiences, and have deep involvement. Their experience should be from their own interests or from local interests. Such as there cultural or diversity. The experiences should be planned to grab the child's attention. As well as exploring their environments will give children a better belonging of the world. An effective environment should offer children with the opportunities to gain a sense of awe and wonder, as well as having a spark of curiosity about the world and exploring. As well as problem solving, being creative and thinking critically. The environment should also offer the child a chance for reflection and opportunities to challenge themselves. (Welsh government 2023)

To conclude Frobel (No date) suggests that being outdoors gives children lots of opportunities to learn from all the different areas of the curriculum and offers them challenges and to be curiosity. Which also allows them to promote positive mental health and keeping active. (Tovey – no date). The Welsh government (2023) states that the role of the adult in supporting learning is to ensure they create a safe environment and understanding the child's interest and likes through observing. And changing the environment to suit the needs of the child and to build on their prior knowledge. White talks about how sometime the benefits of play outdoors can often trump the risks, and by modelling the behaviour safely it will encourage children to understand the safest way to do something and also risks assess by themselves.

## References

- Welsh government (2020) *Mathematics and Numeracy*. Available at: [Mathematics and Numeracy: Introduction - Hwb \(gov.wales\)](#) (Accessed: 16<sup>th</sup> September).
- Welsh government (2020) *Science and technology*. Available at: [Science and Technology: Introduction - Hwb \(gov.wales\)](#) (Accessed: 16<sup>th</sup> September).
- Tovey, H (No date) *Outdoor play and exploration*. Available at: <https://moodle.uwtsd.ac.uk/mod/resource/view.php?id=515418> (Accessed 20<sup>th</sup> September)
- Creative star learning (2017) *The theory of loose parts*. Available at: [Simon Nicholson and The Theory of Loose Parts – 1 Million Thanks | Creative STAR Learning | I'm a teacher, get me OUTSIDE here!](#) (Accessed:)
- Play Scotland (No date) *Loose parts*. Available at: [Play-Scotland-Loose-Parts-Leaflet.pdf \(playscotland.org\)](#) (Accessed:25<sup>th</sup> September)
- Duglan, S (2015) *Enabling environments outdoors*. Available at: [Enabling Environments: Outdoors - In full swing | Nursery World](#) (Accessed:26<sup>th</sup> September)
- Welsh government (2023) *Enabling learning*. Available at: [Enabling learning - Hwb \(gov.wales\)](#) (Accessed:30<sup>th</sup> September)
- Mazzocco M, et al. (2021) *Taking maths outdoors*. Available at: [Taking Math Outdoors: A Natural Learning Environment - DREME \(stanford.edu\)](#) (Accessed:30<sup>th</sup> September)
- Nicholson, D (2020) *Science outside the classroom*. Available at: [Teaching Primary Science Outside of the Classroom - Danny Nic's Science Fix](#) (Accessed:26<sup>th</sup> September)