



Forest School Evaluation Project

A Study in Wales
April to November 2003

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1.0 Executive summary

1.1 Who this report is for

This report has been compiled and written primarily for forestry or conservation professionals (particularly if they are involved in programmes which have social objectives), for schoolteachers, members of statutory bodies concerned with education and anyone who has an interest in, or experience of Forest School.

1.2 The effect of Forest School

Forest school is a way of teaching that is attracting a great deal of excitement amongst education professionals. There is anecdotal evidence from teachers and others who have come into contact with Forest School that this “school in the woods” has a profound and positive effect on the way children (and young adults) relate to each other and the world around them. This is often described in terms of their social capital (such as networks of trust and mutual understanding) and human capital (such as personal skills, knowledge and self-confidence), and is in turn linked to their ability to get on and get ahead.

In the United Kingdom Forest Schools are still in an experimental stage, and the impact of this different way of learning on a child’s academic performance, behaviour and general well-being is only just beginning to be explored. In a world where only things that can easily be measured are considered important there is a need to look beyond, for example, academic performance as the only measure of success. The potential outcomes of Forest School go far deeper, and require a subtler approach to evaluation.

It is important to understand and formally capture this link between Forest School activities and the impact on the individuals who take part if the Forest School concept is to be accepted by an even wider audience. This study demonstrates that link.

1.3 What we found and how we found it

The evidence collected for this evaluation and presented in this report shows that for children taking part there is a link between Forest School activities carried out in a specific environment and six specific, positive outcomes that relate to their self-confidence, self-esteem, team working, motivation, pride in, and understanding of their surroundings.

To do this we involved Forest School Leaders, and other education professionals from two Welsh pilot projects in a supported self-evaluation process that aimed to build up the picture, or story of how Forest School makes change. In a series of focus group discussions and workshops between April and November 2003 we:

1. Built up a list of activities and their immediate outputs.
2. Explored the possible outcomes and established six propositions (specific outcomes) about what Forest School can achieve.

3. Developed a hypothesis (or hypotheses) for how the activities lead to those outcomes.
4. Collected evidence to demonstrate that changes had indeed taken place.
5. Developed an easy-to-use, Self-Appraisal Toolkit for these and other Forest School projects to carry out similar evaluations with less reliance on outside support.

This whole process was done in the spirit and practice of a participatory evaluation. **nef** (the new economics foundation) shares the belief with others involved in promoting participative democracy that such an approach achieves the understanding, insight and attention to detail that relying wholly on an external auditor could easily miss.

2.0 The Background to Forest School

2.1 What is Forest School?

Think of Forest School as a classroom in the woods, literally “school in the forest”. Children who take part often see it as playtime; what child wouldn’t jump at the chance to leave a stuffy classroom and have a run around outside? It is however much more than just playing in the woods.

Forest school originated in Scandinavia in the 1950s as a way of teaching children about the natural world. The concept was brought to the United Kingdom in 1995 through the experience of a group of Nursery Nurses visiting Denmark from Bridgwater College in Somerset. Lecturers recognised how the idea could be applied to childcare provision in their own Early Excellence Centre (1), and so the college became the first organisation in England to offer formal accredited training in Forest School teaching methods and the thinking behind them.

Bridgwater College took the concept beyond just a way to teach children about the outside world. Firstly, it is not just for schoolchildren; it is relevant for young people and adults who benefit from a different type of learning experience. Secondly, the outdoors provides a complementary and contrasting environment to the traditional classroom and particularly supports those who might struggle to learn by reading and listening (sometimes called “auditory” and “visual” learning styles) because they are more attuned to learning “by doing” (this is known as a “kinaesthetic” learning style). Forest school is an opportunity for them to learn, literally, by getting their hands dirty. (2)

An approach to education that seeks to shape teaching methods to an individual learning style is not unique to Forest School. It shares with other experiments (such as the teacher who rearranges the desks in a classroom from rows to circles) the hypothesis that learning *how* to learn is as important as *what* you learn. It is not only the acquisition of knowledge that ensures someone can progress and get ahead; if learning is enjoyable and fulfilling, then a person grows and gains self-esteem through experiencing the process.

Forest school is important because for some children it may be the only opportunity to respond positively to their environment and the people around them. It may be a chance to succeed where before they have only failed, and so they are, as a result more likely to respond to future learning opportunities and experiences.



Another day in Forest School

2.2 Who is behind Forest School in Wales?

There are approximately 20 Forest Schools in Wales. About half of these are individual projects with finite sources of funding to support a few days of contact time teaching out of doors. More than a third are ongoing projects involving schools that are committed to regular visits to a Forest School with specially trained teachers or Forest School (FS) leaders. The Forest Education Initiative

(FEI) (a UK-wide partnership of eight environmental and educational organisations, including the Forestry Commission, the Field Studies Council, the Woodland Trust, Groundwork and the British Trust for Conservation Volunteers) is the body supporting most of the successful Forest Schools in Wales. (3)

Currently there is no formal regulation of Forest School in Wales, although a training programme for teachers and FS leaders has been approved through the Open College Network (OCN). The training consists of between 60 to 90 hours learning time, which includes theory, contact time, and individual project work. Level 1 is the basic Skills Award and can be completed over three or six months. Levels 2 and 3 are Skills and Practitioners Awards, which can be completed over six months, nine months or one year. On completion of each OCN unit, certificates can be obtained which are recognised by Education Learning in Wales (ELWa). The full training programmes are reproduced in **Appendix 4**.

2.3 Evaluation of two pilot projects: Duffryn and Flintshire

The two Welsh Forest Schools involved in this pilot evaluation are supported by the FEI, and it is hoped that this and subsequent studies will contribute to establishing a recognised and perhaps regulated methodology that can be incorporated into the mainstream education system for the country.

The two pilots generated evidence from groups of children in different educational settings and from different parts of the country. Children were selected on the basis that they were thought to be particularly vulnerable, demonstrated nuisance behaviour or were thought to be at risk of “dropping out” of the educational system. In spite of the differences, the recurring feedback from teachers and leaders involved with the projects was that of surprise at how exposure to the Forest School concept had a visible effect on certain children’s behaviour.

Background to Duffryn Forest School

Duffryn Junior and Infant School is a few miles outside Newport, Gwent. The area is known for high levels of child poverty (4) and has been designated a Communities First Area by the Welsh Assembly as in need of community development. The school is located at the centre of a housing estate, and has established a patch of public woodland next to the grounds that is carefully managed for Forest School activities. Children at the school have been having regular contact time as part of their weekly teaching schedule.

At first the lessons in Duffryn Forest School were conducted by outside partners, trained as Forest School Leaders from the FEI and Groundwork. However, the strong commitment of the school to the process has meant that many of the regular teachers have completed the training to become accredited as Forest School Leaders. It is hoped that they will continue to take regular sessions as part of their normal teaching routine, so there is less requirement to use FEI and Groundwork representatives.

Duffryn Forest School has a close relationship with a local residents’ support organisation on the Duffryn estate called Community Link. This organisation, which is partly funded through Communities First, works closely with the Forest School as they have identified common aims for the estate residents, such as raising environmental awareness and encouraging young people into outdoor activities.

Much of the funding for setting up the woodland area (such as preparing perimeter fencing) was secured through Community Link. They are committed to the future of the Duffryn Forest School to the extent that even if Duffryn School is unable to secure funding to support it, Community Link are keen to develop the area and safeguard the Forest School sessions for the wider community (particularly local youngsters who have dropped out of school) as well as the pupils in the school itself.

Background to the Flintshire Transition Project

The area around Flint is a part of North Wales where heavy industry has traditionally formed the backbone to the local economy. Although not considered deprived enough to qualify for Objective 1 (European Union) Structural funding, the region does however contain four Communities First areas designated by the Welsh Assembly as being in need of support for community development.

The scope for this project is wider than at Duffryn. The Flintshire pilot looked at the impact of Forest School contact time on selected groups of Year 6 pupils as they made the move from primary school into secondary school education. The children were identified by teachers at six feeder primary schools as needing extra support during the transition to secondary schools in the following school year. The two groups comprised pupils from the feeder schools divided up depending on which secondary school they were joining.

Trained Forest School Leaders supported by the FEI were responsible for delivering a full or half-day session every week for each group for the last part of the summer term. These took place at Celyn Woodlands, a prepared site in the grounds of the Welsh College of Horticulture in Northop.

During the last six weeks of the summer term, and for the three-day summer school, Local Education Authority (LEA) buses ferried children to and from the Northop Forest School site. No group had more than approximately a 30-minute journey to their Forest School session. Once the autumn term had started, sessions took place away from the Celyn Woodlands at the secondary schools. Here the transition project pupils were taken out of their regular classes for one or two periods a week.

Table 2.3.1 summarises the main characteristics of each pilot.

Table 2.3.1: Forest School Pilot Projects' details

Pilot	Partners	Schools involved	Pupil Profile	Contact time
Duffryn Forest School	<p>Forest Education Initiative, South Wales (Forestry Commission)</p> <p>Groundwork Caerphilly</p> <p>Duffryn Community Link</p> <p>Newport City Council</p>	Duffryn Infant and Duffryn Junior Schools, near Newport, Gwent	<p>Nursery (up to 5 years old)</p> <p>Infant – Nurture (5 to 6/7 years old)</p> <p>Junior – Nurture (9 to 11 years old)</p> <p><i>(Nurture = identified as particularly vulnerable)</i></p>	A half day per week per group of children throughout each school term
Flintshire Transition, Northop Forest School	<p>Forest Education Initiative, North Wales (Forestry Commission)</p> <p>Flintshire Local Education Authority (LEA)</p> <p>The Inclusion Service, Flintshire LEA.</p>	<p>John Summers High School, Queensferry Campus, Deeside</p> <p>Feeder schools for John Summers: (number of pupils in brackets)</p> <p>Sandy Croft (13), St Ethelwold's (5), Taliesin (4)</p> <p>St David's High School, St David's Terrace, Saltney</p> <p>Feeder schools for St David's: (number of pupils in brackets)</p> <p>Saltney Ferry (5), Wood Memorial (6), Derwen (1)</p>	<p>Year 6 pupils from the primary (feeder) schools identified using the following criteria:</p> <ul style="list-style-type: none"> • Generally working at Level 3, expected Maths SATS Level 3. • Have the potential to achieve Level 4. • Vulnerable in transition, possibly lacking support at home. • Possibly lacking social and coping skills. • Low self-esteem. • Probably kinaesthetic learners. (Learn best by doing) • Probably not special needs. • No regular strong behaviour/personality that may squash others. 	<ol style="list-style-type: none"> 1. Three full days and three half-days for each group in the Summer Term 2. Three consecutive full days at a summer school 3. Regular sessions at each secondary school throughout the following Autumn Term

3.0 The evaluation process

3.1 Why evaluate Forest School?

Most people who have had anything to do with Forest School agree that there is something special about this radical approach to teaching. They see remarkable changes in the behaviour of those children who do not perform as well in traditional classroom environments; they blossom in Forest School. Sometimes the transformations are astounding, and yet, the existing academic tests tell less than half of the story.

The way people relate to the world around them, and their ability to get on and get ahead are linked. This is often described in terms of social capital (such as networks of trust and mutual understanding) and human capital (such as personal skills, knowledge and self-confidence). It is important to try and understand and formally capture this link between Forest School activities and the impact on the individuals who take part if the Forest School concept is to be accepted by a wider audience, and especially if it is to become recognised in the mainstream as complementary to more traditional teaching methods.

Forest schooling in the United Kingdom is still at an experimental stage, and the impact of this different way of learning is only just beginning to be explored. In a world where only things that can be measured are considered important, the potential outcomes will only be realised and recognised when we look beyond traditional academic performance as the only measure of success.

3.2 Methods

In an evaluation, no one method of collecting information will tell you the whole story. Numbers are just numbers without other parts of the story to illustrate them. Yet when combined, qualitative and quantitative measurement used in a detailed evaluation are complementary and help strengthen a case for causation. The more ways that information can be gathered, the more layers there are to a story, then the better a case can be made that an activity or output has led to a particular outcome.

Table 3.2.1 summarises how qualitative and quantitative approaches to measurement are different.

This evaluation relies on qualitative measurement to establish a convincing case for the hypothesis about how Forest School makes a difference. Further study would be needed to test this hypothesis by developing ways to collect and compare numerical data.

Table 3.2.1: Comparing Quantitative and Qualitative Measurement

	Quantitative	Qualitative
Typical method	Surveys and sampling	Interview and observation
Questions they answer	What? How many?	Why? How? What unintended consequences?
Strength	Policy-makers like it	Handles complexity
Weakness	Dry	Messy
Use in relation to hypotheses	Test them	Generate them

Recent years have seen a radical change in the thinking on how to measure the effects of regeneration work beyond just inputs and outputs such as the number of people involved, number of trees planted or pots of paint used. **nef** (new economics foundation) has been at the forefront of this approach to evaluation, especially in attempting to tell the story of regeneration and renewal work from the point of view of the people who are involved and affected, especially in terms of its effect on local social capital and community well-being. Our handbook *Prove It! Measuring the Effect of Neighbourhood Renewal on Local People* (5) is about involving local people in counting the important yet difficult-to-measure impacts of projects whose aims are to improve people's quality of life.

Table 3.2.2 compares a conventional approach to evaluation with that favoured by **nef**.

Table 3.2.2: Different Approaches to Evaluation

	A conventional, non-participative approach	Participative approach favoured by nef
Approach	Top down, predetermined	Participative, adaptive
Role of local stakeholders	As respondents and providers of information only	Active involvement in all stages of the evaluation
Role of evaluator	Plans, manages and decides on process exclusively	Acts as a facilitator and trainer; democratises evaluation process
Indicators	Measuring the "easy to count" inputs and outputs	Capturing impacts on aspects of social capital (e.g. pride, safety, community well-being)
Rationale	Policing (verification / falsification)	Learning (encouragement / appreciation / celebration)

Our experience tells us that as well as demonstrating how certain activities lead to the less tangible outcomes of improved quality of life and well-being, by being participative, evaluation can add value to a project or community by building the capacity of local groups and people involved.

If in an evaluation the intention is to use several different methods to collect data (in order to build up the many layers of a story), care must be taken not to insist on

using such a large number of complicated tools that the process is so much of a burden that it inhibits delivery of the project being evaluated.

For outcomes to be fully appreciated and understood, evaluation should be viewed as a long-term process. We believe that a methodology needs to be robust enough so that it is used consistently over time, varied enough to collect as many different layers, and yet accessible enough so that it becomes a part of the culture of an organisation. This is more likely to happen if:

- It is easy to use as part of existing activities,
- It is clearly beneficial for those taking part,
- It has opportunities for reflection and learning to help shape future work,
- It identifies things to celebrate.

Because of the potential benefits of evaluation for “the people being measured” we view the process as being as important as the outcome. To understand the real impact of a Forest School in a way that is useful to the project itself, an evaluation methodology needs to be an integral part of the way it is set up and delivered.

3.3 How the evaluation was conducted

The challenge was to develop a methodology detailed enough to capture formally what has, until now, been anecdotal evidence of changes in pupils’ behaviour, whilst at the same time being as little as possible of a burden on the time and resources of an already hectic teaching schedule.

Throughout this first year (which we have called “Phase 1”) there were opportunities for those involved in both pilots to compare and share learning, not only about how Forest School works (the success factors), but to understand and be able to tell others how the Forest School activities make the world a different place.

We held two joint workshops at either end of the evaluation period for Forest School Leaders, teachers and representatives of the Forest Education Initiative (FEI) in order to understand the processes behind delivering Forest School. We also established the all-important hypothesis of how a Forest School makes change (we called it “the story”), and began to explore how that hypothesis stood up in reality.

For both pilots this evaluation was divided into **three steps**:

1. Establish an agreed hypothesis (or hypotheses) for how we think a Forest School project makes a difference,
2. Collect information in the form of case studies on how that difference was observed in particular children,
3. Look back over the project to check whether the story (hypothesis) unfolded as expected, and to reflect on the process itself.

There now needs to be a fourth step. This would constitute “Phase 2”, and is about collecting a combination of qualitative and quantitative data to back up the hypothesis developed in Phase 1. A possible way forward for this is outlined in *Section 7* of this report.

1. Establish an agreed hypothesis

We find that there are different understandings of the language used to describe hypotheses. To be clear, Table 3.3.1 shows the definitions we are using for this evaluation.

Table 3.3.1 Definitions

Inputs	The Forest School <i>Process</i> ; Resources for an activity, or the activities and interventions themselves
Outputs	Direct <i>products or achievements</i> from an activity, and countable units
Outcomes	Consequences, impacts or <i>benefits</i> for the target group (and sometimes others)

Note that “outcomes” and “impacts” are here treated as synonyms.

We established an agreed hypothesis centred on understanding (or being able to “tell the story” of) the link between the various activities undertaken in Forest school and the expected eventual outcomes. We did this by asking the project leaders and teachers: “Why do you think this is worth doing?” It involved clarifying the individual steps from inputs and activities through to outputs and outcomes, to make the task of evaluating how successful those steps have been easier to assess.

Section 4 below represents the evidence in the form of six propositions laid out in a Storyboard (a table describing the activities, their outputs and how they influence outcomes – reproduced in full in **Appendix 1**) that illustrates this link in relation to the two pilot projects.

2. Collect information

In order to establish how the important elements of the story could be captured, we held two meetings for those involved with the support and running of each pilot project. By observing and understanding what a “day in the life” of a Forest School was like we explored different ways that Forest School leaders could report on activities and observations in a way that was both useful to them and feasible in the limited time available following sessions.

Over the two pilots we experimented with the following methods:

- a) A Reporting Template for Forest School Leaders to structure observations and comments that related directly to the Storyboard at the end of each Forest School session,
- b) Questionnaires for teachers, parents/guardians and pupils asking specific questions about behaviour in and out of Forest School, and attitudes towards it,
- c) Unstructured reports by Forest School Leaders following sessions with accounts of the activities and their observations,
- d) A large spreadsheet to collect comments on individual children for a term’s worth of Forest School sessions making it easier to compare observations over time.

In addition, we acknowledged that teachers would also be assessing individual pupils on academic performance, although impacts on this were likely to be observable in the longer term and not easily captured within the scope of this evaluation.

This evaluation was about impact measurement and the methods we used looked only at that. As part of a long-term evaluation, qualitative information collected in these ways would need to be combined with quantitative input and output measures. Some of these may already be available to the teachers and staff involved, and this aspect of a self-appraisal methodology would need to be developed as part of the Phase 2 Evaluation.

3. Look back over the project

The final data collection exercise took the form of reflection workshops for the participants in each pilot project. The workshop took the form of a structured focus group using a poster to record comments and findings.

The poster we used was based on a model originally developed by **nef** and the *Shell Better Britain Campaign* as a way for small-scale projects to evaluate their work in order to get maximum learning and a sense of achievement from their results. A set of instructions and questions takes participants through six stages that collect and explore evidence to endorse or challenge their hypotheses, as well as providing an opportunity to look back on how the project was delivered. The complete instructions for the tool are reproduced in **Appendix 5**.

Participants are encouraged to focus on different aspects of the project's outputs and outcomes. Traditional quantitative evaluation using "before and after" indicators is usually best for catching intended and tangible outcomes (less so for intangible ones); this Poster Session is designed to acknowledge both as well as to understand some of the unintended and unexpected consequences of the project.

It provides a good opportunity to review what has been learnt over the course of a specific period, (e.g. a school term) and most importantly for this evaluation, explored whether the hypotheses on how the project creates impact stood up in reality. To do this the workshop was conducted with close reference to the Storyboard established at the start of the evaluation (see the **Activities, Outputs and Outcomes** table reproduced in **Appendix 1**.)

4.0 The Impact of Forest School

4.1 The Forest School hypothesis

The Process

The first step in this evaluation was to establish an agreed hypothesis of how Forest School makes a change. A hypothesis starts with a description of the world before an intervention (the context), the various activities that are planned as part of that intervention, the expected outputs, how those outputs bring about expected outcomes, and finally, a description of what the world looks like once those outcomes are achieved.

Forest school is a process that, to be effective, relies on specific activities and interventions that take place in a particular environment. The background to the hypothesis is that neither the environment nor the activities on their own necessarily bring about the desired outcomes, but do so when combined.

The term "Forest School" refers not only to activities (e.g. Shelter building), but environmental factors such as the training for leaders, how the sessions are coordinated, and the setting in which the activities take place.

Figure 4.1.1

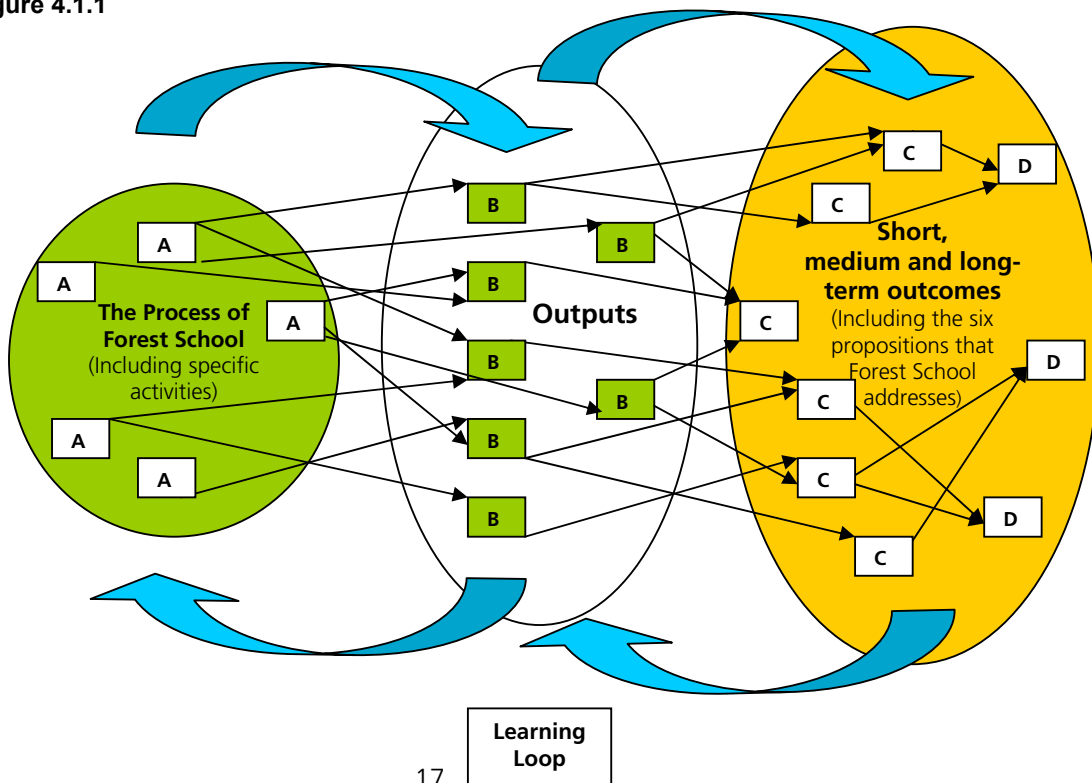


Figure 4.1.1 summarises how the Process works. Specifically chosen inputs (**Activities “A”** – represented by the clear boxes in the left hand circle) are carried out by trained Forest School Leaders in a particular type of environment (**Forest School** – the circle on the left) Each of these activities either individually or in combination with other activities, produce certain **Outputs “B”**, such as physical objects, or learned skills and behaviour.

Some of these outputs (again individually and in combination) lead to **Outcomes “C”**, some of which can be observed by changes in behaviour or attitudes amongst the individuals who have been involved. These, in turn, can combine with other environmental and specific factors to bring about **Longer-term Outcomes “D”**. For it to work effectively there needs to be a **learning loop** at each stage that allows reflection on the way the Forest School project is carried out, which allows for the adjustment of subsequent activities.

The following Table 4.1.2 describes examples of activities, outputs and outcomes associated with the Forest School Process as we established it in the first workshops with the two pilot projects.

Table 4.1.2 Examples of Activities, Outputs and Outcomes

A	B	C	D
Activities in Forest School, for example:	Outputs, for example:	Short and Medium-term Outcomes, for example:	Longer-term Outcomes, for example:
1. Building structures			
2. Using Tools	1. A Shelter	1. Increased Self Confidence	
3. Learning Safety Routines	2. Knowledge of tool use	2. Co-operative behaviour	1. Improved academic performance
4. Making Objects	3. Awareness of safety issues	3. Better Motivation	2. Increased sense of well-being
5. Games	4. Hand-made dream-catcher	4. Pride in the neighbourhood	3. Better behaviour
		5. Environmental awareness	
6. Small, Achievable Tasks	5. Experiences to talk and write about	6. Improved skills and Knowledge	
7. Co-operative Tasks			

Columns A, B, C and D are set out in the order (left to right) in which they occur, but this does not tell us how each column contributes to the next. Just because D and C follow B and A, it does not necessarily mean that D and C are caused by B and A. So although it may be clear that A1 (Building structures) can lead to B1 (a shelter) how that might lead to any or all of C1 to C6, or even D1, 2 or 3 is not immediately obvious.

In order to understand how they might all be linked we need to describe our hypothesis in greater detail and then test it. This is a complex task, and so with this first evaluation we decided to pinpoint six specific and observable outcomes (column C) and focus on establishing how there was a link between these and the preceding activities and outputs.

Six propositions

It is claimed that there are many long and short-term outcomes of an individual's experience of Forest School. Focus-group workshops with Forest School Leaders and other staff involved from both pilots distilled what Forest School does into **Six Propositions** about the issues that the experience addresses for the individuals involved. Although these propositions are not the complete picture, it was felt that they best capture the most easily observable outcomes. The propositions are as follows:

1. Forest School increases the self-esteem and self-confidence of individuals who take part.
2. Forest School improves an individual's ability to work co-operatively and increases their awareness of others.
3. Forest School counters a lack of motivation and negative attitude towards learning.
4. Forest School encourages ownership and pride in the local environment.
5. Forest School encourages an improved relationship with, and better understanding of, the outdoors.
6. Forest School increases the skills and knowledge of the individuals who take part.

Propositions 4 and 5 are similar. Both involve a better understanding of the wider environment. The differences between them are to do with the sense of ownership that comes from revisiting a familiar environment for 4 (a short to medium-term outcome), and the confidence to explore new and unfamiliar environments for 5 (a longer-term outcome). Experiences in Forest School that bring about the fourth Proposition also contribute to the fifth, and visa versa.

The focus of this evaluation was to test these six propositions. A clear link (i.e. A convincing "story" linking examples in column A to examples in column C) needed to be established of how specific Forest School inputs lead to the desired outcomes.

So what?

For each of the six propositions we fleshed out the hypothesis that takes us from activities (A), outputs (B) to outcomes (C) by using the "So what?" question.

For example, part of the story for the proposition that Forest School increases self-confidence and self-esteem could be related as follows:

The child is helped by a Forest School Leader to build a shelter...(Activity A)

So what?

...so that when built, the child has a visible, tangible object that they have created...(Output B)

So what?

...so that they can see and take pride in the physical evidence of a piece of their own work...

So what?

...so that they know that they can do it next time...

So what?



Shelter-building in Northop Forest School, Flintshire

...so that next time, they build a shelter with less help...(Observed change in behaviour)

So what?

...thus demonstrating an increase in self-confidence in their own ability. (Outcome C- The World after Forest School)

For many, such a narrative would appear to be common sense. However, some links are easier to track than others and it is important to be clear about the details of how certain strategies lead to particular outcomes if they are to be employed for a specific purpose. The better this understanding, the more effective the learning loop for next time.

A table showing **Activities, Outputs and Outcomes** for the six propositions, along with summaries of the hypothesis for each, is reproduced in full in **Appendix 1**.

4.2 Evidence to support the hypotheses

The following evidence helps establish the hypotheses by demonstrating that there is a convincing case to be made for all six of the propositions concerning what Forest School can achieve. This has been compiled by sifting through the observations and examples that were illustrated in the various reports and accounts from teachers, Forest School Leaders, pupils and staff involved.

This next section presents a selection of the stories gathered that supports the original propositions by illustrating the hypotheses in action. As far as possible the words used are those of the Forest School leaders or teachers involved. However, individual children's names have been changed.

For each proposition the appropriate row from the **Activities, Outputs and Outcomes** table is reproduced, followed by case study examples to illustrate the hypothesis. As was implied in Figure 4.1.1, it is clear that there is a great deal of overlap as a particular activity can have several objectives by addressing a range of issues.

Proposition 1: Forest School increases the self-esteem and self-confidence of individuals who take part.

Forest School Process	Specific Outputs	These lead to the desired outcomes by ...	"The World after Forest School"
<ul style="list-style-type: none"> ➤ Low pupil – adult ratio ➤ Tool use: to encourage trust and responsibility ➤ Creating and making things (E.g. Shelter, tools, masks) ➤ Child-led games and activities (E.g. Songs and actions) ➤ Opportunities to experience an environment different from that which they are used to 	<ul style="list-style-type: none"> ➤ More one-to-one time with an adult ➤ Pupil learns new skills, and can recognise that they have learnt something new ➤ A pupil produces physical evidence of work (E.g. Shelter, tool, mask) ➤ Taking part in fun group activities, and having the chance to lead them (E.g. choosing words for a song) ➤ A different focus for an individual with a difficult home life 	<ul style="list-style-type: none"> ➤ The extra support assists the pupil in achieving goals ➤ Pupil sees what they can achieve and that contributes to increased self-esteem and self-confidence ➤ A happier child who is more independent 	<ul style="list-style-type: none"> ➤ The child demonstrates an increased self-reliance/independence ➤ The child demonstrates a greater confidence in trying out new things ➤ The child appears more confident (E.g. Speaks with eye-to-eye contact, initiates conversations.)

- Cameron was reluctant to make eye contact with adults, and would hold his hand up to his face to avoid looking at people. By the fifth Forest School

session, Cameron was joining in with the Forest school song, including taking part in the actions. He even smiled at one of the Forest school leaders. (Duffryn, Reception)

- Carl isn't dextrous, and is rather accident prone and unsure of himself. In Forest School, however, he thrived, gaining confidence using the tools, and taking enormous pride in sorting and cleaning the tools at the end of each session. He was very proficient gathering materials and constructing a shelter. His enormous pride in the shelter was evident. (Flintshire, Year 6)
- Andrew had no self-confidence. There were difficulties at home, he appeared vulnerable and was easily upset. He was quiet, worried and scared of failure. With the one-to-one support and encouragement at Forest School he would have a go and be successful. He ended up enjoying the cooking and bread making. He is an ideal candidate for ongoing sessions. (Flintshire, Year 6)
- Dorian's mother said that for Dorian "the thought of going to High School was daunting – not anymore" (Flintshire, Year 6)

Proposition 2: Forest School improves an individual's ability to work cooperatively and increases their awareness of others

Forest School Process	Specific Outputs	These lead to the desired outcomes by ...	"The World after Forest School"
➤ Establishing safety routines (holding brambles for others)	➤ Following safety routines	➤ Gaining experience of working in a team	➤ Children speak and listen in turn
➤ Sharing tools and equipment	➤ Making something together as a group	➤ Helping others and sharing tasks and tools	➤ Children work together and appreciate one another
➤ Sharing tasks (E.g. fire making)	➤ Listening to instructions	➤ Building trust amongst peers and towards adults	➤ A child demonstrates improved relationship with peers and adults (E.g. identifying shared objectives; "gelling" as a group; making new friendships.)
➤ Building a shelter	➤ Talking to others to share tasks	➤ Understanding and employing safety routines that makes individuals more aware of those around them	
	➤ A visible output of a shared piece of work	➤ Seeing the importance of listening to instructions	

- Gary appeared "switched off" in class and demonstrated a lack of self-awareness and poor social skills. He was not a good team member. He visited Forest School several times, and appeared to enjoy it, and I began to see a change after about four visits as he became more interested in tasks. He started to work as part of a team, then in the last two sessions he formed a very productive, independent team with Terry and a few others. They started to come up with ideas on how to renovate the path, practically putting the ideas into action. Brilliant team. (Flintshire Year 6)



Building a shelter

- John is loud, domineering, overpowering (described as having Attention Deficit Hyperactive Disorder - ADHD) who needed a minder [full-time carer] in school. In Forest School his energy was channelled into activities (such as looking after the Kelly-kettle [water boiling for tea]) and helping others. He showed that he could be a team member who could make friends and gain more respect from his peers. Gradually by showing him trust, a relationship developed between John and the Forest School leaders. We relaxed around him. (Flintshire Year 6)
- The original teacher's assessment states that Morris has ADHD... "and that when moving around the school he can be aggressive and tends to push people out of the way." On the last day of the Forest Summer School the Forest School Leader's notes report that "He came with his Dad, who was very pleased with everything – made a mallet! Morris was very helpful to me

when I was cooking! Was keen to make a cup of tea for his Dad using the Kelly kettle. (Flintshire Year 6)

- Sandra arrived on her own but left with friends as part of a group and with confidence for the future (Flintshire Year 6)
- Using a shoe lace, the task was to collect leaves of similar size to make a Xmas decoration. Becky who is always very precise, not only counted the leaves as they were placed on the string, but collected all leaves of similar size and shape. On the contrary Lawrence’s decoration was haphazard with varying sized leaves and not all placed centrally. Becky looked at Lawrence’s decoration and said "No, look at mine, Lawrence, it needs to be all the same sizes." She then began to collect leaves of the same size for Lawrence and position them accurately on the thread. Lawrence then said "That's brill, Becky, thanks." (Duffryn, Reception)
- The children had to collect twigs of a similar size to build “Eeyor’s Shelter”. They searched together and some used a saw to cut twigs taking it in turns and waiting patiently. Children who would not normally form friendships worked together taking turns to lead or follow. (Duffryn, Reception)

Proposition 3: Forest School counters a lack of motivation and a negative attitude towards learning.

Forest School Process	Specific Outputs	These lead to the desired outcomes by ...	“The World after Forest School”
<ul style="list-style-type: none"> ➤ Diverse activities and experiences to suit different children (focussed on individual learning styles) ➤ Small achievable tasks (E.g. stick-sharpening) ➤ Child-led activities and games ➤ Discussions and reflection activities for children on what they have done and learnt 	<ul style="list-style-type: none"> ➤ Opportunities to take part, and do different things ➤ Small tasks easily achieved (a sharpened stick) ➤ A learnt activity that provides a “Coping Strategy” (E.g. Stick-whittling to channel anger or frustration) ➤ The need to communicate, more conversation ➤ First hand experience of the outdoors 	<ul style="list-style-type: none"> ➤ Providing experiences that offer the child something exciting, positive and personal to write/talk about in class. ➤ Motivating the child ➤ Improving communication ➤ Wider expectations from teachers ➤ Better concentration because the individual’s attention is held by something that interests them. ➤ Learning a coping strategy to channel anger or frustration 	<ul style="list-style-type: none"> ➤ The child demonstrates a greater interest and enthusiasm for a subject ➤ The child appears more eager to learn and demonstrates improved classroom performance (Also seen as part of a teacher’s observation and a pupil’s academic results) ➤ Improved behaviour, demonstrating ability to deal with anger and frustration

- Gary had been having difficulties in school and was a borderline case for exclusion. [...] He visited Forest School several times, and appeared to enjoy it. I began to see a change after about four visits as he became more interested in tasks [...] He really cared about the result and was focussed. He became totally absorbed in the activities. He said to me that he had really found his place in life. He now wants to work in the wood as a job. (Flintshire)
- Justine was described in her teacher’s report as not sufficiently achieving her level in school “partly due to attitude, not prepared to have a go”. During the early sessions she was giggly and silly, and only worked when closely supervised. However, at the three-day summer school she “was keen to finish shelter” (Day 1) and “Concentrated well on making axe, clay and bow drill” (Day 2). (Flintshire)



Using tools at Northop Forest School

- Sean – feedback from Head that behaviour had been excellent. Developed ‘whittling’ coping strategy for when he felt angry. (Flintshire)

Proposition 4: Forest School encourages ownership and pride in the local environment

Forest School Process	Specific Outputs	These lead to the desired outcomes by ...	“The World after Forest School”
<ul style="list-style-type: none"> ➤ Planting (E.g. A hedge) ➤ Look after a piece of woodland over time, (clearing scrub and brambles and seeing the results in springtime) ➤ Nature projects ➤ Showing visitors around and involving them in Forest School activities (parents and carers) 	<ul style="list-style-type: none"> ➤ Things they make in the woods (E.g. Shelter, planted hedge) ➤ Collections for displays and studies ➤ Photographs and diaries describing activities ➤ Parents and Carers involved in activities 	<ul style="list-style-type: none"> ➤ Actively taking care of an outdoor space ➤ Becoming more observant of changes when returning to the same plot over time ➤ Encouraging the recognition of sights and sounds of flora and fauna ➤ Talking to others about their Forest School, being able to share experiences out of school 	<ul style="list-style-type: none"> ➤ Visible ownership of and relationship with and pride in a place ➤ Increased instances of observation / noticing things ➤ Children demonstrate an understanding of the consequences of their actions <p>(E.g. Not dropping litter)</p>

- Before coming to Forest School, Russell had no interest in the local woodland. However, in the course of the sessions he took part in all the activities, particularly one exploring the area collecting materials for a collage. He showed a particular interest in a piece of bark that was coloured differently on both sides. He doesn’t drop litter in the woodland. When the school inspector came to observe, Russell was keen to show him around and talk about Forest School. (Duffryn)
- Jennifer remembered the dragonflies on the bridge from the previous week, seems to notice much more in the forest, wants to share knowledge and talks a lot although difficult to understand sometimes. (Duffryn, Nursery)
- Luke appeared not to have snapped twigs before and did it in a very deliberate and considered way. (Duffryn, Nursery)

Proposition 5: Forest school encourages individuals to build a closer relationship with and better understanding of the outdoors

Forest School Process	Specific Outputs	These lead to the desired outcomes by ...	“The World after Forest School”
<ul style="list-style-type: none"> ➤ The Treasure Tree (Finding a hidden object that becomes the focus for the day’s activities) ➤ Mini-Beast hunts ➤ 1-2-3 Where are you? Hide and seek game ➤ Being out in all weathers in different seasons ➤ Doing own risk assessment 	<ul style="list-style-type: none"> ➤ Routines in Forest School similar to routines in class ➤ Collection of bugs and insects for classroom nature projects ➤ Exploration of a woodland area ➤ Dressed in suitable outdoor clothing that keep you dry ➤ Follow and understand safety rules (E.g. crossing roads safely) ➤ A realistic understanding of potential risks 	<ul style="list-style-type: none"> ➤ Linking inside routines with outside ones to provide safe structure to the unfamiliar surroundings ➤ Demystifying the outside, and becoming more aware of the environment, “bringing the outdoors inside” ➤ Having the freedom to explore “wilderness” in a safe way ➤ Encouraging more independent exploration ➤ Building confidence and realising that it is alright to get wet and dirty 	<ul style="list-style-type: none"> ➤ The child is visibly “at home” in an outside environment – happy to roam and explore on their own

- Natasha initially was reserved and didn’t want to explore the woods. As the weeks wore on [subsequent Forest School sessions] she became more

relaxed and enjoyed carefully observing woodland details. For example wandering off to look for shrimps in the stream or finding “furry” ferns. (Flintshire)

- In the second session Britney got very cold sitting around the log circle. She cuddled up to the helper and did not participate in any of the activities. In Session Three she was nervous of the fire, and did not want to help build it or pour water on it to put it out. Session Five was another cold day. Britney participated fully in the session, keeping busy and warm. She helped to build the fire and to put it out. (Duffryn, Reception)
- We then started to make goblins, I went with X and we picked the leaves for the goblin, Y was there as well. There was a flower that was poisonous, that would make your heart beat so fast that you would have a heart attack. Now I am careful with every flower that I pick, especially if I have not seen it before. (Extract from the diary of a pupil in the Flintshire Pilot)



Mini-Beast Hunt at Duffryn

Proposition 6: Forest School activities increase the skills and knowledge of the individuals who take part

Forest School Process	Specific Outputs	These lead to the desired outcomes by ...	“The World after Forest School”
<ul style="list-style-type: none"> ➤ Helping to set safety rules ➤ Speaking and listening to others ➤ Writing up and recording Forest School activities (communication, IT) ➤ Making objects; (E.g. pictures of houses and shapes out of sticks - measuring, problem-solving, creativity) 	<ul style="list-style-type: none"> ➤ Made objects (E.g. Tools, and artwork) ➤ Use maths to measure/sort ➤ Opportunities for more communication ➤ Writing and drawing exercises ➤ First hand experience for writing exercises ➤ A learned activity that provides a “Coping Strategy” (E.g. Stick-whittling to channel anger or frustration) 	<ul style="list-style-type: none"> ➤ Expanding use of key skills ➤ Increasing learning ➤ Seeing a connection between abstract concepts and the real world (science and numbers in action) ➤ Becoming more confident to approach problem solving ➤ Learning a coping strategy to channel anger or frustration 	<ul style="list-style-type: none"> ➤ Understanding and following rules ➤ Demonstrating new skills/key skills (E.g. Improved classroom performance and academic achievement in maths and science subjects) ➤ Child enjoys a sense of achievement through solving problems ➤ Improved behaviour

Improvements in levels of key skills and academic achievement for the pupils at Duffryn have yet to be formally measured in the light of their Forest School experience, however at one of the Poster reflection sessions for teachers and Forest School leaders the following additional points were noticed:

- Instances of individuals demonstrating an improved understanding of science. For example being able to explain that when twigs snap with a loud crack that means that they must be dry, and therefore suitable for lighting a fire.
- A developed use of language. For example, Thomas saying that a leaf was a “skeleton leaf... because the fleshy bits have been eaten”. And Justine saying that there was a “SSSShissing” noise when water is thrown on a fire to put it out.
- Individuals being more observant. For example, Russell pointing out the different colours of a piece of bark, remarking on the weather and noticing an aeroplane’s vapour trail high in the sky. For Russell this was all unexpected behaviour.
- Even a task like collecting 10 sticks of the same length for a fire encourages a lesson in counting, and comparing different sticks to make sure that they are all equal.

For each of the six propositions the case studies often demonstrate successful achievement of more than one desired outcome. Further study will be needed to establish precisely if this success was due to a particular activity, or a combination of factors that include other activities, and the overall context in which they are delivered.

4.3 The Implications for different groups

We concentrated on developing the six propositions and hypotheses for how Forest School makes change in order to establish **what is generic to Forest School**.

Activities that appear similar on paper will look different in particular situations. Each individual Forest School operates in its own way depending on local circumstance and the people who are involved. For example, although the desired outcomes are similar for all ages and abilities in terms of increasing self-confidence and self-esteem, each particular project will be addressing a specific manifestation of confidence. For younger children this may be about having enough confidence to take part in activities as part of a large group, yet for young teenagers it may be that they need to gain the confidence to work as individuals.

The six propositions deliberately simplify the potential outcomes of the Forest School Process. In reality, the hypotheses are likely to be more complicated. This is where it is important to be able to establish **what is unique about a Forest School**. For an individual Forest School to be at its most effective, it is important that those involved in delivering the activities fully understand their project's impact by establishing their own detailed hypothesis (or hypotheses) for their particular situation.

Table 4.3.1 below shows examples of how the six issues can be approached differently for two different groups of children. These examples are taken from the two pilot groups and demonstrate how the hypotheses can be explored more deeply.

Table 4.3.1 The Implications of the Six Propositions for Different Groups

Proposition	The World after Forest School	How it works for Young Children (Up to Year 5) (E.g. Duffryn School Project)	How it works for Older Children: (Year 6 upwards) (E.g. Flintshire Transition Project)
1. <i>Forest School increases the self-esteem and self-confidence of individuals who take part</i>	<ul style="list-style-type: none"> ➤ The child learner demonstrates an increased self-reliance/independence ➤ The child demonstrates a greater confidence in trying out new things ➤ The child appears more confident (E.g. Speaks with eye-to-eye contact, initiates conversations.) 	Allows freedom to wander in a new environment to build confidence in exploration of the unknown	Allows freedom to try out new things in a new environment in order to build self-confidence in an individual's ability
2. <i>Forest School improves an individual's ability to work co-operatively and increases their awareness of others</i>	<ul style="list-style-type: none"> ➤ Children speak and listen in turn ➤ Children work together and appreciate one another ➤ A child demonstrates improved relationship with peers and adults (E.g. identifying shared objectives; "gelling" as a group; making new friendships.) 	Good for a whole class approach as it helps a class "gel"	Good for groups to get to know each other in preparation for Secondary School
3. <i>Forest School counters a lack of motivation and negative attitude towards learning</i>	<ul style="list-style-type: none"> ➤ The child demonstrates a greater interest and enthusiasm for a subject ➤ The child appears more eager to learn and demonstrates improved classroom performance (Also seen as part of a teacher's observation and a pupil's academic results) ➤ Improved behaviour, demonstrating ability to deal with anger and frustration 	Success relies partly on the innate need of a child to make sense of an unfamiliar environment by encouraging them to question and explore	The Forest school is a contrasting environment from the classroom that disassociates itself from classroom routines and any connected negative perceptions of learning
4. <i>Forest School engenders ownership and pride in the local environment</i>	<ul style="list-style-type: none"> ➤ Visible ownership of and relationship with and pride in a place ➤ Increased instances of observation / noticing things ➤ Children demonstrate an understanding of the consequences of their actions (E.g. Not dropping litter) 	<p>Routines establish patterns of behaviour associated with different parts of the woodland as a way of structuring sessions.</p> <p>Parents and carers are encouraged to come along and take part in Forest School activities</p>	<p>Opportunities to take part in the physical management of a woodland area.</p> <p>Parents and carers are encouraged to come along and take part in Forest School activities</p>
5. <i>Forest School encourages an improved relationship with, and understanding of the outdoors</i>	<ul style="list-style-type: none"> ➤ The child is visibly "at home" in an outside environment – happy to roam and explore on their own 	Associations of classroom routines in the woods are encouraged to make it "safe" for the children (Familiar routines in unfamiliar surroundings)	Forest School leaders encourage the discovery of new and unfamiliar aspects of an outdoor environment. (E.g. Evidence of small mammal activity)
6. <i>Forest School increases the skills and knowledge of the individuals who take part</i>	<ul style="list-style-type: none"> ➤ Understanding and following rules ➤ Demonstrating new skills/key skills (E.g. Improved classroom performance and academic achievement in maths and science subjects) ➤ The child enjoys a sense of achievement through solving problems 	Teachers and Forest School Leaders can observe individuals' development of key skills, such as use of language or problem solving	Specific activities can be linked to aspects of the curriculum. (E.g. Using a Kelly kettle to boil water for tea, or needing enough supports and ties to build a robust shelter)

5.0 The Forest School process

5.1 What else contributes to the process?

In *Section 4* we illustrated some of the important outcomes that teachers and Forest School Leaders observed for individual pupils in the two pilot projects. This evidence presents a convincing case for our hypothesis that contact with Forest School has an impact on whether the six propositions come about.

Forest School's success relies heavily on specific activities managed and supported in a particular way. The background and support against which those activities are carried out is also important. Where it works well the trained Forest School leaders are provided with a thorough understanding of the theory behind and practice of particular tasks. *Section 4* also talked about the generic and the unique in Forest School in terms of the physical activities that a Forest School project might undertake. Likewise, there are generic and unique additional background elements that are key to its success. This section explores these in more detail.

The evaluation of the Flintshire and Duffryn pilots identified **ten critical success** factors that the teachers and leaders described as generic to, and necessary for, a thriving Forest School.

1. Trained and experienced Forest School Leaders recognised and accredited by the schools and who are confident to deliver sessions

Enough adults at each session to ensure a low child to adult ratio

The same Forest School Leaders for each group or cohort throughout a series of sessions

2. Close contact and good communication between the school staff and the Forest School Leaders.

A prepared and established site where all the sessions are delivered

3. Good access to the Forest School
4. Link activities to the school curriculum
5. Familiar routines and structures to sessions
6. Enjoyment by the teachers and Forest School Leaders
7. Parent and carer involvement in Forest School activities

Table 5.1.1 expands on these success factors and for each of them highlights lessons learned and the implications for the two pilots and similarly designed projects. *Section 5.3* reproduces some learning points that are unique to each specific pilot.

Much of this learning came out of the **Evaluation Poster Workshops** held at the end of the evaluation for each pilot project. Quotation marks denote comments taken directly from those sessions. Full details on how this particular tool works are in **Appendix 5**.

Table 5.1.1: Critical Success Factors

Success Factor	Implications for a School / Community Project like Duffryn	Implications for a Schools' Transition Project like Flintshire
<p>Trained and Experienced Forest School Leaders recognised and accredited by the schools and who are confident to deliver sessions</p>	<p>Currently, there is only one registered trainer operating regularly in Wales. The training at Bridgwater College in Somerset is comprehensive, but often impractical in terms of distance to travel and the cost. Experience is important as, for example, the way the activities are conducted requires a careful balance between allowing the freedom for children to roam, explore and experiment, whilst at the same time making the limits clear.</p>	
	<p>In Duffryn Forest School leaders supported by the FEI ran the first sessions, with Forest School-trained form teachers taking on more responsibility throughout the project.</p>	<p>Forest School leaders from outside the school were employed on a consultancy basis by the FEI to deliver the sessions. A need was identified for more male Forest School trained leaders – especially as role models for working with boys from Year 6 and above.</p>
<p><i>Enough adults at each session to ensure a low child to adult ratio</i></p>	<p>This allows Leaders to concentrate on individuals with learning or behavioural difficulties, especially where these are thought to be due to lack of attention from peers, family or back in the classroom. This is also important for building trust between Leaders and pupils.</p>	
	<p>In the early part of the study Forest School Leaders were running sessions assisted by form teachers. The ratio did not appear to be as critical an issue as it was for groups of older children (E.g. Year 6 or upward)</p>	<p>Staffing was a big issue for Flintshire's Forest School leaders. The best day (shelter building with St David's) they had five adults and 28 children. Some children needed one-to-one attention. And so there needs to be a pool of staff that can be called upon. One of the feeder schools did not use the selection criteria for choosing participants. This resulted in there being a much larger cohort than expected and that made managing the sessions harder for the Leaders.</p>
<p><i>The Same Forest School Leaders for each group or cohort throughout a series of sessions, so that they get to know the children.</i></p>	<p>Getting to know the children is important for building rapport. Leaders need to be able to recognise specific behaviour patterns (that might potentially be harmful to themselves or others), as well as be better placed to notice any changes.</p>	
	<p>This is easier if the Forest School Leader is the regular form teacher for the individuals involved, as in Duffryn</p>	<p>If the Forest School Leader is not a teacher in the school, he/she must be well-briefed on the background of that individual</p>
<p>There is close contact and good communication between the School Staff and the Forest School leaders.</p>	<p>This is easier if it is clear that the Forest School is assisting the teachers in fulfilling their role back in the classroom</p>	
	<p>In Duffryn the teachers are FS Leader trained and will eventually deliver the sessions without outside support</p>	<p>It was recognised as vital to have support and endorsement from the schools for the Forest School project. There are extra benefits in terms of continuity and profile within the schools if teachers or classroom assistants attend the sessions. "It would have been useful to do a presentation to the schools at an early planning stage so as to explain what Forest School is".</p>

Success Factor	Implications for a School / Community Project like Duffryn	Implications for a Schools' Transition Project like Flintshire
<p><i>A Prepared and Established Site where all the sessions are delivered</i></p>	<p>The site must be made safe and easily accessible. If it has public access, then checks for potential hazards must be carried out. By revisiting and getting to know the same site over time, children can see the changes that take place over the seasons.</p>	
	<p>In Duffryn, perimeter fencing has been set up around a part of the woodland, so that younger children can roam safely and get to know the area. Paths are kept clear and checked for potential hazards before sessions.</p> <p>An environmentally healthy site would be for the Forest School leaders another indicator that the project has been successful.</p>	<p>The Celyn Woodlands site (in the grounds of the Welsh College of Horticulture in Northop) has an area set aside where semi-permanent structures such as shelters and fire circles are maintained. The next programme of sessions may have to be moved nearby so as to minimise the environmental impact.</p>
<p>Good Access to the Forest School</p>	<p>This will mean that transit to and from the site will be less disruptive to the school routine, and the effective delivery of the Forest School programme.</p>	
	<p>In Duffryn this is easy because the patch of woodland used for Forest School is only a short walk away. Teachers can prepare the site in advance of a session.</p>	<p>The transport must be efficient. In Flintshire the sessions were least successful when there were difficulties with transport. Sometimes children were left waiting in the street. Some were not collected at all. Often the transit between sites was taking too long, leaving little contact time in Forest School</p> <p>Stronger links and more resources to manage the relationship between the participating schools and the Local Education Authority transport department would have prevented this.</p>
<p>Link activities to the School Curriculum</p>	<p>Where the activities can assist teachers in delivering key parts of the curriculum, there is more likely to be support and endorsement of the project. This is about clearly understanding what Forest School can deliver.</p>	
	<p>Where the teachers are themselves trained as FS leaders, Forest School easily and quickly becomes another one of the teachers' available resources.</p>	<p>In Flintshire this was harder as the teachers were not directly involved in the sessions themselves. More work would need to be done in future projects to strengthen the relationship in other ways.</p> <p>"The Primary [feeder] Schools should be more involved – they should be asked what they want to see included."</p>
<p>Familiar Routines and Structures to Sessions</p> <p>Familiarity is another key factor in establishing trust between the Forest School Leaders and the pupils.</p>	<p>"Circle Time" the "Treasure Tree" and other familiar routines are good for discipline, safety and the confidence of the children in an unfamiliar environment.</p>	
	<p>For younger children, the classroom ethos is a positive force to transfer to the outdoors. Teachers involved in Forest School for the Nursery children described it as "establishing the community of the classroom in the woods". And for the Nurture group "there is an ethos of nurturing and support – in Forest School these values are made explicit"</p>	<p>For the Flintshire pilot, the sessions began and ended with "Circle Time" where the objectives of the day were established and reflected on. This demonstrated to the children that it is not just free play in the woods, and was good for acknowledging a session's achievements.</p>

Success Factor	Implications for a School / Community Project like Duffryn	Implications for a Schools' Transition Project like Flintshire
<p>Enjoyment by the teachers and FS Leaders This is important to encourage commitment to the work.</p>	<p>Feedback from both pilots demonstrated that there was huge personal reward in seeing a child achieve something new and different, particularly if it is something that a teacher's report had said was a problem for that individual. Being able to recognise positive results, and celebrate achievements is key for a Leader's motivation.</p>	<p>Participants in the Duffryn project said that they would know they have succeeded if the "children are enthusiastic" and the "teachers have had fun".</p>
<p>Parent and Carer Involvement in Forest School activities</p>	<p>If there are opportunities to involve parents in Forest School it may provide a "way in" for strengthening the relationship between a school and the community it serves. Additionally this could be a way to encourage parents to be more actively involved in their child's education beyond the parents' evening and the school play.</p>	<p>One comment from a Flintshire pilot Forest School Leader was that it had been "Good fun" – "I felt more confident - this grew as sessions progressed – I have a clear idea now of what works and what does not – and would look forward to doing it again."</p>
<p>Parent and Carer Involvement in Forest School activities</p>	<p>Duffryn's Forest School project has strong links with the local community. It is part of the vision of the community organisation, Community Link, to encourage involvement in Forest School from the wider estate. This would include parents and carers of the pupils.</p>	<p>Some of the most successful sessions for the Flintshire pilot occurred where there were opportunities for parents and Carers to come along and take part in Forest School activities. This occurred at the three-day summer school during the holidays in July 2003. Parents were invited to join in, and they appeared to enjoy the sessions as much as the children. Many were themselves proficient at some of the skills needed to produce some of the Forest School outputs (shelters and fences) and took an obvious pride in being able to help out.</p>

5.2 Comments and learning from the individual pilots

As well as the generic success factors, the **Evaluation Poster Workshop** gave the Forest School leaders and others involved with the pilots a chance to look back over the previous seven months and identify what was necessary to make their particular Forest School project work better next time. The following notes summarise the points that were made in these and subsequent discussions.

Looking ahead for Duffryn

1. Hold a parents' event focussing on the Forest School to continue to raise the profile.
2. Arrange opportunities for all participants in the project (including teachers, leaders and pupils) to reflect on the project, and celebrate. (E.g. Make a video to record events and activities)
3. Pay more attention at the start of a series of sessions to the children who are not getting so involved in the activities.
4. Be prepared for the different weather conditions. There is a need for a shelter area in the woodland so that sessions are not totally washed out in a rain shower.
5. The Duffryn Schools have their own acrostic for summing up what Forest School means for them:



Summer School at Northop Forest School Flintshire

“Freedom to have the Opportunity to Respect and respond to the Environment Safely Together. Self-esteem and Confidence is Higher because Of Outdoor Learning.”

6. A recent Estyn (the Welsh equivalent of “Ofsted”) School Inspection Report of the Infants School highlighted the success of Forest School and its importance to the school community. It is referred to extensively throughout the report in relation to the positive contribution “forest classroom” activities make to supporting elements of the curriculum as well as to the overall ethos and character of the school. Early in the report it sums up Duffryn’s Forest School in the following terms:

The School enjoys very productive partnerships with the Forestry Commission and Groundwork Caerphilly and have worked closely with these agencies to set up the highly successful Forest School, an outdoor classroom used to enhance pupils’ learning. The whole school community is justly proud of this development and pupils speak with enthusiasm about the work they undertake outdoors. (6)

Looking Ahead for Flintshire

1. There needs to be a full-time Forest School Leader or Co-ordinator from the start. This is essential due to the numbers of children and schools involved. This person would:
 - Go to schools and meet teachers and children. Act as a focal point for the project.
 - Organise transport so that the logistics run better, and staffing so that there are enough people to handle the workload (8 days’ work must be allowed for this organising)
 - Need to be someone with influence within the Local Education Authority (LEA) – who will be able to network and make contact between LEA members and teachers.
 - Hold a salaried post and must be dedicated to the project.
2. There needs to be better-defined and adhered-to criteria for choosing the children. These must be agreed between Forest School staff, the Primary School and the Secondary School.
3. A possible timetable for how a Forest School could be incorporated into a schools Transition project was proposed and is set out in Table 5.3.1.

Table 5.3.1 Timetable for transition project

September / October Year 1 →	March Year 2 →	May Year 2 →	June Year 2 →	July Year 2 →	September / October Year 2 →
1. Ensure funding is secure	1. Primary Schools identify pupils deemed to be vulnerable in transition	1. SATs finished	1. Forest school sessions begin (encourage participation of Year 6 teachers)	1. Bring together cohorts from separate feeder primary Schools for Summer School sessions	1. Follow-up Forest School sessions for combined cohort at Secondary School (Year 7)
2. Relationship established between Forest School Liaison officer, feeder Primary Schools and Secondary School to agree selection criteria	2. Liaison Officer, Primary and Secondary schools agree final list of pupils for Forest School cohort	2. Induction session for each cohort of pupils at the Primary Schools	2. Obtain ongoing feedback from Year 6 teachers		
3. Primary Schools review potential participants using agreed Forest School selection criteria					

6.0 A Self-Appraisal methodology

6.1 Why self-appraisal?

The arguments for self-appraisal are illustrated in **nef**'s publication *Prove It!* (7). In Chapter 4 it describes how involving local people in an evaluation (choosing meaningful indicators, collecting data and analysing it with the benefit of local knowledge) provides a valuable insight that outsider evaluators could miss.

On interpreting data it quotes from Margaret Wheatley's book *Leadership and the New Science*. 'In the traditional model', she says, 'we leave the interpretation of information to senior or expert people. Although they may be aware, to some extent, that they are interpreting the data, choosing some aspects of it, and ignoring others, few have been aware of how much potential data they lose through acts of observation. A few people, charged with interpreting the data, are, in fact, observing very few of the potentialities contained within that data.' (8) This translates to Forest School in terms of the teachers and Leaders being best placed to understand the changes that they are observing in the course of a project they are delivering.

Section 3 established why evaluation is important beyond the justification to a funding body that their money is being well spent. The learning, inspiration and confidence that comes from knowing yourself that you have, and can, make a difference is as vital to a project's sustainability as the next funding opportunity.

At the same time, a many-layered approach to telling a story strengthens a case for how particular activities lead to outputs and outcomes. An evaluation methodology that can describe these layers is complicated. Being effective means being flexible enough to be able to make use of any opportunity to collect information. The following list identifies a few of the ideas for collecting evidence:

- School parents / carers evenings
- Summer school events in Forest School where parents/carers are invited to come along
- Feedback during an open day or celebration event
- Circle Time at the end of Forest School session or in a classroom
- Existing teacher assessment and evaluation
- Through pupils' project work (E.g. videos and diaries)

The resources and the amount of time available to manage these opportunities will dictate to what extent each of them can be useful for data collection. Sometimes the

best opportunities for evaluation occur when it would be difficult or expensive for outside evaluators to be involved. Self-appraisal equips those who are in the best position to collect stories for themselves.

In *Section 4* we established a hypothesis about how Forest School works. This points to another deciding factor in choosing the way we measure it. The **Six Propositions** simplify the range of potential outcomes of the Forest School Process. In reality the hypotheses are likely to be more complicated. This is where it is important to be able to establish **what is unique about a Forest School**.

For an individual Forest School to be at its most effective, it is important that those involved in delivering the activities fully understand their project's impact by establishing their own detailed hypotheses for what they believe to be important for their particular situation. They will then be best placed to see whether it happens.

The question 'what would make an effective evaluation' provided a focus for the pilot participants. They suggested it is one where:

- There are ongoing opportunities for feedback,
- There is a chance to demonstrate a change of behaviour as it happens
- Outside experience is brought back into the classroom
- "You just know it's right!"

In order to manifest all these benefits an evaluation methodology must be integral to the way Forest School is set up and delivered. The challenge is that if there is too much extra measuring work for the people involved in a project then it is not going to happen.

6.2 Who needs to know?

At the start of this Pilot evaluation (in April 2003) we had a general discussion about the various stakeholders involved with a Forest School, and which of them needed to be involved in any self-appraisal process, and how. Again, each Forest School would have to consider this for their own situation, but Table 6.2.1 is a guide to help that discussion.

When considering the contact time with stakeholders, it is important to remember to look for opportunities to communicate information back to those who have taken part. This helps provide ownership of the evaluation for the people for whom it can be most useful.

There may be more stakeholders than those listed, and different reasons for involving them in measuring but whatever the outcome of those discussions, it will have implications for how the various evaluation tools outlined in 6.3 are used.



Circle Time at Duffryn Forest School

Table 6.2.1 Stakeholders' involvement in Forest School evaluation

Stakeholder Group	Why evaluate Forest school?	Who and How to be involved?	Generic to all FS projects?
Pupils <ul style="list-style-type: none"> • 3-4 Early Years (Nursery / reception) • 5-7 Year olds • 7-11 (Key Stage 2) • 10-12 (Key Stages 2/3) • 12-16 (also looking beyond FS contact) 	<ul style="list-style-type: none"> • To provide feedback to child about assessment (encourage self assessment) • To help child define own learning needs (not Early Years) • So that pupils can see for themselves what they can get out of school • To support the ongoing (and teacher-led) adaptation and improvement of the quality of a child's Forest School experience • To give an opportunity for Children to view themselves as other people see them 	<ul style="list-style-type: none"> • They can "measure" and be "measured" • Make it fun – so that they want to be involved in the measuring as well as other Forest School activities • Involve an element of peer to peer evaluation (not Early Years) 	Yes – but be aware of age-specific elements in different project groups
School Staff	<ul style="list-style-type: none"> • To recognise the importance and success of partnerships • To understand what works and what doesn't • Provide justification for using Forest School • To demonstrate that standards have been raised • To find new ways to evaluate • To celebrate with a sense of achievement • To gain a better awareness of what Forest School can do (E.g. different techniques for different learning styles) • Recognition of Forest School Leader expertise 	<ul style="list-style-type: none"> • Staff whose pupils are directly involved with Forest School • Plus Staff who are interested: <ol style="list-style-type: none"> 1. Special Educational Needs Co-ordinators (SENCO) 2. Head of Years 3. Form Teachers 4. Head Teachers 	Yes, in principle, although each school will have limits on amount of staff training time available (specific to each project e.g. budgets for supply teachers)
Forest School Leaders	As for School Staff, plus: <ul style="list-style-type: none"> • Be able to demonstrate a change in attitudes towards the outside environment • For self-recognition and celebration of expertise and achievements • To support proposals to pay Forest School leaders 	Involvement in the evaluation at every level where they hold responsibility for Forest School contact: <ul style="list-style-type: none"> • Leading and training • Planning and networking • Data collection (including self assessment – e.g. diaries) and appraisal / analysis of findings • Communicating results 	Yes
Parents / Carers	<ul style="list-style-type: none"> • Use Forest School evaluation as another way to encourage involvement of parents in school activities • Justification of the schools' investment in Forest School • So that they can quickly see the benefits of Forest School for their children 	<ul style="list-style-type: none"> • Parents can provide a good source of feedback on impact (e.g. changes of behaviour, or references to Forest School) outside the school 	Yes, where there is a good level of parent engagement
School Governors	<ul style="list-style-type: none"> • Justification of investment (provide evidence) 	<ul style="list-style-type: none"> • Possible involvement depending on available commitment (e.g. by Parent Governors) 	Yes
Wider Community	<ul style="list-style-type: none"> • To make / consolidate connections with the school • To demonstrate positive contributions to social behaviour 	<ul style="list-style-type: none"> • Can be involved collecting data (e.g. At open days) • Provide out of school feedback (community's view of the Forest school) 	Will depend on location of Forest School within the community – (E.g. at Duffryn the Forest School is also a community space)
Funding Bodies (current and potential)	<ul style="list-style-type: none"> • Justification of investment • To demonstrate value for money (need to define "value") 		Yes
Key Partners	As for Funding Bodies and Wider Community		Yes

6.3 Suggested methodology for a self-appraisal toolkit

1. Project storyboard and planning tool

There will be expected and unexpected consequences of an individual's contact time with the Forest School. This first part of the self-appraisal toolkit is designed to establish what is expected to happen; the hypothesis.

In order to describe the way that we think a story is going to unfold for a project we use a tool used by film directors known as a "Storyboard". In its simplest form it is a series of tableaux that illustrate the different stages of a project. We use words rather than pictures, but it is based on the "before and after" photographs that are so good for example at showing the difference green space enhancement projects have made to derelict land. To establish these tableaux a ten-step exercise structures a discussion for project managers, Forest School leaders and teachers so that together they can build a shared picture of how they expect the project will happen.

As part of the planning (not only of the evaluation but of the project itself) the stages of the **Project Storyboard** can then be plotted on a timeline or Gantt chart that illustrates the project. This forms the basis for choosing indicators of success and tells you when to start looking for them. It is particularly useful for evaluating projects where it is difficult to be sure of which outcomes were the result of specific activities. If all the planned stages (activities, outputs) have been followed as expected, and the outcomes are observed, at the end of a project a very strong case can be made for attributing outcomes to activities.

A version of the ten-step exercise is reproduced in **Appendix 5.1**

2. Reporting templates

In this study, the most valuable information for establishing the initial hypotheses came from the various reporting that Forest School Leaders and teachers produced at the end of sessions. The challenge was to capture the evidence formally so that it was structured enough to be comparable with other accounts (from other Forest School leaders, or for different sessions), whilst at the same time being flexible enough to include the necessary insights and background information that make a teacher's observations more relevant.

To address this challenge the Self-appraisal Toolkit consists of three elements (see Box 6.3.1):

- a) An **Introduction Sheet** outlining the context for each Forest School session.
- b) A Reporting Template organised **by session** for a group of pupils (to be used in conjunction with the Introduction sheet)

OR...

- c) A Reporting Template organised **by pupil** for a series of sessions (where the Introduction Sheet needs to be filled in for each session)

By comparing templates that have been filled in over a period of time, (for example a school term) the information can be reviewed in terms of the observed changes that have taken place over a series of Forest School sessions.

The last part of the toolkit, the **Evaluation Poster Workshop** is where this information is analysed and discussed in the light of the original hypotheses established with the **Project Storyboard**.

The **Reporting Templates** are reproduced in full in the **Appendix 5.2**

Box 6.3.1

a) Introduction Sheet

This consists of a side of printed A4 with boxes to record session details such as the date, the time, the weather, as well as the activities and hoped-for outcomes. It is designed to be used with both b) and c) below. It can serve as a planning tool for the session as well as a reporting one.

b) Reporting Template by Session

This consists of a simple table with a column down the left hand side to enter each pupil's name, with columns to the right for general comments, and for noting any observations relating to each of the **Six Propositions** described in *Section 6*. This table is designed so that it can be filled in during a post-session discussion amongst Forest School leaders. There is also a 1 – 3 scoring system that can be used as shorthand to illustrate the extent of change observed. This template has been designed so that it can be printed out on A3 paper so that there is space to write notes in the boxes.

c) Reporting Template by Pupil

This is arranged in a similar way to b), except that the left hand column is there to record the date of the session. This format is better suited to keeping individual pupil's records separate, and for comparing an individual's progress over a period of time. Like b), the table is designed so that it can be filled in during a post-session discussion amongst Forest School leaders. And likewise there is a 1 – 3 scoring system that can be used as shorthand to illustrate the extent of change observed. This template has also been designed so that it can be printed out on A3 paper so that there is space to write notes in the boxes.

3. Other Data Collection

Questionnaires

The Reporting Templates, and most of the self-appraisal toolkit elements have been designed with the Forest School leaders (and teachers) in mind. To get a fuller picture, (more layers to “the story”) there may be opportunities to develop and use questionnaires amongst parents, pupils and school teachers not directly associated with the Forest School.

Time is usually the main issue when planning a more in-depth investigation of this nature, and often the response rate in such studies can be quite low. Statistically rigorous results are unlikely to be obtained from such a study. To whatever extent questionnaires are used some useful anecdotal background evidence to support Forest School Leaders' perspective of the individual pupils can be collected for informal analysis. The more that the pupils can be involved in these exercises the better whether by asking questions or by recording scores and comments on posters. (There is a range of participatory appraisal techniques that are suited to collecting stories and information from young people.) (9)

Existing School Assessment Tools

There is already a large amount of measuring going on in schools. We mentioned in *Section 4* of this report that much of it on its own fails to capture the full impact of Forest School on the individuals who have taken part. It is nonetheless important for adding more layers to the story, certainly in terms of the triangulation of results. A comprehensive evaluation that makes the link clearer between Forest School and academic performance would help to make an even stronger case for take-up by mainstream education.

The following list gives a flavour of the sort of assessment tools that may already be available from schools.

- SATs and GCSE results
- Reading and spelling results
- Teachers comments / regular school reports
- Attendance figures for school and for Forest School sessions
- Multi-agency meetings (E.g. school nurse, educational psychologist)

- Conduct logs

4. Evaluation Poster Workshop

This is the last part of the data collection process for a self-appraisal of a Forest School Project. It is designed so that those who have been involved in the project (for example teachers, Forest School Leaders, funders or parents) can look back over the work and reflect on the impacts it has made and the lessons that have been learned.

It is a good opportunity to review a specific period, (E.g. a school term) and to explore whether the hypotheses on how the project creates impact stand up in reality. To do this the stories in the **Reporting Templates (2 above)** and the **Project Storyboard (1 above)** need to be revisited by all who take part in the workshop.

The tool takes the form of a Poster and set of instructions that structure a 1½ to 2½ hour meeting. Participants are guided through a series of numbered stages, each focusing on a different aspect of the project's outputs and outcomes. Traditional evaluation using "before and after" indicators is good for catching intended outcomes; this Poster Session is designed to acknowledge these as well as to understand some of the un-intended and unexpected consequences of the project, particularly throughout the process of its delivery.

1 Forest School Project

1 Name of group: _____
Name of project: _____

4 high

3 time line → → → → → time line → → → → → time line → → → → →

project start date

low

2 Evaluation Poster

Key	
■	names
■	group name
■	
■	
■	who is not here?

you are here today's date

time line → → → → → time line → → → → → time line → → → → →

Figure 6.3.2: First part of Evaluation Poster

Figure 6.3.2 shows the first half of the poster as it looks when it is reproduced on two sheets of A1 (Flipchart-sized) paper. Stages 1-3 guide the participants through a discussion that establishes the scope of the project, an agreed start date and a timeline of the activity. Stage 4 is where the participants re-tell their version of what happened throughout the Forest School period, which they do in terms of the **high points** and **low points** of the previous months. Each group of participants writes their comments (highs and lows) on different-coloured Post-it Notes (different colours that represent the different groups) and attaches them along the timeline. At the end of this part of the workshop the story of the project is reproduced along the timeline from several different viewpoints.

<p>5</p> <p>What have we Learned?</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>IMPACTS</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>LEARNING</p> </div>	<p>6</p> <p>Moving Forward</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; padding: 5px;"> <p>1. What do we want to achieve next?</p> </td> <td style="width: 50%; padding: 5px;"> <p>2. What do we need to do to achieve it?</p> </td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>3. So that we know we have succeeded...</p> </div> <p style="font-size: small; text-align: center; margin-top: 10px;"> <small>This tool has been adapted from a poster that was developed by the New Economics Foundation in conjunction with the Shell Better Britain Campaign.</small> </p>	<p>1. What do we want to achieve next?</p>	<p>2. What do we need to do to achieve it?</p>
<p>1. What do we want to achieve next?</p>	<p>2. What do we need to do to achieve it?</p>		

Figure 6.3.3: Second part of the Evaluation Poster

Figure 6.3.3 shows the second half of the poster. The instructions for Stage 5 guide the participants through a discussion that helps them note and analyse their experience of the particular Forest School project, allowing for opportunities to pick out evidence of success (or otherwise) and the process by which it was achieved.

Stage 6 is where the discussions that have taken place are focussed into a planning exercise where any learning can be noted and used to shape the next piece of work. This is important for informing the learning loops necessary to sustain a successful project.

Although this workshop essentially rounds-off the self-appraisal process, it need not be done only at the end of a project. If it is possible to arrange an extra session with the project participants, it can provide a useful mid-term check on progress.

The full instructions and background for this tool are set out in detail in **Appendix 5.4**.

7.0 Next steps

7.1 What this study covered

Section 4 of this study outlined the basis for the hypothesis for how Forest School makes a change. Figure 7.1.1 (reproduced below) illustrated this by listing examples of activities, outputs and outcomes associated with the Forest School Process.

Table 7.1.1: Examples of Activities, Outputs and Outcomes

A	B	C	D
Activities in Forest School, for example:	Outputs, for example:	Short and Medium-term Outcomes, for example:	Longer-term Outcomes, for example:
1. Building structures			
2. Using Tools	1. A Shelter	1. Increased Self Confidence	
3. Learning Safety Routines	2. Knowledge of tool use	2. Co-operative behaviour	1. Improved academic performance
4. Making Objects	3. Awareness of safety issues	3. Better Motivation	2. Increased sense of well-being
5. Games	4. Hand-made dream-catcher	4. Pride in the neighbourhood	3. Better behaviour in and out of the classroom
		5. Environmental awareness	
6. Small, Achievable Tasks	5. Experience to talk and write about	6. Improved skills and Knowledge	
7. Co-operative Tasks			

The evidence collected for this evaluation (Phase 1) demonstrated that there is a link between each of the columns A, B and C, and explored how and why they were linked. We involved Forest School Leaders, and other education professionals in a series of workshops to:

1. Build up a list of activities (A) and their immediate outputs (B).
2. Explore the possible outcomes and establish six propositions (C) about what Forest School can achieve.

3. Develop the hypothesis for how A leads to B and then to C (using the “So What?” question).
4. Collect evidence to demonstrate that changes have indeed taken place in terms of the six propositions (C).
5. And in the course of this develop an easy to use Self-Appraisal Toolkit for these and other Forest School in order to carry out similar evaluations.

Figure 7.1.1 shows the chronological sequence whereby inputs turn into outputs and then outcomes. It illustrates the challenge that evaluating the longer-term outcomes presents.

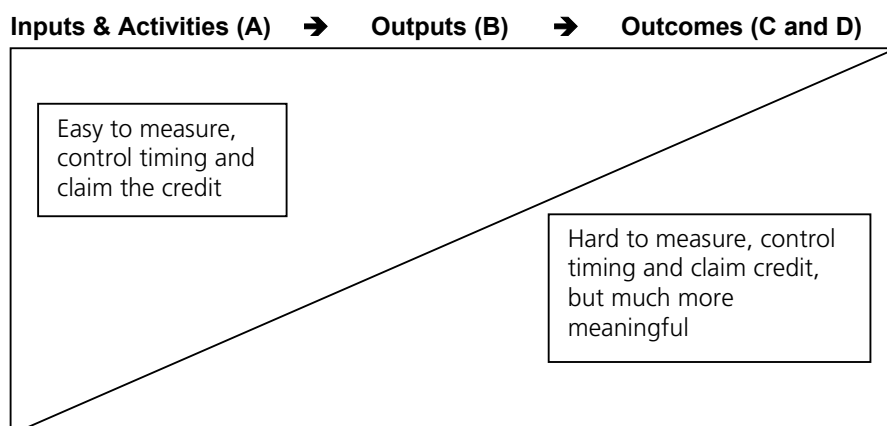


Figure 7.1.1: Inputs, Outputs and Outcomes Chronology

Some outcomes may be achieved quite quickly. For example, the story of the little boy who never looked you in the eye, but who becomes more outgoing when in Forest School. Some though may be very slow, like improved academic performance or behaviour once they have left school. This places them on the extreme right of the diagram, which has severe disadvantages. The impacts are harder to define (e.g. changes in quality of life or happiness) and so harder to measure.

As time goes by, it becomes harder to attribute impacts to the programme (and so ‘claim credit’). It also becomes harder to keep in touch with people to find out what is going on. This implies the need for

1. More detailed analysis (more “layers” to the story) of the short to medium-term outcomes,
2. Establish a reasonable hypothesis for how medium-term outcomes lead to longer-term outcomes (such as academic achievement, behaviour and well-being)
3. A long term study to track outcomes over several years.

It is important at this stage to maximise the profile that Forest School is currently achieving amongst educational professionals, and so for the next phase of work we propose that the priority is to focus on 1 and 2, whilst preparing the ground for 3.

The next two sections describe objectives and a possible outline of how subsequent evaluation over the next two years (Phases 2 and 3) might progress. We continue to use the letters A, B, C and D to describe Activities, Outputs and Outcomes like the ones listed in Table 7.1.1.

7.2 Objectives for Phase 2

- **Recruit at least two more Forest Schools** as pilot projects for further study.
- **Identify Forest School Leaders** as “Evaluation Champions” for each pilot project who can lead on measurement integrated into the Forest School routine.
- **Test the Self-appraisal Toolkit** with nef providing training and support for the Evaluation Champions.
- **Encourage each pilot project tell their own story** using the Self-appraisal Toolkit.
- **Revise the Self-appraisal Toolkit** to include a way to incorporate existing school assessment mechanisms for academic performance and classroom behaviour.
- **Establish how the short and medium-term outcomes (C) lead to longer-term outcomes (D)** by exploring current research on the links between, for example self-confidence and improved academic performance.
- **Explore and establish a hypothesis for Forest School that links A to D** by using the Toolkit combined with existing School assessment mechanisms).
- **Collect evidence that explores the attribution of D to A** by using the toolkit as well as interviews / questionnaires and focus groups with selected participants such as teachers, leaders, parents/carers and pupils.

7.3 Objectives for Phase 3

- **Develop the Self-Appraisal Toolkit** into a handbook (E.g. electronic or on paper)
- **Roll out the revised Self-appraisal Toolkit** to more Forest Schools (with possibilities for training and support)
- **Compare longer-term outcomes** for Forest School participants with a control group
- **Choose a selection of aspects of Forest School** for evaluation (E.g. The specific activities best suited for improving self-confidence, or the development of activities for establishing coping strategies) and use these aspects for more detailed measurement to test the link between A and D.

7.4 Outline of a Possible Work Programme for Phase 2

Actions	Objectives	Outputs	Comments	NEF Days
1. Identify Pilots	Establish who is to be involved in Phase 2	An evaluation champion to carry forward an integrated self-appraisal methodology at each of the pilot Forest Schools		2
2. Agree Forest School leader at each pilot to lead evaluation				
3. Agree criteria and identify groups of children for detailed evaluation of attribution		An attribution Study Group of pupils, teachers and parents / carers for Action 9.	Key criterion: To be able to have access to teachers' reports, teachers, parents and children for interview / focus group discussion	

Actions	Objectives	Outputs	Comments	NEF Days
4. Train leaders in using the Self-Appraisal Toolkit	Forest School leaders are able to conduct their own evaluation	One workshop for all Forest School Leaders		2
5. Forest school leaders run their own storyboard workshops, and launch evaluation (Toolkit Parts 1 and 2)	Forest schools exploring and understanding their impact and telling their story	Project Storyboard and regime for collecting data using the Templates	With NEF telephone support Resources needed to cover supply teachers	1
6. Desk Research	To clarify the link between C and D	Academic evidence for final report to back up the link between C and D		2
7. Forest School leaders arrange and run Poster Evaluation workshops (Toolkit Part 3)	Forest schools exploring and understanding their impact and telling their story			1
8. Forest school leaders report findings to nef (results of parts 1,2 and 3 of toolkit)	Establish a link from A to D	nef analysis of findings from forest leaders' evaluations		2
9. Gather information from Attribution Study Group for linking D to A	Explore attribution of D to A	nef to conduct focus groups / interviews with teachers, parents and pupils		3
10. Revise Self-appraisal Toolkit	Prepare toolkit for Phase 3	A Self-appraisal toolkit (available on CD Rom) for measuring A to D		1
11. Reporting to Forest Research	To provide evidence of the impact of Forest school	Copy for a final report	Editing and publishing by Forest Research	5
			Total Days	20

Notes

- 1 See the Bridgwater College Website at <http://www.bridgwater.ac.uk/forestschool> November 2003
- 2 For more on different learning styles, see pages 41-43 in Smith A, *Accelerated Learning in the Classroom*, Network Educational Press Ltd, Stafford, 1996
- 3 See the FEI website for more details, at <http://www.foresteducation.org.uk/about/>, November 2003
- 4 University of York, Bradshaw J (ed), *The well-being of children in the UK*, Save the Children, London, 2002
- 5 Walker et al, *Prove It! Measuring the Effect of Neighbourhood Renewal on Local People*, New Economics Foundation, London, 2000
- 6 See: Thomas L, *Report on the Inspection Under Section 10 of the School Inspection Act 1996 of Duffryn Infants School: School Number 680/2293*, Estyn, October 2003, p14
- 7 Walker et al, pp 11-13
- 8 Wheatley, M, *Leadership and the New Science*, Berrett-Koehler, 1994, p64
- 9 For an introduction to Participatory Appraisal see *Participation Works! 21 techniques of Community Participation for the 21st Century*, New Economics Foundation, 1998, pages 63-66

Appendices

1. Activities, Outputs and Outcomes table
2. Forest School Transition Initiative Scoping Paper for the Flintshire Pilot
3. Diary of a Pupil from the Forest School Flintshire pilot (Three day Summer School)
4. Details of Open College Network Forest School Courses
5. The Self-appraisal Methodology and examples of other data collection tools

Appendix 1: Activities, Outputs and Outcomes table

Activities and Outcomes Storyboard Table

“The World before Forest School” Issues for individuals that Forest School is addressing:	Forest School Activities (A)	Specific Outputs (B) So that...	These lead to the desired outcomes by ...	“The World after Forest School” Outcomes and observable changes of behaviour (C)
1. The need for an increase in self esteem and self-confidence	<ul style="list-style-type: none"> ➤ Low pupil – adult ratio ➤ Tool use: to encourage trust and responsibility ➤ Creating and making things (E.g. Shelter, tools, masks) ➤ Child-led games and activities (E.g. Songs and actions) 	<ul style="list-style-type: none"> ➤ More one to one time with an adult ➤ Pupil learns new skills, and can recognise that they have learned something new ➤ A pupil produces physical evidence of work (E.g. Shelter, tool, mask) ➤ Taking part in fun group activities, and having the chance to lead them (E.g. choosing words for a song) 	<ul style="list-style-type: none"> ➤ The extra support assists the pupil in achieving goals ➤ Pupil sees what they can achieve and that contributes to increased self-esteem and self-confidence ➤ A happier child who is more independent 	<ul style="list-style-type: none"> ➤ The child learner demonstrates an increased self-reliance/independence ➤ The child demonstrates a greater confidence in trying out new things ➤ The child appears more confident (E.g. Speaks with eye-to-eye contact, initiates conversations.)
2. An observable lack of Co-operative working and awareness of others	<ul style="list-style-type: none"> ➤ Establishing safety routines (holding brambles for others) ➤ Sharing tools and equipment ➤ Sharing tasks (E.g. fire making) ➤ Building a shelter 	<ul style="list-style-type: none"> ➤ Following safety routines ➤ Making something together as a group ➤ Listening to instructions ➤ Talking to others to share tasks ➤ A visible output of a shared piece of work 	<ul style="list-style-type: none"> ➤ Gaining experience of working in a team ➤ Helping others and sharing tasks and tools ➤ A building up of trust amongst peers and towards adults ➤ Understanding and employing safety routines that makes individuals more aware of those around them ➤ Seeing the importance of listening to instructions 	<ul style="list-style-type: none"> ➤ Children speak and listen in turn ➤ Children work together and appreciate one another ➤ A child demonstrates improved relationship with peers and adults (E.g. identifying shared objectives; “gelling” as a group; making new friendships.)
3. A negative attitude towards learning	<ul style="list-style-type: none"> ➤ Diverse activities and experiences to suit different children (focussed on individual learning styles) ➤ Small achievable tasks (E.g. stick-sharpening) ➤ Child-led activities and games ➤ Discussions and reflection activities for Children on what they have done and learnt 	<ul style="list-style-type: none"> ➤ Opportunities to take part, and do different things ➤ Small tasks easily achieved (a sharpened stick) ➤ The need to communicate, more conversation ➤ First hand experience of the outdoors 	<ul style="list-style-type: none"> ➤ Providing experiences that offer the child something exciting, positive and personal to write/talk about in class. ➤ Motivating the child ➤ Improving communication ➤ Wider expectations from teachers ➤ Better concentration because the individual's attention is held by something that interests them. 	<ul style="list-style-type: none"> ➤ The child demonstrates a greater interest and enthusiasm for a subject ➤ The child appears more eager to learn and demonstrates improved classroom performance (Also seen as part of a teacher's observation and a pupil's academic results)

“The World before Forest School” Issues for individuals that Forest School is addressing:	Forest School Activities (A)	Specific Outputs (B) So that...	These lead to the desired outcomes by...	“The World after Forest School” Outcomes and observable changes of behaviour (C)
4. Relationship with the outdoors	<ul style="list-style-type: none"> ➤ The Treasure Tree (Finding a hidden object that becomes the focus for the day’s activities) ➤ Mini-Beast hunts ➤ 1-2-3 Where are you? Hide and seek game ➤ Being out in all weathers in different seasons ➤ Doing own risk assessment 	<ul style="list-style-type: none"> ➤ Routines in Forest School similar to routines in class ➤ Collection of bugs and insects for classroom nature projects ➤ Exploration of a woodland area ➤ Dressed in suitable outdoor clothing that keep you dry ➤ Follow and understand safety rules (E.g. crossing roads safely) ➤ A realistic understanding of potential risks 	<ul style="list-style-type: none"> ➤ Linking inside routines with outside ones to provide safe structure to the unfamiliar surroundings ➤ Demystifying the outside, and becoming more aware of the environment, “bringing the outdoors inside” ➤ Having the freedom to explore “wilderness” in a safe way ➤ Encouraging more independent exploration ➤ More confident ➤ Realising that it is alright to get wet and dirty 	<ul style="list-style-type: none"> ➤ The child learner is visibly “at home” in an outside environment – happy to roam and explore on their own
5. An observed lack of ownership and pride in the local environment	<ul style="list-style-type: none"> ➤ Planting (E.g. A hedge) ➤ Look after a piece of woodland over time, (clearing scrub and brambles and seeing the results in springtime) ➤ Nature projects ➤ Showing visitors around and involving them in Forest School activities (parents and carers) 	<ul style="list-style-type: none"> ➤ Things they make in the woods (E.g. Shelter, planted hedge) ➤ Collections for displays and studies ➤ Photographs and diaries describing activities ➤ Parents and Carers involved in activities 	<ul style="list-style-type: none"> ➤ Actively taking care of an outdoor space ➤ Becoming more observant of changes when returning to the same plot over time ➤ Encouraging the recognition of sights and sounds of flora and fauna ➤ Talking to others about their Forest School, being able to share experiences out of school 	<ul style="list-style-type: none"> ➤ Visible ownership of and relationship with and pride in a place ➤ Increased instances of observation / noticing things ➤ Children demonstrate an understanding of the consequences of their actions (E.g. Not dropping litter)
6. A need to increase skills and knowledge	<ul style="list-style-type: none"> ➤ Helping to set safety rules ➤ Speaking and listening to others ➤ Writing up and recording Forest School activities (communication, IT) ➤ Making pictures; houses and shapes out of sticks (measuring, problem-solving, creativity) 	<ul style="list-style-type: none"> ➤ Made objects (E.g. Tools, and artwork) ➤ Use maths to measure/sort ➤ Opportunities for more communication ➤ Writing and drawing exercises ➤ First hand experience for writing exercises 	<ul style="list-style-type: none"> ➤ Expanding use of key skills ➤ Increasing learning ➤ Seeing a connection between abstract concepts and the real world (science and numbers in action) ➤ Becoming more confident to approach problem solving 	<ul style="list-style-type: none"> ➤ Understanding and following rules ➤ Demonstrating new skills/key skills (E.g. Improved classroom performance and academic achievement in maths and science subjects) ➤ Child enjoys a sense of achievement through solving problems

Appendix 2: Forest School Transition Initiative Scoping Paper for Flintshire Pilot (March 2003)

Objectives and outline

Many children find moving from a small local school to a large secondary school difficult. If these are vulnerable children, perhaps from a less supportive, or disturbed background the transition can result in emotional, social and behavioural problems. This can also be reflected by low achievement in school. We feel that regular visits to Forest School would offer a secure environment where they can practice social skills, bond with adults and other children from similar backgrounds and provide a stable, fun continuum while they make this transition.

A group of children, currently in Year 6, from feeder schools for St. David's, Saltney and John Summers will be identified. They will visit the Welsh College of Horticulture (WCOH) woodlands once a week for the last six weeks of the summer term, after their KS 2 SATs. The group will meet for the first three days of the summer holidays and weekly throughout their first term in Year 7. As it is a significant portion of school time, we would cover areas of the National Curriculum, including Maths, English and Science. The focus will be "application of number" [applied arithmetic], particularly relevant in Forest School as practical examples of many aspects of the curriculum can be covered. This approach is particularly relevant to kinaesthetic learners. The whole course that these pupils will follow will be agreed with the schools and the LEA, who will also be involved in the preparation of suitable materials.

Desirable outcomes

- To ensure a smooth transition for the targeted pupils including developing their confidence, social skills and providing contact with staff and other pupils in their new school;
- To raise the level of achievement and engagement to that comparable to a year norm;
- To raise levels of self-esteem and to support positive behavioural patterns including appropriate coping strategies that will be useful in school.

The key role of the schools

Primary Schools will select Year 6 pupils that are identified as:

1. Generally working at Level 3, expected Maths SATS Level 3.
2. Have the potential to achieve Level 4.
3. Vulnerable in transition, possibly lacking support at home.
4. Possibly lacking social and coping skills.
5. Low self-esteem.
5. Probably kinaesthetic learners.

6. Probably not special needs.

7. No regular strong behaviour/personality that may squash others.

Teachers will play a crucial role in identifying the key aspects of the curriculum that the pupils study in school so that they can be linked into woodland activities. They may work with Forest Leaders to advise on and sometimes help produce appropriate material. School staff will help to identify key lesson objectives that these pupils will miss that should be covered in Forest School.

Provision of support teachers where needed.

Visits by parents, Head-teachers, Year 6 Teachers, Year 7 Form teachers, Heads of Year 7, other interested teachers e.g. maths teachers. It is envisaged that most visits will occur by invitation from the children, for instance a special open morning on the 23rd July.

Forest Leaders will visit the pupils at school, initially to introduce themselves and explain what Forest School is about. Later visits may be necessary to follow up and monitor the progress of children in the school, during their induction at their new school and as they settle in.

Monitoring and feedback – the reactions of pupils to the Forest school visits needs to be monitored and both verbal and written feedback will be needed.

Forest leaders

Lorna Jenner, Kate Poyner and Carolyn Threlfall will deliver the course, with help from Jonathan Oldfield at Bryn Coch.

Timetable of visits to Forest School

The pupils will visit Forest school once a week (see attached timetable) during the last 6 weeks of the summer term of year 6. There would be 3 days of special events in the first 3 days of the summer holidays. Funding has been secured for a visit each week for both secondary school cohorts. These visits are to be agreed with each secondary school.

	1	2	3	4	5	6	HOLIDAYS
MON	HALF	FULL	HALF	FULL	HALF	FULL	
	-	16/6	-	30/6	-	14/7	21 st – 23 rd
FRI	13/6	20/6	27/6	4/7	11/7	TUES	21 st – 23 rd
	JS/StD		JS/StD		JS/StD	15/7	

JS = John Summers feeder schools

StD = St David's feeder schools

Secondary School visits to be agreed with the school.

Transport

Transport to and from the site at the Welsh College will be provided by the LEA, but each school will be asked to help with supervision.

Reports, research and monitoring

This project is a groundbreaking pilot. The National Assembly through Forest Research are providing funding to research the efficacy of Forest Schools in the Transition of pupils from Primary to Secondary School. Richard Murray from the New Economics Foundation will monitor and collect data on this project, along with a sure-start project in Dyffryn, near Newport. Information and feedback will be

harvested from the schools, pupils, parents and Forest Leaders at the beginning and throughout the project, with minimum intrusion.

The Forest leaders will write a report on each student at the end of each term.

Other key measures of success will be self-assessment, teacher and parental observation. Individual targets for each pupil will be agreed between pupils, Forest Leaders, teachers and parents.

As numeracy officer, Gareth Kemble sees that children often have difficulty understanding real life problems, orders of magnitude and estimations and although they happily punch numbers into calculators they often lack a sense of a nonsense answer due to their lack of real life situations. Gareth will analyse the SATS results as well as other key data to measure the progress of learning in the application of number. This will be a key indicator of success of Forest School, as there are many opportunities for practical worked examples.

Monitoring and revisits to Forest Schools will continue throughout their school career.

Funding

The Forestry Commission through the Forest Education Initiative partnership fund is providing most of the funding for this project. Flintshire LEA are providing funding towards transport and extra staff as well as in kind staff time and the Out of Schools Co-ordinator (Flintshire/Denbighshire) is funding the majority of the summer school element. Schools will supply essential in kind support.

Appendix 3: Diary of Pupil from Forest School Flintshire pilot (Three-day Summer School)

Monday 30th June 2003

On Monday, we arrived at Forest School for the first time, it was a new experience for me, But I got used to it as soon as I stepped in to the Forest.

It was not what I expected , it was different to what I had imagined. The Forest School is at a college in Northop. There is a garden centre there. It is a lovely atmosphere. Then a lady called Carolyn took us down to the forest and we played games with other school children and a parachute! I got to know a few children and the Forest School Leaders names Carolyn and Lorna, they are very kind. They showed us their shelter which they had made a year ago, then we went on a scavenger hunt, I worked with J and we got everything on the list.

Later before dinner we tried to make a table, but we never finished it. Next we had our lunch, after which we toasted marshmallows over a fire and then our minibus came bye!

(I enjoyed Forest School so much) (Miss made me ran back for her shoes)

Monday 14th July 2003

We arrived at Forest School and there was a new Forest Leader called Kate. She was soaked because it was tipping it down. We also got soaked on the way down to the forest as our minibus was late so when we were in the Forest everyone was busy , we put our stuff in the shelter and sat down.

Then a man called Roy came and helped us to make pater broomsticks. All of a sudden the rain got worse and we had to go up to the college. We were listening to the radio in one of the rooms and every time you stood in a certain spot, the radio would make a crackling noise. We then started to make goblins, I went with S and we picked the leaves for the goblin, Kate was there as well. There was a flower that was poisonous, that would make your heart beat so fast that you would have a heart attack. Now I am careful with every flower that I pick, especially if I have not seen it before.

When we got back the other children had started making the dough for the goblins. Lorna said my goblin was good (but I copied the tongue off A) but I kept making it again. Next when everyone finished their goblins, we answered some riddles, then our minibus came, we went back soaked.

(I still enjoyed myself, even though it was raining)

Friday 23rd July 2003 – The third day at Forest School

We were late today, when we arrived people were finishing things from the last fortnight. Lorna told us about weaving, she also introduced us to some helpers, I have forgotten their names, but they were very kind.

Then Carolyn helped me finish make a viewing frame (but my flowers have died now). Next I tried to make a fork frame but I broke it. Lorna said she would help me fix it. I helped one of the helpers make the hot drinks (I got very mixed up) I don't think every one got what they want. When it was twelve we had to go.

I missed next time I was ill.

Appendix 4: Details of Open College Network Forest School Courses

Accredited by SEWOCN – March 2003

AS DELIVERED BY BURNWORTHY CENTRE

Forest School Entry Level – 30 learning hours

Suggested Entry Qualifications:

No qualifications needed

This qualification is for people with learning difficulties and disabilities.

The course includes 2 units, which you need to complete:

- Introduction to working in woodlands
- Practical work in outdoor areas

Different modes of attendance are available:

Over 3 months:

2 day residential	20 hours
5 day block (weekend)	30 hours
Assessment	5 hours
Telephone tutorials	5 hours
Total	60 hours

Over 6 months :

20 weeks at 3 hours including assessment	60 hours
Total	60 hours

Level 1 - Forest School Skills Award (60 learning hours)

Piloted in Merthyr Tydfil 2003

Suggested Entry Qualifications:

An interest in working with people in the outdoor environment

This qualification is for teachers, early years practitioners, parents and carers who have an interest in Forest School and working in the outdoors with young people.

This unit is also a qualification for young people attending Forest School.

The course includes 4 units, which you need to complete:

- Introduction to working in woodlands
- Practical work in outdoor areas
- Child development and learning in the outdoors
- Development and learning in the outdoors

Different modes of attendance are available:

Over 3 months:

2 day residential	20 hours
3 day block (weekend)	20 hours
Assessment	5 hours
Telephone tutorials	5 hours
Total	50 hours

Over 6 months:

17 weeks at 3hours including assessment	51 hours
Total	51 hours

Level 2 - Assistant Forest School Practitioners Award (60 learning hours)

Suggested Entry Qualifications:

Either Level 1 or previous experience working with client group

This award is for students who wish to develop their skills in using the outdoors and gain experience in Forest School techniques. This qualification forms two-thirds of the Practitioners qualification and can be used as prior learning if required. This award has not been piloted

The course includes 3 units, which you need to complete:

- Practical work in outdoor areas
- Child development and learning in the outdoors
- Development and learning in the outdoors

Different modes of attendance are available:

Over 6 months:	2 day residential	20 hours
	5 day block	30 hours
	Assessment	5 hours
	Telephone tutorials	5 hours
	Total	60 hours

Over 9 months:	2 day block course	12 hours
	8 x 2 hour lessons	16 hours
	3 day placement	24 hours
	Assessment	5 hours
	Tutorial	3 hours
Total	60 hours	

Over 1 year:	20 x 2 hour lessons	40 hours
	2 day block course	12 hours
	Assessment	5 hours
	Tutorial	3 hours
	Total	60 hours

Level 3 - Forest School Practitioners Award (90 learning hours)

Suggested Entry Qualifications:

Any Level 2 relevant qualification i.e. Forest School, PGCE; CACHE, Play Work, Youth Work, Probation, Care, Woodland/Countryside Management and 2 years experience of working with client group or a portfolio including reference and evidence

This award will enable you to run an alternative or complementary curriculum within the outdoors. On gaining this Award, you can work with your chosen client group and run your Forest School independently. If you are unsure whether you have the necessary level 2 qualifications for this course, we can advise you.

The course includes 5 units, which you need to complete. It is envisaged that more units will be available, so you will be able to choose between child development & learning and anti-social and challenging behaviour according to your background:

- Practical work in outdoor areas
- Child development and learning in the outdoors (children aged 3-8 years in mainstream school)
- Promoting self esteem in outdoor areas
- Development and learning in the outdoors
- Working in outdoor areas with young people displaying anti-social and challenging behaviour

When you have completed Level 3, you will be qualified to deliver Level 1 Forest School Skills Award.

If you have completed a Level 3 course and have a teaching qualification you will be able to deliver Level 2 Assistant Forest School Practitioners Award.

If you have completed a Level 3 course and have an assessment qualification you will be able to assess students at Levels 1 and 2.

If you have completed a Level 3 course and a teaching & assessment qualification you will be able to assess students attending Level 3 training (but not teach).

Level 3 continued....

Different modes of attendance are available:

Outreach course over 6 months at a venue convenient for students with access to woodlands and classroom facilities e.g. village hall (*piloted in Monmouthshire and Powys 2003*).

5 days x 8hrs at Forest School plus flexible evening work	46 hours
3 day Forest School residential	34 hours
Assessment	6 hours
Telephone Tutorials	4 hours
Total	90 hours

Over 9 months (*piloted in Shropshire 2003*)

5 weekends at Forest School	60 hours
2-day residential	25 hours
Assessment	5 hours
Total	90 hours

Over 1 year (*part time course – yet to be trailed*)

30 x 2 hour Forest School lessons	60 hours
2-day residential	25 hours
Assessment	5 hours
Total	90 hours

Appendix 5: Forest School Self-Appraisal Methodology and Examples of Data Collection Tools

1. Storyboard and Planning Exercise

The Forest School Story Board Part I: What's the Story?

- The first step is to understand how it is intended that your project will make a change. To do this you first need to propose a *hypothesis*.
- We use the word *hypothesis* to mean the Story of the project. (Technically, a *hypothesis* is a tentative explanation for an observation, phenomenon, or problem that can be tested by further investigation.) The rest of the evaluation is about testing that hypothesis.
- As a guide we have produced an “**Activities, Outputs and Outcomes Table**” showing six propositions that describe the difference experiences Forest School can make for an individual. These are as follows:
 1. *Forest School increases the self-esteem and self-confidence of individuals who take part.*
 2. *Forest School improves an individual's ability to work co-operatively and increases their awareness of others.*
 3. *Forest School counters a lack of motivation and negative attitude towards*
 4. *Forest School encourages ownership and pride in the local environment*
 5. *Forest School encourages an improved relationship with, and better understanding of the outdoors*
 6. *Forest School increases the skills and knowledge of the individuals who take part*
- For each of these propositions the **Activities, Outputs and Outcomes Table** describes examples of what happens in a Forest School, as well as how it brings about the benefits for the individuals who take part. The exercise below is designed to help you build up a similar picture for your own project.
- Using this exercise as a group discussion (for Teachers, Forest School Leaders and other Project stakeholders), work through the table below using the columns 1-5 to describe the Story of your project.
- Once you have completed the table, continue with Part 2.

1. Describe the “world” as it is now. (What is the context of your project?)	2. Activities	3. Resources	4. Outputs Direct products from an activity, and countable units	5. Outcomes Consequences, impacts or benefits for the target group (and sometimes others)
	To effect change, these are the activities that have been planned:	To accomplish these activities, these are the resources we have:	We expect that once completed or underway, these activities will produce the following outputs:	We expect that if completed or ongoing, these activities will lead to the following outcomes in..... (E.g. 1 year)

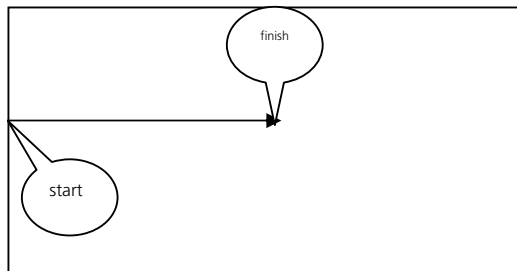
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The Forest School Story Board Part II: When does it happen?

- The next step in planning the evaluation is made easier if you know when to start looking for the expected changes that you want to measure.
- Continuing as part of the group exercise, follow the stages below to create a timeline and complete the story of how and when your project makes a change.
- The completed table and timeline can be used to plan at what stage(s) it would be best for you to carry out an evaluation of the impacts of your project, i.e. when you would expect to see some discernable change. This will also help you to choose which elements of the Forest School Self-Appraisal toolkit you will use to prove your hypothesis, and demonstrate how your project has made a difference.

Project Planning Timeline

Draw a horizontal line half way across the middle of a large sheet of paper (E.g. A3 or A1 Flipchart size) and fill in the project's start date on the left hand end and the intended completion date of the project at the centre of the sheet.

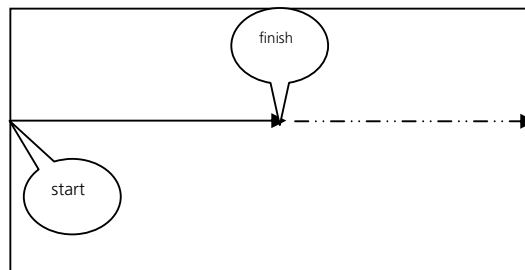


Divide the timeline into weeks or months by marking points along the horizontal line.

Plot any key dates that are fixed along the timeline, including holidays or specific deadlines that may have an effect on how the project will progress.

Have a look at your completed Forest School Story Board Part 1 and decide roughly where you expect the activities, outputs and outcomes (columns 2, 4 and 5) will happen between the start and finish date of the project. Enter them at the appropriate date along your timeline.

Now draw a horizontal dotted line from the centre of the sheet to the far right hand side. This represents the future beyond the official completion date of the project.



Look again at your completed Prove It! Story Board Part 1 and decide where to enter along the dotted part of the timeline any of the outputs or outcomes that you expect to occur after the official completion date of the project.

2. Reporting Templates**a) Introductory Sheet for Each Session**

Forest School Leader name(s):				
Date of Session:	Time of Session:	No of Pupils:	No of Adults:	Form:
			(Incl. FS Leaders)	Age range:
Context: Weather etc				
Activities: E.g. Mini beast hunt, building shelter etc.				
What changes in behaviour did you expect to result from these activities?				
How successful were they?				
General Comments (E.g. How successful were these activities compared to the last time you used them with this group?)				

b) Forest School Leader Reporting Template: By Session

Page:.....

Observations of Individual Pupils

(For scores and/or comments)

Name of Pupil	General Comments	Changes in self-esteem and self-confidence	Changes in ability to work co-operatively and awareness of others.	Changes in levels of motivation and attitudes towards learning	Demonstration of ownership and pride in the local environment	Demonstration of an improved relationship with, and understanding of the outdoors	Changes in levels of skills and knowledge (Including key skills*)

Scoring Notes: 1 = No Change 2 = Slight Change 3 = Dramatic Change

*** Key Skills: Speaking = S Listening = L Reading = R Writing = W Numeracy = N Information Communication Technology = ICT Personal, Social, Health Education = PSHE**

**c) Forest School Leader Reporting Template: By Pupil
Observations over time**

TERM:

Pupil name:

Class:

(For scores and/or comments)

Date of Forest School Session	General Comments	Changes in self-esteem and self-confidence	Changes in ability to work co-operatively and awareness of others.	Changes in levels of motivation and attitudes towards learning	Demonstration of ownership and pride in the local environment	Demonstration of an improved relationship with, and understanding of the outdoors	Changes in levels of skills and knowledge (Including key skills*)

Scoring Notes: 1 = No Change 2 = Slight Change 3 = Dramatic Change

*** Key Skills: Speaking = S Listening = L Reading = R Writing = W Numeracy = N Information Communication Technology = ICT Personal, Social, Health Education = PSHE**

3. Instructions for the Evaluation Poster Workshop

Introduction

This is the last part of data collection for a self-appraisal of a **Forest School**. It is designed so that those who have been involved in the project can look back over the work and reflect on the impacts it has made and the lessons that have been learnt.

It is a good opportunity to review what has been learnt over the course of a specific period, (E.g. a school term) to explore whether your hypotheses on how the project creates impact stand up in reality. To do this you will need to look again at the *Project Storyboard* (the first document in the toolkit) that was prepared when the evaluation of the project was initially planned.

This tool takes the form of a Poster that structures a 1½ to 2½ hour meeting. Participants are guided through a series of stages each focusing on a different aspect of the project's outputs and outcomes. Traditional evaluation using "before and after" indicators is usually best for catching intended outcomes; this Poster Session is designed to acknowledge these as well as to understand some of the un-intended and unexpected consequences of the project, particularly throughout the process of its delivery.

Preparation for the meeting

Who should come?

The session will be attended by up to twelve participants. These are chosen from the various groups who have been involved with or affected by the project. As well as Forest School leaders, you should aim to include members of the school staff, teachers and one or two parents of pupils who have taken part in Forest School activities. This may also be an opportunity to involve some of the pupils themselves, although the tool would need to be modified to meet their needs. As far as possible select representatives from each of these groups to make up an attendance list.

Who runs the session and what should they do?

The Poster session requires no formal knowledge of facilitation. As part of the effort to ensure the fairness of the findings we recommend that the person chosen to run the session should be an outsider who can provide some independence to the proceedings, and give a different perspective to that of those directly involved with this Forest School project.

The Materials

The Poster consists of four separate sheets. It needs to be assembled so that each sheet is reproduced on an A1 ("flipchart") sized piece of paper. This can be done easily by taking the electronic version of the poster to a high street printing shop who can print it out on this large format. Alternatively, print out the four sheets onto normal A4 paper and copy them by hand onto four A1 sized flipchart sheets.

In addition to the poster you will need to obtain a set of Post-it Notes in five contrasting colours, and medium/broad-tipped marker pens for each participant. If different coloured Post-it Notes are difficult to obtain, then make sure that you have at least five different coloured pens.

There are six stages to the workshop. These are numbered in the instructions, and denoted by the large numbers on the Poster. Once the meeting begins, the facilitator needs to make sure everyone keeps to time. Aim to complete the workshop in two and a half hours (including breaks). Not every stage will take the same amount of time, in fact the first three stages may only take a few minutes each, whereas the second three stages will take longer.

Put the poster on a firm flat surface so that everybody in the meeting can see it and can stick things on it. You could put it on a wall, on the floor or on a large table.

Arrange the seating so that everyone can see the poster and each other.

You are now ready to start.

(Note: We have added an estimated time to each stage to help you plan your time. The whole session should take between 1.5 and 2.5 hours including a break.)

Introductions (expected time 5-10 minutes)

Why are we here?

Explain why you have come together and what you hope to achieve.

What will happen?

Explain what will happen: how long it will take and how you are going to fill in the poster together.

How long will it take?

Agree the time at which you will finish. Explain roughly how long you have for each stage and ask someone in the group to keep an eye on the time.

Introduce yourselves

Introduce yourselves if needs be. If some people don't know each other very well, you can ask them to say more about themselves than who they are and where they come from. Questions they could answer include:

- where they live
- what they like about living there
- their involvement with the project
- what they hope to get from the meeting

(**Note:** Even if **you** know everyone in the room, they might not know each other.)

Stage 1: Name of project and attendance (expected time 5-10 minutes)

It might be that you want to discuss a whole years' worth of Forest School, or maybe just a few sessions. Let the group decide and then write the name of the group and the title of the Forest School project you are reflecting on (if appropriate) at the top of the first sheet of the poster (by the number "1").

Stage 2: Signing In (expected time 5-10 minutes)

Look at the **Key** at the top of the second sheet of the poster (number "2"). There is a table with five rows of boxes, four of which have been left blank. Assign a different coloured post-it note to each of the shaded boxes on the left hand side of the table. If you are not using different coloured Post-it notes, denote each shaded box with a different coloured marker pen.

Now check how many people are present at the meeting.

If there are four people or fewer at the meeting:

Ask each person to write his or her name in one of the boxes of the left-hand column entitled: **Names**. People don't have to write anything in the column **Group Name**. Don't divide into groups but give each individual a different-coloured pad of Post-it notes (or a different coloured marker pen) and continue as normal. Now go to the: 'Who is not here?' step in this stage.

If there are more than four people at the meeting:

Ask everyone to divide themselves into no more than four groups. As a rule, people should go in the same group if they have something in common in relation to the project.

For example, you might want to divide up into groups made up of Forest School Leaders, School Teachers, School Staff and Parents. If you don't want to give yourselves group names, just divide yourselves into four, equally sized groups.

Once you have agreed how to divide up, ask each group to write down their group name (if they have chosen one) in one of the boxes labeled **Group Name** on the right-hand column of the **Key**. Then ask each person to write his or her name in the 'Names' box in the left-hand column. You can now go to: 'Who is not here?'

Who is not here?

The last group of the **Key** is labeled “Who is not here?” Ask everybody if there are groups or individuals not present at the meeting who may have a perspective different from those that are already represented. Agree on the most important groups or individuals (not more than three) and write their names in the space next to this box. If you have some way of representing their opinions at the meeting, remember to include these (this may include a written note, notes from a prior telephone conversation or someone representing the opinions of the absent party). Be careful of misrepresenting absent people and do note that they were not actually present at the meeting.

(**Note:** Don’t get bogged down in this section! If there aren’t obvious groups then just divide yourselves as equally as possible.)

Stage 3: Calibrate the Timeline (expected time 5-10 minutes)

Today’s date

Enter today’s date in the box labelled “You Are Here” at the right-hand end of the timeline on the second sheet of the poster.

Starting date

Agree the start date of the part of the Forest School project that you want to focus on and enter that at the beginning of the timeline.

(**Note:** If you are in any doubt, go back to the *Project Storyboard* and see what date was entered there as the project start date.)

Between Starting and Today’s date

Mark the timeline with some years and/or months so that you can record events in the right place.

Stage 4: Highs and Lows (expected time 35-45 minutes)

Divide up into the groups that you have decided on. Each group must have a different coloured set of Post-it Notes corresponding to the key, and a pen (or coloured pens if using same-coloured Post-it Notes).

Using Post-it Notes

Ask each group to discuss amongst themselves and to agree on the two highest and two lowest points of the project. They could start by noting as many Highs and Lows as they like, but eventually they will need to choose two of each for the poster. Ask them to give each high and low a short title that describes it (e.g. ‘First mini-beast hunt’). Write each title on a Post-it Note. Also write a very brief reason explaining why it was a high or low. So, for example, your Post-it note could read “First mini-beast hunt – real sense of excitement in the group”.

Presenting group by group

Each group presents its Highs and Lows to everybody else in the room while attaching the Post-it Notes to the poster.

Place the highs and lows (the post-it notes) on the poster at the appropriate date along the timeline. *Highs go above the timeline and lows below. The further away from the timeline, the more extreme the high or low was.*

As a group, decide if there are any potential Highs or Lows for those people or groups you noted in the “Who is not here” box, and attach corresponding Post-it notes to the poster as well.

(**Note:** If you haven’t already done so now might be a good time to take a 10/15-minute break)

Stage 5: Connections, Impacts and Learning (expected time 5-15 minutes)

Connections

Now the whole group has a look at the poster and discusses the overall picture. Can you see any connections between different highs and lows, for example where a high or low point has led to subsequent highs and lows? Use a marker pen to link them up with arrows.

Now refer back to the *Project Storyboard* prepared at the start of the project. This consists of two parts:

1. A Theories of Change template describing the original hypothesis about how the project was intended to make change.
2. A Project Planning Timeline on which the line on the left shows the anticipated order of activities and milestones, and on the right (dotted line) the expected outcomes.

Use the spaces on the Evaluation Poster to write down what you as a group notice as the Impacts and Learning from the project. Here are some suggested questions you could use to focus this discussion. If there is not enough room on the poster, summarise your answers on a separate flipchart sheet.

Impacts

1. Where has Forest School worked? (i.e. What evidence do you have that your anticipated outcomes have happened as expected?)
2. Describe any “spin-off” effects from doing this work (E.g. New relationships formed; how Forest School is perceived by “outsiders” etc.)

Learning

1. What have you learnt in the last few months that you didn’t already know about Forest School?
2. What would you have done differently during the last few months if you knew at the start of this Forest School project what you know now?

Stage 6: Moving Forward (expected time 20-30 minutes)

You have thought about highs and lows, and you have highlighted some lessons. Now it is time to take a look into the future. Ask the whole group to answer the following three questions and complete the table on the far right-hand side of the poster:

- 1. What do we want to achieve next?**
Think about the goals that still need to be achieved. Maybe you want to change the direction of the project, or develop the next one.
- 2. What do we need to do in order to achieve it?**
Once you have clarified your goals think carefully which actions will be necessary in order to achieve them. You will probably also want to think about who could take responsibility for particular actions and deadlines.
- 3. So that you know you have succeeded...**
...what realistic targets, goals and outcomes would you set yourself for future Forest School projects in terms of:
 - a) Impacts (i.e. Results - outputs and outcomes)
 - b) Process (i.e. How Forest School is managed)?

You have now completed the poster. Well done!

Feeding back

When the meeting is over, it may be useful to take a few moments to transfer the information from the poster onto a separate sheet of A4 paper. This would be to summarise what happened in the meeting for yourself and be useful for telling other people who were not able to attend. It can also form part of a final report.

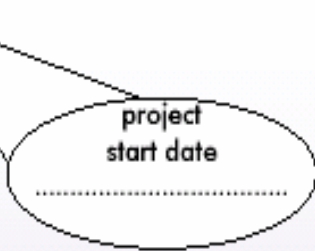
Forest School Project

1 Name of group: _____

Name of project: _____

4 high

3 time line ⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒ time line ⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒ time line ⇒ :



low

Evaluation Poster

2

KEY

	Names	Group Name
		Who's not here?

you are here
today's date
.....

⇒⇒⇒⇒⇒⇒⇒⇒ time line ⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒ time line ⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒

5

What have we Learned?

IMPACTS

LEARNING



Moving Forward

1. What do we want to achieve next?

2. What do we need to do to achieve it?

3. So that we know we have succeeded...

This tool has been adapted from a poster that was developed by the New Economics Foundation in conjunction with the Shell Better Britain Campaign.

One of the other things we do



Local Works: Local people must be put back at the heart of their economies. Policies that favour the large and remote are threatening the vibrancy and diversity of our communities, bringing Ghost Town Britain. Giving real power to local people can reinvigorate our rural and urban economies.

nef is leading this campaign characterised by a highly diverse membership that seeks to combat the spectre of 'Ghost Town Britain'. It promotes the importance of local sustainability and self-determination. For example, Local Works was a big part of the campaign to defend community pharmacies. Taking as a starting point the fact that local communities should be more in charge of their own economies, education, healthcare, consumer and leisure needs, Local Works is campaigning for a legal framework that can make this happen.

The needs of communities must be at the heart of environmental, social and political justice. At a time of growing disenchantment with political processes, individuals and communities can and should have a real impact on how money is spent in their communities and what they invest in. Having a tangible impact on the delivery of services is a vital tool for political, social, environmental and economic reinvigoration in all of our communities.

Local Works recognises that there is no single blueprint, but that communities should draw up and implement their own plans to achieve these goals.



Current priorities are climate change, ecological debt and local sustainability

For more information please call
020 7820 6300



This report was researched and written up by Richard Murray from **nef** with additional help from Perry Walker, Javier Stanziola, Sarah Higginson and Mary Murphy.

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