

I confirm that I have not presented any AI generated text as my own work.

I confirm that I have copies of my drafts, notes, and other resources I used before, and after the use of AI tools which I may be asked to provide as evidence

Title: children's play: theory and play

Section 1- page 3

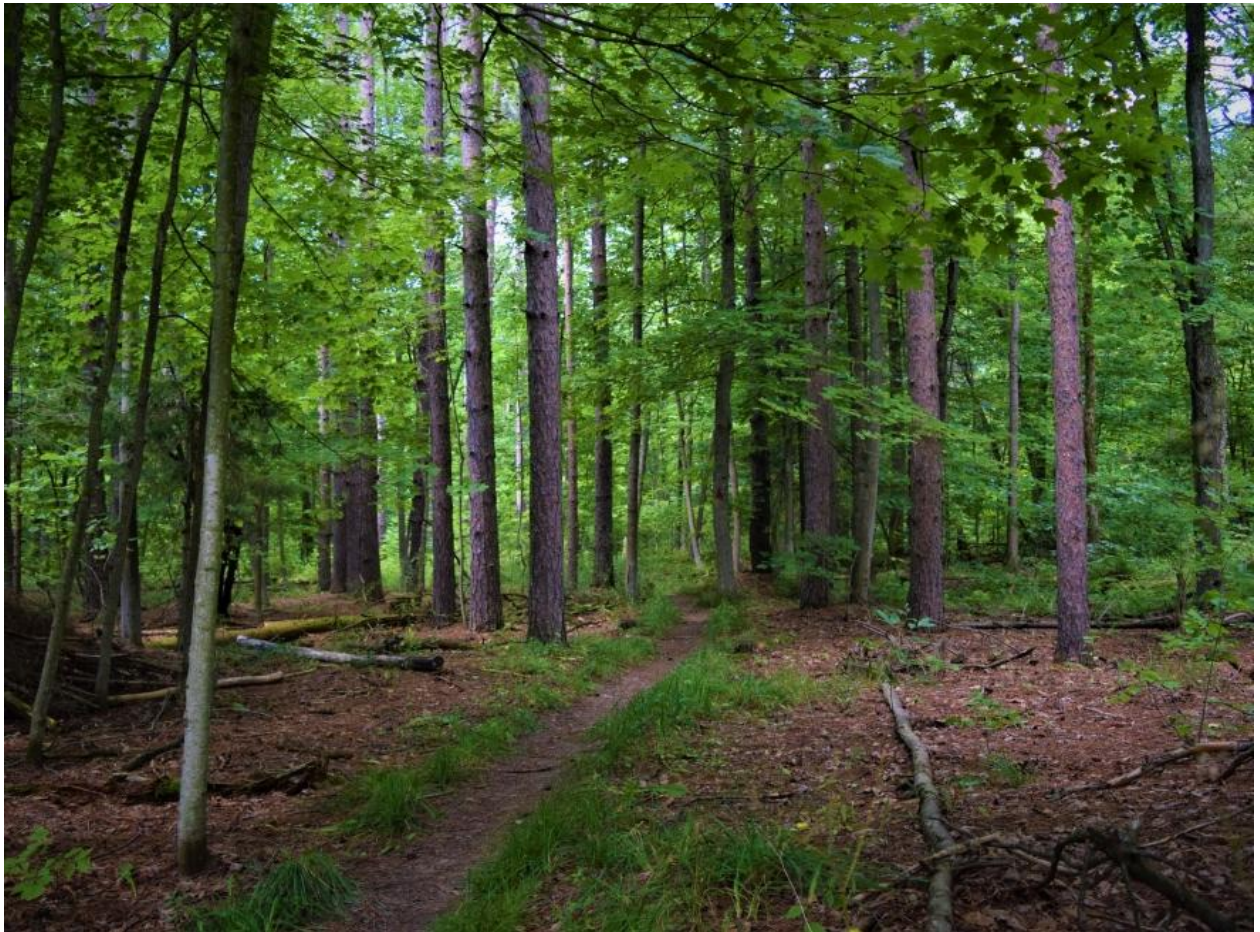
Section 2- page 4

Section 3- page 8

Section 4-page 11

Reference list -page 15

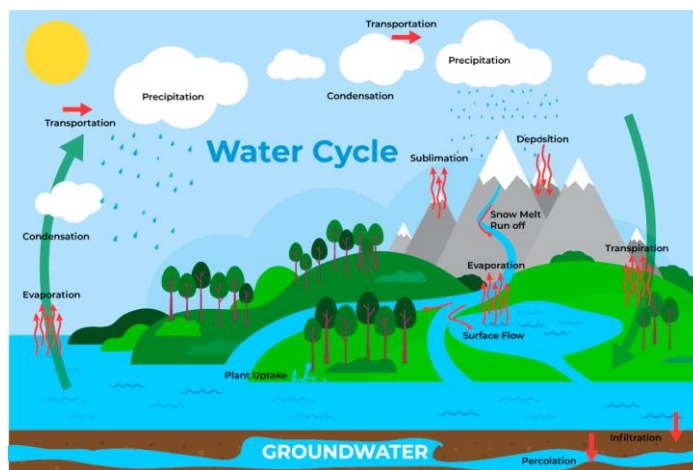
Part 1



(Visitgrey.ca, 2025)

Part 2

Today I took a class of twenty-eight six-year-old children into the woods to learn about their environment. I ensured all children were prepared for our trip. I checked the weather forecast before our trip and ensured to inform the parents of the predicted weather. I sent out letters to parents to ensure all children had waterproof coats and wellies in case it rained on the day of our trip as forecast. It was raining on the day of the trip and a thirty-minute drive in the bus. The children enjoyed watching the rain droplets running down the window pain whilst on the bus and were very excited about the day ahead. When we got to our location it was raining lightly. The night before we had had a lot of rain resulting in a couple of puddles ranging from small to big. The first thing they wanted to do was jump in the puddles. One child asked what the puddles were made of. So I called all the children around the puddles and started to talk about the rain cycle. I went on to discuss how water from the earth would evaporate because the sun has heated up the earth's surface and turned it into water vapour then would return back to the sky and form in the clouds. When the air temperature starts to cool down, tiny water droplets start to merge together until the cloud cannot hold the weight of that water droplet and that causes the droplets to fall to the ground and creating rain. When the rain comes down from the sky, it will start forming puddles such as the ones you see in front of you. This is essentially how rain is created and the cycle will start all over again. This links in with the foundation phase curriculum's seven stages of learning by providing knew knowledge and understanding of the world around them and enhancing new language skills (Welsh Government, 2019).



(GeeksforGeeks, 2022)

Once we had finished this discussion we turned our attention to the task we had come to do. I gave the children resources such as magnifiers, mini beast tally charts, tarpaulin sheets, string, sheets of paper and pencils. Some children ventured from the group and attempted to balance on the logs whilst others stood back and observed. One of the resources provided for the children was a list of mini beasts for them to find in the area.

I took a group of children into a heavily wooded area and asked them what they thought we could do in this area with some of the resources we brought with us. One child said hide and seek another said look for birds. I explained these were both good ideas but what could we do with what we brought. Another child then suggested building a den. The children scoured the area looking for items that were suitable for building a den. While they were doing this I handed out sheets with a variety of mini beasts out to the children and asked them to tally chart how many they had seen of each insect. We discussed where we might find them. Some thought they would just be on the ground, others said that spiders can climb so maybe some would be higher in the trees. I then went on to explain that these woods were home to many different mini beasts and that this was their natural habitat. I gave out magnifiers so that the children were able to see the minibeasts easier and up close. When the children were collecting the logs they found many minibeasts and squealed with excitement. They filled in their tally charts eagerly using the magnifiers. The *curriculum for funded non-maintained nursery settings* suggests children should be allowed to be able to have experiences that enable them to develop their mathematical language skills, this activity enables the children to learn about number of living things. Some children found it fascinating that even though they found many spiders they didn't all look the same yet most had eight legs. I informed them that there are many types of spiders and they all look different. The children stacked the logs they found for their den, they had stacked them high while discussing how they would build it. Some children started to attempt to balance on some logs they found nearby. Some were able to do this with ease while others struggled to stay upright and kept slipping off. This links to the *curriculum for funded non-maintained nursery settings(welsh government, 2022) under the enagaing experiences section where it states that children benefit from hands-on experiences*

and that these experiences should be purposeful. We then discussed about forces such as friction and gravity. The children found this fascinating and started to pick up leaves and dropping them over and over. The children also found some insects that weren't on their charts such as millipedes and grasshoppers. Once we had enough sticks and logs the children got to work working out how to make their den. They soon noticed they needed different lengths of sticks. Some of the children then attempted to snap some sticks. They started to look for thinner sticks as they soon discovered that the thicker sticks would not break easily. One of the children asked for my help so we discussed how sticks that are older and dryer may break easier and that they can identify these by looking for the lighter coloured wood. They then discussed how they would put up the tarpaulin using the rope we brought with us. We discussed how tall and how wide it needed to be and how much rope we would need. I then helped the children to secure the tarpaulin while they arranged the sticks at various angles underneath. Once this was done we then sat in the den while we discussed the different types of trees around us and how they grew different leaves. We discussed different tree names the children knew of such as an oak tree and pine tree. While we were sat underneath the tarpaulin, a squirrel ran through the trees over head. The children were mesmerised by this and wanted to know what they ate. So I informed the children that they like acorns which come from the trees. I gave each child a sheet of paper and pencil and asked them to go and find trees that had different patterns and make a rubbing of them. Most children did this with ease while others struggled and needed help. Once the children had collected their rubbings we looked over them and compared a few different ones. Once the children attempted to complete everything on sheet of paper and had time to play, Before we went back to the bus, all the children sat on some dry logs and had something to eat and drink. Some children were asking how these logs got here. I explained that it could be down to heavy wind and it has knocked some trees to the ground, the age of the trees as when they get older, they get brittle and naturally fall down or some trees get chopped down. We got back on the bus shortly after. The children seemed to thoroughly enjoy the day and asked if we could go again next week.

Part 3

Activity	Benefit	Risks	Hazards	Measures to reduce risks	Who and when?	Level of risk
Den building	If it were to rain, there is a chance of puddles of water forming on the ground. This provides the children with the chance to investigate their surroundings in a scientific manner. They may learn about forces such as gravity and friction. The children may also find it a great opportunity to jump in puddles.	The children or accompanying adults may fall and hurt themselves.	The ground and surroundings may become slippery in the event of rain.	Ensure everyone present has appropriate footwear such as wellies. Ensure that everyone is equipped for the weather and have the opportunity to change accordingly. Practitioners should monitor the ground in both areas where activities are taking place and the surrounding areas.	Practitioners to monitor and assess surroundings. Children to be made aware of such risks.	high
Den building	The children will get the opportunity to	The children may put items from the floor	The use of natural resources	Practitioners to raise awareness of	Practitioners to monitor and	Mild

	truly connect with nature and the natural world through using natural resources when building their dens. This will provide the children with open ended play and provide them access to different textures such as the bark on sticks and leaves. This will provide the children with sensory play.	in their mouths or could potentially eat items. Children may have allergies.	including but not limited to plants, fungi and leaves.	the risks of ingesting anything from the surrounding areas. Practitioners will ensure to make the children aware that they are not to include any fungus in their play. Prior to the visit practitioners will access the area and remove anything that may cause harm prior to the visit. The children will be encouraged to wash their hands and practice good hygiene whilst in the area	assess surroundings. Children to be made aware of such risks.	
--	---	---	---	---	--	--

				and to ensure they do not touch their faces until they have done so.		
Prior to visit	To be able to explore a safe environment	If the area is not cleaned the children may fall into it or step in it.	Animal faeces	Practitioners will visit the site before the children get off the bus to remove any obvious droppings. The children will be made aware that there may still be some present and under no circumstances should they touch it.	Practitioners before the children leave the bus will survey the area.	High
Bug hunt	To learn about minibeasts and their habitats. This will also give the children the opportunity to work together to find the mini beasts. The	Children may put the mini beasts in their mouths. They may also find fungi whilst looking for the mini beasts.	Insects and the terrain.	Practitioners will inform children of set rules in regards to finding mini beasts such as we put them back	Practitioners will inform the children before departing the bus of the rules and keep a close eye on the children	Low

	children will gain knowledge and awareness of the world around them through exploring nature.	Children may slip or trip whilst searching.		where they were found and they are not to put them in their mouths. Children will also be informed that the ground may be slippery and to be careful.	through out the activity.	
Tree rubbings	Children will learn about patterns in nature. Children will learn about using different mediums to rub the patterns on the paper such as crayons or pencils. The children will be encouraged to explore the area and find rubbings on different trees to see if they can find any	Children may get small cuts and crazes off the trees while doing the activity. They may also encounter wood splinters.	Catching their hands on the trees resulting in injuries.	Practitioners will have access to a first aid kit at all times.	practitioners	Low

	differences in the patterns. This will give the children a sensory experience.					
Balancing on logs	The children will learn about forces such as gravity and friction. This activity may also enhance the children's physical development as they will have to use their muscles in order to stay on the log.	The children could potentially fall off the log and injure themselves.	The log may become slippery when wet. There may also be sharp objects nearby such as sticks or stones.	Practitioners will access the area before the children climb on the logs and remove anything that is sharp. The children will also be informed of potential objects in the area and be told to be precocious.	Practitioners prior to the activity.	Mild

Part 4

According to Welsh government (2022) adults have an essential role in children's growth and development within the early years. An enabling adult it is also suggested that adults should provide a supportive and encouraging environment for children to facilitate their learning and be able to take advantage of the opportunity to enhance their innate curiosity while they engross themselves in their play. It is also suggested that children should be given the opportunity to have first hand authentic experiences to ensure that they are able to learn about the world around them. According to Welsh assembly government (2007) there is great value placed on outdoor learning and that educators should plan opportunities and experiences for the children to learn. According to Trina *et al* it is important that adults see the importance of outdoor play and the link it has to science and mathematical development. They also suggest that learning in the outdoors can enhance other areas of development and enhances STEAM as whole.

Welsh Government (2023) agrees that enabling adults are vital to ensure that children are able to learn and develop. They also add that adults should ensure that the environments they provide are suitable and enabling for the children. Similarly Learning and Teaching Scotland (2006) states that within the Reggio Emilia approach the role of the adult is imperative to enhance the children's learning. Within the Reggio approach it is also suggested that it is the adults role to ensure the environment is stimulating and encouraging. They also state that the children should not be given free rein but be given a structured environment where they are able to have free choice. However, Strong-Wilson and Ellis (2007) suggests that within the Reggio Emilia approach that learning is not only the adults responsibility but also the environments. Within this regime the environment plays a vital part in the learning process. They state that the environment must be rich with educational provision. According to Vandermaas -Peeler and McClain (2015) scholars have expressed the importance of ensuring children are gaining mathematic and scientific skills through their environments daily whether this be indoors or outdoors (Tudge and Doucet, 2004, cited in Vandermaas -Peeler and McClain, 2015).

According to Flannigan and Dietze (2017) loose parts are a significant part of children's play and benefit their mathematical and scientific development significantly. Through playing with loose parts the child can develop holistically. Tinney (2022, p111, cited in Waters-Davies, 2022) agrees that children develop holistically during outdoor play and that children can develop their mathematical and scientific knowledge. They also suggest that while building a den the children would be developing such skills by using estimation in order to organise the sticks or other items that they could use as they want them.

In the observation the practitioner provided the children with all the resources they required to help them fulfil their tasks. Mountain (2017, cited in birth to three matters , 2017) suggests that when adults provide loose parts, this can help enrich the children's play in the outdoor environment. They also state that the adults enthusiasm and skills can provide the children with the best opportunities to utilise there creativity and environment. It is also suggested that open ended play and looses parts ensure children have the resources to implement to play using trial and error, for example will the den stay up on its own or does it need to be tied to help the structure for support, or how can we ensure the tarpaulin stays in it place. Brodie (2024) agrees that there are benefits to adults having a role in loose parts. They

state that adults can use the materials to model what can be done with them and potentially ask questions while doing so. It is also suggested that adults are able to extend the children's language and encompass their thinking. This can be done through the sorting and classifying of the insects within the observation or the exploring of the area and working out the measurements for the children to build their den. Brodie (2024) also suggests that through loose part play children can explore different materials and investigate the cause and effect cycle. This can also be seen when the children were building their den. Brodie (2025) also discusses the Nicholson theory of loose parts, he believed that loose parts gave children the opportunity to facilitate their own play.

Ojose (2008) discusses Piaget's theory and suggests that Piaget viewed adults as leaders who provide children with the opportunity to explore their environment. Piaget's theory of cognition is split into four different stages. He believed that children learn from experienced knowledge gained through opportunities to do things for themselves. Piaget believed in meta cognition where the child is able to think and consider about their own thinking. The children in this observation would have come under the preoperational stage with in Piaget's theory (Rabindan, and madanagopal, 2020). Ojose (2008) suggests that within this phase adults should ask effective questions. In this instance the adult could ask questions about shapes, size, measurements, volume, number or similarities.

According to Ryan (2025) Froebel believed that a child's learning should encompass a nurturing and natural abilities. Froebel also believed that children learn by being in their natural environment and being able to explore it. Tovey (2017) states that Froebel strongly believed that children learn best through doing rather than talking about doing things. According to Froebel trust (2020) Froebel emphasised the role of the adult was important. He believed adults should be supportive and encourage new mathematical and scientific language alongside the gifts. The gifts are a central focal point of Froebel's theory and enhances the children's connection to their individual learning. Froebel trust (2020) also suggest that Froebel believed that it is also the adults role to ensure the children are provided with a rich environment and to offer materials to the children to help the children build their curiosity and help them get a better understanding of the world around them through play.

Play Scotland (2025) suggest that there are many challenges that adults face in regard to facilitating outdoor play. They suggest that some of these challenges could relate to safety issues, if they think a child could be injured as a result they may avoid engaging in such play. Some adults may feel that the natural environment is not safe for children. Some adults may have negative attitudes attributing to facilitating outdoor play and letting children explore and investigating their environment. Adults may see an issue with children part taking in risky or challenging play or even have a fear of other people around them, therefore they will not allow their children to play outside. They also go on to state that children that experience such restrictions have less enjoyment of the outdoors throughout their childhoods and can have a detrimental effect on their holistic development throughout their lives. Froebel theorised that when children play outdoors they have a connection to the natural world which helps them develop their natural instincts.

In conclusion, there is evidence and research that adults play a fundamental role in children's mathematical and scientific learning in the outdoors. This is evident in the research of many theorists and within the Welsh curriculum.

Reference list

Birth to three matters. (2017). Loose parts and flexible thinking. Available at: https://birthto5matters.org.uk/wp-content/uploads/2021/03/EE_Journal_-Summer-2017-ONLINE-1.pdf. (accessed on: 25 September 2025)

Brodie,K. (2024). *The Magic of Loose Parts Play: Unleashing Creativity in the Early Years*. Kathy Brodie: Free CPD for Early Years Professionals. Available at: <https://www.kathybrodie.com/articles/loose-parts-play/>. (accessed on:27 September 2025)

Flannigan, C. and Dietze, B. (2017). Children, Outdoor Play, and Loose Parts. *Journal of Childhood Studies*, 42(4), pp.53–60. doi: <https://doi.org/10.18357/jcs.v42i4.18103>.

Froebel Trust (2020). *Froebel's Gifts*. Froebel Trust. Available at: <https://www.froebel.org.uk/training-and-resources/froebels-gifts>. (accessed on:27 September 2025)

GeeksforGeeks (2022). *Water Cycle Process, Diagram, and its Various Stages*. GeeksforGeeks. Available at: <https://www.geeksforgeeks.org/biology/water-cycle-process/>. (Accessed on: 9 sept 2025)

Learning and Teaching Scotland (2006). *The Reggio Emilia Approach to Early Years Education*. Available at: https://education.gov.scot/media/vjtdw2cj/elc35_reggioaug06.pdf. (accessed on: 25 September 2025)

Ojose, B. (2008). Applying Piaget's Theory of Cognitive Development to Mathematics Instruction. *The Mathematics Educator*, 18(1), pp.26–30. Available at: <https://files.eric.ed.gov/fulltext/EJ841568.pdf> (accessed on: 27 september 2025)

Play Scotland. (2025). *People, Places and Play - Play Scotland*. Available at: <https://www.playscotland.org/playful-communities/people-places-play/>. (accessed on 27 September 2025)

Rabindan, and madanagopal, D. (2020). *ContentKeeper Content Filtering*. Available at: <https://saspublishers.com/article/2030/>. (Accessed on: 27 September 2025)

Ryan, P. (2025). *Friedrich Froebel: His Principles, Play Theory, and Legacy in Education*. [online] Early Excellence. Available at: <https://earlyexcellence.com/practice-and-pedagogy/friedrich-froebel-theory/>. (accessed on: 27 September 2025)

Strong-Wilson, T. and Ellis, J. (2007). Children and Place: Reggio Emilia's Environment as Third Teacher. *Theory into Practice*, 46(1), pp.40–47. doi: <https://doi.org/10.1080/00405840709336547>.

Tovey, H. (2017). *A FROEBELIAN APPROACH: Froebel's principles and practice today*. Froebel Trust. Froebel Trust. Available at: <https://www.froebel.org.uk/uploads/documents/FT-Froebels-principles-and-practice-today.pdf>. (accessed on: 27 September 2025)

Trina, N.A., Monsur, M., Cosco, N., Shine, S., Loon, L. and Mastergeorge, A. (2024). How Do Nature-Based Outdoor Learning Environments Affect Preschoolers' STEAM Concept Formation? A Scoping Review. *Education Sciences*, 14(6), p.627. doi: <https://doi.org/10.3390/educsci14060627>.

Waters-Davies, J. (2022) *Introduction to play*. Sage publications Ltd. London

Welsh assembly government (2007) Department for Children, Education, Lifelong Learning and Skills Out of classroom learning. Available at: https://dera.ioe.ac.uk/id/eprint/8430/9/A9R10F4_Redacted.pdf (Accessed on: 8 24 september 2025)

Welsh Government (2019) Information for parents and carers How is my child doing in the Foundation Phase?. Available at: <https://www.gov.wales/sites/default/files/publications/2019-07/how-is-my-child-doing-in-the-foundation-phase-a-guide-for-parents-and-carers.pdf>. (accessed on: 15 September 2025)

Welsh Government (2022). *A curriculum for funded non-maintained nursery settings*. Available at: <https://hwb.gov.wales/api/storage/b1801d78-38c3-4320-9818-d9996c21aef8/220914-a-curriculum-for-funded-non-maintained-nursery-settings.pdf>. (accessed on: 15 September 2025)

Welsh Government (2023). *Enabling learning - Hwb*. Available at: <https://hwb.gov.wales/curriculum-for-wales/designing-your-curriculum/enabling-learning>. (accessed on: 25 September 2025)

Vandermaas -Peeler, M. and McClain, C. (2015). The green bean has to be longer than your thumb: An observational study of preschoolers' math and science experiences in a garden. *International Journal of Early Childhood Environmental Education*, 3(1). Available at: https://naturalstart.org/sites/default/files/journal/journal_pages_8-27.pdf. (accessed on: 26 September 2025)

Visitgrey.ca. (2025). Available at: https://www.visitgrey.ca/sites/default/files/styles/large/public/2022-03/rs898_grey_56538903369-lpr_0.jpg?itok=S9YhZyEH (Accessed on: 9 Sep. 2025)

