

## Learning outdoors: the Forest School approach

Liz O'Brien\*

*Forest Research, Surrey, UK*

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This paper outlines the role that Forest School can play in children's development. With over 100 Forest Schools in England, 20 in Scotland and 20 in Wales, this concept is growing across Britain. Forest School involves children having regular contact with woodland over an extended period of time; it allows them to become familiar, and have contact, with the natural environment. The recent *Learning outside the classroom manifesto* highlights the importance of children and young people gaining experience of the world beyond the classroom. Twenty-four children from seven schools in Oxfordshire, Shropshire and Worcestershire were observed over an eight-month period as they attended Forest School. Improvements in the children's confidence, motivation and concentration, language and communication and physical skills were recorded by teachers and Forest School leaders. Changes took time to occur, highlighting the need for repeated and regular contact with the natural environment, especially for children who do not have access to nature as part of their everyday lives.

**Keywords:** Forest School; learning outdoors; child development

### Introduction

This experience has been incredibly valuable to our children. We have been lucky enough to have experienced a full year at Forest School and the benefits have been striking. These children, now, are independent and confident. (Teacher, Shropshire)

A definition of Forest School has been developed by the Forest School network; it states that it is an 'inspirational process that offers children, young people and adults regular opportunities to achieve and develop confidence and self esteem through hands on learning experiences in a woodland environment' (Murray and O'Brien 2005; Forest Education Initiative 2007). There is currently concern that children are not having as much contact with woodlands and greenspaces as their parents once did, due to concerns about safety and the increasing range of indoor activities that are available (O'Brien and Weldon 2007). There is also research that suggests that if children do not visit woodlands and greenspaces when they are young, they will become adults who do not use these spaces; and they will miss out on the physical and emotional benefits of access to nature (Fjørtoft 2004; Ward Thompson et al. 2004).

A report for the National Foundation for Educational Research (Dillon et al. 2005) suggests that learning outdoors can have a range of impacts including

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\*Email: [liz.obrien@forestry.gsi.gov.uk](mailto:liz.obrien@forestry.gsi.gov.uk)

cognitive impacts, affective, interpersonal/social and physical/behavioural impacts. Learning outdoors in nature is a very different experience from being indoors in a classroom environment. This paper highlights the importance of learning outdoors and suggests that it can potentially be an important factor in life-long learning, health and well-being and in ecologically sustainable societies (Sustainable Development Commission 2007). Woodlands and greenspaces hold much potential as an education resource and can benefit a wide range of children including those on the autistic spectrum, those with emotional and behavioural difficulties and with learning problems (Kahn 1999; Forestry Commission Scotland 2005; O'Brien 2005; O'Brien and Murray 2006; Borradaile 2006).

The research project that is the subject of this paper was funded by the Forestry Commission (FC) due to the growing number of Forest Schools in Britain and the interest that was being shown in them by a variety of stakeholders. The FC approached Forest Research and the New Economics Foundation to carry out an evaluation of the impact of Forest School on the children who take part. The research involved two phases, one in Wales and one in England. The research was participatory and involved teachers, Forest School leaders and community members.

### ***The importance of contact with nature for child development***

There are growing concerns among a range of organisations within British and American society about the lack of access to nature by children (Kahn and Kellert 2002; Bell, Ward Thompson, and Travlou 2004; Thomas and Thompson 2004; Louv 2005; DEMOS 2007). A key issue is that children are not able to access the outdoor environment as freely as previous generations (Ward Thompson, Aspinall, and Montarzino 2008). This is partly due to concerns about safety because of increased traffic and worries about physical abuse and assault by strangers. This is coupled with the increasing use of computers, games consoles and television that can deter young people from going outdoors. There are health implications, as indoor activities are often less active than those that take place out of doors in the natural environment.

Previous research highlights that outdoor play may be particularly valuable for children as it can integrate cognitive, emotional and social behaviours (Kahn and Kellert 2002). Due to changes in contemporary life, such as concerns about the lack of physical exercise, poor mental well-being and issues of climate change and environmental degradation, it could be argued that there is a greater need for children to have contact with nature, in order to interest them in the environment (Department of Health 2005; Mental Health Foundation 2005; Anable, Lane, and Kelay 2006; DEFRA 2007). Forest School can contribute to young people's health by providing an important space where children can be active on a regular basis (Bingley and Milligan 2004; Fjørtoft 2004). Forest School embraces a broad concept: it takes place in school hours, on a regular basis, and it is not only focused on learning about nature but is linked to the national curriculum and foundation stage objectives such as English, Maths and Science.

### ***Potential for change: what is the role of outdoor learning?***

After many years of reduced opportunities for taking children outside of the classroom due to concerns about risk and liability, the government published the

*Learning outside the classroom manifesto* in 2006 (Department for Education and Skills (DfES)). The publication indicates government support for the value of outdoor learning and how it can potentially enrich the curriculum. The manifesto states ‘we believe that every young person should experience the world beyond the classroom as an essential part of learning and personal development, whatever their age ability or circumstances’ (DfES, ii).

### ***What happens at Forest School and how does learning take place?***

Schools that participate usually send specific classes or children with special needs to Forest School for a morning or afternoon session. These can take place every week or fortnight in term time and can run from 2 to 12 months depending on the school. At Forest School the children get involved in a range of activities; for example they might use tools to create art works, or listen and respond to a range of stories in order to improve language and communication skills (Davis and Waite 2005). Learning about habitats, plants and animals as well as carrying out team work, in which they can learn to take turns and share, are also part of Forest School sessions.

Dillon et al. (2005) suggest, the experience and quality of learning outdoors can have an effect on what is learnt. Kahn (1999, 50) highlights the importance of constructivist education suggesting that children actively construct their ‘understandings through interaction with the physical and social world’. The Forest School ethos might be said to involve this type of learning approach. Adams (2006, 247) suggests, for a social constructivist pedagogy, the following principles:

- Focus on learning not performance.
- View learners as active co-constructors of meaning and knowledge.
- Establish a teacher pupil relationship built upon the idea of guidance and not instruction.
- Engage learners in tasks seen as ends in themselves and having implicit worth.
- Promote assessment as an active process of uncovering and acknowledging shared understanding.

This type of approach focuses on learning by doing, with teachers posing questions to the children while they are engaged in carrying out activities in order to promote child reasoning. A constructivist approach moves away from the more traditional view of teaching in which teachers instruct children and then test them. A constructivist approach would involve experimentation and problem solving, and the children would actively make meaning when they engage with mistakes and problems. ‘While knowledge entails fact and behaviour, it more fundamentally entails understanding and children actively construct their understandings through interaction with the physical and social world’ (Kahn 1999, 50). There are many theories of learning and a social constructivist theory is put forward here as particularly appropriate to the Forest School approach.

### **Methodology**

The methodology for this research was developed in Phase 1 of this research in Wales and was used in the case studies in Wales and England. The methodology involved a

three-stage process, involving practitioners (teachers and Forest School leaders) and community members. It follows the sequence below:

- (1) A workshop of practitioners is undertaken to discuss and establish the link between Forest School activities and the impacts on the children who take part. Short, medium and long term impacts are considered and explored and from this a set of positive propositions are developed. The process of discussion in this exercise is important for building a shared understanding of how what is planned at Forest School will bring about changes in the children (Appendix 1).
- (2) Data collection is undertaken on site by the practitioners, who observe the children and record their activities, through the use of self-appraisal templates based on the propositions developed in the above workshop. The templates can be used for a group or for an individual child. Questionnaires can also be used with teachers, parents and children to explore the impacts of Forest School.
- (3) A reflection workshop brings practitioners together to explore results from Stage 2 and identify any unexpected impacts or key learning points that can be incorporated into best practice. The reflection workshop is a useful way of checking back over the work and identifying any unexpected consequences of Forest School.

This methodological approach was tested in Wales (Murray 2003) in the two case study areas outlined below and then used more extensively in the three English case studies with children over an eight-month period in 2004/5. On site observations using the self-appraisal template were carried out on 24 children aged from three to nine in England, chosen to take part in the study (Murray 2003; Murray and O'Brien 2005). The teacher or Forest School leader made the observations, and after each session would discuss with the other what had been achieved or any problems. Appendix 2 provides an example of a lesson plan from a Shropshire case study site. The primary focus of this paper is on the work in England; however, some details about the case studies in Phase 1 in Wales are given to illustrate how Forest School was used in those areas.

Templates completed by the practitioners were entered on to a Microsoft Excel database so that each child's record and comments made on that child over the eight-month period could be viewed in one place. The database also included the lesson plan for each session and the objectives of that session. These could then be viewed for each child and progress or lack of progress could be explored over the weeks the children attended Forest School. The data were carefully read on a number of occasions by the researchers carrying out the analysis.

### ***Limitations of the methodology***

Those who observed the children over the eight-month period knew the children well (they were either their schoolteacher or a Forest School leader who worked closely with the children) and led or helped to lead the sessions. This could be viewed as a limitation to the methodology as the practitioners may have been too close to the children to be objective enough to observe changes. However, potentially this closeness could have been an advantage, as the practitioners may have known the

children well enough to observe subtle changes and to realise that they occurred primarily when the child was at Forest School. A challenge of using this action research methodology was the time needed to involve teachers, parents and others in the local community to identify from their experiences the impacts of Forest School on the children.

### ***Forest School in the case study areas: Phase 1 Wales***

Duffryn school near Newport in South Wales is a deprived area known for high levels of child poverty. The school is located at the centre of a housing estate. The Duffryn Community Link worked with the local community, FC and the school to set up a Forest School in the local woodland. An area of the woodland was fenced off and a Forest School set up for Duffryn Infant and Junior schools. This has been successful and both teachers and community workers have undergone Forest School training. The Forest School was positively mentioned in the schools Estyn (Wales Inspector of Education and Training) report in 2003 (Kirkham 2005).

The area around Flint is a part of North Wales where heavy industry has traditionally formed the background to the local economy. The scope for this work was wider than at Duffryn. The Flintshire case study used Forest School with selected groups of Year 6 (age 11) pupils as they made the move from primary school into secondary education. The children were identified by teachers at six primary schools as needing extra support during the transition to secondary school and they gained this through their Forest School activity.

### ***Forest School in the case study areas: Phase 2 England***

Each case study area in England has a slightly different approach to Forest School. In Oxfordshire, a Forest School Co-ordinator works with local schools and woodland owners to find suitable sites for developing Forest School. In Worcestershire, the Bishops Wood Centre near Stourport is run by Worcestershire County Council; this is where Forest School in the county is run. In Shropshire, the County Council set up a permanent site near Shrewsbury, and FC and Shropshire Wildlife Trust are both working there. In all of the case study areas teachers are encouraged to take Forest School leader training so that the sessions can become a regular part of the schools activities.

In discussions with the Forest School co-ordinators in each case study area seven schools were chosen to take part in the study: two in Worcestershire, two in Shropshire and three in Oxfordshire. From the classes that participated in Forest School, 24 children were randomly chosen by staff to be studied over an eight-month period. Parental permission was sought for this to take place. The children were primarily aged 3.2 to 5.5 years of age, except for one group in Worcestershire that was aged 5–9 years. The children's names have been changed to preserve anonymity.

## **Results**

Eight themes emerged from the analysis of the observational data collected by practitioners in the English case studies using the self-appraisal templates. Six were

based on the propositions that practitioners developed in the workshops. These were that Forest School:

- Increases self esteem and self confidence.
- Improves social skills.
- Contributes to development of language and communication skills.
- Improves motivation and encourages concentration.
- Contributes to children's knowledge and understanding.
- Improves physical motor skills.

Two other themes emerged from analysis of the data and included:

- New perspectives – gained by the practitioners on seeing the children in a different environment.
- Ripple effects beyond Forest School – the children took their experiences home and told family and friends.

Three themes (social skills, motivation and concentration and new perspectives) are outlined in this paper. The other themes have been written about elsewhere (O'Brien and Murray 2007). Many of the improvements that were observed in the children took weeks to occur. However, once the children became familiar and confident with the woodland environment they became more independent and enthused by their activities.

### ***Social skills theme***

Much of the work and activity that takes places at Forest School involves working with others. Overall development in social skills was characterised by an improved awareness in the children of the impact of their actions on others; for example, holding a branch so that it does not fly into the face of the child behind. An ability to work with others to complete tasks was also needed to create dens, and collect leaves and twigs in the wood (Box 1). The children showed the ability to share tools and materials with others.

Box 1. Summary of social skills development at Forest School.

*Forest School is a place where ...*

- Children are encouraged to be part of a team in the pursuit of tasks that need more than one pair of hands.
- Materials and tools are shared among the group and the children take turns to use them.
- Children are given the freedom to play independently from adult intervention and are guided by the rules of games that encourage teamwork.

*Changes that can occur include ...*

- Children becoming more accustomed to working independently from adults.
- Children gaining an increased awareness of other people's personal space and are able to form new friendships as they identify abilities that are valued by their peers.
- Children learning what can be achieved by working together.

*This is often manifested by ...*

- Children negotiating with each other to achieve team tasks.
- Children relating positively to members of their peer group.

Many of the tasks that are undertaken at Forest School require some form of team working and this is set up to encourage the children to work together and interact with each other. They may, for example, need to make a shelter or den in the wood. Evidence from the data at the three case study sites showed that time spent at Forest School allowed children, who were not initially confident, to work and play with others. This allowed the teachers to identify skills they were not always aware the children had. For example, Leanne (Oxfordshire, aged 4.5) was not, in an assessment of her regular behaviour by her teacher, a naturally collaborative worker. However, her Forest School activities provided her with, and encouraged, opportunities to help others by handing out waterproof trousers or cups at snack time. She was also noted to independently help another child who was struggling with a rucksack. After time spent at Forest School she learnt to wait her turn when it came to tree climbing, realising that others should sometimes go first. Serena was a physically confident child but she was unwilling to engage with others. However, after a couple of weeks at Forest School she tried to move a log by herself and realised that she needed help; she then asked for this from another child (Oxfordshire, aged 4.5).

Activities and experiences that are repeated, such as tree climbing and story time around the fire, are key factors of Forest School practice. Lisa (Shropshire, aged 5.5) was quiet and unwilling to work co-operatively at first. As she increased in confidence over the weeks, and became more familiar with the woodland environment, she started to talk more about the things around her, and this contrasted with her quieter behaviour in the school classroom. Talking more gave her an ability to work with others and eventually led her to take on more of a leadership role amongst her peers. Anthony (Shropshire, age 5.5) was wary of interacting with others and seemed to have low self-confidence though he was quite good at communicating. At first his communication was dominated by telling his partner what to do, but as the weeks progressed he started to co-operate more with his partner so that they began working together. According to a member of staff:

the children are happy, calm and helpful to each other. They have bonded as a group better than any group of children I have worked with in 23 years. (Shropshire staff member, Lognor School)

### ***Motivation and concentration theme***

Forest School allows for exploratory learning and play activities to take place, it is also somewhere where the children focus on specific tasks over a period of time. According to Bredekamp et al. (1992, 3) ‘Activities that are based on children’s interests provide a motivation for learning. This fosters a love of learning, curiosity, attention and self-direction’. As outlined in the introduction, outdoor environments can fascinate children, and allowing them to explore the natural environment can link into their innate curiosity. A number of the practitioners outlined how some of the children became increasingly inspired through interacting with the woodland environment. This is because the children see new things and have different experiences, which they may not have had in the past. This can be the case, particularly, for children from more deprived areas who often have little access to, and contact with, nature.

Sessions that include child-led learning can also increase motivation as the practitioners can see what interests the children, and they can then allow the children to work or solve problems related to those interests. Curiosity also drives exploration, which can lead the children to discover new things for themselves. The children are inspired to ask questions and develop curiosity about the unfamiliar

things that they find in the wood; and the practitioners encourage active inquiries. The children learn about risk and to take risks that challenge them but do not lead to harm such as tree climbing. In this way they are encouraged to take responsibility for their own actions. In terms of motivation and concentration there are a number of features and benefits that can lead to changes in behaviour (Box 2). Grahn (1996) found that children who attended day care centres with natural spaces within them in Sweden had greater attentional capacity than those in other day care centres. This was due to the natural spaces engaging the children's interests.

Initially, Justin (Oxfordshire, aged 4.5) was noted for not being particularly creative in his play but in time at Forest School he started to use his imagination much more; on one occasion he cooked, what he called, a 'wolf pie'. This sort of imaginative play is an important aspect of the Forest School experience. There were several examples described by practitioners of the imaginary games invented by the children. For example, they dig for gold or find hidden treasure and search for dragons. This illustrates the free atmosphere that is part of the Forest School approach. Children can be creative in many settings, and research has shown that woodlands and nature spaces provide a valuable and wide range of opportunities for children to use their imagination (Bingley and Milligan 2004; O'Brien 2004; Waite, Davies, and Brown 2006). Serena (Shropshire, age 4.5) in one trip on the minibus talked about the colours of flowers they drove past. This was considered unusual behaviour for her, and the practitioner noted that she was very engaged and was 'looking out for things'.

The following quote is from a questionnaire completed by Chloe's (Oxfordshire, age 4.5) parent; here she outlines what for her are key aspects of Forest School:

It's a marvellous opportunity for children to learn to be comfortable in and curious about an environment that might seem alien or threatening to children not familiar with woodland. Since most British children don't have woodland or natural habitats for wildlife in their daily experience, Forest School helps them expand their sense of what is possible and natural. It encourages the development of curiosity, patience and observational skills, since the patterns and forms in a forest are not immediately obvious, but take some seeking out.

Box 2. Summary of motivation and concentration development at Forest School.

*Forest School is a place where ...*

- Subjects on the school curriculum are set in a context that is distinct from the indoor classroom environment.
- Child led and initiated learning is encouraged allowing for imaginative, and exploratory activities to take place.
- The focus is on how the whole child can benefit from their Forest School experience.

*Changes that can occur include ...*

- Children become eager to participate, and are inspired to explore and learn in a sometimes unfamiliar woodland environment.
- Children initiate their own learning and play activities.
- The children focus and concentrate for longer periods of time on tasks and issues that are of interest to them.

*This is often manifested by ...*

- Children keen to come back to Forest School.
- Children who are excited about setting off to Forest School and actively look forward to it.
- Children who talk about Forest School back in the classroom and with parents and relatives.

Curiosity and interest in the woodland setting also leads the children to ask questions. Leanne (Oxfordshire, aged 4.5) was particularly fascinated by a stuffed hedgehog that was introduced into one of the Forest School sessions. Leanne asked ‘Is it dead or real? Will it move? Is it a boy or girl?’ Jeremy (Oxfordshire, age 4.5) became very interested in the roots of a fallen tree; he went on to describe how the bark of the tree was like a cover.

### *New perspectives theme*

During the Forest School process the practitioners can gain a new perspective on the children they teach as they observe them in the woodland environment. Through this the relationship between practitioners and children can change and develop over time. Through active observations practitioners can identify the individual learning styles of the children, for example, are they kinaesthetic learners who learn more when carrying out practical activities? Do the children learn by spatially exploring the environment around them, or are they inspired by touching, feeling and seeing visually what is around them? Box 3 summarises how new perspectives can develop at Forest School.

The practitioners can gain additional insights into the children by seeing them behave and interact in a very different way in the woodland. This new perspective can enable practitioners to identify aims for future improvement for a specific child. If the practitioner finds that the children are using more descriptive language because there are inspired by the woodland setting the practitioner can encourage continuation of this in the classroom by setting up a discussion about the children’s experiences. Forest School can also be a location where the existing strengths of individuals can provide a basis for developing new skills. One of the teachers described their experience:

I feel very honoured to have shared the Forest School experience with the children. To have the opportunity to spend one year at Cantlop Wood is, like the children, something I will never forget. Together we have learnt and developed so much, which will make us all appreciate what is on our doorstep. (Shropshire, Condover School)

Box 3. Summary of new perspectives developed through Forest School activities.

*Forest School is a place where . . .*

- Adults and pupils interact in a different setting from the school classroom.
- Adults and pupils have to cope with a range of weather conditions together such as sun, rain or snow.

*Changes that can occur include . . .*

- Pupils and practitioners gain a better understanding of each other in the different setting.
- There is sometimes a difference between the children’s behaviour in the classroom and at Forest School.

*This is often manifested by . . .*

- Children who show behaviour that has not been seen by the practitioners before.
- Parents who notice changes in the children’s vocabulary or in their interest in the natural environment.
- Practitioners who notice that the children are calmer in the classroom after being at Forest School.

Jeremy's (Oxfordshire, aged 4.5) mother noticed changes in his vocabulary as he became able to name a number of plants that he had found at Forest School. Parent's also described how their children had become more confident in woodlands, and on family walks felt able to go off the main footpaths and into the trees. Wayne's (Oxfordshire, age 4.5) parents had attended a Forest School open day and suggested that this was a good way for parents to get an understanding of what happened at Forest School. Lisa's (Shropshire, age 5.5) parent stated that she enjoys her Forest School day most out of all her school activities. Lisa describes to her parent everything she does at Forest School; even though she does not normally tell her much about her other school activities.

### **Discussion and conclusion**

This paper outlines a participatory research process to exploring the impact of Forest School on some children who attend. According to Kawagley and Barnhardt (1998 cited in Arnold et al. 2007, 482) '*participatory research, which aims to involve local people in the research process to focus research efforts on locally relevant issues, has the potential to shift knowledge creation from a one way extraction to a two way co-learning model*'. Through this research the knowledge and experience of teachers, parents and Forest School leaders was seen as important in understanding the potential impacts of Forest School on children.

The *Learning outside the classroom manifesto* outlines why outdoor learning is an important part of a child's development. Forest School is an example of learning outside the classroom and importantly it takes place on a regular basis and over an extended period of time; that allows children to become familiar with a woodland environment. Forest School allows for constructivist learning to take place in which the children construct understanding and meaning through the activities they undertake on their own and with others. Training is available for teachers to become Forest School leaders. Potentially Forest School could become embedded in the routine of many schools allowing a range of children to benefit. What is learnt at Forest School needs to be integrated with work within the school, for example getting the children to reflect on their experiences at Forest School and how it relates to their other schoolwork (Table 1).

This emphasises to the children that learning can take place in many settings, not just in school, and that the things that they learn at Forest School can be useful in a classroom context as well. Research has highlighted that children's senses are stimulated by nature and that the experiences form children's relationship with natural areas in a way that is often remembered into adult life (Kaplan and Kaplan 1989). However, this research has only observed a small number of children. The work did not include observations of the children in the classroom environment and the research did not carry on once the children had stopped attending Forest School, to see whether the children remembered the impacts and their experiences in the long term. Further longitudinal research is crucial to evaluate the impacts on children and discover whether they last. The evaluation focused on the positive aspects of Forest School as highlighted by the propositions developed in the workshops.

Increased interest from government and non-governmental and other organisations has highlighted the demand for research on the educational use of natural and greenspaces. Outdoor learning is a compliment, and can be an important

Table 1. Learning, growth and evaluation opportunities.

1. Learning opportunities:	2. Growth opportunities:	3. Formative evaluation opportunities:
<ul style="list-style-type: none"> <li>■ Elements of the curriculum can be presented in a practical way, providing action-learning opportunities that suit children with different learning styles</li> </ul>	<ul style="list-style-type: none"> <li>■ There is potential for embedding and transferring practical learning and experience from the Forest School setting back to the classroom and into home life.</li> </ul>	<ul style="list-style-type: none"> <li>■ Forest School provides teachers and practitioners with a formal yet ‘non-classroom-orientated’ arena for the assessment of a child’s abilities and progress towards academic and other developmental objectives</li> </ul>
<ul style="list-style-type: none"> <li>■ It provides opportunities for the practical application of lessons taught in the classroom</li> </ul>	<ul style="list-style-type: none"> <li>■ Where a concept is hard to grasp in theory in the classroom, it can be made explicit in practice in Forest School thus encouraging the confidence to learn more</li> </ul>	<ul style="list-style-type: none"> <li>■ Where class teachers take part in Forest School they build up a richer resource of experience and example to draw on to help demonstrate theory back in the classroom.</li> </ul>

supplement, to classroom learning. A key aim of Forest School is to inspire life long learning through contact with natural settings. Forest School has much potential and the increase in the number of Forest Schools in recent years outlines that appreciation is growing.

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Appendix 1. Short, medium and long term expected outcomes from the Worcestershire and Oxfordshire Workshops

	Short term outcomes	Medium term outcomes	Longer-term outcomes
Worcestershire Pilot Group ( <i>Early years and older pupils from a cross-county Speech and Language unit</i> )	<ul style="list-style-type: none"> <li>■ Increased use of <b>language</b> (with more opportunities for natural use of language)</li> <li>■ Children becoming more <b>self reliant/independent</b></li> <li>■ Forest School <b>routines</b> embedded</li> <li>■ <b>Awareness</b> of themselves and others' personal space</li> <li>■ Increased fine and gross <b>motor control</b></li> </ul>	<ul style="list-style-type: none"> <li>■ Children have increased <b>confidence in themselves</b> (their abilities)</li> <li>■ Children develop a <b>bonding relationship</b> with peers and with staff</li> <li>■ Visible improvements to children's: <b>memory; physical development; health; use of language</b> (speech and language group)</li> <li>■ Children <b>feel special</b> (leading to raising self-esteem)</li> <li>■ <b>Parents take more interest</b> in Forest School due to children's enthusiasm</li> </ul>	<ul style="list-style-type: none"> <li>■ Improvements to <b>physical stamina</b></li> <li>■ Children appear <b>more relaxed</b> in the Forest School learning environment without perceived pressure</li> <li>■ Children's <b>creativity</b> developed</li> <li>■ Children transferring fine and gross motor skills to life outside Forest School</li> <li>■ Improved use of language means children become <b>more confident to communicate</b> with peers, teachers and parents</li> </ul>

(continued)

Appendix 1. (Continued).

	Short term outcomes	Medium term outcomes	Longer-term outcomes
Oxfordshire Pilot Group ( <i>Early years groups</i> )	<ul style="list-style-type: none"> <li>■ Children's increased <b>ability to plan and review</b> (e.g. choose resources for tasks)</li> </ul>	<ul style="list-style-type: none"> <li>■ Parents take their children out into the 'outdoors' more (parents have a different perception of the outdoors – e.g. the perceived risks)</li> </ul>	<ul style="list-style-type: none"> <li>■ Improved self-esteem (as a result of <b>feeling listened to</b> and valued)</li> </ul>
	<ul style="list-style-type: none"> <li>■ Transferring skills (e.g. modelling the good practice of carrying sticks)</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Comparable difference</b> between children's behaviour in normal setting (indoors/classroom) and in Forest School</li> </ul>	<ul style="list-style-type: none"> <li>■ Children have <b>adapted well</b> to their new outdoor environment</li> </ul>
	<ul style="list-style-type: none"> <li>■ Children <b>want to learn</b></li> </ul>	<ul style="list-style-type: none"> <li>■ Practitioners gain a <b>better understanding</b> of the children (e.g. their individual learning styles)</li> </ul>	<ul style="list-style-type: none"> <li>■ Children are <b>more assertive</b> in a <b>non-aggressive</b> way</li> </ul>
	<ul style="list-style-type: none"> <li>■ Children <b>want to come back</b> to Forest School</li> </ul>		
	<ul style="list-style-type: none"> <li>■ Children are <b>more steady on their feet</b> and don't fall over as often</li> </ul>	<ul style="list-style-type: none"> <li>■ Improved and increase use of <b>motor skills</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Improved academic attainment</b> and achievement, especially for children who find the classroom a difficult place to learn</li> </ul>
	<ul style="list-style-type: none"> <li>■ Children are <b>keen and excited</b> about setting off for Forest School</li> </ul>	<ul style="list-style-type: none"> <li>■ Children working independently from adults</li> </ul>	

(continued)

Appendix 1. (Continued).

Short term outcomes	Medium term outcomes	Longer-term outcomes
<ul style="list-style-type: none"> <li>■ Children <b>talk freely</b> about Forest School back in the classroom</li> <li>■ Children get ready to for Forest School more quickly (as opposed to reluctantly)</li> </ul>	<ul style="list-style-type: none"> <li>■ Children <b>initiate</b> their own learning/play activities</li> <li>■ Children <b>work co-operatively</b> – they are able to negotiate with others to achieve group tasks</li> </ul>	
<ul style="list-style-type: none"> <li>■ Children begin to <b>take more responsibility</b> for their own activities/play/learning (because they are allowed to)</li> </ul>	<ul style="list-style-type: none"> <li>■ Children demonstrate an <b>increased knowledge</b> of the environment, beginning to recognise tree species and a few mini-beasts</li> </ul>	
<ul style="list-style-type: none"> <li>■ Children begin to be <b>less dependent</b> on Adult company and support – they can work away from adults; less holding hands; will hide independently during *1,2,3 Where are you?'</li> </ul>	<ul style="list-style-type: none"> <li>■ Children demonstrate <b>respect</b> and care for living things and the environment</li> <li>■ Children able to <b>make decisions</b> themselves about what to wear to suit the weather</li> <li>■ Children <b>aware of seasonal change</b></li> </ul>	
	<ul style="list-style-type: none"> <li>■ Children revisit, extend and develop previous weeks' activities</li> <li>■ Children able to <b>focus/concentrate</b> for longer</li> </ul>	

## Appendix 2. Shropshire lesson plan

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	11/11/2004
Setting	Cantlop Woods/Longnor School. Children aged approximately 5.5 years
Accompanying Adults	<b>FS Leader:</b> H H; <b>Lead Practitioner:</b> J T; 2 x Support Assistants; 4 Surestart Observers
Aims	Familiarise the children with the woodland site; its boundaries; what to do if separated; health and safety near the fire area; exploring the wood habitat. Explore shelter/den construction methods and create some simple dens.
Intended learning	<b>Personal, Social, Emotional Development:</b> Be confident to try new activities; understand what is right and wrong and why; consider the consequences of their actions for themselves. <b>Communication, Language, Listening:</b> Sustain attentive listening; extend their vocabulary, and explore the meanings and sounds of new words. Express and communicate their ideas. <b>Maths Development:</b> Use language to compare quantities and to describe shape and size. <b>Knowledge &amp; Understanding of world:</b> Investigate objects and materials by using all of their senses as appropriate. <b>Creative Development:</b> Respond to a story and variety of shelter types to create their own using simple materials. <b>Physical Development:</b> Move with confidence and imagination.
Planned Activities	<b>Whole group:</b> Distribute name necklaces to children. Share memories of last week. Discuss this week's programme. <b>Child Initiated:</b> Allow free time exploration. Suggest collecting sticks for shelters. <b>Whole group:</b> Hear the story of 'The House at Pooh Corner'. Make an Eeyore-type shelter together. See a demonstration of other shelter types, including health and safety of loppers and mallets. <b>Small groups:</b> Make own shelters. (Loppers to be used 1:1 with HH.) <b>Whole group:</b> Regroup at fire area and reiterate safety rules. Snack time. <b>Whole group:</b> Where are you? Allow small groups to 'get lost' with an adult (if possible in their shelter to enable children to see each other's) for the rest of the group to find. <b>Whole group:</b> Review time – in fire area, encourage children to demonstrate safety rules as they gather. Use the puppet to ask the adults and children 'What did you like about the wood today?' Sing the FS song. Gather in name necklaces at exit gate. <b>Back at setting:</b> Develop mini shelters in the school grounds. Read the story of 'The House at Pooh Corner'. Make a classroom shelter for Eeyore. Write a Forest School Diary or letter home.

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