

Forest Education Resource Booklet

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What are 'forest schools'

History of Forest Schools

'Forest schools' originates from Scandinavia as an approach to early year's education. Following the positive impact identified on self esteem, confidence and the ability to work in groups, the concept has been developed worldwide as a tool for working with people of all ages and abilities.

What are 'Forest Schools'

The philosophy of 'Forest Schools' is to engage participants through positive experiences and achievable tasks to develop personal, social and emotional development.

Woodland areas are used as environments for Forest School practitioners to facilitate a wide variety of 'hands on' activities and experiences. It can be used within a multi activity outdoor learning programme or 'stand alone' as a Forest Schools programme.

'Forest Schools' activities have proved to be particularly effective at working with young people with emotional and behavioural difficulties. Learning outcomes from these activities include:

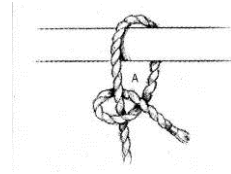
- Developing communication skills
- Developing trust and empathy
- Working with others positively
- Increased self confidence and self esteem
- Fostering a sense of achievement and success.

This booklet is not intended to replace a Forest School course, as much of the learning theory and guide to the safe use of tools is omitted. It is purely intended to provide the reader with a tool to stimulate session ideas, learning outcomes and personal skills, as well as being a resource to share practices.

Hitches and Lashings

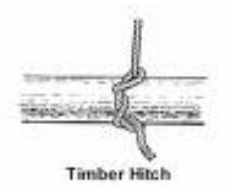
Half Hitch

The half hitch is the start of many other hitches and is useful as a temporary attaching knot. It will also hold against a steady pull on the standing part.



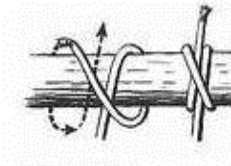
Timber Hitch

Useful hitch for dragging heavy objects. It will hold firm as long as there is a steady pull.



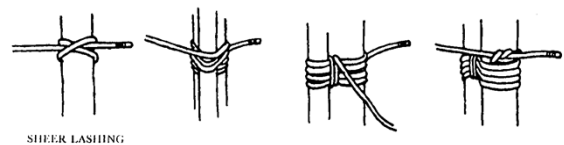
Clove Hitch

One of the most widely used knots. Very useful if the object is closed at both ends or is too high to toss loops over. Often used to start and finish most lashings.



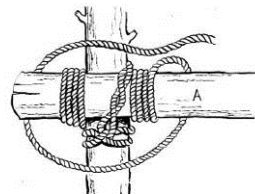
Shear Lashing

Used to secure poles or spars end to end. A loose shear lashing made around the ends if two poles will allow the poles to be opened out and used as an A-frame, or tripod.



Square Lashing

Used to fasten poles together. The tightening bind is called frapping.



How to make a kazoo

Tools needed:

Gloves, loppers, string/elastic bands, knife, mallet, billhook, chopping board.

Resources needed:

10 cm lengths of Hazel, grass

How to:

- Cut 10cm long lengths of hazel which is of approx 3cm diameter.
- Using a knife, score two rings around the kazoo circumference, approx 2cm apart.
- Using a bill hook and mallet split the kazoo through the centre, down the woods length. Try to avoid splitting through any knots.
- Score across each width to join up the score rings
- Using a knife, strip away a thin layer on each part of the kazoo between score lines. When the two parts are rejoined the gap between the two should only be approx 3mm.
- Lay a blade of grass along the length of one of the parts, place the other part on top and clamp the two together using string clove hitches.
- Blow through the hole!



Uses/extensions:

- Learners can be encouraged to explore the woodland surroundings and design and construct their own instruments.
- 'Themed instruments' made from materials from various environments e.g. woodland, seashore, moorland
- Kazoos can be used in reviewing techniques e.g. rapping, group orchestras
- Links to woodland sounds, bird calls, streams, leaves rustling etc.
- Communication forms.

How to make a star!

Tools needed:

Gloves, string, loppers, scissors/knife

Resources needed:

Hazel/willow lengths approx 30-50cm long & less than 10mm diameter

How to:

- Lop 5 lengths of wood of similar length.
- Shear lash two ends together.
- Continue adding the lengths together, using the same lashing technique, to make a /W shape.
- Turn and thread the pieces so the two un-joined ends can be lashed together and a 5 point star shape be made.



Uses/extensions:

- The star can be used as a decorative object or reviewing tool, similar to a journey stick. Items can be added to the star using lengths of string to make a form of mobile.
- Other shapes can be made for learning & reviewing activities e.g. postcards, viewfinders, ID quadrants, contrasting pallets.
- Team building and thinking skills. Tasks could include: Designing and naming other shapes, creating 3-D shapes, angles, volume, biggest shape out of given number of wood lengths.



How to make a bench

Tools needed:

Gloves, saw, string, scissors/knife

How to:

A basic bench can be constructed by square lashing the seat log onto two smaller 'feet' logs placed perpendicularly. To increase stability, the two feet logs can be cleaved in two to produce flat bases, Bench backs can be added using further lashes.



Uses and extensions

Follow on tasks may include:

- Needs analysis of furniture.
- Adaptations of existing design
- Design and creation of other bench forms.
- Introduction and use of different knots, lashings, cord types.
- Construction of other furniture pieces e.g. table, puff.
- Links to school site and potential furniture construction for there



How to make a bow

Tools needed:

Gloves, string, loppers, knife

Resources needed:

Hazel/willow lengths approx 50-70cm long & <10mm diameter

How to:

- Using loppers, cut lengths of live hazel or willow of approx 60cm.
- Carefully bend the wood to make a shallow C shape
- Using a knife, whittle a L shaped groove 5cm in from either end for the bow string to sit in. Make sure the grooves are cut on the outside edges of the bow.
- Cut a length of string at least 2.5 times the distance between the bow ends.
- Holding the mid point on the string, twist the two tails around each other to make a basic cord.
- Sit the mid point loop in one of the grooves and, ensuring the bow is under tension, tie off the cord around the other groove. The bow string should be under tension but still contain enough flex to fire an arrow.

Uses & extensions:

- The bow can be used to promote various learning objectives related to cultures, history, food chains, bush craft.



How to make a spoon

How to:

- Using a bill hook slice the sawn log in two down the middle.
- On the face of one draw the spoon outline. Ensure the handle is of a healthy thickness to allow for errors when shaping.
- Again, using a billhook, square off the extra thickness surrounding the spoon outline.
- Using a knife shape the wooden block down to the drawn outline.



Uses and extensions:

Considerable skill is needed to carve the spoon down to shape, however once the knife control is mastered variations of this basic stirring spoon can be attempted. Other tools can also be introduced at this stage to produce a concave hollow in the spoon. Additional eating utensils can also be made using the same initial stages of production.



Fire lighting

Strikers

The direct spark method is the easiest of the primitive methods to use. The flint and steel method is the most reliable of the direct spark methods. Strike a flint with a piece of carbon steel (stainless steel will not produce a good spark). When a spark has caught in the tinder blow on it. The spark will spread and burst into flames. Dry birch bark, dead thistle buds and cotton face pads make good tinder.

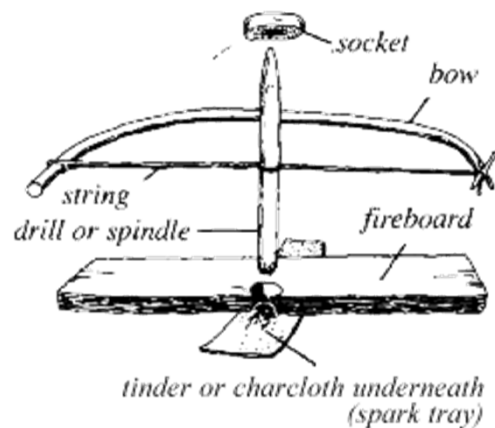


Bow and drill

The bow and drill method requires considerable effort to produce fire, including preparing the following tools; fire board, drill, bow, socket*.

Once these are prepared do as follows:

- Place the tinder under the v cut on the fire board
- Loop the bowstring over the drill and place the drill in the fireboard depression.
- Hold the socket on top of the drill, press down and saw the bow to twirl the drill.
- Continue to increase bow speed until hot black powder is produced.
- Place the powder into the tinder and blow until the tinder ignites.



(*see overleaf for tool explanations)

Fire lighting cont.

Bow and drill fire lighting tools

- **Socket** - an easily grasped piece of hardwood with a slight depression in one side.
- **Drill** - a straight, seasoned hardwood stick about 2cm in diameter and 25cm long.
The top end is round and the low end blunt (to produce more friction).
- **Fire board** – a seasoned softwood board about 2.5cm thick and 10cm wide is preferable. Cut a depression about 2cm from the edge on one side of the board. On the underside, make a V-shaped cut from the edge of the board to the depression.
- **Bow** - See 'How to make a bow'

Fire Lays

- Tepee- can be used as a light source and has a concentrated heat point directly above the apex of the tepee which is ideal for boiling water.
- Pyramid- looks similar to a log cabin fire except there are layers of fuel in place of a hollow framework. The advantage of a pyramid fire is that it burns for a long time resulting in a large bed of coals. This fire could possibly be used as an overnight fire when placed in front of a shelter opening.
- Log cabin- as the name implies this lay looks similar to a log cabin. Log cabin fires give off a great amount of light and heat primarily because of the amount of oxygen which enters the fire. The log cabin fire creates a quick and large bed of coals and can be used for cooking or as the basis for a signal fire. If one person or a group of people are going to use the coals for cooking, the log cabin can be modified into a long fire or a keyhole fire.
- Long fire- built above ground by using two parallel green logs to hold the coals together. These logs should be at least 15cm in diameter and situated so the cooking utensils will rest upon the logs. Two 3 cm thick sticks can be placed under both logs, one at each end of the long fire. This is done to allow the coals to receive more air.



Other woodland activities

- **Shelter building**
- **Fairy/teddy bear shelters:** scaled down versions of normal shelters.
- **Miniature world:** Similar to above with different theme.
- **Animal shelters:** learners 'become' an animal and make suitable shelter/den/nest.
- **Journey stick:** learners encouraged to collect objects of meaning during the session that are then attached to the journey stick, which can be later used as a reviewing tool.
- **3D journey review:** Learners review whole/part of journey in 3D model form
- **Animal tracking**
- **Bugs on bushes:** place a piece of plastic under a bush/tree. Gently shake and catch creatures that fall out.
- **Broom making:** Lash smaller sticks to a larger length of wood to create a basic broom.
- **'1,2,3 where are you!?' –** all learners find place to hide whilst one member of group (the finder) waits with eyes shut. After hiding time up, the finder shouts '1,2,3 where are you' and the hiders reply 'I'm over here'. The finder uses the replies to find other group members, who then join in the '1,2,3 where are you' calls and searching. Good activity for constant inclusion for all group during task. Activity can be linked into prey/predator, shelter, camouflage, etc discussions.
- **Leaf snap:** pupils pick set number of different leaves and play 'snap' with other group members.
- **Mini beast hunt**
- **Scavenge hunt**
- **Kelly kettles** (at landowners permission) natural drinks e.g. mint or nettle tea
- **Tree height and circumference:** construct isosceles triangle to measure distance across ground, which equals to height of tree.
- **Opposite words:** Each learner is given a pair of contrasting words e.g. dry, damp...light, dark and have to collect examples of these. Other learners have to guess the given words from their examples.
- **Bark rubbings**
- **Woodland art**

Sensory activities

- **Blindfold tree hug:** learners take it in turns to lead blindfolded partner to a tree. Blindfolded person feels/smells tree before returning to start point where they have to try identify tree again un-blindfolded.
- **Woodland pallets:** learners given area to collect contrasting woodland objects e.g. colour, texture, age.
- **Camouflage corridor:** objects foreign to woodland environment hidden for learners to try and visually identify whilst travelling through the 'corridor'.
- **Moles eye view:** learners lie on woodland floor to experience the environment from a different perspective.
- **Woodland instruments:** replicating natural woodland sounds
- **Stepping stones:** Natural sensory 'stones'/piles made and learners, blindfolded, try identify objects using their bare feet.
- **Woodland cocktails:** Learners use natural resources to make 'woodland cocktail' using cups and sticks as pestle and mortar or cocktail shakers! Visual or smell themes will direct learning.

Useful Links

- www.forestschoools.com
- www.foresteducation.org
- www.forestschoools.com
- Forest Research. Phase 1. Forest School Evaluation project. A study in Wales.
[http://www.forestry.gov.uk/pdf/ForestSchoolWalesReport.pdf/\\$FILE/ForestSchoolWalesReport.pdf](http://www.forestry.gov.uk/pdf/ForestSchoolWalesReport.pdf/$FILE/ForestSchoolWalesReport.pdf)
- Forest Research. Phase 2. An evaluation of Forest School in England.
[http://www.forestresearch.gov.uk/pdf/ForestSchoolEnglandReport.pdf/\\$FILE/ForestSchoolEnglandReport.pdf](http://www.forestresearch.gov.uk/pdf/ForestSchoolEnglandReport.pdf/$FILE/ForestSchoolEnglandReport.pdf)
- Bush craft, survival and outdoor discussion forum for anyone interested in learning more about wilderness skills.
www.bushcraftuk.com

Note

This document will be saved in the Woodland folder, within the Activity Teaching Resource folder located in G Drive. Please feel free to add additional information, ideas, resources etc for the benefit of others.

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