



LEVEL THREE CERTIFICATE FOR FOREST SCHOOL LEADERS

SUBMISSION DATE: 25th August 2023

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LEVEL 3 PORTFOLIO

UNIT 1 - FOREST SCHOOL PROGRAMME DELIVERY

Q1. Document the planning and delivery of your 6 Forest School sessions

To answer this question, you need to show the logbook evidence of your delivery of 6 Forest School sessions. Your logbook will also need to include evidence of:

- 1. Your planning process*
- 2. Your ability to reflect participants' interests and needs and be flexible*
- 3. Your ability to include progression from one session to the next*

[See Appendix 1: Forest school session plans 1 - 6](#)

Q2. Assess the impact of your Forest School sessions on 3 participants' learning and development

To answer this question, you need to fill in the template provided for each of the 3 participants (see details below). The template includes the following:

- 1. Baseline assessment for each of the 3 participants at the start of the 6 sessions*
- 2. Evidence of observations of the participants during each session*
- 3. Evaluation of observations to assess the impact of the sessions on the 3 participants*
- 4. Recommendations for extending their learning and development in future sessions*

[See Appendix 2: Participation Observations participants 1 - 3](#)

Q3. Conduct an evaluation of your 6 Forest School sessions

To answer this question, you need to evaluate each of your 6 FS sessions, using the table provided below. Please bear in mind the following in your answers:

- o Participant experience*
- o Communication of the ethos of FS*
- o Effectiveness of your session planning*
- o Resourcing*
- o Site management*

Session 1

<p>Baseline assessment of the group as a whole</p>	<p><i>The group of children were chosen by the nursery for various reasons but mainly for practical reasons (as they are all in full time) and for building confidence/self esteem. The majority were already very used to the outdoor environment but some were more confident in it than others. They are between 39 and 48 months old with varying levels of communication and gross motor skills.</i></p>
<p>How did what happened compare to your plan?</p>	<p><i>I mostly followed the plan and covered the planned activities and it flowed quite nicely but I didn't have as much time as I would have liked as they were late leaving the nursery. I hadn't anticipated the children to participate in much child led play given it was the first session but had factored it into my plan for 15 mins nonetheless but there wasn't time or the 'readiness' to engage in that yet. They were very keen to play 'hide and seek' (in this case 123 Where are you) so we did that again at the end instead of free play.</i></p>
<p>What went well and why?</p>	<p><i>All the children seemed engaged from the start and spoke to to the hornbeam tree in order to enter the site, even though this was possibly the first time most had spoken to a tree before! They all wanted to participate in the 123 Where are you game and to place the boundary markers, although 2 children weren't so keen in giving up their markers! Most of them seemed to enjoy making wands, especially when they learnt how to wrap the coloured wool round the stick from watching one child who did it independently. They enjoyed swinging the stick wands around and and casting spells so we made some agreements about how to do that safely. A number of the children enjoyed putting the collecting baskets on their heads when playing with the wands so we talked about making hats next time.</i></p>
<p>What didn't go well and why?</p>	<p><i>They didn't really grasp the concept properly for marking the boundary, we did it but it was very much led by me. When given the opportunity to forage for natural materials for their wands and/or leaf animals and really explore what was around them the children just focussed on what was on the tarp already (craft bits I'd bought - stickers, googly eyes, lollipop sticks etc). These are things they are familiar with and know how to use so I'm guessing they felt comfortable with them. I could have asked them to forage first and then shown them what they could use their materials for afterwards to encourage more exploration.</i></p>
<p>What will you do differently for the next session as a result?</p>	<p><i>Remove the more familiar objects (stickers, pens, glue, scissors) from craft activities if on offer to encourage more use/exploration of natural resources. Simplify the main activity to make it more accessible to all the children but with the option to express themselves or to extend the activity where there is the desire. Plenty of running/hiding games as these proved most popular and they have a lot of energy!</i></p>

Session 2

<p>How did what happened compare to your plan?</p>	<p><i>This session went according to plan, having learnt what the children's needs/interests were on the last session. I didn't need any of the activities up my sleeve, apart from the story book which I used to help the children wind down from their free play time, as the children arrived quite late and were immersed in play for quite a while after they made the crowns, exactly what I hoped for!</i></p>
<p>What went well and why?</p>	<p><i>I got a "We missed you!" comment at the start which filled my heart! The children explored much deeper in the forest for their natural materials to decorate their crowns as hoped. They went back and forth to collect more when they felt they didn't have enough. The children played in the forest freely after I crowned them 'Kings, queens and princesses' of the forest. They seemed very pleased with their accomplishments and moved around with big smiles on their faces! The children were able to express themselves by choosing their own coloured/shaped crown and objects to stick on them.</i></p>
<p>What didn't go well and why?</p>	<p><i>The children struggled to grasp the names of the 4 trees I identified for this game, possibly as it was the first time they had been introduced to them. The silver birch was the only one which really stood out, likely due to the colour of its bark and a familiar word. During the 'safe if you touch' game, one child got quite upset when she wasn't part of the 'hunting' team. She was a little scared about the idea of being hunted despite being very confident the week before and when I asked the carer who was with her if she was OK, I was told shortly after that she's going through a bit of a transition at the moment due to her mother being in hospital for a few days having her sibling so this might explain why she wasn't her usual self. One child wasn't interested in making the crowns but was quite happy just playing around with objects whilst the others did so, I could have engaged with him a little better and perhaps shown him some other options like the scavenger hunt sheets etc. During the 123 game, the children didn't want to be found and moved from one place to the other to avoid being found making it difficult to follow and move on.</i></p>
<p>What will you do differently for the next session as a result?</p>	<p><i>Try and make connections/rhymes/stories between the trees and their names to help them stick better when doing ID. Check that all children want to participate in a game before playing and advising them it's OK if they don't and offer something else to them in the meantime. Change 123 game to Eagle eyes game so they can move between hiding spots to avoid being seen/found by me.</i></p>

Session 3

<p>How did what happened compare to your plan?</p>	<p><i>The children were quite excitable when they arrived this week and when we gathered at the start, they kept walking off to look at things and start playing! Part of me was very pleased as this is a huge contrast to when we started the sessions but also not what I'd planned so it took me a moment to decide the best approach. As some were still looking for direction I decided to offer the colour hunt game first instead of eagle eyes as this was more aligned to their interests at that moment. They actually all happily participated and gathered some items each which we then discussed. I then asked if they wanted to play another game and all but two did so I offered them some scavenger sheets instead which they accepted with glee! The rest of the session followed the plan I had made but there wasn't much time to do much free play or the minibeast hunting activities at the end.</i></p>
<p>What went well and why?</p>	<p><i>The children are all much more comfortable in the woodland setting now evidenced by them wanting to go off and explore/play straight away. They also know the boundaries so I am more confident in allowing them to do this. The children enjoyed finding colours to match their swatches and seemed to grasp that some were easier to find than others. This was emphasised again with the woolly worm game when they found the brightest colours first. Some really got into character with that activity, pretending to be little chicks flying around. They were very keen to get stuck into the minibeast hunting when they came across the resources I had put out and enjoyed discovering real worms!</i></p>
<p>What didn't go well and why?</p>	<p><i>They really wanted to play at the start and I wasn't prepared for this and felt like I was taking away their natural inquisitiveness and flow by asking them to listen to what I had planned for the start instead. On reflection I think I felt under pressure from the nursery staff to continue with the structured plan but in hindsight I could have adapted and gone with their flow a bit more and come back to the plan if needed later or at the very least have asked them what their preference was.</i></p>
<p>What will you do differently for the next session as a result?</p>	<p><i>Now they are comfortable in the forest setting and know the boundaries, I will offer a choice of activities from the start which they can rotate around rather than following a plan as such to enable child-led play better. I have a fairly good understanding of what they like and are capable of now so this should be relatively straightforward plus I had some requests at the end of this session!</i></p>

Session 4

<p>How did what happened compare to your plan?</p>	<p><i>The session followed the plan, however, the main activities happened before we stopped for a snack as they didn't take much time looking for sticks and natural materials they wanted to use.</i></p>
<p>What went well and why?</p>	<p><i>The above actually worked quite well in the end as it meant they drifted off to freeplay with their constructions once they finished eating and I was able to put some other items out for them to interact with. They continued to freeplay happily until the session had to come to an end.</i></p>
<p>What didn't go well and why?</p>	<p><i>I didn't have the time on me throughout the session so I wasn't able to give the children enough time for a story at the end which worked really well last time and which they asked about when we brought them into the circle at the end. I arrived a bit late to the site (not after them but not that long before!) and as we'd missed a week due to staff illnesses the week before, the site hadn't been used for a couple of weeks. It meant my dynamic RA wasn't as thorough as I'd liked and the logs weren't in the right place and emphasised the importance of being there with plenty of time to check/set up site given it's a public space. The ground was soft but not quite soft enough for the children to put the sticks in the ground so it became more adult facilitated than I would have liked leaving less time for me to observe the children. One or two of the children still really like to interact with adults during play such as with hide and seek rather than on their own or just with their peers.</i></p>
<p>What will you do differently for the next session as a result?</p>	<p><i>Arrive with plenty of time and keep an eye on the time throughout especially as they are now freeplaying quite happily for periods so I'm trying to spend more time observing. Try and encourage the children to ask their friends to play games with them instead so I am better able to observe them.</i></p>

Session 5

<p>How did what happened compare to your plan?</p>	<p><i>I realised on meeting the group that starting with a game with a new concept (blindfold) might not go down so well having had a 2 week break and that I needed to build some trust with them first. So I switched things around and did the spell finding and initial potion making challenge first which was just as well as the rain came, unexpectedly pouring down, shortly after we started playing bat and moth and had to abandon it to take shelter under a tree! I realised I should have trusted my gut (rather than the forecast) and put up a shelter before they came but managed to get one up quickly so we had somewhere to shelter for the rest of the session. As I had been expecting rain when I planned the session initially the main activity was perfect to carry out under the shelter and the rest of the session went to plan!</i></p>
<p>What went well and why?</p>	<p><i>Initially introducing the idea of potions and spells through the group activity gave the children some inspiration and motivation to create their own spells and they really got into it. At one point I was worried I'd left too much time for this and for free play but they continued to experiment with different ingredients until the session came to an end! The children shared what their magic potions would do; "make me run fast", "make me fly", "make me invisible" and "make me into a bunny!". One child wasn't keen on doing the potion making activity initially and asked to do colouring and I had printed out some potion sheets which she was very pleased to colour as an alternative.</i></p>
<p>What didn't go well and why?</p>	<p><i>Three children didn't come to the session for various reasons so there were only four in total. As a result the bat and moth game didn't really work well as we couldn't form an effective barrier/circle around the bat and moth and the kids didn't really grasp the concept without it there so kept running out of it. I possibly wouldn't use this game for this age group again and certainly not for so few participants. There was a new staff member supporting the session today due to a staff illness and she hadn't read the FS guidance I had provided at the start and was intervening quite a bit which prevented the children from enjoying the environment to it's full potential.</i></p>
<p>What will you do differently for the next session as a result?</p>	<p><i>Think carefully about what is appropriate for their age range. I was keen to introduce the concept of wearing a blindfold in the bat and moth game as thought it would be great to get them on a guided trail through the forest school next week givenm how well they know the site now and although they were unsure at first, three did end up giving it a go so I think I will be able to continue as planned but will be sure to have alternative child-led options available for those who don't want to participate. Be prepared to quickly brief new staff if attending about FS ethos!</i></p>

Session 6

<p>How did what happened compare to your plan?</p>	<p><i>The start of the session went according to plan and the kids enjoyed running around like butterflies! Unfortunately, despite persevering for a little under the shelter and doing some stationary activities, the rest of the plan could not be followed due to the session being cut short because of the heavy rain.</i></p>
<p>What went well and why?</p>	<p><i>I was able to adapt my plan to suit the weather/group's mood as I had prepared a number of different activities and I'm more comfortable now with adapting the session as needed having run five sessions now.</i></p>
<p>What didn't go well and why?</p>	<p><i>I had planned for moderate rain and put up a shelter before the group arrived, however, the staff and some children were not as well prepared as they needed to be (despite me pre-warning them about the rain in advance via email and call on the day) and were already quite wet and cold on arrival. I therefore needed to adjust the order I did things so they could spend more time under the shelter, however, this meant they were less active and got colder so the nursery staff asked to cut the session a bit short.</i></p>
<p>What will you do differently for the next session as a result?</p>	<p><i>Be more encouraging of staff and children to use spare warm clothing and waterproofs I had brought with me, although the damage had mostly been done on the walk to the site sadly! I had already sent guidance about clothing in advance of all the sessions but different staff came when staff were sick. I could have checked they'd read it and if not shared it with them at the session.</i></p>

Summary evaluation

The nursery don't run regular Forest School sessions as they don't have a space suitable to do so on site. As such they were keen to facilitate my training sessions as they saw the benefits of time spent outdoors and in nature. The children were mainly selected for practical purposes or an existing love/interest of the outdoors although a couple were specifically selected as it was hoped the sessions would help build their confidence/independence.

Given most had not had much experience of Forest school before, the sessions started with a lot of energy and excitement at being outdoors and they appeared not to know how to play unaided or without structure as they struggled to 'explore' when asked to in the first session. Their confidence in the outdoor setting and ability to play freely developed a lot over the six sessions and by the third I was able to plan for free play confidently. Not only that but they became more outspoken about their choices, what they did and didn't want to do/try making it easier to facilitate and plan sessions and time went on.

The outdoor setting we used had a lot of natural ground litter, mainly sticks and twigs, which made it slightly harder to manoeuvre around plus there were the normal natural hazards such as low lying

branches/twigs and some nettles etc. At the start of the sessions children were experiencing a lot more trips and falls but their confidence manoeuvring around the setting improved meaning we could run more freely and play more running games, which they loved! This confidence was likely supported by recalling the Forest School agreements each week, highlighting the importance of being kind to nature, ourselves and each other. At times during the latter sessions, I even heard them reminding each other of them when they were playing with sticks so the repetition of this element of the session plan was successful.

It was my first time working with a group this age, aside of my own children, and so I didn't always pitch the games or main activities at the right level so that in itself was a good learning experience for me. Thankfully, I had plenty of other activities on offer up my sleeve and see this as crucial with any group as not only might the level not be right but they might simply not want to participate in the activities you have on offer.

The weather was great until the last few weeks when we had to cancel one session and run two in the, fairly heavy, rain. This definitely affected the mood of the group and highlighted the importance of planning and preparation for unexpected weather conditions or planning sessions more in keeping with the weather in order to embrace it better.



LEVEL 3 PORTFOLIO

UNIT 2 - FOREST SCHOOL PROGRAMME LEARNING & DEVELOPMENT

Q1. Summarise how the Forest School principles apply to your own setting

Describe the Forest School principles for good practice, as agreed by the UK Forest School community. To answer this question, you should consult the Forest School Association's website, which lists the principles.

Forest School has six principles for good practice which if upheld within your own sessions or setting should enable you to offer opportunities for children to develop their whole self through a child centred experience.

The six Forest School principles as per the Forest School Association website (<https://forestschoollassociation.org/what-is-forest-school/>) are as follow:

1. Forest School is a long-term process of regular sessions, rather than one-off or infrequent visits; the cycle of planning, observation, adaptation and review links each session.
 - The site I will be running sessions from has access all year round and I plan to run two hour weekly sessions for the majority of the year with likely only short breaks for some holiday periods. By doing so I hope to build a community of learners who will be able to form relationships and learn from each other. I hope to also foster a sense of belonging to the site which can have a significant impact on wellbeing.
 - In addition to private drop in sessions the longer term plan is to set up a 6 week schools programme for classes with Little Ealing Primary School.
2. Forest School takes place in a woodland or natural environment to support the development of a lifelong relationship between the learner and the natural world.
 - As you will see from the 'Description of Forest School site' within my Environmental Impact Assessment in Unit 3, the setting is within a small forested area within an urban park site with a mixture of tree species and other plants. There is also the scope to use the neighbouring nature area for a number of activities not as well supported within the little woodland area. Participants are therefore able to develop a connection with the natural world and hopefully develop some levels of environmental consciousness necessary in a world currently facing a climate catastrophe!
3. Forest School uses a range of learner-centred processes to create a community for being, development and learning.
 - As with my training sessions and the half term club I supported in Tower Hamlets Cemetery Park, for my setting, I plan to provide an array of open ended options for participants to choose from. They will be supported in their decision making and have plenty of opportunity to ask questions, problem solve and learn.

4. Forest School aims to promote the holistic development of all involved, fostering resilient, confident, independent and creative learners.
 - As mentioned above, I will offer lots of variety for participants to choose from to accommodate their different learning styles and motivations from nature based crafts, swings and hammocks to team games and activities.
5. Forest School offers learners the opportunity to take supported risks appropriate to the environment and to themselves.
 - The Risk assessment for my site covers the risks I have identified as being present and how they are being controlled/mitigated to make participants, new and old, stay as safe as necessary. Aside from that there is also a risk benefit analysis for activities to ensure there is a benefit to them being carried out and that they can be effectively managed and supported during the setting. Whilst climbing opportunities are minimal within my site due to the lack of mature trees with suitable branches, there are trees which can support slack lines and plenty of logs which can be used for a variety of activities. I will offer age appropriate tools for use in sessions, giving thorough tool talks in advance.
6. Forest School is run by qualified Forest School practitioners, who continuously maintain and develop their professional practice.
 - I will run the sessions and have passed all the practical aspects of my course so am able to provide appropriate support and guidance to participants. I continuously develop my own knowledge and skills through reading, podcasts, practical conservation volunteering and in future CPD courses on offer.

Describe the challenges of implementing the principles in your setting, with your proposed approach to overcoming them. To answer this question, you can draw on your experience during your 6 Forest School sessions.

I don't work in a particular setting, I am undergoing the training as an independent Forest School Leader, so I am basing this answer on my experience of working with the setting which participated in my six Forest School training sessions.

The nursery I worked with do not have regular forest school sessions as part of their usual week and most the staff had not participated in sessions previously. For this reason I provided guidance in advance (see supporting doc in Appendix 3 'Guidance to nursery staff for 6 Forest School Training sessions') to introduce the staff to the ethos of Forest school and prepare them practically. However, on reflection, I could have done more in the way of preparing them, perhaps with a short training session to ensure they'd all seen it and/or asking them to sign the document because some staff seemed more prepared than others. When staff attended who appeared not to have read the guidance, it really affected the flow of the session and the freedom of the children as they disciplined or prevented them from participating in the way they wished. One example of this was when children were climbing on the wooden stumps and jumping off them the staff would tell them to get down as they could hurt themselves. I didn't want to undermine them in front of the children so didn't interrupt but in hindsight I could have taken them aside afterwards and advised them of why this isn't necessary in FS.

The site I used for my six sessions is a public space and it's likely that will be the case for my sessions moving forward. This presents some barriers as I cannot leave any equipment/activities set up which slightly limits the options available for free play and more importantly different types of play. My sessions were often quite craft/nature play dominated rather than providing opportunities for much physical/proprioceptive development, aside of the games I incorporated into each session. In a permanent setting I would be able to set up a mud kitchen, climbing and/or swinging area and den building area for example. In addition to this, as the setting I worked with hadn't done FS sessions before, I needed to invest in all my own equipment which limited what I could offer at this stage of my practice.

Having now carried out my four assessment days, I don't feel as limited by the public space as I did before as I have more confidence in putting up temporary swings on different branches etc plus I can potentially include more variety through tool use and fires as these are permitted in the site I will be using moving forward.

Q2. Give 2 examples of how Forest School encourages the **physical** development and well-being of participants

To answer this question, you can draw on your experience during your 6 Forest School sessions. If you use research to make your argument, remember to quote the source.

As stated by White, 2015 'Physical development sits at the heart of wellbeing, learning and development - and it creates school readiness'.

Based on this statement, if you provide children plenty of opportunities to develop physically you are in turn improving their wellbeing. Forest school is usually held in a spacious setting which continuously offers a myriad of natural elements for developing core strength, balance and dexterity as well as hand and eye coordination such as trees to climb, vegetation to navigate and branches to swing on as well as lots to explore and look at in the sky, trees and mud! In fact, research by Fjortoft (2004) supports this by suggesting direct links between the natural environment and development of motor skills, in particular with balance and coordination. That's before you add the activities which might additionally be provided by a practitioner to help develop other fine and gross motor skills.

These might include team games involving running, jumping, creeping and crawling all increasing fitness and agility or activities focussing more on fine motor skills such as whittling, peeling or nature crafts. In fact, research by Austin, Knowles and Sayers (2013) found that '*Children had significantly greater levels of physical activity on a FS day in comparison to normal school day*'.

At the start of my sessions some of the children were not very confident moving/running around in the forest and often stumbled and tripped or got caught on branches. During the fourth session I observed those same children manoeuvre around the forest setting much more confidently and had less accidents and this improved further over the last two sessions.

As the group were quite young (3 years) they had a lot of energy and often requested running/chasing and hiding games as not only did they enjoy playing these very much but these were opportunities not often presented at their setting due to the lack of open space.



Q3. Give 2 examples of how Forest School supports the **emotional and social development and well-being of participants**

To answer this question, you can draw on your experience during your 6 Forest School sessions. If you use research to make your argument, remember to quote the source.

A lot of recent research has found that children spending time in an outdoor setting, similar to Forest School, improve their social development and relations with each other, in particular when there are certain conditions available: 'Play, interaction, participation, pupil-centred tasks, cooperation and engagement' (R Hartmeyer and E Mygind, 2016), which present themselves regularly in Forest School sessions. Participants are regularly offered activities or games which involve communication, problem solving and team work so these social skills are developed as a result. Forest school also offers space and time which participants might not otherwise get in order to develop emotionally and become more self-aware.

In my forest school sessions there were activities which featured as part of the weekly plan which brought people together in a social space - circle time for safety and activity briefings, snack time and reflection time. In addition there were a number of activities I offered which involved group work or cooperative play such as the habitat building so these naturally encouraged social and emotional development.

In my training sessions, one child had recently gone through a big transition at home as they had welcomed a sibling into the family. She was quite tearful and clingy at the start of the session, which was out of character, and the staff had said she'd been struggling a bit at the nursery. However, she was given time and space at Forest school and allowed to make choices about what she wanted to participate in and soon after arriving at the site, her emotional state changed to playfulness when she was presented with a game she enjoyed and felt comfortable with and she enjoyed running around the forest playing hide and seek with her friends!

At the start of the six sessions I observed regular occurrences of children getting upset with one another for taking items from each other during activities. When this happened we explored/discussed what we could do or say differently to reduce these occurrences and by the last couple of sessions there seemed to be far less situations like this. A lot of the games we played were group/cooperative games so the children were communicating regularly with one another, perhaps using language they don't usually use, and the feedback from the staff suggested this improved their vocabulary and relationships with those they don't usually play with, similarly to the research by (R Hartmeyer and E Mygind, 2016).



Q4. Give 2 examples of how Forest School supports the intellectual development of participants

To answer this question, you can draw on your experience during your 6 Forest School sessions. If you use research to make your argument, remember to quote the source.

There is so much to be learnt from the natural world which is not necessarily covered in day to day learning at school or at home or possibly not as tangible until seen/learnt in context so the Forest school setting itself provides a great space for developing intellectually. From simple activities like naming trees and bugs to more curated activities involving crafts, there is scope for developing participant minds and interests in so many ways. Through excessive research, learning through play has also been proven to be very successful and is the basis for the Early Years curriculum and Forest School should aim at offering child-led play at it's core.

By the end of my sessions the children had enhanced their knowledge about the natural environment from participating in a number of different activities I provided, listening to stories or through their own interests. At the start, many couldn't identify an acorn, of which there were lots on site and they were curious about, but by the end they had learnt to identify them as well as where they come from and a few other tree species. They were introduced to the concept of camouflage, what habitats are and why different creatures might need different ones to live in. They learnt to handle an array of equipment and natural materials some had not used before and importantly, they learnt how to keep themselves safe in a slightly more hazardous environment than usual, quoting 3 'agreements' to forest school enthusiastically by the third session. They learnt about how autumn affects the trees and the temperature and that 'steam' comes out of our mouths when it's colder! Aside from this they also learnt how to interact with their peers in a different environment, about working together/problem solving to achieve things like den building and how to have fun in the outdoors, even when the weather turns 'bad'!



Q5. Summarise the key characteristics of play and its role at Forest School, giving 3 examples of how you integrate play and choice into your Forest School sessions

List the widely recognised principles of play.

“Play is the highest expression of human development in childhood, for it alone is the free expression of what is in a child’s soul.”

- Friedrich Froebel, 1782-1852.

The Playwork Principles Scrutiny Group, Cardiff 2005, developed eight Playwork principles which are widely recognised principles of play:

1. All children and young people need to play. The impulse to play is innate. Play is a biological, psychological and social necessity, and is fundamental to the healthy development and well being of individuals and communities.
2. Play is a process that is freely chosen, personally directed and intrinsically motivated. That is, children and young people determine and control the content and intent of their play, by following their own instincts, ideas and interests, in their own way for their own reasons.
3. The prime focus and essence of playwork is to support and facilitate the play process and this should inform the development of play policy, strategy, training and education.
4. For playworkers, the play process takes precedence and playworkers act as advocates for play when engaging with adult led agendas.
5. The role of the playworker is to support all children and young people in the creation of a space in which they can play.
6. The playworker's response to children and young people playing is based on a sound up to date knowledge of the play process, and reflective practice.
7. Playworkers recognise their own impact on the play space and also the impact of children and young people's play on the playworker.
8. Playworkers choose an intervention style that enables children and young people to extend their play. All playworker intervention must balance risk with the developmental benefit and well being of children.

“Play allows children to use their creativity while developing their imagination, dexterity and physical, cognitive and emotional strength. Play is important to healthy brain development. It is through play that children at a very early age engage and interact in the world around them”

- Kenneth R. Ginsburg, and the Committee on Communications, and the Committee on Psychosocial Aspects of Child and Family Health; The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds. Pediatrics January 2007.

Some ways in which I have supported these principles in my own sessions are as follows:

Principle 2: Play is a process that is freely chosen, personally directed and intrinsically motivated. That is, children and young people determine and control the content and intent of their play, by following their own instincts, ideas and interests, in their own way for their own reasons.

- Freeplay is the essence of Forest School and something I strove to achieve through my training sessions by providing a variety of activities, ideas and resources which could freely be chosen by participants during the 'freeplay' part of sessions. As I became more knowledgeable of their interests and motivations through observation, I was better able to cater for their interests making this more achievable as the sessions progressed. At Tower Hamlets Cemetery Park (THCP) we achieved this through offering up a number of resources - slack line, hammock, cutting block, clay, painting, bug hunting kits, tools, trowels etc - so the participants could choose whichever they pleased and the whole day was dedicated to freeplay supported only when asked or when necessary.

Principle 6: The playworker's response to children and young people playing is based on a sound up to date knowledge of the play process, and reflective practice.

- At my Forest school, I incorporate reflection as an activity every session, so I can adjust and adapt accordingly whether it be regarding safety, more free play, more resources on offer, more structured play etc etc.

Principle 8: Playworkers choose an intervention style that enables children and young people to extend their play. All playworker intervention must balance risk with the developmental benefit and well being of children.

- In the half term club sessions at THCP we offered the use of a variety of tools (bow saw, sheath knife, peelers, hammers etc) and also made fires for cooking, as well as just for fun! Fire & tools require focused oversight and intervention, but are balanced with strong developmental benefits as many of the children had never even seen an open fire before or used the tools.

"Play and recreation are essential to the health and well-being of children and promote the development of creativity, imagination, self-confidence, self-efficacy, as well as physical, social, cognitive and emotional strength and skills. They contribute to all aspects of learning".

- UNESCO, Education for the twenty-first century: issues and prospects (Paris, 1998).

"Play is a process that is freely chosen, personally directed and intrinsically motivated the impulse to play is innate. Play is a biological and psychological necessity and is fundamental to the healthy development and well being of individuals and communities."

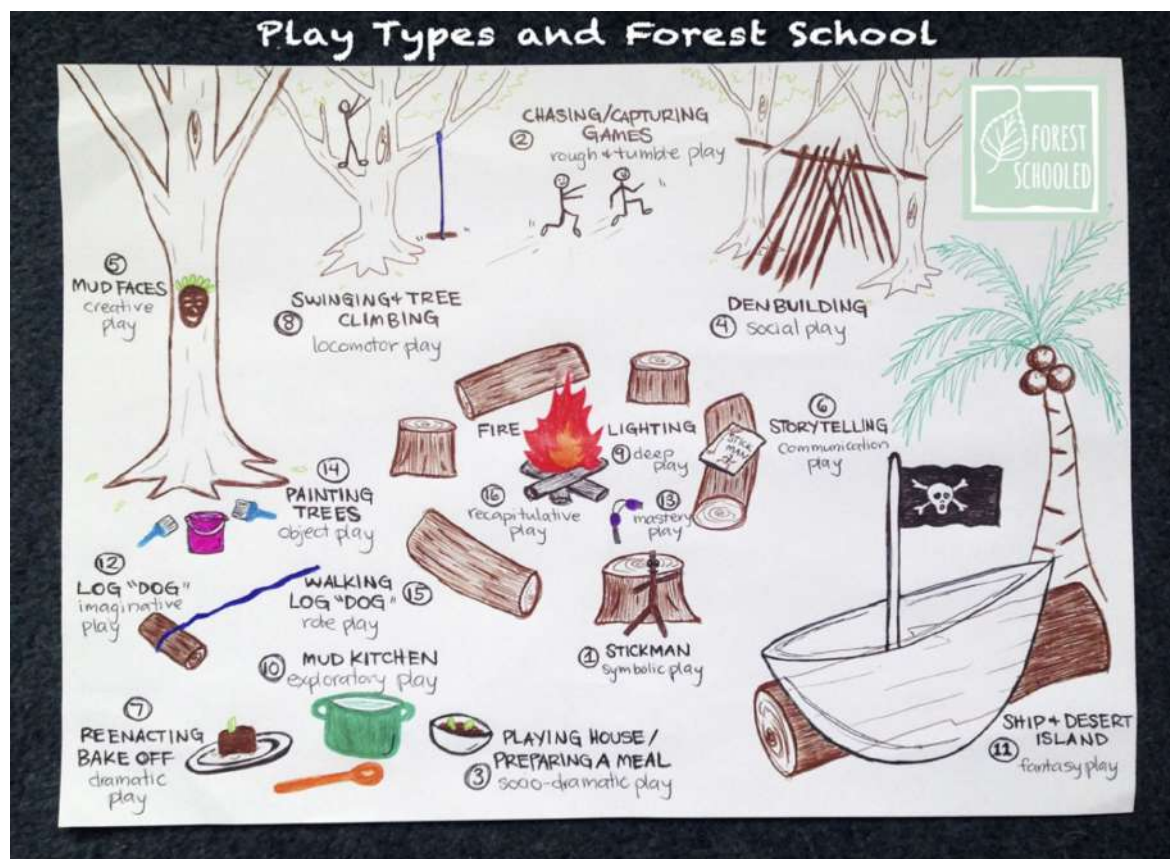
- Playwork Scrutiny Group, Cardiff 2005.

Describe how the principles of play – and risky play – translate into play policy.

The principles of play benefit the physical, social, emotional, and cognitive development of children. Risky play, in particular, plays a crucial role in building resilience, confidence, and problem-solving skills and along with safety is critical for healthy development. Eager and Little (2011) discovered that when restrictions are too high and risks removed from play, a child can be prone to a lack of independence, mental health concerns, a decrease in learning perception and judgement and even obesity. By understanding and following the principles of play we are able to develop policies which support these. In the case of risky play, instead of creating policies which restrict this purely based on the need to stay safe we can instead provide guidance for the safe use in order to allow the risky play and facilitate normal development.

Give 3 examples of how you integrate play into your Forest School sessions.

There are many different types of play which can support the principles outlined above at Forest School and which I've tried to integrate into my sessions as much as possible. The different sites I've worked in govern to a degree what can be provided to support different types of play but to aid my planning and facilitation of them I found this lovely illustration outlining Bob Hughes' 'Play Types' (2002; A Playworker's Taxonomy of Play Types, 2nd edition, London: PlayLink) on the [Forest Schooled website](#). It visually shows his 16 play types and how they can be incorporated into some activities at FS.



Three examples of how I've integrated different types of play at my forest school sessions are as follows and I will continue to introduce new ideas and activities based on my knowledge of these different play types as well as the play principles:

1. THCP was a great site for facilitating lots of different play types due to its size and structure and the number of FS practitioners overseeing and facilitating the group. There were trees that could be climbed for **locomotor play**, lots of room to chase and engage in **rough and tumble play**. There was a big mound of composting woodchip/leaf matter which led to numerous **fantasy play** scenarios as well as lots of digging and **exploratory play**. Due to the free play nature of the setting, with no official activities led, aside of cooking, children also often broke into **dramatic play**, one very memorable example being when they

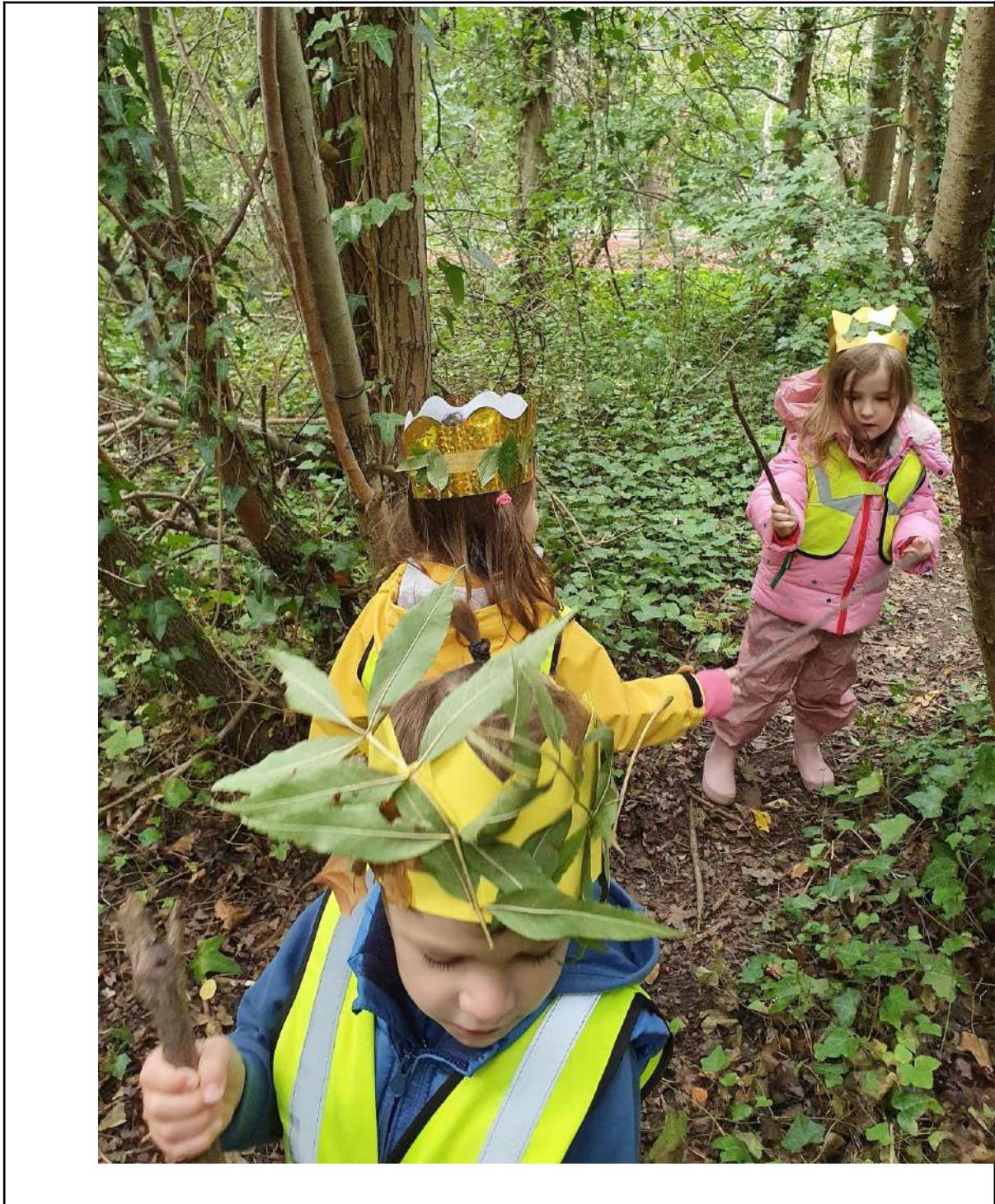
developed a shop where you could purchase materials to make leaf wands!



There was clay and paint on hand at all times leading to various types of **creative play** including clay models/masks on trees and painting the trees/logs themselves. Finally, there was a space to cut wood and build a fire, something I saw huge benefits to, especially for those who craved the **deep play**, including one child who we were advised had autism in advance but you would never had guessed as he thrived in this kind of play and the environment as a whole.



2. During my 6 FS sessions at Boston Manor Park where I needed to facilitate the play quite heavily at the start, I found that the preference was often to play running/chasing and capturing games, particularly hide and seek so this ended up forming the basis of most sessions. I adapted the game slightly each week to encourage some **imaginative play** as part of it but it also led to a lot of **social play** also where seekers would group to help find other group members.
3. By creating opportunities for nature crafts during sessions, as I regularly did during my training sessions and plan to do in future due to the nature of the site and it's limitation for more active play, not only does it lead to **creative play** but also **object and/or symbolic play** (with a stick in the below picture) and also **imaginative and/or role play** wearing their nature crowns.



Q6. Summarise the recognised theories of learning and development relating to a Forest School Programme

To answer this question, you need to:

1. Summarise 2 learning theories
2. Explain why you chose these theories
3. Explain their relevance to Forest School, using 2 examples from your own sessions

Experiential Learning by John Dewey

'When we experience something we act upon it, we do something; then we suffer or undergo the consequences. We do something to the thing and then it does something to us in return: such is the peculiar combination. The connection of these two phases of experience measures the fruitfulness of experience. Mere activity does not constitute experience (Dewey, 1916/2007, p.104).'

John Dewey's theory of experiential learning is a more complex one to some of the more simplistic models/cycles which have followed and takes into consideration the past experiences of the participant and how they might shape the resulting learning. He believed that thoughts and actions are not separate but unified in experiences and "An experience is always what it is because of a transaction taking place between the individual and, what at the time, constitutes the environment" (Dewey, 1938/1997, p.43). Experiences are a result of both 'trying' (the outward expression of an individual on the environment) and 'undergoing' (the manner in which the environment manifests itself upon the individual) Ord and Leather,

I chose this theory as direct experiences are a fundamental part of the outdoor educative process as seen during forest school and other outdoor education opportunities. Participants have almost infinite opportunities for learning through experiences whether these been ones which are set up or supplied by the practitioner or through just being in the woodland environment surrounded by loose parts such as sticks and leaves. One example from my own sessions was when a child reached and grabbed a bramble and experienced pain as a consequence, quickly they learnt that grabbing brambles *means* pain. This learning was extended when they came to me as I was able to use it as an opportunity to teach them about brambles and why they have spikes, something they'd previously not learnt but others in the group may know already.

Csikszentmihalyi's Flow theory

Csikszentmihalyi Flow Theory (1975) suggests that people are happiest when they are in a state of flow, which is characterised by intense focus and engagement in an activity. Flow occurs when a person's skills match the level of challenge presented by the task at hand and this also results in an optimal learning experience. In this state of flow, individuals can lose track of time and experience a sense of enjoyment and fulfilment. In the context of a Forest School programme, this means that participants are most engaged and able to learn when they are challenged at an appropriate level and are fully immersed in the learning experience.

I chose this theory as I find it fascinating but also challenging to facilitate in the sessions I run currently as I'm not able to run sessions for longer than 1.5 hours and the participants attending are not the same each week. It has emphasised to me the importance of needing a long term programme of regular attendees who can get into this state much sooner and really take advantage of the learning experiences on offer to them. I have however, witnessed, on occasions this state of flow and the resulting satisfaction. An example being where a child wanted to use a small pipette for transferring liquids and was really struggling to grasp the technique. He got very

frustrated and threw it on the floor and asked his mum to “HELP!”. I suggested first that he might like to try and use a giant pipette (aka Turkey baster!) to which he smiled. The technique much better suited him as he could use his whole hand to squeeze it rather than the pincer grip and he happily pipetted away with a face of joy for what felt like the majority of the session.

Q7. Summarise the key influences that affect participant behaviour at Forest School

Describe the factors both in Forest School and in the lives of participants that can affect their behaviour at Forest School (social, biological, environmental, etc.)

Forest School participant behaviour may be influenced by a huge variety of factors, both immediate/internal and external/environmental. Some of these may be present in the Forest School setting and somewhat manageable/controlled and some are very much separate and can only be understood as much as possible in advance in order to better manage any resulting behaviour. Key influences under the two main categories might include:

Internal factors (ones which relate to the individual themselves and can be neurologically based. Multiple factors might be at play and interconnected for example temperament maybe attributed to poor health as well as neurological challenges):

- age
- sex
- physical and mental well-being
- satiety level or nutritional state
- temperament
- physical or neurological disabilities
- developmental delays
- level of tiredness
- illness

External/environmental factors (ones which relate to the individual’s surroundings; both the physical environment and the people they interact with):

- weather
- under or over stimulating environment
- loss/bereavement

- witness or victim of abuse - physical or mental
- New sibling
- unrealistic expectations
- home environment - argument between carers/parent
- lack of choice
- Medication
- Unmet needs
- Family's mental or physical health including substance abuse
- Demanding activities

Explain how these behaviours then impact on the learning and development of participants at Forest School.

Maslows hierarchy of needs states that people are motivated to achieve certain needs in a hierarchy of five stages starting with the most basic biological/immediate needs (food, sleep, breathing, excretion etc) to more complex needs (confidence, morality, problem solving etc) and where the stage above can't be reached until the one below is met.

With this in mind, and based on my own experiences as a parent of young children, if participants' basic needs aren't met, the resulting behaviour will likely affect a participant's ability to learn and develop and possibly also have a negative impact on the group as a whole. Practitioners must be mindful of this when running sessions as there are some factors they will be able to influence and control such as hunger and warmth/comfort in the outdoors but others will be more difficult to influence such as their home environment, certain disabilities and medication they may be on. It should be noted, however, that some negative behaviours seen outside of forest school as a result of either internal or external factors may not present themselves in the same way in a forest school setting as research has proven that time in natural environments can have a positive impact on well-being and behaviour, meaning the environmental influence might override other influences for the duration of the setting. As mentioned earlier, the activities on offer might also engage participants in a way they aren't usually engaged and hence reduce the occurrence of less favourable behaviours more commonly seen.

In addition, concise planning can help work around certain factors to reduce the impact they may have on an individual or group. Some, however, no matter how well planned may have a negative impact on the group dynamics. For example negative behaviour can; prevent participants enjoying themselves as much as they would, limit the outcomes of an activity, require additional support which limits that available to the rest of the group, and put people in harm's way.

On the flip side, when a child's needs are met and they are not being negatively influenced by internal or external factors their positive behaviour can have an opposite effect to the above and can; lead to enjoyment and engagement in an activity, increase the outcomes, require less support so practitioner is more evenly spread, lead to better group work and more focus resulting in better management of risk.

Overall, a range of factors can influence participant behaviour at Forest School. By creating a safe and supportive environment, encouraging positive behaviour, and providing engaging activities, facilitators can help to promote positive behaviour and support the well-being of participants.

Explain how an effective approach to behaviour considers how needs (met and unmet) impact on behaviours.

As mentioned above, behaviour is influenced by various factors, including needs. People's behaviours are often a reflection of their needs, which can be met or unmet therefore to effectively manage behaviour we need to focus on the underlying needs that might be driving the behaviour rather than solely the behaviour itself.

I believe I'm fairly good at reading people's nervous systems but not always as we can never truly know what might be going on in somebody else, especially with children who might find it hard to articulate their feelings. Therefore, something I've found helpful to think about and support basic needs and which I've incorporated into my policies and during FS sessions, is Glasser's Choice Theory. Glasser's Choice Theory, suggests that our behaviour (choices) are driven by our basic needs, of which there are five and which affect us in hierarchical order: **survival** (food, clothing, breath, personal safety), **love** (emotionally belonging and connecting to others, loving and sex), **power** (over our lives, feeling competent and significant), **freedom** (to be autonomous and self-directed) and **fun** (including learning, interests, recreation and play). By addressing these needs which may be as simple as providing food and warmth at FS, we can help individuals to feel more satisfied, content, and well-supported. This, in turn, can lead to positive changes in behaviour.

During sessions, if we see challenging behaviour, we can ask ourselves what need is not being met, with a relatively new group or individual, this might be harder to understand but through communication rather than reprimanding the behaviour we may have more success in getting to the root cause of the behaviour. This process also results in a closer bond with the individual which could in turn fulfil other needs and benefit overall behaviour seen during sessions, a win win!

Q8. Describe the ways in which a learning community has developed during your Forest School journey

During your training

The two groups which I did my training and subsequent assessment days with were mostly from very different backgrounds to me, as most attendees came from a setting such as a nursery or school. I was therefore immediately presented with a community I'd not been exposed to much before and was able to learn a lot from both groups. Ideas for sessions, how to work with different aged participants and with different abilities were all shared between us and there was a real sense of camaraderie built during the time we spent together learning and developing our own skills.

This learning has continued since then as we formed whatsapp groups where we share resources and ideas but also support each other emotionally through the different stages of the course, especially during the completion of this portfolio!

When I established my training sessions (and now my longer term FS plan), the local network of FS leaders and similar educators as listed below in Unit 3 has been invaluable to me as I'm currently independent. They have not only been very emotionally supportive for my portfolio but they have led me to paid work to keep me in practice whilst I finish the coursework. They have also shared insight as to how to run a FS programme with schools independently should the opportunity I am seeking materialise, something I was really challenged by.



During your 6 Forest School sessions

Given I don't work at a setting I had to find one to work with and a site to run my sessions from. In carrying out those two tasks I developed a learning community as I brought participants to a setting they hadn't previously used for learning.

A learning community then built amongst the participants, not only the children but the adult helpers too! The children knew each other from the nursery but they spent time differently there so interacted with each other in ways they didn't usually when at FS. They had the opportunity to run and play together and learn from one another skills which they hadn't necessarily been exposed to before. An example of this being when one child wrapped a piece of wool around a stick very carefully for her wand and another child watched intently then proceeded to attempt it themselves and following that the rest of the group.

Q9. Summarise your own personal development & learning journey through the Forest School training process

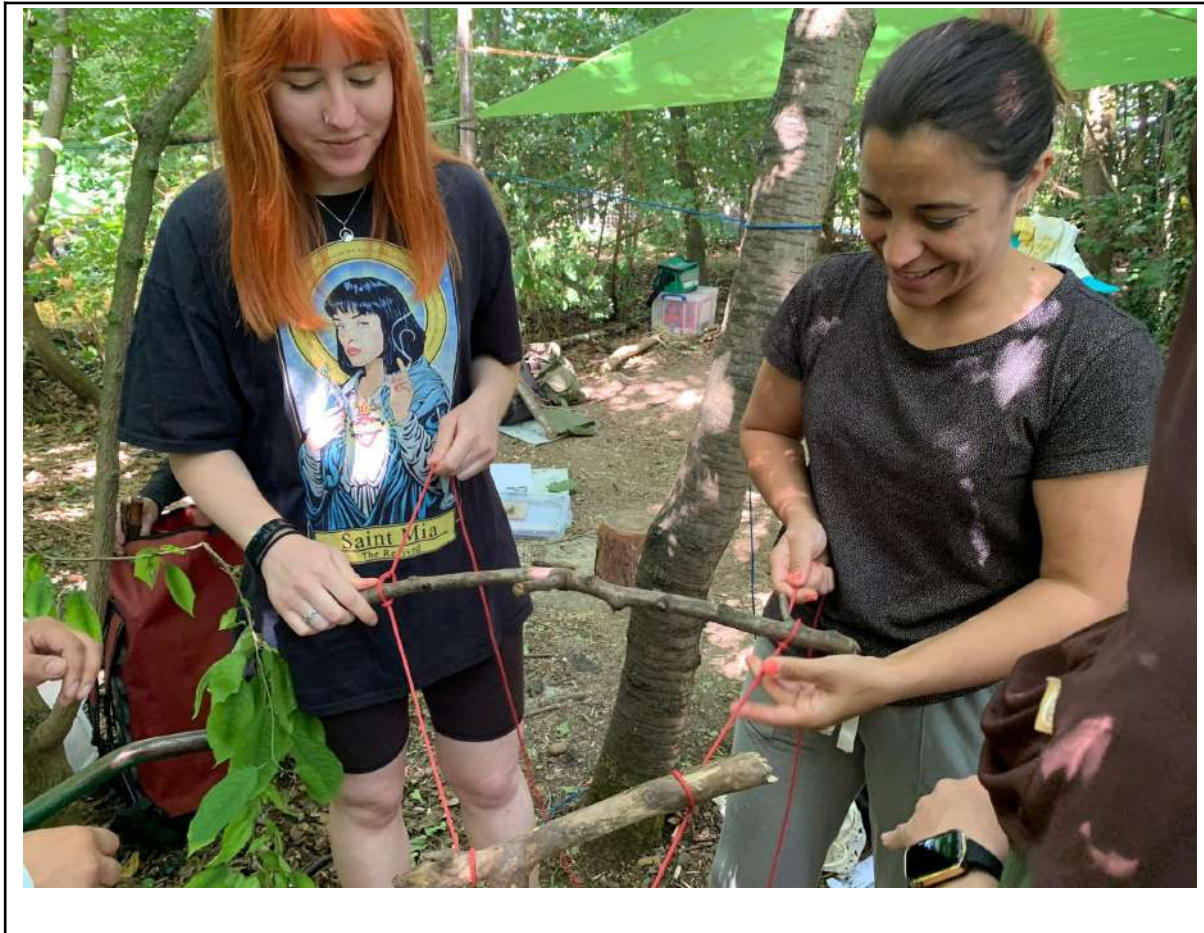
To answer this question, you can also describe your personal reflective practice and Continuous Professional Development journey if this is relevant to your current role.

I have always had a love for nature and the outdoors, largely attributed to the travels I did all over the world growing up which exposed me to an array of terrestrial and marine environments. Not only that but I have been a member of the Woodcraft Folk since a young age, meaning I spent a lot of time camping in the UK countryside. Forest School training has enhanced and equipped me with extra skills I need to share that love with others along with the knowledge I've gained through working in conservation organisations over the last 20 years. Not only that, Forest school has opened my mind up in so many ways I wasn't expecting and now filtrates into so many aspects of my everyday life, especially the way in which I parent my children and the things I now hope for them and other children growing up in society today in terms of access/opportunities to outdoor learning. I currently have limited time to invest in my Forest school practice and my CPD as I'm only able to commit 1.5 days a week to it whilst I must continue with my part time role to support myself financially until I'm qualified and my practice is well established.

I had a fairly good practical knowledge and understanding prior to the training due to my past roles and experiences so this area has been developed and finessed (and I've learnt lots with regards to using those skills safely with children) but the ethos and approach have had a far greater impact on me as have taught me new ways to communicate with and guide children through their self led development. I'm now much more confident communicating with children effectively and managing conflict and consider my use of words far more. I also find myself reflecting on what I can do differently, being more mindful, and am loving the Forest School Podcast for my continued development until I can find time to invest in it further.

When the time comes I can see myself focussing on CPD courses supporting challenging behavioural needs in groups outdoors - John Cree/Circle of Discovery is one. Having not come from a teaching background, I would also like to increase my knowledge around holistic teaching methodologies, different learning styles and theories of play so I can better support different individuals within my setting.

I recently got given a book for my birthday - 'Foraging with kids' by Adele Nozedar which I hope will also give me useful knowledge and ideas for future sessions in this area as I previously have little experience with this.



LEVEL 3 PORTFOLIO

UNIT 3 - FOREST SCHOOL PROGRAMME PLANNING & PREPARATION

Q1. Describe the history of Forest School, summarising the key influences that have informed the current principles

Nature based learning has likely been a phenomena since humans emerged from the African landmass, in fact all earth-based philosophies are drawn from nature connectedness/animism and hence had a big influence on the framing of Forest School.

However, the foundations for which we know Forest School today can be traced back to the 17th century. Comenius was likely one of the biggest influences on Western education with the belief that attention should be placed on the way a child learns and was the forerunner of Romantics theorists such as Froebel, Vygotsky and Pestalozzi.

Approximately 100 years later, Froebel, who said *“Children are like tiny flowers: They are varied and need care, but each is beautiful alone and glorious when seen in the community of peers”* devised the German kindergarten movement and believed in marrying natural world contact with learning and play so was likely hugely influential in Forest pedagogy.

Vygotsky, another 100 years later, added another layer to this putting emphasis on learning with others in a community and the ‘More Knowledgeable Other’ (MKO) being key to bringing out the potential in people which is important within the Forest School ethos/principles.

Outdoor ‘nature-based’ learning became more widely known in the UK through the early 20th century through the work of pioneers such as Maria Montessori, the Macmillan sisters and Susan Isaacs. Also youth groups promoting outdoor activities/skills and camping emerged from the war such as the Scouts, Guides, Outward Bound and one I attended throughout my life, the Woodcraft Folk, established in 1924 by Leslie Paul with the slogan *‘Span the world with friendship’* and *‘Education for social change.’* These were all influencers of the current Forest school provision as we see it today however the official term ‘Forest School’ was coined in the UK in 1993 after the Bridgewater Nurses visited Scandinavia and brought back their, largely early years, approach to learning outdoors. They were encouraged to find an alternative to the increasingly formal, outcome driven developments in the UK education system in the 70s an 80s, when the National Curriculum was born.

From the 1990s onwards various Forest School networks in the UK formed and were supported by the Forestry Commission's Forest Education Initiative with the first national conference in 2002 and the Open College Network qualification in 2003. A common set of features and principles emerged and July 2012 the Forest School Association (FSA) was formally launched with it's six underpinning principles. These have guided thousands of trainee practitioners and form the foundation of many institutions hosting Forest School sessions today.

Q2. Identify and list a few local Forest School practitioners and networks that you could rely on for support (The FSA website is helpful for this)

- Bryony Fox - The Den Forest School
- Usma Shah - Forest Buds Forest school
- Will Blake - Freelance FS leader at 2 schools locally plus at the Selborne Society
- Nicola Goddard - Education at the Selborne Society
- Tash Gavin - Boston Manor Park Education
- Independent Forest School leaders - Facebook Group
- Ealing/Hounslow Forest school Network Whatsapp group - local FS and OL practitioners including the above named who I've had direct contact with and others in the region.
- 2 x hive forest school trainers groups
- FSA London Facebook group

Q3. Evaluate one piece of research on Forest School practice

To answer this question, you need to find one short piece of Forest School research (just typing "Forest School Research" into Google will bring up many articles).

You then need to evaluate it against your own opinions and experience of Forest School. Some of the questions you may want to consider include: do you agree with the research? What do you think of the methodology chosen? What are the outcomes for participants?

***'Impacts of Long term forest school programmes on children's resilience, confidence and well-being.'* Sarah Blackwell, published 2015.**

I think this is a valuable piece of research as it helps support the belief that Forest School develops resilience, confidence and well-being in participants through a qualitative literary review of projects around the world which were nine months or longer in duration.

Given the research used a qualitative method, meaning it is not based on numerical data but instead on interviews with educators, it could be argued that the results are subjective and possibly biased towards Forest school. However, it would not have been possible to use quantitative data as it did not exist for these long term studies so there was not an alternative.

The results were perhaps unsurprising as were generated from programmes which all experienced positive effects but important in supporting practitioners when needing to justify the purpose and benefits to setting up and running forest school sessions/programmes in a school, nursery or independently.

- Resilience - overall this was seen to improve in the studies for this area which were compiled from two nurseries that are running long term forest school programmes. They witnessed and increase in involvement in activities, increased confidence, stronger self-esteem better regulation of emotions and impulses and greater empathy. Even in the short time I've been running sessions and particularly over my 6 training sessions, I have definitely witnessed this change, one example being with one of the children i was observing throughout who went from being quite dependent on carers to facilitate her needs to being more self aware and independent.
- Confidence - similarly to above and somewhat linked, confidence was seen to increase as a result of long term forest school programmes. Leaders observed participants become more involved, more willing to take risks, initiating their own ideas, more interested in developing new skills and being more independent. I have seen during my own sessions that having the freedom to explore during sessions, with the support of a leader, brings out the confidence in even the quietest of participants
- Wellbeing - as with the other areas, well being was seen to improve as a result of long term forest school programmes, particularly with children with ADHD and other needs. This was certainly the case for one child who attended regular sessions at Tower Hamlets Cemetery Park; in the woods chopping wood and making fires you would not have known about his diagnosis and they appeared happy and fulfilled throughout the sessions but at school and sometimes at home he was typically more 'disruptive'.

To make the study more objective, it may have been beneficial to compare these studies with programmes that were not seen to be as beneficial to participants but they might be few and far between plus would unlikely persist for nine months in that scenario.

Q4. Write an ecological impact assessment of running a Forest School programme on your own site

To answer this question, you need to fill in the Ecological Impact Assessment template provided (see details below). The template includes the following information:

- 1. History of the site*
- 2. Key stakeholders*
- 3. Ecological survey (flora, fauna, abiotic elements, etc.)*
- 4. Type and level of impact expected from Forest School*
- 5. Key mitigations put in place against the above*

⇒ [SEE POLICIES AND PROCEDURES HANDBOOK FOLDER](#)

Q5. Use the ecological impact assessment to create a 3-year management plan for the sustainable use of your own Forest School site and to enhance biodiversity

To answer this question, you need to fill in the 3-year Management Plan template provided (see details below). The template includes the following information:

1. *Your vision for the site*
2. *Your plans to enhance biodiversity*
3. *Your anticipated use of the site*
4. *Your approach to mitigating impact*
5. *How you will involve your client group with the management processes*
6. *Your evidence of ongoing monitoring*
7. *Your approach to biosecurity*

⇒ [SEE POLICIES AND PROCEDURES HANDBOOK FOLDER](#)

Q6. Create your own Forest School Handbook - SEE RELEVANT FOLDER ABOVE

Q7. Explain the role of the Forest School programme leader

Describe the role of the Forest School Leader, making sure that you refer to the Forest Schools Ethos and Principles.

The role of a FS Leader is to provide/create a safe natural space in which participants are free to regularly play, express themselves, have opportunities to advance their social and developmental skills and develop their interests. They are educators in one sense but more like facilitators than teachers as they allow participants to lead on their learning, supporting them through observation in order to better understand their needs and provide relevant opportunities to them moving forward. They must be qualified in order to gain certain knowledge and skills so that they are able to manage the safety of participants during activities which might otherwise be considered too risky (fire building, tree climbing, whittling etc) by carrying out regular RAs before and during sessions and ensuring all equipment and PPE are available and appropriate for use. They must carefully plan, review and adapt sessions based on the observations they make to ensure they are fulfilling the needs of participants and supporting the holistic development of all involved. FS leaders should seek to continuously develop themselves professionally in order to provide a high quality provision and maintain their professional practice.

Q8. Explain the rationale for your own Forest School programme

Describe the rationale and learning objectives for your own Forest School programme. You should link your description to your participants' learning and development needs

The nature area I am going to use for my Forest School sessions used to have Forest School sessions in the past but the practitioner running them moved to work in two local schools instead. There is still demand for the sessions, however, from members of the local community as the drop in provisions available locally are few and far between. Not only that but there is interest from neighbouring schools, namely Little Ealing Primary School, who are trying to increase their alternative learning provisions since they have only a small concrete play area on offer to their children. The site is also established for the use of Forest School, with the management plan agreed in conjunction with the previous Forest School Leader so my presence will help support its management as well as fulfil a demand to services in the area so is of interest to the majority of stakeholders involved in its use/management. I used to manage the site as a Park Ranger 15 years ago as well as run environmental education sessions with schools there so there is also a personal connection to it. I am keen to impart the knowledge I have gained since studying a Conservation Science masters and working at conservation charities as well as working towards my Level 3 Forest School practitioner course.

Therefore by establishing my regular sessions I hope to:

- Provide an alternative outdoor learning provision to local schools/nurseries/community members
- Provide opportunities for participants to explore, take controlled risks and develop a love of the outdoors
- Provide opportunities for participants to develop a variety of outdoor practical skills
- Offer participants activities which are fun, engaging and foster nature connection and a love for their local environment
- Excite others to protect the natural environment through conservation initiatives
- Improve the physical and mental well being of participants by being in outdoors

LEVEL 3 PORTFOLIO

UNIT 4 - FOREST SCHOOL PROGRAMME: PRACTICAL SKILLS

Q1. Describe the appropriate personal protective equipment (PPE) and clothing needed for a range of Forest School activities

Describe the clothing and PPE that participants in Forest School should wear in each season, highlighting differences. For each season, explain how you would introduce PPE and clothing in your facilitation with a client group.

I will facilitate the wearing of appropriate PPE for all seasons and sessions by:

- Communicating this information to participants in advance either via the guidance/policies I send to staff at a setting when we start working together in order for them to share with their staff/children or via a booking form if being booked privately. I would highlight the need for appropriate clothing/PPE in order for participants to remain comfortable throughout as being too cold/hot can affect mood/behaviour/enjoyment
- always having spare layers and waterproofs should people not be able to provide their own or forget them so as to be as inclusive as possible but also to mitigate against the potential for negative behaviours as a result of needs not being met

Spring	Despite days being longer and sunnier, the weather can still be very rainy, fresh and cold in Spring, especially under the shade of the trees, so participants should be prepared for this. They should wear long sleeved tops, even on warmer days, and wear or bring extra warm layers including a warm hat. They should wear long trousers/leggings and should also wear/bring a waterproof jacket and waterproof trousers. Waterproof shoes or boots are preferable or sturdy trainers. Suncream should be worn/brought but I will also have a supply.
Summer	Weather likely to be warmer so looser, breathable cotton (or similar) long sleeve tops and trousers recommended. Bring/wear warm layers as it can still get chilly in the shade for a long period and on cooler days. Thin waterproof jacket and trousers. Sturdy boots/trainers, sunhat and suncream are essential and a lip balm with spf
Autumn	Same as Spring - pretty much need to be prepared for all weather conditions as can be warm or cold, rainy or dry!
Winter	In winter, participants should be prepared for extreme weather conditions to ensure they remain comfortable even in the coldest of weather. They should wear base/thermal tops and bottoms with one or more layers on top and bring extra layers as these build more insulation than fewer, warmer layers. They should wear

	<p>warm hats, gloves and scarves and wear a warm waterproof jacket. They should bring/wear waterproof trousers, ideally which breathe to avoid building condensation underneath and causing them to get more cold.</p> <p>A lip balm can be helpful if the participant's lips are sensitive to the cold.</p>
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Describe the clothing and PPE that participants in Forest School should wear for different activities. For each activity, explain how you would introduce PPE and clothing in your facilitation with a client group.

Whittling wood	<p>A cut-resistant glove needs to be worn on the non-working/helping hand to provide protection against cuts as this hand is the more vulnerable one. The other, holding the knife, should be bare to enable better dexterity/grip.</p> <p>I would introduce the PPE needed for this activity as part of the tool talk/briefing I would do as described in more detail in my sheath knife tool talk in my Practical Skills cards.</p>
Making a fire	<p>When making a fire, participants should be advised about fire safety in advance and brought into the discussions as much as possible so they draw their own conclusions.</p> <p>When making a fire, long hair should be tied back and any loose clothing or jewellery tucked in/secured with zip etc.</p> <p>Fire resistant gloves should be worn on both hands when handling any objects on or near a fire to protect hands against burns with the exception of a kelly kettle. This can be can be lifted using the wire handles with bare hands to ensure a better grip but being very careful not to touch the main body of the kettle which will be very hot.</p> <p>A fire blanket should be kept near at all times along with a bucket of water.</p> <p>The necessary PPE needed for this activity would be introduced as part of the briefing to the group at the start.</p>
Foraging for natural materials	<p>Long trousers and sleeves should be worn at all times in Forest school to protect against foliage which might sting or pierce skin such as nettles and brambles plus helps prevent scrapes from low hanging branches/twigs.</p> <p>When foraging, it's advisable to wear gardening gloves when in densely shrubby areas to protect hands in a similar way.</p> <p>The necessary PPE needed for this activity would be introduced as part of the briefing when covering the activity within the session.</p>

Q2. Describe the basic tool maintenance for 2 tools and 1 rope, as well as the process of facilitating tool and rope maintenance with your client group (taking into consideration age & developmental stage, ratios and your competence and confidence in maintaining bladed tools).

To answer the question, you need to take into consideration the following:

- 1. Checking tool/ rope condition prior to use*
- 2. Cleaning tool / rope*
- 3. Sharpening blades*
- 4. Changing blades*
- 5. Storing tool / rope safely*
- 6. Identifying when tools need to be taken out of circulation*
- 7. Filling in a tool maintenance log*

Please refer to my [Practical skill cards](#) which also feature in my Handbook under appendix XX. They cover the sheath knife, bow saw and ropes and answer this and the following question 4.

Q3. Describe the safe step-by-step use of 2 different hand tools of your choosing in the context of Forest School

To answer the question, you need to take into consideration the following:

- 1. Differentiation, age & developmental stage of participants*
- 2. Previous experience of participants*
- 3. Ratios*
- 4. Insurance*
- 5. Appropriate safe techniques*
- 6. Safe working areas and distances*

See [Practical skill cards](#)

Q4. Describe 4 different types of knots based on their use and explain the process of facilitating knots with participants

See [Practical skill cards](#)

How can knots be facilitated with a group?

There are a number of ways in which knots can be taught to a group to help them stick in participant's minds and become second nature. Using different methods supports different learning styles and abilities and helps differentiate the activity. Whatever the method, repetition is also key over the session, weeks, months in order for the muscle memory to kick in.

Visual aids

I have demonstrated one way of teaching through my [practical skills cards](#) which can be shown to participants who are good visual learners but also to facilitate an individual or smaller working group once an explanation/demonstration has already been given verbally. Videos can also be used to demonstrate knots visually and a good resource for this is via www.animatedknots.com. Another way to facilitate the visual learning process when demonstrating knots could be using two different coloured strings to make it easier to see where each working end has gone.

Contextualising

Demonstrating knots as part of an activity (so giving them purpose) is another useful way to teach knots. Examples of activities where you might use them include den building, nature crafts and putting up a shelter. You could also incorporate knots into games/challenges so as to associate them with a fun activity and reinforce learning that way.

Stories/songs/rhymes

Using simple rhymes to describe how to tie knots can help participants, especially younger ones, to remember how to tie knots due to making them more memorable due to their rhyming or rhythmic nature, repetition or simply for being fun and hence reinforcing the learning further. An example of a rhyme for tying a reef knot is:

Right over left and left over right, Makes the knot neat and tidy and tight...

Another way to make knots fun (and as an incentive to practise more!) could be to give participants the strawberry laces to tie into various knots and eat them when they've achieved it!

Q5. Explain how to make 4 craft items using a range of techniques (at least 2 items should be made using woodworking hand tools) and describe the process of facilitating craft making with client group

To answer the question, you need to consider your choice of materials, as well as tools appropriate to the age and development stage of the participants. You also need to consider the following techniques:

1. Woven
2. Joined
3. Shaped
4. Carved
5. Split

Craft 1

Craft name	Leaf Wands
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<p>Step-by-step making process</p>	<ul style="list-style-type: none"> ● Collect a stick you wish to use as the wand - be mindful of other when carrying the stick and remember to choose one which is shorter than the length of your arm ● Collect natural materials you want to attach to your wand using a basket or other vessel provided ● Arrange the materials on the stick how you wish and attach them using coloured wool and/or sticky back tape, if you need help here, just ask ● If you want, add other materials supplied such as stickers and feel free to draw or colour on it to personalise it further ● Have fun playing with your wand, maybe it can do something magic?!
<p>How it can be taught</p>	<ul style="list-style-type: none"> ● This is a good activity, along with the nature crowns, as an introductory activity for younger children as it encourages them to go and explore the site and collect natural materials. This gives you a good indication how comfortable they are in the setting and whether they are drawn to the natural surroundings as a resource or the materials brought in. ● I introduced the craft as an option during the first session after having encouraged them to explore and observe what natural materials were around them ● I added some excitement by talking about what the wands could be used for ● I described how to make them and showed one I had made earlier to give it some context ● I also had laid out a visual guide for the children to follow which I'd made in advance, along with the resources they needed to complete the task, that way making it as child-led as possible but also appealing different learning styles ● When they were making them, I encouraged them to collect their own materials to personalise it referring back to what we'd seeing on our earlier exploration ● I demonstrated a simple knot which they could use to attach the leaves etc as they were a young group but also provided double sided sticky tape in case this was too challenging for some

Photo(s)



Craft 2

<p>Craft name</p>	<p>Tree Cookies/Medallions</p>
<p>Step-by-step making process</p>	<ul style="list-style-type: none"> ● Once briefed on the correct use of a bow saw as described in my Practical skills cards and it has been demonstrated, put on the appropriate PPE. ● Then start by sawing a small section of wood off a suitable log under the guidance of the FS leader ● Collect the medallion after it's fallen to the floor and the bow saw has been put aside ● To make a hole in the medallion, place it on a stump or other hard surface and use a palm drill under the guidance of a FS leader to drill a hole in the desired spot ● Attach a length of string or coloured wool to the medallion if you wish using a knot demonstrated or one you already feel confident with ● Decorate your medallion how you wish using supplies provided and/or what you find in nature!
<p>How it can be taught</p>	<p>These are a very versatile craft as can be used in many different ways. One example is during a minibeast themed session. Participants could make minibeast medallions based on the bugs they liked most such as those pictured. Another fun use could be in a game like we did in our practical training sessions. The individual medallions were used to make 6 ladybirds with spots from 1 - 6. Separately to this I made a dice (but you could use a normal dice) and a child would need to find the corresponding ladybird for the number rolled on the dice. You could incorporate the wood cookie making with making natural paints with spices etc or with using charcoal from an old fire, like with our ladybirds and die. Not only do Tree cookies encourage an array of skills, they are nice take homes so good items to make at the end of a FS programme.</p>

Photo(s)



Craft 3

Craft name

Making a wooden mallet

<p>Step-by-step making process</p>	<ul style="list-style-type: none"> ● Brief group on safe use of bow saw and bill hook as both are needed for this craft activity ● Select a piece of suitable green wood approximately the thickness of an adults arm ● Choose how big you want the end of the mallet (the hammering part) to be at the end, approximately a hand's width ● Prepare to use your bowsaw safely (as per my practical skill cards demonstrate) ● Cut a groove approximately the depth of the blade at the length you have chosen for the mallet head, cutting all the way round, making sure you don't cut too deep. This will be your stop cut ● Then cut off the wood at the length you wish the handle to be, again approx a hand's width, so you're left with a piece of wood which will be the full length of your finished mallet ● Position the piece of wood, handle side up on a secure log/surface ● Prepare to use your bill hook safely ● Use a mallet to gradually cut sections of the handle up to the stop cut by holding the bill hook horizontally on the top of the piece of wood where you want to cut, and hammering it ● Turn the piece of wood to remove the sides of the handle to the desired thickness but pretty much in line with the groove you have cut ● Smooth the edges of the handle with sandpaper and drill a hole with a palm drill in the end of the handle if you'd like to attach string
<p>How it can be taught</p>	<p>A wooden mallet has many uses so it could be made as a pre-cursor for its use in an activity during that session if time or for a following session. For example, the following nature craft - hapa zome - uses a mallet or hammer to bash the natural dyes out of the leaves or flowers. Mallets can be used for Den/shelter building also to hammer in pegs. They can be used when making/building fires to split wood with a billhook or knife. They can also be used for hammering nails, purely to practise that skill or for a craft activity.</p>

Photo(s)



Craft 4

Craft name

Hapazome - Japanese art of leaf bashing/printing


<p>Step-by-step making process</p>	<p>If you wish, you can make the mallet used for hammering as described in the last craft above.</p> <ul style="list-style-type: none"> ● Cut a piece of calico or other cheap, thin material into the shape you wish (can be made into bunting, framed in a hand crafted frame of various shapes etc) but large enough to host some leaf prints ● forage some soft, non-waxy leaves or flowers using the guidance of the FS leader (only as much as you need and nothing hazardous) ● Place a piece of paper or card onto a hard surface such as a wooden stump. Place the leaves/flowers/berries where you want them to show on the material which will be placed on top of them ● Place the piece of material over the natural materials ● Hammer the material repeatedly until the natural dies come out using a homemade wooden mallet or one provided ● Another option is to place the natural material on just one half of the material, fold it and hammer so you have a symmetrical pattern resulting when you open it up
<p>How it can be taught</p>	<p>This could form an activity within a session about plant/tree ID for example as participants could forage for selection of different leaves and identify them in the process. The appropriate texture ones could then be used for the hapazome. This is a great activity for younger children to introduce some basic hammering skills as the surface being hammered is quite large so allows some room for error when they are honing their new hammering skills!</p> <p>It can also form part of a bigger activity if you make the mallets used in the hammering first, therefore using a number of different tools. To extend the hapazome activity you could make frames for them which would utilise a number of different knot types such as clove hitch and square lashing as well as reef knots if you tie off the square lashing with those.</p>


Photo(s)





Q6. Describe the process of erecting group shelters using tarp or natural woodland materials and explain the facilitation process with participants

To answer the question, you need to explain the process of erecting a shelter by describing the following:

<p>Purpose</p>	<p>The purpose of a shelter may be to provide protection from the elements such as rain or sun. It could be to create a working area for tools or tother zone within a woodland environment which might not otherwise have distinguishing features to young children at least. A shelter might also be erected for privacy such as for a nappy changing area or to hide a toileting area. A shelter can also act as a fun place to play like a den for a game!</p> 
<p>Site conditions</p>	<p>Ideally you would want a flat surface for a shelter as the likelihood is that people or things will be under it at some point if not for the duration of a session if using to protect from rainy weather. You would need to ensure no major trip hazards were in place or if so highlight them to the group somehow, with a cone or ribbon, and clear of any hazardous basal growth. If you are erecting a raised tarp</p>

	<p>shelter for a group you would need to ensure there were the necessary anchor points; trees well spaced for a ridge line and possibly for guy lines and enough available clear space to stretch out the guy lines.</p> 
<p>Weather conditions</p>	<p>You can put a shelter up in nearly any weather condition but might be more inclined to do so if it's due to be sunny or rainy for the purpose of protection. If you are presented with unexpected rain it is possible to put one up (like I needed to do in the picture above!) but certainly not as easy so best to plan and do it ahead of time. However, there may be a limit to what you can achieve in very windy weather as your tarp or other materials will be blowing everywhere. That said, if it was due to be very windy you will likely have cancelled your session for safety reasons so probably won't be challenged with this tricky task! If there is only likely to be a light wind or one which doesn't require cancelling you will need to consider the direction of the wind in order to prepare an effective or more secure shelter in order for it not to act as a sail! If the wind is due to be accompanied by rain you will also need to consider the angle of the shelter sides in order to prevent too much rain entering.</p> <p>If it is due to be sunny all day, this will need to be a consideration when erecting a tarp for use as protection all day as will need to adapt to the moving sun.</p>
<p>Materials available</p>	<p>If there are enough natural materials around you such as straight tree poles, branches, leaf matter and dense brush, you can build a shelter using those alone, especially if it's as part of an activity rather than needing to be functional for a whole group session. If you didn't have enough materials and needed it to function as a rain</p>

	<p>shelter you could always throw some bin bags and raincoats over the top!</p>  <p>However, at the very least it's best to always carry a lightweight 3x3m tarp or bigger with you in case you need an emergency shelter along with guy lines to affix it to trees and some pegs in case trees aren't an option. You might also want to invest in some poles (like I have) if the sites you'll be using don't have many trees or are even treeless. Alternatively you might be able to whittle some long branches to use for this purpose instead. Ideally only heavy duty tarpaulins should be used as ground sheets so they don't tear and can add some warmth and/or protection to the surface.</p>
<p>Rationale and design</p>	<p>The design of the shelter will often depend on the rationale for erecting it in the first place and its intended use. If you're going to expect sideways rain you will want to erect a shelter with low sides against the wind. If it's to protect from the sun, you will want to erect something which can be adjusted to accommodate/shelter from the moving sun. If, however, it's for privacy, storage or somewhere to take a nap (like the one pictured below which I loved learning and recreating a number of times) then you need to position it for the intended purpose. No matter what the shelter is for, it should always be secure, stable and as safe as possible. This includes considering the different heights of people using it so as not to cause a choking/strangulation hazard and also warning of trip hazards where guys might be fitted low down.</p>

	
<p>Construction techniques</p>	<p>The construction technique will depend on all the above; the purpose, site conditions, materials and design. However, there's a couple of construction techniques for a tarp and natural shelter which I've used regularly during sessions so will cover those.</p> <p>Natural shelters/dens: To build a natural shelter you first need a sturdy structure or backbone which can be created using a strong, long tree pole with a Y shape at the top and another long pole resting in the Y with the other end on the ground. You can then add further poles and sticks to make the structure secure by leaning them against the backbone at an angle of approximately 45 °. You can then add leaves and branches over the top for insulation or waterproofing.</p> <p>Tarp shelters: First you need to create your ridgeline, which is the equivalent to the backbone above, and to do so you need a taut guy line ideally situated between two strong trees. You can tie the first end using a simple knot such as a half hitch then on the opposite side, to create tension, you will need a tensioning knot such as a taut tarp hitch. Then you're ready to throw the tarp over the ridge line and configure it in the position which best suits your needs. Most commonly this will be along the central fold to create an A frame but you could also create an arrow shape to protect more from rain/wind, flat or as a lean to style. You then need to tie off the corners of the tarp using guy ropes, making sure not to create creases which could cause pooling.</p>
<p>Dismantling process</p>	<p>With the natural shelters, like that described above you should dismantle it in reverse to how it was erected so that it doesn't just</p>

	<p>collapse in on itself and pose a safety issue. That way you can also return the materials to where they were found. The idea is to leave no trace. The same would apply for a man made shelter, loosening the guys first, tying them into bundles to store and removing the tarp, drying it if needed, and folding it away neatly for next use. Be sure to collect up any pegs you used and tidy away any spare string.</p>
<p>Group interaction</p>	<p>If the shelter is being built as part of a session or at the start to facilitate the session the group could interact at all stages of the process from choosing the site/location, then the design based on its purpose and the weather then finally the construction and demolition!</p> <p>Not only does this group discussion offer a good opportunity for social and communication development as well as problem solving but it will likely lead to a more thought out structure. That said, only if the more outspoken of the group have the 'best' ideas or allow others to contribute! By Facilitating as the FS Leader you could try and overcome that issue.</p> <p>Once the shelter is built, it offers a space for the group to interact in a way it might not have without it adding to the dynamics of a session and increasing the play opportunities.</p>
<p>Ecological impact</p>	<p>When building a natural shelter you will need to move tree poles around and possibly cut some green wood if needed for coverage. These will both have an impact on the environment. To help mitigate the impact you could limit how often you build natural structures, bring in wood from elsewhere or have specific wood piles especially for this purpose to minimise the disruption to habitats. Material should always be put back where it was found if collected on site to return the site to its original state.</p> <p>There could be some ecological impact from building a tarp shelter too, especially if the same area is used time and time again as the soil underneath may become quite impacted from footfall. Also the trees which are used could suffer a bit of bark damage. Similarly to natural shelters you could help mitigate this impact by limiting how often you erect them or having designated spots to avoid too much disturbance at other locations.</p>

How would you teach this process to participants?

I might make it part of a game or challenge to make the task more exciting/purposeful but of course just needing one as protection is reason enough to teach how to do it! It could be taught when discussing habitats with a group - what makes a good habitat can also make a good shelter. Anyway, in order to teach the process and ensure a safe, secure shelter is built, the group would first need to know the variety of knots needed to build one, if using a tarp, so these could either

be taught in this context or referred to if used previously, demonstrating them again in order to ensure they remember them accurately for success. Another skill you might want to demonstrate, if not already learnt, is how to hammer pegs in the ground as anchor points for guys which they could then practise in small groups under supervision. You would then want to demonstrate how to erect the shelter either by showing it to the group or with a series of visual aids accompanied by a discussion. Either way, they should have ideally seen one in the flesh previously.

When building natural shelters/dens these could also be introduced as part of a them/game like above but you could talk more about the natural materials being used, why they are important in the woodland environment and must be replaced etc. You could also teach them about the physics of why the natural materials need to be made a certain way to be successful.

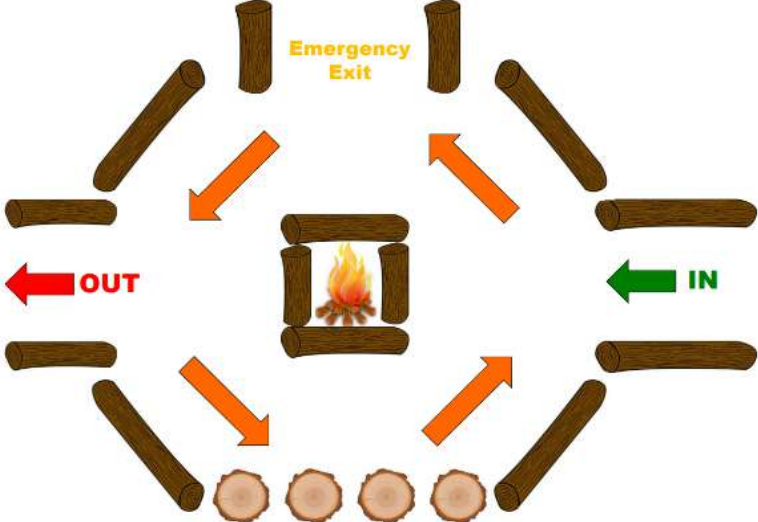
In order to involve everyone in a group, if it's a large group you could divide the tasks needed for building the shelter so everyone has a task and feels involved in the final outcome. For example, some could get the necessary materials together whilst others look for the appropriate site.

Q7. Describe the process of building, lighting and managing a camp fire safely and explain the facilitation process with participants

*To answer the question, you first need to explain the process of **siting a fire** by describing the following:*

<p>Site conditions & safe positioning</p>	<p>The conditions need to be suitable in order to have a fire on site. A designated area for fires is ideally used which is:</p> <ul style="list-style-type: none"> - free of flammable peaty/leafy/woody areas that might ignite and smoulder unseen underground - free of tree roots as this can cause significant damage to trees In order to determine this you may need to dig down to assess the soil type and dig an underground fire pit if the top layer is deemed flammable. - free of trip hazards such as plants, brambles, logs, sticks, holes, lumps and roots. - free of overhanging vegetation as it can pose a fire hazard - free of any porous stones, especially flint which can explode under heat - large enough to allow participants to sit at a safe enough distance away from the fire on logs or similar - large enough to allow participants to move within the fire circle if needed to enter and exit the fire circle <p>Fires will not be lit in either extremely dry or windy conditions. I use Met Office warnings to gage these:</p> <ul style="list-style-type: none"> - If a RED warning is issued, session is cancelled
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	<ul style="list-style-type: none"> - If an AMBER warning is issued, refer to Risk Assessment and add appropriate measures for the session - If a YELLOW warning is issued, go ahead with appropriate and regular monitoring
Site permissions	<p>Permission needs to be granted from the land owner or manager, without that you would not be covered by insurance should there be an issue/incident involving the fire. In my circumstance this is the council who have given me permission for using fires in accordance with my fire policy.</p>
Fire legislation	<p>There is obviously a need to use common sense when using fires and take all the necessary precautions listed in this section however, there is no specific legislation which prevents the use of fires on sites where permission has given, providing they don't cause a nuisance by:</p> <ul style="list-style-type: none"> - letting smoke drift over public roads and affecting vision to road users - generating toxic/dangerous fumes - building them too close to fences or buildings <p>It is courteous and sensible to also let the landowner and other necessary stakeholders know in advance that you intend to build a fire so they are not alarmed if they see smoke in the area.</p>
Escape routes	<p>Like in the below diagram of a fire circle plan in 'Site Prep', it's important to have an escape route established which is communicated to the group when the briefing is done. For younger participants, in particular, you should carry out a fire evacuation scenario to check they understand its use but also that it's effective in managing the situation.</p>
Soil Type	<p>Check the soil type so you know how best to manage the fire. You'll need to clear the layer of leaf litter first then dig down a little to expose the soil type, the more dense, the less flammable but it will also depend on the soil type as follows:</p> <p>Clay = Non-flammable Stony/soil = Non-flammable Brown muddy soil = Non-flammable Peaty = Flammable Light, fluffy, woody = Flammable Leaf litter = Flammable</p> <p>If the top soil is flammable but there's non-flammable soil underneath you could instead have a sunken fire on top of the non-flammable layer or use a fire bowl.</p>
Site preparation	<p>Make sure you choose a fire which will fit well in the space/site you have available for use. Creating a plan could help ensure everyone is clear on how the space should be used safely when carrying out cooking activities.</p>

	<p>Clear the area to make it safe for use as per the conditions listed above. Design the space according to your plan, for example like this one from Learning in the leaves.</p>  <p>Key Rules</p> <ul style="list-style-type: none"> • Only enter the circle through the 'IN' entrance. • Move round the circle in an ant-clockwise direction. • Take a seat on a log or stump around the edge. • Only approach the fire with the permission of the leader. • Only exit the fire circle through the OUT exit. • Walk to the Emergency Exit if there is an Emergency and it's your closest safe exit. <p>If you can set up a fire which has a natural/man made boundary behind it, that can act as a no go area and prevent you having a blind spot.</p>
<p>Safety equipment</p>	<p>You will need to have the following items within easy reach to be as safe as possible:</p> <ul style="list-style-type: none"> - A bucket or even 2 of water for extinguishing fire or for burns - Fire Gauntlet gloves or fire safety gloves - First aid kit containing appropriate burns management items - Fire blanket

<p>Managing the surrounding area</p>	<p>This should be done in accordance with the plan and conditions for safe fire use listed above in order to minimise accidents and injury as a result of the area around the fire. You should also consider any possible ecological impacts, for eg removing any overhanging branches which could be a fire hazard and cause damage to the tree.</p>
<p>Seating distances away from fire pit</p>	<p>Participants should be seated at least 2m away from the fire when they're not using it with an inner circle 1m away from the fire source.</p>


<p>Minimising ecological impact</p>	<p>There may be some impact from your fire due to the area which must be cleared for it causing disturbance of natural habitat and the use of natural materials to burn, destroying natural habitats and organisms associated to them. This can be mitigated to a degree by outsourcing wood and ensuring you reuse wood that isn't completely burnt on first use. There may also be some impact from the heat of the fire itself, especially if built directly on, or in the ground as the organisms/plants which can't move away cannot withstand such high temperatures. To reduce the impact, the soil should be returned to it's original state as much as possible, so if removed, put back and ideally the same spot used as much as possible.</p> <p>Fore bowls can reduce the impact of fires directly on the ground and also reduce the risk of underground fires.</p> <p>To further reduce the ecological impact, fires should be well extinguished after use to prevent further heating and possible spread.</p>
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You then need to explain the process of **building a fire** by describing the following:


<p>Building the fire pit base and surround</p>	<p>Check soil type, if it's high risk build an outer ring of big logs or non-porous stones to act as an additional barrier between the fire and the surrounding soil and sink the fire into the ground to avoid the top, flammable layer.</p> <p>If low risk you can prepare the area for the fire pit by clearing away any leaf litter/debris with space around it in case any logs/embers spread outwards as the fire burns. You can border the fire with some logs to act as another visual barrier before the fire. Then continue to build around the fire according to your plan such as that in the section above 'site prep'.</p>
<p>Types of fire Lays for different purposes</p>	<p>The Waffle Lay or Pyramid lay is ideal when you are wanting a fire which needs little attention once lit as it does not need a lot of feeding, given the largest pieces of wood are at the bottom so keep it alight for a decent amount of time. It's great when you have a good selection of different sized pieces of wood which you have been able to prepare in advance as it requires you building layers (a bit like jenga) from the bottom from biggest to smallest. These should be used when making kelly kettle fires also.</p>



A teepee fire is better when you don't have access to such a variety of different thickness wood or if it's all rounded rather than with square sides to stack nicely. Plus it's a good fire to choose if you want to have participants contribute to it's maintenance by feeding it regularly. It is built in reverse with the kindling and smallest pieces of wood/sticks in the centre and a pyramid is built up around it, like a teepee, gradually with thicker and thicker sticks.

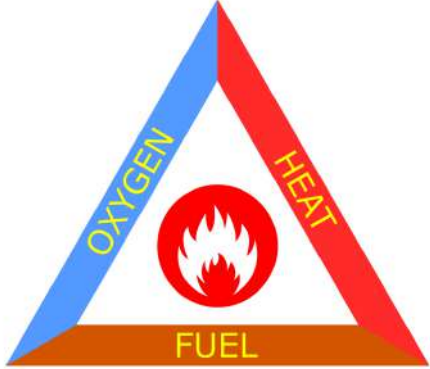
	
<p>Non-toxic types of wood to burn</p>	<p>NEVER use Lebernum or yew tree as they are toxic plus avoid wood which has paint on as that can also give off nasty fumes/smoke. Ideally use proper firewood as that will produce the least smoke as it will be well dried and non toxic or green. This is also preferable with younger kids as they may be put of by excessive smoke due to the irritation it can cause to eyes and lungs! Hardwoods such as ash, sycamore, oak, beech, birch and hazel are all non-toxic and burn for a long time.</p>
<p>Weather considerations</p>	<p>Fires should not be lit in either extremely dry or windy conditions. I use Met Office warnings to gage these:</p> <ul style="list-style-type: none"> - If a RED warning is issued, session is cancelled - If an AMBER warning is issued, refer to Risk Assessment and add appropriate measures for the session - If a YELLOW warning is issued, go ahead with appropriate and regular monitoring <p>If there is very heavy rain forecast, it's probably best not to plan a fire but it can be built in rain with a tarp high overhead, just consider that this might cause smoke to gather under the tarp and there is possibly less wind meaning the fire is not only damp from moisture in the air but struggling to get the air it needs to stay alight.</p>

You then need to explain the process of **lighting a fire** by describing the following:

<p>Range of fire lighting methods including fire strikers</p>	<p>If you have various options available (matches, lighters, strikers and friction fire apparatus) you will likely decide the type of lighter you will use based on the age of the group and the outcomes for the session. For young participants, fire strikers are probably best as they are safer than matches and lighters as they don't produce flames just sparks plus they're easier to handle/manipulate. They also better explain how the fire is made/ignited.</p> <p>If you are wanting to teach a whole new skill aside of the building/making/lighting of a fire you might want to teach how to light a fire using the friction method, creating the apparatus from scratch!</p> 
<p>Types of tinder, kindling and fuels</p>	<p>Natural tinder can be used - tiny dry twigs, hay, dry grass or silver birch bark is very flammable. Cotton wool is a good tinder for young people to use and burns longer when dipped in a little vaseline.</p> <p>Kinder needs to be very dry in order to catch fire easily as the tinder burns onto it. It should be organised in size order so it's easy to add the size needed in order to keep the fire going (smaller pieces if it's looking like it's going out and larger pieces when it's got going). They can be made by cutting smaller wedges of wood off a larger pieces or by foraging twigs and small branches.</p> <p>For fueling the fire you need larger pieces of wood which will burn longer; big branches, tree poles or larger tree poles chopped into smaller pieces with an axe or bill hook and mallet. It should all be as dry as possible so it</p>

	burns better and creates less smoke. You should only use non-toxic varieties and ideally hard woods.
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Finally you need to explain the process of **managing a fire** by describing the following:

The fire triangle	<p>In order to have a successful fire and maintain it, it must have elements as demonstrated by the fire triangle:</p>  <p>If at any point the fire starts to dwindle, check these elements as a lack of one or more of them will be causing this. If it's Oxygen, you can gently blow on the fire, create spaces between the burning wood or fan it with something, being very careful not to dislodge burning embers. If it's heat, you may need to check whether it's getting wet and protect against the rain or add more tinder to create more heat and allow it to burn better. If it's lacking fuel you can simply add more but start with small pieces so as not to smother the fire and to get the heat and fire back up first.</p>
Size and types of fires	In FS you should only build a fire for its intended purpose so its always fairly small and manageable. You might just need a very small fire in the base of a kelly kettle or you might want a larger, more open fire for cooking on or for keeping warm on a cold day.
Management of resources	All the resources you need to build and manage a fire should be kept within reach of whomever is tending to the fire. These include the fire safety items listed earlier, kindling and other fuel and fire lighters. You should be sure that any resources used to prepare for the fire, such as tools to whittle kindling or cut wood are cleared away properly in advance of gathering round the fire. As deadwood is a precious resource in woodlands for nature/habitat, it's best not to use too much and to bring in your own fuel if you are making fires regularly. Try and only use as much fuel as you need for the duration of the activity so as not to waste it. This also helps when it comes to extinguishing the fire.

Describe the process of facilitating the safe use of fire with participants, making sure you take the following into consideration:

1. *Differentiation, age & developmental stage*
2. *Previous experience of participants*
3. *Ratios*
4. *Insurance*
5. *Group and behaviour management*

Before engaging in any fire activities, you need to have passed your practical assessment and upgraded your insurance to cover fires and tools so that you are insured for those activities should any incident arise.

Following that you need to have permission to carry out the fire as your insurance might otherwise be invalid. If you are unsure whether permission has been granted due to being at another site for example, it's best not to do it.

Once that, and the necessary risk assessment for the site has been carried out you can consider whether it's appropriate to build a fire with your particular participant group based on their age, abilities, temperament on the day and whether the conditions are appropriate based on the above sections.

If it's felt that the group are ready to take on the challenge/responsibility and you have the right number of staff/helpers for safe ratios (at least 2 per group of up to 15 children, more for younger and always one leader in the fire circle when the fire is lit) then you can go ahead with the task.

In order to manage behaviour more easily, it's best to split bigger groups into smaller ones and ask them to consider what is needed for the fire and then get working on those particular sub-tasks.

You should involve them in all the safety discussions/briefing so they take ownership of their responsibilities and better understand the need for all the 'rules' surrounding the fire which otherwise might not be in place in a FS setting.

Before the fire is finally lit you must ensure the fire has been set up according to the plan, that everyone is aware of the agreements surrounding the fire and where the escape route is then you should ensure they all have the necessary PPE to hand and that they have loose clothing, jewellery and hair tucked away.

Q8. Describe the process of cooking with fire, using 2 cooking methods of your choice and taking food hygiene and safety into consideration

Describe the process of cooking with fire, using cooking method 1

Damper bread on sticks

1. Make a fire.

Ask the participants to help collect wood for the fire, indicating the three sizes needed; thin twigs like string, thicker sticks like pencils and thicker branches/sticks like thumbs. Once enough kindling collected, build the fire using the waffle method as described earlier in a fire pit and remind the participants about fire safety (hair back, 2m distances, no running in circle etc) and the fire triangle. It's best to use proper firewood with new participants especially, so it's less smokey and off putting! Light the fire and allow it to burn down until there are no large flames and the wood is glowing.



2. Collect ingredients and sticks to make and cook the dough.
Ask the participants to find 6 wooden discs in the forest which have the ingredients listed on the string as well as straight, green stick about 1m long. Take the ingredients list to a member of staff to collect them, wash hands well and make the dough by mixing all the ingredients until the dough is stretchy and pliable. Whittle the end of the stick following guidance from the FS Leader to make it approx 1-2cm in diameter at on/the thinner end and wrap some foil tightly round that end, covering approximately a third of the stick. Then then take a small handful, roughly the size of a golf ball, of the dough each and roll it into a thin sausage. Wrap it around the foil in a coil so the edges of the dough touch



3. Cooking

Ask the participants to take a sturdy stance, either sitting or kneeling, holding the stick out until the bread is over the burning embers. The stick can be rested on a log as it takes quite a while to cook through but be sure to rotate it fairly regularly to stop it from burning on one side. Once cooked on all sides, which you can tell from it turning a golden colour, allow for it to cool for 10 mins or so and then slide it off the stick and enjoy!



Describe the process of cooking with fire, using cooking method 2

Doughnuts in a dutch oven.

1. Make a fire.

Ask the participants to help collect wood for the fire, indicating the three sizes needed; thin twigs like string, thicker sticks like pencils and thicker branches/sticks like thumbs. Once enough kindling collected, build the fire using the waffle method as described earlier in a fire pit and remind the participants about fire safety (hair back, 2m distances, no running in circle etc) and the fire triangle. It's best to use proper firewood, with new participants especially, so it's less smokey and off putting! Light the fire and allow it to burn down a little until there are no large flames.

2. Prepare the dough for the doughnuts.

Make sure hands are clean. Collect all the ingredients needed if making on site or get the pre-made dough. If making, the ingredients are (2 cups of all-purpose flour, 1 tbsp baking powder, 1 tbsp granulated sugar, 1 tsp salt, 5 tbsp hard/cold butter, unsalted, 3/4 cup milk, I use whole milk). Add dry ingredients to a bowl and mix well. Grate the butter into the dry ingredients and mix well. Add milk and just about mix together, do not over stir. transfer dough to a flat floured surface and flatten with hands, folding over until it holds well. Flatten the dough either by hand or very gently with a rolling pin to about 1cm thick and cut out circles using a camping mug/cup. Punch out the holes with your finger/thumb! re combine and flatten leftover and make more donuts if possible.

3. Cooking.

Once the fire has burned down enough put a grill on top of the pit using Gauntlet gloves and fill with sunflower (or similar) oil. Allow it to reach a high temperature, checking by adding a little dough and seeing if it bubbles and cooks it. Once hot enough make sure the donuts are lowered in one by one using a spatula or similar. Allow for them to cook on each side, flipping with tongs, for about 2-3 minutes until golden brown. Remove using tongs and place in a heatproof clean bowl. Meanwhile someone can prepare any toppings you wish to roll them in but cinnamon and sugar is super easy and delicious! When just about cool enough to handle, roll each donut in the sugar so all sides are coated and enjoy!



Describe the process of facilitating safe camp fire cooking with participants, making sure you take the following into consideration:

- 1. Differentiation, age & developmental stage*
- 2. Previous experience of participants*
- 3. Ratios*
- 4. Insurance*
- 5. Food hygiene procedures and policy*
- 6. Group and behaviour management*

Refer to previous answer regarding safe camp fire use before setting up a fire for cooking. If appropriate permissions have been granted and insurance in place, ratios for safe cooking should have 2 adults per group as a minimum with no group exceeding 16 and more adults when children are below the age of 6. A FS leader must remain in the fire circle the whole time the fire is in use and lit. After the leader has carried out a dynamic RA on the age/ability/temperment of the children and feels they are ready to use the fire, they can be invited one by one to have a turn at cooking. If it is felt they are responsible enough to cook as a group then all the necessary safety

guidance and how to hold the cooking apparatus and sit near the fire needs to be given before they approach. Open fire cooking and in Dutch ovens etc should be reserved for participants with a bit more experience as the risk of being burnt is higher due to the closer proximity needed to the fire. Before introducing any food to a group, all medical records should be checked in advance for allergies/intolerances etc and catered for accordingly.

Food Hygiene

Anyone who will be touching any food needs to have washed their hands with soap and water before handling it so hand washing facilities should always be provided. Participants should be advised about germs and how they spread to minimise this risk. This applies not only to hands but all equipment and utensils being used which must be clean before use too.

Participants need to be taught about how to handle certain foods and how to cook them properly (meat thoroughly, wash between handling it and other ingredients, avoid cross contamination between meat and veg etc) to reduce the risk of food poisoning.

Participants should be advised not to taste food and return utensils to the food, avoid food fallen on the ground, wash hands in between handling certain food s and if they get dirty again.

When the food is being served, ensure everyone eats with clean hands and use clean plates etc.

Advise of the possibility of burns from piping hot food, not just the fire itself and remind participants to wait till food cools before eating, especially if younger children are participating (cunting can help).

Have facilities available for disposing of any food waste at the end and ensure everything is washed up properly afterwards.

Q9. Describe the process of extinguishing fires safely and leaving the site safe

*To answer the question, you need to explain the process of **extinguishing a fire**, making sure you take the following into consideration:*

- 1. The site geography*
- 2. The need to minimize ecological impact on soils and woodland ecology*
- 3. The need to follow Leave No Trace principles*
- 4. Cross referencing to management plan and ecological impact assessment*

Before the fire can be extinguished, the flames need to have ceased completely which should be achievable if the amount of fuel being added has been monitored/controlled effectively and is based on the duration of the activity in hand.

Break up the remaining hot coals/embers with a strong stick or metal tool such as spade. When they have died down further, ideally to something closer resembling ash, slowly trickle water over the embers. It's very important not to cover them all in water in one go as this can cause a dangerous flash of steam to be produced.

If the fire is in a pit, cover the embers completely in water and allow some time for them and the fire pit to cool. If the fire is on the ground, encourage the water to drain away by stirring the embers and poking some holes in the ground with a stick.

Once cold you can remove any partially burnt pieces of wood which must be removed from the site (especially in the case of my site as it's public site). Empty contents of the fire pit into a hole which you can hide/cover or recover the ground with original matter if the fire is on the ground so as to leave no trace or evidence of a fire having been used.

Fire pits should be used when the ground/soil is flammable and also consider using one to minimise ecological impact and if using the ground then a plan should be in place to minimise ecological impact by rotating the fire area for example.

Describe the process of facilitating safe extinguishing of fires with participants, making sure you take the following into consideration:

- 1. Differentiation, age & developmental stage*
- 2. Previous experience of participants*
- 3. Ratios*
- 4. Insurance*
- 5. Food hygiene procedures and policy*
- 6. Group and behaviour management*

Refer to previous answers for information on insurance, ratios and safe fire use.

When teaching participants how to extinguish a fire, consider their age and experience. If they have not been involved in the activity before they will need to see it modelled first with clear guidelines to ensure they do it safely.

All fires need to be extinguished at the end of the session using water and a leader should be present throughout this process to ensure it's done safely. Participants can help by collecting water in a bucket and being invited up one by one to pour a cup of water on the fire, using it as an opportunity to make a wish or reflect with a few words. They should be advised where and how (slowly) to pour the water so it doesn't cause too much steam or ash throw back. If a participant has asthma it's best to keep them at a distance when extinguishing a fire and also if there is excessive smoke when the fire is burning.

Once the fire has been completely extinguished and the contents had time to cool, participants could aid in scattering the ashes safely through the woodland to enable proper decomposition ensuring there is no obvious signs of the fire remaining. They can also help with recovering the fire area, if on the ground, with the forest material which was there previously or turf if on a grass area.

LEVEL 3 PORTFOLIO TEMPLATE

UNIT 5 – THE WOODLAND ENVIRONMENT

Q1. Define and compare the structure and biodiversity of native broadleaf and coniferous woodland ecosystems.

*To answer the question, you need to describe the vertical and horizontal ecological structure of **British broadleaf woodlands**.*

These are the dominant woodland areas in the UK and most of temperate Europe. They are usually rich in biodiversity as they can include a wide variety of different deciduous (broadleaved) trees such as oaks, birches, beeches, hazels and ash. The trees respond to the seasons, growing when the weather warms up in spring and summer and losing leaves and saving energy when the weather cools over autumn and winter. This seasonality allows different plant species to grow at different times of the year and these can be seen within the natural layers of the forest.

The various physical layers seen within broadleaved woodlands, both horizontally and vertically, enhance the rich biodiversity found within them as they support a variety of plants/trees and wildlife as a result. Over 50 different types of woodland have been defined in the UK based on their varying composition which results from factors such as varying soil type, topography, climate and geology. The layers seen within a broadleaf woodland are as follows:

Vertical layers	
Below ground	Below ground is made up of various layers. The top is the organic layer where soil dwelling invertebrates such as worms and millipedes live, which bring dead and decaying matter from the ground layer down enriching it for the plant and tree roots which are spread throughout it and the surface soil below. This is also where networks of mycorrhizal fungi live enabling the transfer of nutrients, minerals and water (and even information) between plant and tree species. The solid type will have an influence on the type of woodland which will grow.
Ground	This mainly consists of all the detritus (decaying leaf, plant and wood matter) which mosses, fungi and ivy thrive off. It also support a wide range of ground dwelling invertebrates which eat this such as millipedes, springtails, woodlice and beetles.

Field	This can also be called the herb layer which grows as a result of sunlight reaching the ground through the canopy. As such, the amount of growth/diversity of this layer is dependent on how the woodland is managed and the clearings which are present in the canopy. Typically you will find plants such as bluebells, bramble, nettles, wood anemone, sorrel, grasses, ferns and wild garlic. These plants then support a variety of food for invertebrates such as snails, slugs, caterpillars and bees and other animals and birds feeding off their fruits.
Shrub	This layer is made up of woody shrubs such as elderberries, non-native rhododendrons and holly and very young trees/saplings waiting for the opportunity to grow when light penetrates the area due to a fallen tree for example.
Understorey	This layer is just below the canopy and is made up of shorter, more shade-tolerant tree species such as hazel and field maples or younger versions of the taller canopy trees.
Canopy	This is the very top layer of the woodland where the most mature broadleaved trees are found such as oak, beeches and birches and block the light to the lower layers as they flourish in spring/summer causing the field/herb layer to be replaced by the shrub layer.

Horizontal layers	
Rides	These are created for access purposes so are usually linear open spaces, made up of several zones or vertical layers either side. These are often a central ground/grass layer, herbaceous zones neighbouring that followed by shrub, saplings and then the woodland canopy. Rides allow sunlight to reach the ground where otherwise the canopy would have blocked it, allowing a variety of other plants, especially herbaceous plants which are good for invertebrate populations, to proliferate. In fact, a greater number of species have been found to inhabit the first 10m of a woodland from a ride or edge than in the remainder of the woodland (EWGS - managing woodland open space for wildlife, 2005). There are therefore benefits to creating these access ways, (especially when in an east - west orientation due to more hours of sunlight), and managing woodland environments generally.
Banks	Similarly to areas of rides, glades and edges, these usually support plants and shrub layers to grow rather than trees so attract wildlife which are associated with these habitats. They can also act as a barrier or fence to wildlife to avoid overgrazing in a certain area.

Hedges	<p>Sometimes associated with features such as banks, roads, walls or fences, a hedge may be semi-natural occurring or manmade structure and managed or relict. They might act as a physical barrier to separate land from between owners as a boundary line for a house/garden but are also hugely beneficial to wildlife. Usually made up of native tree species such as hawthorn, ash, blackthorn, yew and hazel, they not only provide a safe refuge but provide a food source and a connectivity in a broken woodland environment now managed for farmland.</p>
Edges	<p>Ideally edges of woodlands should follow a sloped gradient to maximise wildlife benefit so either managed or maintained if natural. This slanted profile allows for the diversity similarly to rides and glades by allowing sunlight to reach certain parts and increase biodiversity as a result. Edges managed like this can also help prevent wind destroying trees as they slow the wind down as it passes into the wood and to the taller, perhaps more vulnerable trees.</p>
Glades & water	<p>Open glades in woodlands, similarly to rides, can lead to increased biodiversity by enabling more sunlight to reach the floor and hence more lower growing, herbaceous plants and native shrubs to take hold. These support an increase in native wildlife such as dormice and other small mammals due to an increase in more microhabitats/shelter in turn leading to more invertebrate species such as dragonflies, bumblebees and butterflies. This increase in insect population also benefits other small mammals and birds such as nightingales and chiffchafs as well as some reptiles.</p>
Aspect & topography	<p>The aspect and topography of an area may influence the vertical layers within a woodland. A steep hill or mountain for example might cut through a woodland completely acting as a natural barrier.</p> <p>A woodland on a slope facing south or south west is wetter in Britain so will attract species which find that favourable. A South-facing area gets more light and warmth than those with other aspects; north-facing areas get the least so that will affect the plants and wildlife it can sustain. A slope will accentuate this, and also enhance drainage.</p>

*To answer the question, you need to describe the vertical and horizontal ecological structure of **British coniferous woodlands**.*

Coniferous woodlands are usually less diverse as there are fewer coniferous tree species and they tend to be packed more closely preventing as much light from reaching the lower

levels. They also do not lose their leaves so the light reaching the ground is not affected by that process, only the seasons so there isn't as much variety/stages in growth seen amongst the different layers.

Vertical layers	
Below ground	The soil layer is an important component of the forest ecosystem. In a coniferous forest, the soil is typically acidic and nutrient-poor, due to the slow decomposition of pine needles and other organic matter. However, the soil is home to a variety of invertebrates such as termites and microorganisms, such as bacteria and fungi, which play a crucial role in breaking down organic matter and recycling nutrients back into the ecosystem.
Ground	The lowest layer of the forest, the ground layer is made up of soil, leaf litter, and low-growing plants such as mosses, lichens, and fungi. It is the foundation of the forest ecosystem, providing nutrients for the plants and animals that live in the forest and supports a variety of invertebrate species.
Field	It consists of shade-tolerant plants which thrive in acidic soil such as bracken, heather and wintergreens. These in turn support bird species such as grouse and capercaillie as seen in the Scottish coniferous woodlands.. These plants are adapted to low light levels and play a vital role in the forest ecosystem but there is usually less biodiversity in comparison to deciduous woodlands as less light reaches this level.
Understorey	This consists of smaller trees and shrubs that are able to tolerate low light levels but due to the dense nature of coniferous woodlands there isn't usually much sapling diversity. It may include species such as willow, holly and aspen but mainly pines species as mentioned below.. This layer plays an important role in providing additional cover for animals and birds that need to forage for food and shelter.
Canopy	In a coniferous forest, this layer is typically composed of evergreen trees such as Scots pine, Juniper and Yew (the only native UK species). These trees provide shelter and nesting sites for a variety of birds and other animals, as well as absorbing the majority of the sunlight that penetrates the forest canopy. There are lots of coniferous plantations in the UK which are grown for timber and may include species such as douglas fir and spruces.

Horizontal layers	
Rides	These strips between forested areas in coniferous forests can create pathways for wildlife such as deer and rabbits but can also lead to heathland and moorland vegetation.
Banks	Stream banks in upland conifer forests are now often cleared of conifers to allow natural regeneration of native flora. This also reduces the effects of acid rain. If unmanaged banks tend to be more exposed due to the nature of which conifers grow up rather than out allowing more light to penetrate and attract more species of plants to grow.
Hedges	Not usually associated with coniferous plantations, although gorse bushes are not uncommon.
Edges	As the soil is quite acidic, the main species which grow on edges are heathland species and shrubs.
Glades & water	Waterways are often found in coniferous forest due to them favouring cold climates so being in higher ground. If managed, native flora and fauna may grow in these openings increasing the biodiversity to the area, especially where trees are densely packed.
Aspect & topography	As mentioned, coniferous species prefer cooler climates so tend to be planted or grow in less favourable conditions for farmland and native broadland areas. These might be up high or on slopes and the woodland may be characterised by the topography of the land.

Define the following ecological terms

Biodiversity	Biodiversity, short for biological diversity, refers to the intricate variety of life forms that inhabit the Earth, encompassing the incredible array of species, ecosystems, and genetic variations within them. It includes the diversity of plants, animals, microorganisms, and their interactions with each other and their environments. Biodiversity is vital for the health and stability of ecosystems, as it contributes to ecosystem services such as clean air and water, pollination, nutrient cycling, and climate regulation. It also holds immense value for cultural, aesthetic, and scientific reasons, serving as a source of inspiration and knowledge while playing a crucial role in maintaining the balance of life on our planet.
Abiotic elements e.g soil and water	Abiotic elements, often referred to as abiotic factors, are the non-living components of an ecosystem or environment that significantly influence the functioning and characteristics of that system. These

	<p>elements include physical factors such as temperature, sunlight, water availability, soil composition, pH levels, and geological features. Abiotic elements play a fundamental role in shaping the distribution, abundance, and behaviour of living organisms within an ecosystem, and they interact with each other and with biotic (living) components to create a complex web of ecological relationships. Understanding abiotic elements is crucial for comprehending the dynamics and sustainability of ecosystems, as they set the conditions under which life can thrive and adapt.</p>
Natural succession	<p>Natural succession is a gradual and predictable process of ecological change that occurs in an ecosystem over time. It involves the progressive transformation of plant and animal communities, as well as other biotic and abiotic factors, from a relatively simple and barren state to a more complex and mature one. This process typically begins in areas where there is little or no existing vegetation, often after disturbances like wildfires or glacial retreat. Over time, pioneer species, which are specially adapted to harsh conditions, colonise the area and facilitate soil development. As the ecosystem matures, more competitive and diverse species replace the pioneers, leading to changes in the structure and composition of the community. Natural succession is a key mechanism through which ecosystems naturally recover and develop, highlighting the dynamic and adaptive nature of nature's systems.</p>
Ecosystems	<p>Ecosystems are intricate and interconnected networks that encompass all living organisms, their interactions with each other, and the non-living elements of their environment, such as air, water, soil, and climate. These systems demonstrate the complex interplay between biotic and abiotic components, showcasing how energy and matter flow through various levels of life to sustain the delicate balance of life forms and ecological processes.</p>
Habitats (including standing dead wood)	<p>Habitats are specific and distinct environments where particular organisms or species naturally reside and carry out their life processes. These spaces provide the necessary living conditions, resources, and interactions for the organisms to survive and reproduce. Habitats can vary widely, from terrestrial to aquatic, and encompass diverse elements such as plants, soil, water bodies, and physical structures. In woodlands, components like dead wood play a crucial role in providing habitat, serving as homes for various insects, fungi, and microorganisms, while also contributing to nutrient cycling and ecosystem health.</p>
Life cycles	<p>Life cycles refer to the sequential stages that an organism undergoes during its lifetime, encompassing birth, growth, reproduction, and death. These stages often include distinct developmental phases such as infancy, adolescence, adulthood, and senescence, each marked by characteristic physiological and behavioural changes. Life cycles vary widely among species, with some involving metamorphosis or complex</p>

	transitions, highlighting the diversity of strategies organisms employ to ensure their survival and successful reproduction.
Seasonality	Seasonality refers to the predictable patterns of change that occur in the natural world over the course of a year due to the Earth's axial tilt and its orbit around the Sun. These patterns typically manifest as distinct shifts in temperature, daylight duration, and weather conditions, influencing ecological processes, biological behaviours, and cultural activities in different regions. Seasonality plays a crucial role in shaping phenomena such as migration, reproduction, plant growth, and human practices tied to the changing seasons.
Food chains/webs	Food chains and food webs represent the interconnected relationships among organisms within an ecosystem, illustrating the flow of energy and nutrients from one organism to another. A food chain is a linear sequence that shows how energy is transferred as one organism consumes another; for instance, plants are eaten by herbivores, which are then consumed by carnivores. A food web, on the other hand, is a more complex and realistic representation that depicts multiple interconnected food chains, reflecting the intricate interactions and interdependencies among various species in an ecosystem.
The effect of light and photosynthesis	Light profoundly influences ecosystems through its pivotal role in photosynthesis, the process by which plants and other autotrophic organisms convert light energy into chemical energy stored in glucose. Photosynthesis drives the production of oxygen and forms the basis of food chains and ecosystems by providing energy-rich organic compounds that heterotrophic organisms, including animals and many microorganisms, rely on for sustenance. Light availability and intensity dictate the rate of photosynthesis, influencing plant growth, primary productivity, and the distribution of species within ecosystems. Consequently, light acts as a key driver of ecological dynamics, shaping biodiversity, nutrient cycling, and overall ecosystem health.
Wildlife corridors in relation to ecosystems	Wildlife corridors, in the context of ecosystems, are linear pathways or connections that link fragmented or isolated habitats, allowing for the movement and migration of various species between different areas. These corridors play a crucial role in maintaining ecological balance and biodiversity by enabling animals to access essential resources such as food, water, mates, and suitable habitats. By facilitating gene flow and promoting species dispersal, wildlife corridors mitigate the negative effects of habitat fragmentation caused by human activities, enhancing the resilience of ecosystems and promoting long-term sustainability.

Q2. Explain why flora and fauna identification is important for Forest School leaders

To answer this question, you need to write a short explanation, which should include some of the points listed below:

- 1. Identifying protected species*
- 2. Feeding into woodland management plans*
- 3. Sharing knowledge with participants*
- 4. Following Health & Safety*
- 5. Using plants for firewood, crafts or foraging*
- 6. Showing consideration for the site's sustainability*
- 7. Showing consideration for lifecycles and seasons*

Knowing which flora and fauna are present within a site empowers participants with knowledge and skills as well as safeguarding them against potentially dangerous hazards. It is a FS leaders role to keep participants safe and therefore providing this knowledge is part of that process.

Certain plants and animals can pose risks to individuals. Knowing which plants might sting, puncture the skin or cause allergic reactions or which animals to be cautious of helps ensure the safety of both students and staff during Forest School activities.

Knowledge of which flora or fauna can be used on the site sustainably for crafts and/or firewood (and in keeping with the management plan) will reduce the environmental impact on the site and enable longer/better use of the site.

Many areas are home to protected plant and animal species that are legally safeguarded. Identifying these species helps Forest School leaders avoid disturbing or harming them, ensuring compliance with environmental laws and regulations. Also by providing awareness about which plants and animals may be under threat due to climate change or direct human impact will hopefully foster a greater stewardship towards those living things and more broadly life on earth. This knowledge and passion will also hopefully filter to others who they interact with and encourage them also to take better care of the environment.

By understanding the life cycles of various plants and animals, FS leaders are able to enhance ecological knowledge by explaining concepts like pollination, seed dispersal and predator-prey relationships which fosters a deeper connection to nature. By understanding these stages they are also in a better position to provide a higher level of protection towards them. For example, knowledge of when and where an animal might nest or hibernate may prevent them from accidentally being destroyed or damaged during activities or in their own home.

In summary, incorporating flora and fauna identification into Forest School programs enriches the learning experience, promotes responsible environmental practices, and helps create a generation of individuals who are not only knowledgeable about their natural surroundings but also committed to preserving them for future generations.

Q3. Create an accurate Flora and Fauna ID learning resource for your own client group and site

To answer this question, you need to create an engaging and accurate Flora and Fauna ID learning resource for your own client group and site. Your resource needs to include detailed identifying traits for 24 species across a range of flora and fauna. Ideally, you should include 4 species for each of the below:

4 trees	4 plants	4 insects	4 mammals	4 birds	4 fungi
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For each species, you need to include:

- Their name
- A photo
- A description
- Their habitat
- Their lifecycle
- Health & safety considerations
- Their uses

SEE [Blodin Park Identification Guide](#)

Q4. Describe 3 sustainable woodland management methods to maintain and improve the long-term health of a woodland

To answer this question, you need to write a short summary for each of the 3 methods you choose. Methods can be selected from the list below:

1. Planting
2. Regular timber crops
3. Monitoring species
4. Rotating sites used
5. Managing dead wood
6. Habitat creation e.g boxes and habitat piles
7. Management of invasive species
8. Improving biodiversity
9. Techniques such as: coppicing, pollarding, thinning, managed grazing, scalloping and ride management
10. Managing and reporting Biosecurity

Sustainable woodland management method 1

Sustainable woodland management is crucial for maintaining and enhancing the health of forest ecosystems while also meeting the needs of human communities. These methods can be tailored to specific woodland characteristics, regional considerations, and management goals.

1. Habitat Preservation and Restoration:

Focusing on habitat preservation and restoration is essential for maintaining the biodiversity of a woodland. This involves identifying and protecting areas of high ecological value, such as wetlands, stream buffers, and old-growth stands. Restoration efforts can include planting native species, removing invasive plants, and creating deadwood habitats. By preserving and restoring diverse habitats, woodland managers ensure the survival of various plant and animal species, enhance ecosystem resilience, and contribute to long-term ecological health.

Sustainable woodland management method 2

2. Invasive species management:

Managing invasive species is a critical component of sustainable woodland management as it helps improve the long-term health of the forest ecosystem. Invasive species are non-native plants, animals, or microorganisms that can spread rapidly and disrupt the natural balance of a woodland. By addressing invasive species, woodland managers can:

- benefit biodiversity - invasive species often outcompete native species diminishing biodiversity so removing them can help restore this balance
- benefit ecosystem functioning - Invasive species can alter nutrient cycles, water availability, and other ecosystem processes. These changes can negatively impact soil quality, water quality, and the overall functioning of the woodland ecosystem.
- prevent habitat degradation - Invasive species can lead to habitat degradation by altering the structure and composition of the forest. This can result in reduced habitat suitability for native species, leading to declines in populations and potential extinctions.
- Support for Natural Regeneration: Invasive plants can inhibit the natural regeneration of native tree species by outcompeting young trees for light, water, and nutrients. Removing invasives can create conditions that promote the growth of native tree seedlings, aiding in the woodland's long-term regeneration

Sustainable woodland management method 3

Improving biodiversity:

This is essential for the long-term health of a woodland ecosystem. This can be achieved by creating various microhabitats through techniques like coppicing and pollarding. Coppicing involves periodically cutting back certain tree species to ground level, encouraging the growth of new shoots that can be harvested for wood products. Pollarding is similar, but only the upper branches are removed. These practices provide varied habitats for different species and extend the lifespan of individual trees. Deadwood retention is another technique that involves leaving dead or dying trees standing or on the ground, which benefits numerous fungi, insects, and other organisms that play vital roles in nutrient cycling and decomposition. Planting a variety of plant

and tree species can also increase diversity as attracts different animal species which may depend on them for food and shelter.

Q5. Describe at least 3 ways of involving participants in sustainable woodland management on a Forest School site

To answer this question, you need to explain the role of the Forest School Leader as a steward of the woodland and describe 3 ways in which participants could be involved depending on age and ability.

Forest school leaders play a pivotal role in engaging participants of varying ages and abilities in sustainable woodland management activities. By adapting activities to suit various physical and cognitive capabilities and tailoring their approach to needs and interests of the participants, they can promote a deeper connection with nature. Three ways to involve participants of different ages and abilities in woodland management of my forest school site include:

1. **Wildlife Habitat Creation:** Activities centred around creating wildlife habitats within the woodland. Participants can build birdhouses, insect hotels, and small mammal shelters. Younger participants can engage in artistic endeavours, like painting the birdhouses, while older participants can assist in constructing more intricate habitats. This approach not only supports local wildlife but also demonstrates the importance of biodiversity and ecosystem balance. Forest school leaders can also incorporate educational discussions about the specific species that will benefit from these habitats, highlighting the role each participant plays in supporting the local ecosystem.
2. **Ecological Monitoring and Mapping:** Engaging older participants in ecological monitoring and mapping activities can provide a valuable learning experience. We can teach participants how to identify different plant and animal species found in the site, record their observations, and even create maps of biodiversity hotspots within the woodland. This type of activity is particularly suitable for teenagers and adults who may have a greater capacity for detailed observations. The data collected can contribute to long-term sustainable woodland management plans and foster a sense of responsibility among participants.
3. **Planting native trees, shrubs, and flowers:** Participants of all ages and abilities can contribute by planting seeds, seedlings, or saplings according to their physical capabilities. This allows everyone to actively participate in reforestation efforts and experience the satisfaction of watching their planted vegetation grow over time as well as benefit wildlife and biodiversity more broadly.

Q6. Research and summarise 2 articles on the benefits of a connection with woodland and natural environments, referencing physical and emotional well-being and illustrating with your own FS experiences

Article 1

Mental health benefits of interactions with nature in children and teenagers: a systemic review. Suzanne Tillmann, Danielle Tobin, William Avison and Jason Gilliland, 2018..

This research paper aimed to uncover whether accessibility to and exposure of natural environments can have positive impacts on the health; including the physical, mental and social dimensions, of children and teenagers.

Of 35 papers which were reviewed (which incorporated quantitative results on nature, children and teenagers from ten global academic databases) the majority focused on emotional well-being and attention deficit disorder/hyperactivity disorder. Other outcome measures included overall mental health, self-esteem, stress, resilience, depression and health-related quality of life. About half of all reported findings revealed statistically significant positive relationships between nature and mental health outcomes and almost half reported no statistical significance.

Therefore this paper does support the belief that being in nature can have positive influences on a child's emotional and physical well-being and the importance of promoting nature interactions to them but that there is scope for additional research with more objective measures of both nature and mental health outcomes and more rigorous designs.

My forest school experiences have been varied and not long term with regards to one group of regular children, aside of my training sessions, so I don't feel like I can confidently comment on whether there are benefits to their physical and emotional well-being (plus I don't have the comparison of them in another setting) but I have certainly seen indications of this. As described in the previous summary of research in question 3, children participating in my six training sessions seemed to develop more in these areas over time, developing more confidence as the sessions progressed and seeming to enjoy them more and more each week.

Article 2

'Wellbeing benefits from natural environments rich in nature.' A literature review for the Wildlife trusts by the University of Essex.

This piece of research was carried out for the Wildlife trusts to highlight the health and wellbeing benefits of natural environments rich in nature and wildlife and to summarise why it's important to the health and wellbeing of communities in the UK.

It focuses on the five evidence-based actions to improve wellbeing 'The Five Ways of Wellbeing': 1) Connect, 2) Be Active, 3) Take Notice, 4) Keep Learning and 5) Give as identified by The New Economic Foundation (Nef, 2008).

The research found that overall, similarly to the other research referenced throughout, that there is a large body of evidence which suggests that exposure to the natural world, in a variety of contexts, has health benefits as can enhance the Five Ways of Wellbeing in a variety of ways. So for example, they can improve physical health through more activity (which is evident during FS sessions outdoors instead of the classroom as children have more space to roam), improve mental health through reducing stress and anxiety and also social wellbeing through being in company with others outdoors. In my own FS practice I can certainly say that after a session I feel better than the start in many ways, now this may in part be due to having achieved something but I strongly believe that it's due to contact with nature, participation in nature-based activities and simply through viewing nature.

Q7. Explain how Forest School nurtures a connection between participants and the woodland environment, using examples from your own practice

Through a combination of guided activities and self-directed exploration, Forest School nurtures a strong bond between participants and the woodland environment in several ways:

- **Regular and Prolonged Exposure:** Forest School sessions are conducted over a series of weeks or even months, allowing participants to build a consistent relationship with the woodland. This extended exposure enables them to observe seasonal changes, develop a sense of familiarity, and begin to feel a sense of ownership and belonging in the natural space. With children who attend my sessions regularly I have really noticed a difference in the way they turn up to sessions. They boldly walk in with a sense of familiarity and immediately go and look for what has been set up for them, often running back to inform me excitedly.
- **Hands-On Exploration:** Forest School encourages hands-on, sensory-rich experiences. Participants engage in activities like exploring plants, animals, soil, and water, which fosters a direct and tangible connection to the environment. Something as simple as making natural headdresses/crowns in my pre-school sessions has led to some great interactions with nature encouraging touching, smelling, and interacting with the natural elements which has helped develop a deeper understanding and appreciation for the woodland and even learn some basic ID.



- **Child-Led Learning:** Forest School emphasises child-led learning, where participants have the autonomy to choose activities that interest them. This freedom fosters a sense of agency and control, allowing participants to establish a personal connection with the environment as they pursue their own curiosities and interests.
- **Unstructured Play:** Unstructured play in the woodland environment stimulates creativity and imagination. During one session, a group of children used natural materials to create a woodland 'shop' which sold materials for making leaf wands which not only engage them in imaginative role-play but allowed for a sense of spontaneity and discovery, promoting an emotional attachment to the surroundings.



- Emphasis on Relationships: Forest School promotes positive relationships not only between participants and the environment but also among participants themselves. Group activities, collaborative projects, and shared experiences in the woodland setting create a sense of community and interconnectedness. I have noticed this even amongst the youngest or learners/participants who might not be as used to interacting in that way with others of different ages/abilities when they found a parakeet's feather on the floor and proceeded to hand it around the group to show off its beauty to their new friends!

SUPPORTING DOCUMENTS AS HIGHLIGHTED/LINKED THROUGHOUT:

[Supporting documents containing:](#)

- Forest school training session plans 1- 6
- Staff evaluation forms 1, 2 and 3.
- Participant observation forms 1, 2 and 3.
- Forest School first aid and paediatric first aid certificates
- Risk Assessment with benefit analysis
- First Aid certificates
- Insurance certificate
- Guidance to nursery staff for 6 Forest School Training sessions
- 3 year management plan for FS site
- Practical assessment sheets
- Blondin Park Wildlife Flora and Fauna ID

[Wild Minds Forest School Handbook](#)

References

www.learningintheleaves.co.uk

www.kentwildlifetrust.org.uk

<https://www.woodlandtrust.org.uk/>

[Tillmann S, et al. J Epidemiol Community Health 2018](#): Mental health benefits of interactions with nature in children and teenagers: a systematic review

[Blackwell S](#). Impacts of long term Forest School programmes on children's resilience, confidence and well-being., 2015

[Wellbeing benefits from natural environments rich in wildlife](#); a literature review for the Wildlife Trusts by the University of Essex. Bragg R, Wood C, Barton Jo and Pretty J.