



Tool Use Guidance

Tool use for outdoor and woodland learning by OWL groups

Guidance

Outdoor & Woodland Learning (OWL) Scotland is dedicated to increasing the use of Scotland's outdoor and woodland environments for learning.

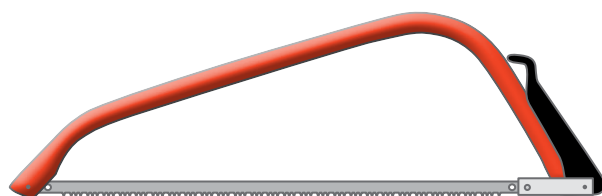
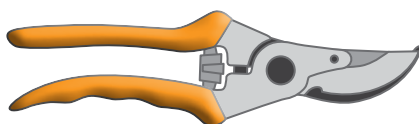
This summary guidance is not comprehensive, and should be supported by skills development, training and specialist guidance where appropriate. Teaching of tool use to children/adults should only be done if trained and this is appropriate to all tools.

Each OWL Group should ensure it has the necessary insurance in place to cover activities and events using tools, or the person leading should have appropriate public liability insurance. For further advice, contact the [OWL Scotland manager](#).

Why use tools outdoors?

Effective outdoor learning doesn't necessarily involve tool use! Sometimes however, tools are an essential element in events and activities run by OWL groups - when working with children, teachers and other educators, or family and community groups. Tools are also required for practical woodland management in outdoor learning areas. Equipment can range from simple wooden mallets, to kit which needs careful maintenance, like secateurs, and saws.

There is increasing awareness that the Curriculum for Excellence can and should be delivered through outdoor learning. Using tools in a real world learning setting can contribute to the development of cognitive and physical skills, and health and wellbeing. Tool use activities should be meaningful, and chosen to be age/ stage appropriate, to support progression in the development of these skills.



Introducing tools to groups

First: Do your Risk Benefit Assessment for the site, the activity and the group

When introducing tools to groups:

1. **Gather** the participants together (ensure they can hear and understand your clear instructions)
2. **Introduce** each tool.
3. **Demonstrate** safe use.

It is important to go through this structured process to build up appropriate respect, understanding and handling of the tool, in the following sequence:

Key elements for success include:



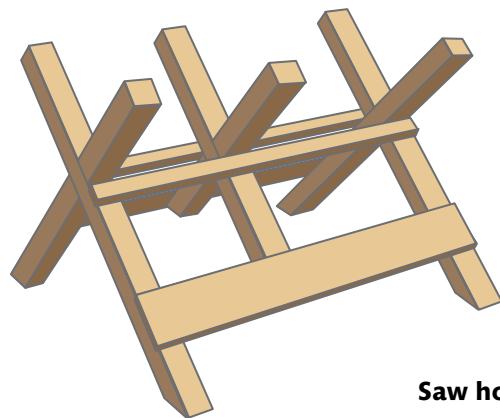
Group Management

- Ensure an appropriate ratio of properly trained and competent leaders to participants/ children. If parent helpers/ volunteers are involved, ensure they are properly briefed;
- When demonstrating correct use, work with small groups;
- Establish behavioural guidelines and ground rules;
- Consider setting a maximum time for tool use (e.g. 20 minutes) depending on participants, as concentration does lapse;
- Depending on the group you are working with, it can be good practice to establish a safe tool-use area away from the main group, where participants can concentrate on learning new skills in peace and quiet, with a leader always present. The rest of the group should not enter the tool zone when others are working there.

Establishing a safe working area

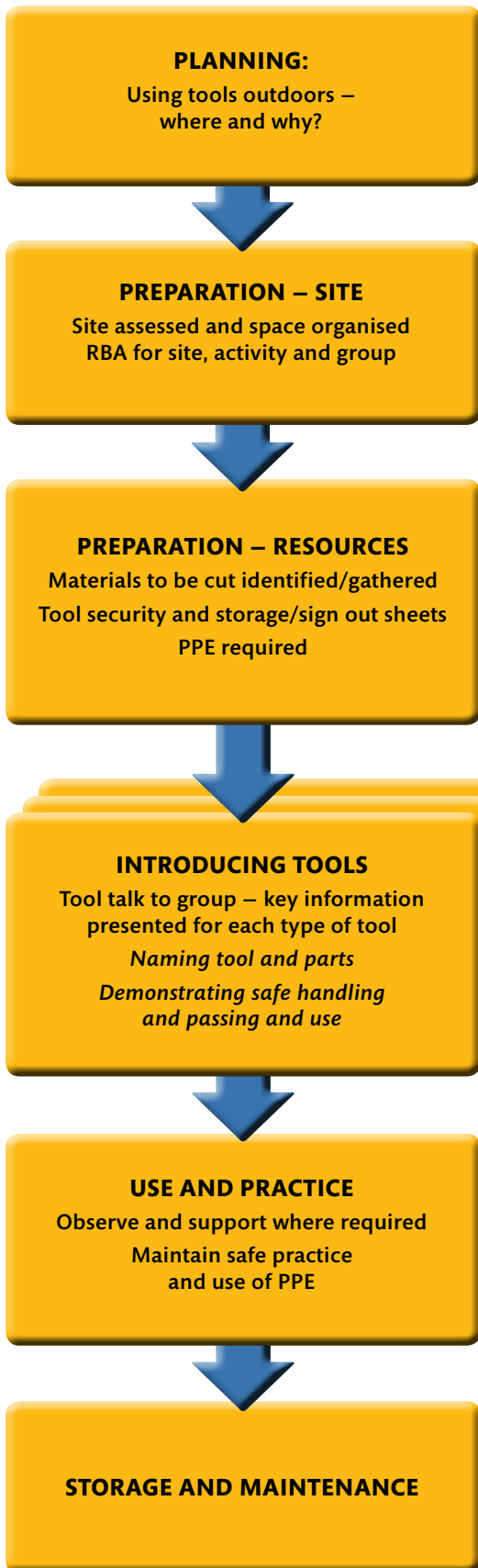
This will depend on the activity and the outdoor context. Often, seats aren't available or necessary. However, as far as possible, aim to:

- Ensure good, solid, stable seating and benches. Any log seats should be firm and not roll around. Benches formed in a circle, allows observation by leaders from the centre, and safe close supervision by leaders behind the circle. Kneeling while working also provides stability.
- Provide a variety of large logs of different heights which can be used as work benches, and for sawing, carving, chopping or drilling. A variety of heights is useful for different tool operations and for a range of child and adult heights.
- Support children and adults who can struggle to hold the wood whilst sawing. A large log, dug into the ground, around 20 - 24" high, with a V cut in the top, makes an excellent sawing bench. A forked tree can be used as a brace. Otherwise provide (or make) a stable saw-horse.
- Ensure safe working distances between participants. This is a minimum of an arm and tool's length away from each other, sometimes described as the working person's 'blood bubble'. The most appropriate descriptive term and distance set between people will also depend on the type of group you are working with.



Saw horse

Using tools outdoors – flowchart



Tools should only be used when there is a clear purpose for doing so.
Use known tools – do not borrow someone else's tools.
What are the intended outcomes? (skills/learning/environmental)

Consider site sensitivities and possible environmental impacts of activity.
Have you sought permission from the landowner?
Are risk benefit assessments and accident procedures in place?
Is the working area safe, and benches/seating secure and fit for purpose?

Does your group/leader have a safe secure storage (fixed or mobile)?
What are the access arrangements?
Is there a signing-out process for tools?

Key principles for tool use:

- Are you demonstrating work-holding implements and technique?
- Safe ratios and close supervision.
- Look up, down and all around before starting to use.
- Always return to the tool storage area when not in use.
- What are the consequences of your actions?
- What will the resource material be used for?

How can you recognise tool use skills by participants?
Consider providing a Record of Achievement or using award schemes like JMA.

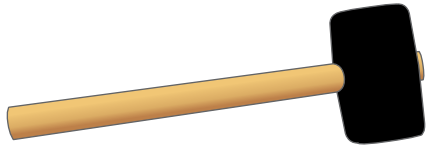
Group leader(s) must ensure that all tools are returned to store (count in)
Leave work areas clean and tidy.
Leave no trace.
Does your group have a maintenance programme for tools?

Safety Checklist

- Staff/Leaders should be trained in the use of the tool provided.
- A comprehensive tools talk is to be given to any volunteers or persons unfamiliar with tools, ensuring everyone is conversant with all tools to be used. The talk should cover site safety, safe carrying of tools, safe and proper use of tools, accident procedures.
- All tools should be well maintained and serviceable, and a logbook of equipment should be kept.
- Appropriate personal protective equipment relevant to task should be used at all times e.g. gloves, goggles, etc.
- Follow manufacturer's instruction when using any tool.
- Ensure the correct tool is used for each task – if in doubt ask.
- All tools checked for damage before use, any defects reported and tool removed from use.
- Tools should be carried at point of balance and not over shoulder. Do not overload yourself.
- Establish a safe working area.
- Always keep a safe working distance from others when using tools, bearing in mind the 'blood bubble'.
- Tools with edges should be sharpened at regular intervals or carry spare tools to ensure continuous use of sharp edge.
- Thick gloves and goggles should be used when sharpening tools.
- With cutting tools such as sickles always work away from the body.
- When using saws and hatchets keep free hand and legs away from blade.
- Ensure firm stance when using mells and pickaxes.
- Check heads of picks, mattocks and axes are secure before use.
- Rotate work to avoid repetitive strain.
- Keep work area clear of tools and debris to prevent trips and slips.
- Tools should be transported and stored in a suitable manner.
- Ensure appropriate first aid is available.
- All leaders to have mobile phone & share contact numbers.
- Take regular breaks to avoid tiredness.
- All accident/incidents must be reported/recorded using an agreed reporting form/system.

Types of tools and when to use them

This describes some of the tools typically used by OWL Groups, but does not consider power tools. The information on each tool can be used to support tool talks and demonstration, and complete risk-benefit assessment forms.



Here is a MALLET

Usage

To provide a force to tools that split wood. To hammer wooden pegs into ground, and other activities that require a pounding force.

Key parts

The handle and head.

Skills supported

Improved fine and gross motor skills, spatial awareness (add curriculum outcomes where relevant).

How to use it safely

- Don't use a glove on your tool hand, use a well-fitting glove on your non-tool hand¹.
- Maintain safe distance².
- Establish expected behaviour³.
- Ensure proper demonstration and supervision.
- Ensure handle a good fit with size of hand for firm grip.
- Ensure no-one is directly in front or behind during use.



Passing

Hold the top of tool and offer the handle to the other person.

Placing

Put the tool down on ground or surface with handle facing backwards, or return it to its designated place.

Walking

Hold the handle of the tool next to your leg with your head facing downwards.

Cleaning

Remove any loose bits of wood, dry with a cloth.

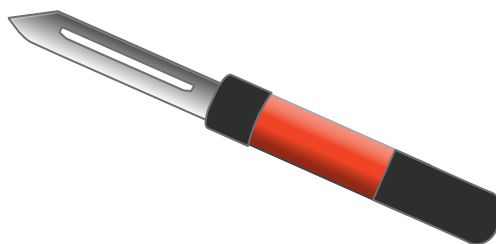
Storing

Store in a large water-proof and air-tight container.



1. Gloves need to be a really good fit otherwise grip on the working material can be compromised. In the latter case it is better to have no glove and a safer grip. Gloves should never be used on the tool holding hand. Provide a range of glove sizes to suit your participants.
2. Safe distance: Always use tools at a distance at arms' length and one tool's length away from other people.
3. Establish expected behaviour: to ensure everyone clearly understands all instructions and expected behaviour for safe tool use. Anyone misusing a tool intentionally can be given 'time out' from the activity, required to put down the tool, and step away, until they are ready to behave appropriately and join in again.

Here is a PEELER



Usage

For whittling small soft sticks, and peeling bark.

Key parts

Handle, blade, cutting edge.

Skills supported

Improved fine and gross motor skills, spatial awareness (add curriculum outcomes where relevant).

How to use it safely

- No gloves on tool hand; well-fitting glove on non-tool hand¹.
- Maintain safe distance².
- Establish expected behaviour³.
- Ensure proper demonstration and supervision.
- Place on a clear space where it will not hit other hard objects. with handles facing forwards and the blade facing behind.
- Keep the blade facing away from you on the outside of your wood, on the outside leg peeling away from the body.

Passing

Hold blades in gloved hand and offer handles to other person.

Placing

Put the tool down on ground or surface with handle facing backwards, or return it to its designated place.

Walking

Walk holding blades in gloved hand next to leg with handles facing downwards.

Cleaning

Use stick/paint brush to clear out any wood & dust in the blade of the peeler.

Use cloth and gun oil/WD40 to ensure all dirt and moisture is off the blade.

Storing

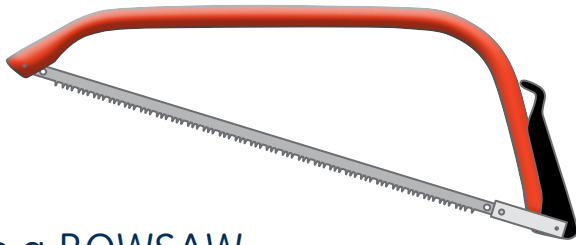
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2. *Safe distance:* Always use tools at a distance at arms' length and one tool's length away from other people

3. *Establish expected behaviour:* to ensure everyone clearly understands all instructions and expected behaviour for safe tool use. Anyone misusing a tool intentionally can be given 'time out' from the activity, required to put down the tool, and step away, until they are ready to behave appropriately and join in again.





Here is a BOWSAW

Usage

For cutting lengths of wood in two, or removing branches off trees.

Key parts

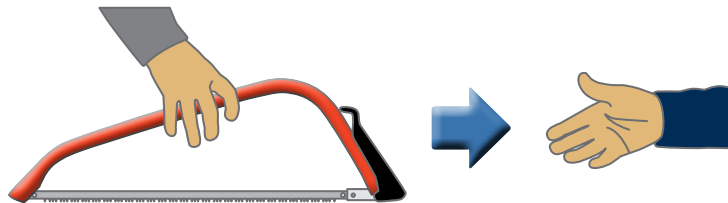
The shaft, handle blade, blade cover. There are 3 different sizes and hedging saws.

Skills supported

Improved fine and gross motor skills; co-operative work (if working with a partner, saying 'to me to you' to get a rhythm of forwards and backward motion, then allowing the other to pull). Add curriculum outcomes where relevant.

How to use it safely

- No gloves on tool hand; well-fitting glove on non-tool hand¹.
- Maintain safe distance².
- Establish expected behaviour³.
- Ensure proper demonstration and supervision.
- Select the saw according to the size of wood to be cut. Hedging saws are useful in tight spaces!
- Sharp serrated edge can cause lacerations. Keep both legs to one side of the saw. Always put protective guard on when not in use.
- Only leaders to remove and replace sheaths or guards unless participants are competent.
- Use standing in an upright position.
- Make a small nick in the wood first. Use the full length of the saw, drawing backwards. Keep it straight!
- Ensure the blade is of good quality as poor quality screw fixed blades are hard to use and more likely to cause injury.
- Keep the blade facing away from you on the outside of your wood, on the outside leg peeling away from the body.



Passing

Keeping blade facing downwards, turn the handle to offer to the other person.

Placing

Put the tool down on ground or surface with handle facing backwards, or return it to its designated place.

Walking

Holding tool like a handbag with blade facing downwards.

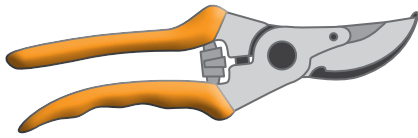
Cleaning

On site, use a dry paint brush to brush off sawdust etc. Use cloth and gun oil/WD40 to ensure all dirt and moisture is off the blade.⁴

Storing

Keep the blade covered. Keep spare blades in container to replace when necessary. Store in large water proof and air tight container, with protective sheath/ cover on.

1. Gloves need to be a really good fit otherwise grip on the working material can be compromised. In the latter case it is better to have no glove and a safer grip. Gloves should never be used on the tool holding hand. Provide a range of glove sizes to suit your participants.
2. *Safe distance*: Always use tools at a distance at arms' length and one tool's length away from other people.
3. *Establish expected behaviour*: to ensure everyone clearly understands all instructions and expected behaviour for safe tool use. Anyone misusing a tool intentionally can be given 'time out' from the activity, required to put down the tool, and step away, until they are ready to behave appropriately and join in again.
4. Maintenance of these tools should be carried out by an expert.



Here is a pair of SECATEURS

Usage

To cut twigs smaller than a penny piece.

Key parts

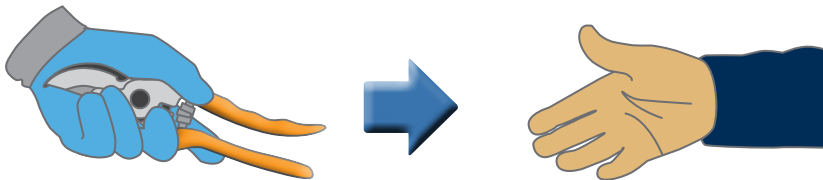
Handles, safety catch, hinge, jaws/ blades.

Skills supported

Improved fine and gross motor skills, spatial awareness (add curriculum outcomes where relevant).

How to use it safely

- Maintain safe distance¹.
- Establish expected behaviour².
- Ensure proper demonstration and supervision.
- To put down, close and lock safety catch and return to the designated place.
- Do not use gloves when using tool.



Passing

Holding blades in gloved hand and offer handles to other person.

Placing

Put the tool down on ground or surface with handle facing backwards, or return it to its designated place.

Walking

Close and lock safety catch, hold blades in gloved hand next to leg with handles facing downwards.

Cleaning

On site, use a dry paint brush to brush off sawdust etc.

Maintenance

Use cloth and gun oil/WD40 to ensure all dirt and moisture is off the blade³.

Sharpening

Use a round file.

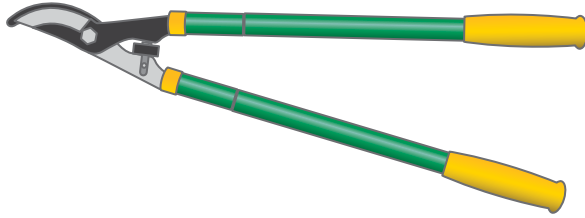
Storing

Store in a large water proof and air tight container.

1. *Safe distance*: Always use tools at a distance at arms' length and one tool's length away from other people

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3. Maintenance of these tools should be carried out by an expert.



Here is a pair of LOPPERS

Usage

To cut small branches & twigs smaller than a 2 pence piece. By-pass loppers have scissor-like cut for green and wet wood. Anvil loppers are ideal for dead or dry wood.

Key parts

Shaft, handle, jaws, hinge.

Skills supported

Improved fine and gross motor skills, spatial awareness (add curriculum outcomes where relevant).

How to use it safely

- Wear sturdy footwear; gloves may be useful for handling material, but do not use on tool¹.
- Maintain safe distance².
- Establish expected behaviour³.
- Ensure proper demonstration and supervision; Is the branch smaller than your thumb?
- Always keep closed after cut has finished.
- Use the telescopic handles, hold at arms' length, and don't work with body inside handles.

Passing

Hold blades in gloved hand and offer handles to other person.

Placing

Put the tool down on ground or surface with handle facing backwards, or return it to its designated place.

Walking

Carry so they don't open by holding by the lower tool arm.

Cleaning

On site, use a dry paint brush to brush off sawdust etc.

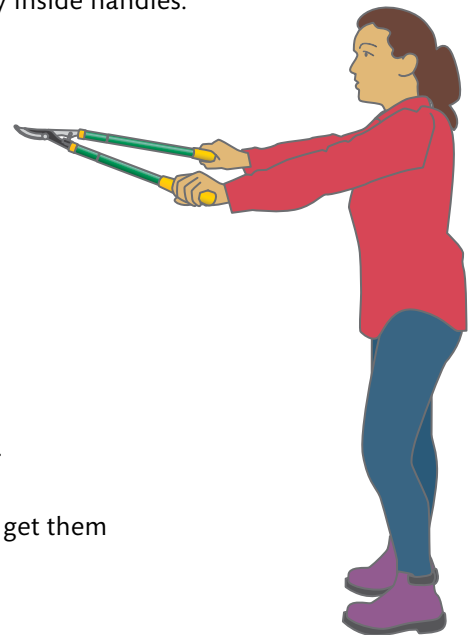
Use cloth and gun oil/ WD40 to ensure all dirt and moisture is off the blade.

Maintenance

If the loppers can be dismantled sharpen using a round stone file otherwise get them sharpened by an expert⁴.

Storing

In protective cover, in a large water-proof and air tight-container.

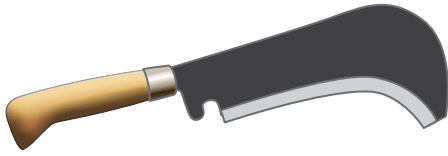


1. Gloves need to be a really good fit otherwise grip on the working material can be compromised. In the latter case it is better to have no glove and a safer grip. Gloves should never be used on the tool holding hand. Provide a range of glove sizes to suit your participants.

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4. Maintenance of these tools should be carried out by an expert.



Here is a BILLHOOK

Usage

Taking the side branches off lengths of wood (sneeding) or splitting wood or brash small twigs of branches.

Key parts

Handle, blade, hook.

Skills supported

Improved fine and gross motor skills, spatial awareness (add curriculum outcomes where relevant).

How to use it safely

- No gloves on tool hand; well-fitting glove on non-tool hand¹.
- Maintain safe distance².
- Establish expected behaviour³.
- Ensure proper demonstration and supervision.
- Never throw a billhook or use it to hack wood.
- Only leaders to remove and replace sheaths or guards unless participants are competent.
- Blade moving away from the body, hook facing downwards, always work with the edge away from you.
- Keep the billhook as parallel and close to the wood as possible.

Passing

Keeping blade facing down, holding top of the tool, turn handle towards other person.

Placing

Place down on a cover/ sheath/ tool mat with the blade facing inwards and the handle facing forwards.

Walking

Walk holding tool next to leg with hook facing backwards.

Cleaning

Use cloth and gun oil/WD40 to ensure all dirt and moisture is off the blade.

Maintenance

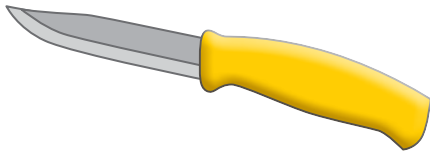
Sharpen using a round sharpening stone after each session.

Storing

Ensure blade is covered when in storage. Store in large water-proof and air-tight container with a protective sheath/cover.

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4. Maintenance of these tools should be carried out by an expert.





Here is a KNIFE

Usage

For whittling, carving and cutting.

Key parts

Blade with tang inside handle, bevel & cutting edge, handle & hand guard. The blade itself has parts: point, edge, grind, spine, fuller, choil.

Skills supported

Improved fine and gross motor skills, spatial awareness (add curriculum outcomes where relevant).

How to use it safely

- No glove on tool hand; well-fitting glove on non-knife hand¹.
- Maintain safe distance².
- Establish expected behaviour³.
- Ensure proper demonstration and supervision.
- Keep blade facing away from you on the outside of your body, keeping wood between you and the knife.
- Keep in pocket or designated place.
- Sheath immediately after use.
- Only leaders to remove and replace sheaths or guards unless participants are competent.



Passing

Holding sheathed part, offer handle to person.

Placing

Put the tool down on ground or surface with handle facing backwards, or return it to its designated place.

Walking

When walking, place blade in sheath (hearing a click) place in pocket.

Cleaning

On site, use a dry paint brush to brush off sawdust etc.

Use cloth and gun oil/ WD40 to ensure all dirt and moisture is off the blade. Use long stick with cloth to wipe out any debris inside the sheath.

Maintenance

Sharpen using sharpening stone after each session⁴.

Storing

Store with protective sheath/cover on, in a large water-proof and airtight container.

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4. Maintenance of these tools should be carried out by an expert.

Further guidance on a wider range of tools is available from the organisations and links listed in the reference section at the end of this document.



Benefits of tool use activities

Depending on your group and the intended outcomes of your activity, the following aspects can be considered for inclusion in your Risk-Benefit Assessment:

- Risk management is a key life skill. Participants* learn to take personal responsibility, develop resilience, take part in practical decision-making and develop an awareness of real risk versus perceived risk
- Tool use is potentially risky, so to entrust an individual with the responsibility to manage a tool can be a huge boost to their self-esteem and a great sense of achievement when they have created something using a tool
- Pleasure and fun
- Team building
- Engaging with local environment and elements
- Sense of achievement of end result
- Social inclusion
- Participants learn to manage own behaviour in risky situations
- Participants learn sustainability message of 'leave no trace'
- Supports general health and well-being
- Supports the Curriculum for Excellence, progression in learning and helps to develop the following skills:
 - understand and remember verbal instructions
 - understand process and sequence
 - work independently (e.g. whittling own stick)
 - work co-operatively (e.g. using a saw with a partner)
 - practice gross and fine motor skills
 - show care for themselves and each other
 - knowledge of different tree species and their wood properties
 - better understanding of the environment, habitats and sustainability

* Participants can be children, pupils/ students, adults. It may be helpful to distinguish as each group may have particular needs to meet, or particular beneficial outcomes.

References

Forest School Level 3 online portfolio example 1.2 [Demonstrate how to safely use a range of hand tools and explain their use to a client group at a Forest School](#)

Forest School Wales: Wood Craft Skills Training Resource: Safe use and storage of tools (NB. full document is a member-only resource)

[Muddy Faces](#) 'How to Use' pocket sized laminated cards

[Knife Use With Groups: Forest Schools Leader's Guide](#) – Liz Knowles (Muddy Faces).

OWL Scotland [Forest School Scotland Resource Pack](#) Section 8 practical activities

Scottish Borders Council Guidance

Thank you

These guidance notes were compiled by Penny Martin with the support of the OWL Scotland network. Many thanks go to those individuals who contributed constructive comments and suggestions.

ACTIVITY RISK/BENEFIT ASSESSMENT FORM (example template)

Name:	OWL Group:	Date:	Grid Ref/ Postcode:
Location:	Participants:		
Activity:	Leader(s):		

Element Describe this part of the activity	Hazards List Significant hazards here	Risk From Encountering hazard	Benefits ¹ For the people taking part	Benefits List people at risk from the identified hazards ²	Evaluation List the control actions needed (suitable and sufficient, not perfect) ³	Risk of hazard with controls Aim to make ALL risks LOW	Record and Review Describe future practice to reduce hazards/who is responsible Keep written records#
e.g. Access to the site	Rough uneven ground and obstacles	Slips, trips, falls	Improved gross motor skills Awareness of environment	Participants General public Workshop leaders	Store and stack craft materials out of the way of foot traffic Advise care where appropriate	Low	Choose suitable site at setting up stage Workshop leader(s)
e.g. Tool use – Bowsaw	Tool slipping Sharp serrated edges	Lacerations	Improved gross and motor skills Co-operative work (add curriculum outcomes where relevant)	Participants	Maintain safe distance between people Establish expected behaviour Ensure proper demonstration and supervision for using, passing, walking and putting down tool Select the saw according to the size of the wood to be cut Put protective guard on when not in use	Low	Activity leader(s)

1. See general benefits overleaf and against tools.
 2. See details in *Types of tools and when to use them* section – 'skills supported'.
 3. See details in 'safe use'.

Signed:



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