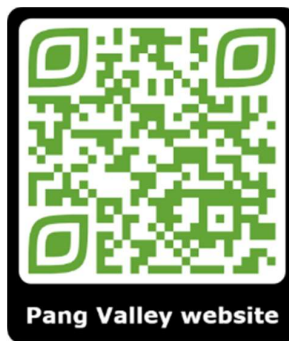


KNIFE, AXE & SAW (KAS) HANDBOOK



Companion guide to
the PV KAS permit

Pang Valley District
Scouts 2024

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UK LAW – it is illegal in the UK to use any knife or weapon in a threatening way. It’s also illegal to carry most knives or any weapons in public without ‘good reason’, such as for work, religion or organised scouting: Non-locking folding knives with a cutting edge less than 3 inches are legal carry. It is also illegal to sell knives or weapons to anyone under the age of 18. Maximum penalty is 4 years in prison, an unlimited fine or both.



THE PANG VALLEY KAS PERMIT

This handbook has been developed as a companion guide to set the minimum expectations for scouts and explorers to be awarded their PV KAS permit and also as an aide-memoir for scouts and explorers to check and maintain their skills.

There are many different techniques and specialist tools for KAS delivery. This can lead to confusion within and between groups and individuals. The techniques in this handbook have been selected as the safest effective means of learning to use sharp tools as current practice in bushcraft, BushScout NASU and forest school teaching.

Outline risk assessments are available on our website and must be reviewed based upon your circumstances – responsibility for risk assessment remains with the leader in charge.

What are the benefits of a KAS permit?

Use of sharp tools does not require an instructor permit under the Scouting Policy Organisation and Rules, however it is a hazardous activity and a fundamental part of any scouting programme. The KAS permit provides a standard for leaders to assess their scouts and explorers ability, to demonstrate that the people using sharp tools are trained, to facilitate issuing and return of sharp tools by the quartermaster, and for young people to develop confidence and trust, and visibly show their achievement on their uniform.

How does the KAS permit work?

Training - Section leaders use this handbook as a common standard for training their section in the key skills under close supervision – Pang Valley District offer skills days and active support if required to supplement leader skills. Once section leaders are confident that a scout in their section is capable in the knowledge and practical skills as set out in this handbook they can award a KAS permit woggle in the same way as awarding a badge.

Wearing - The KAS permit woggle must have the scout name written on the inside and is worn by the scout on their neckerchief alongside their normal woggle as a sign of their competence to use sharp tools with reduced supervision.

Using - When the scout needs to use a sharp tool from stores they trade their KAS woggle for the tool and the woggle is placed in the box. When they return the tool they retrieve their KAS woggle. This enables the leader to issue tools only to those who are trained and to keep track of any scouts who are yet to return the tools that were issued to them.

Behaviours – Specific behaviours are not spelled out in this handbook, and it is expected that leaders will show appropriate intervention in the event of illegal or unsafe behaviour.

IMPORTANT SAFETY RULES

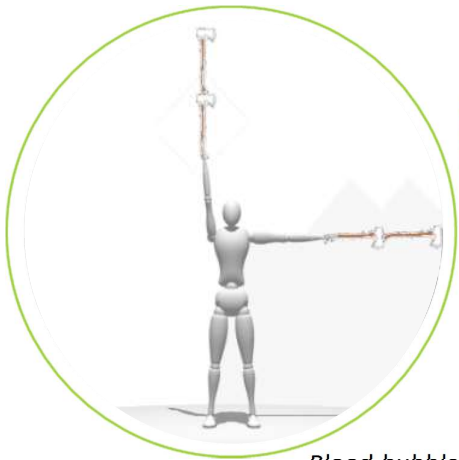
There are a few simple rules for any sharp tool that cannot be over-emphasised:

1. NEVER CUT TOWARDS ANY PART OF YOURSELF – THE TRIANGLE BETWEEN YOUR NAVAL AND KNEES IS CALLED ‘THE TRIANGLE OF DEATH’; A CUT TO THE FEMORAL ARTERY HERE IS QUICKLY FATAL
2. ALWAYS THINK BEFORE YOU CUT; ‘IF YOU MISS OR SLIP, WHAT WILL YOU DAMAGE?’
3. THE BLOOD-BUBBLE; ALWAYS KEEP A DISTANCE OF YOUR ARM LENGTH PLUS TWICE THE TOOL FROM ANY PERSON OR OBJECT

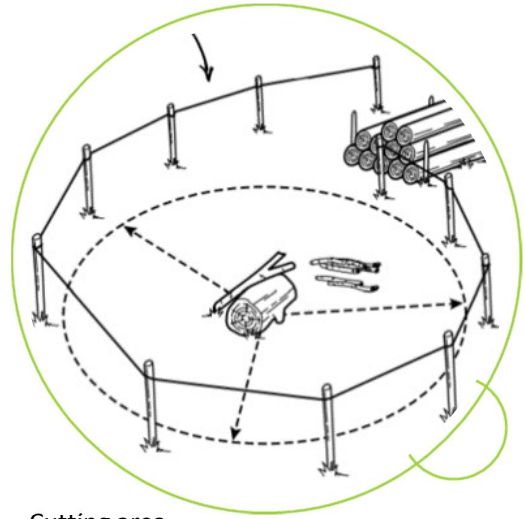
Good practice for any sharp tool

Before using a sharp tool, inspect it for damage. Make sure that blades are sharp, and heads and handles are secure.

A cutting area should be marked out to provide working space within a blood-bubble. Remember to avoid overhanging trees in your blood bubble. The cutting area should be kept tidy of trip hazards and should contain a cutting block and suitable work holding for the task.



Blood-bubble



Cutting area

Tools should be sheathed when carried and placed neatly out of the way when not in use. Axes may be chopped into the cutting block between uses, and care should be taken that the cutting edge is fully buried in the block and the shaft does not cause a trip hazard.

KNIFE

Both folding knives and fixed blade knives (also called sheath knives) are available, this section focuses upon the use of fixed blade knives. Fixed blades are safer since folding knives can fold on your fingers unexpectedly.

A KNIFE IS ONE OF THE MOST VERSATILE TOOLS; EASY TO CARRY, AND CAN TACKLE FIREWOOD, FOOD AND CAMPCRAFT.

Knives work by slicing: That means that the sharp edge needs to run across the item being cut whilst you apply some downward pressure. Pushing the knife against something without allowing the knife to slice is likely to make the cut harder work and increase your likelihood of slipping. They also work best along the grain of the material; cross grain cutting is better suited to a saw.



Unsheathing a knife

Do not unsheathe (or unfold) your knife until you are ready to use it – it is safest when still in its sheath.

When you are ready to use the knife, pull the sheath from the knife with the sharp edge facing away from you. Make sure to keep your fingers away from the danger zone at the top of the sheath.

Put the knife back in the sheath when you are not using it or need to move or pass it to someone else.



Shoulder cut

This basic cut is used for working onto a cutting block or board. It is used for shaving wood and preparing food.

Grip the knife in a fist with the blade facing away, keeping your index finger back from the blade and other hand behind the blade at all times.

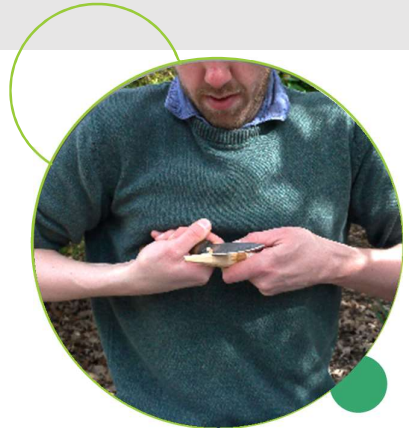
Standing side-on, place the wood or food on the cutting block and slice downwards, angling the blade to control the thickness of shaving.



Chest lever

This technique enables you to apply a lot of force in a controlled way. It is used for sharpening the end of a stick or for cutting rope.

Grip the knife in a fist with the blade facing up. Holding the stick in your other hand, bring your wrists to your chest with the knife pointing away from your body. Pushing your elbows back enables you to use your chest and arms as a lever to make small powerful cuts.



Whittling – fine cut or push cut

An intermediate technique which with practice enables you to make small, precise cuts such as notches and hooks.

Sit with your elbows on your knees – this keeps the knife away from your triangle of death.

Grip the knife in a fist and support the back of the knife with both of your thumbs to apply controlled pressure as required; easing the knife forwards by tightening your grip on the workpiece.



Recommended tools

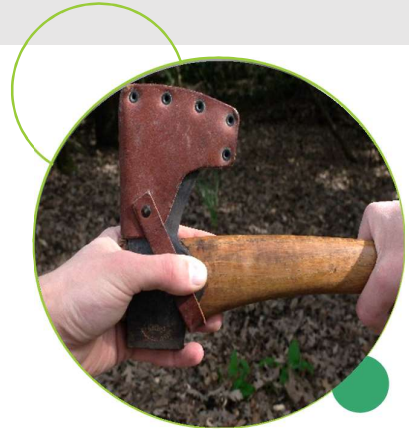
Mora Heavy Duty Companion knife, Hultafors Heavy Duty Forest School knife.

AXE

Passing and carrying an axe

Axes differ from other sharp tools since they have a heavier head than handle (called the haft) so they are carried with the head in your hand. The haft can be up or down.

Axes are passed so the recipient takes the back of the head. This way the recipient is less likely to misjudge the weight of the axe and allow it to fall.



Working at the cutting block

If you stand at the cutting block and the axe falls or slips it will swing towards you and may injure your legs. Instead, kneel at the cutting block and position your log on the far side of the cutting block so that a slipped axe will contact the block or ground.

Axes are used to split along the grain and are not effective in cutting across the grain where a saw should be used. We do not encourage swinging an axe for inexperienced users.



Batoning

An axe can be used with a baton or maul to split wood. Placing the edge of the axe on top of a vertical log about 5cm from the edge, strike the back of the axe with a wooden maul (never a metal or stone object). Guide the axe with your other hand to keep it level.

Working in this way, logs of around 15cm diameter and 30cm length can be effectively processed.

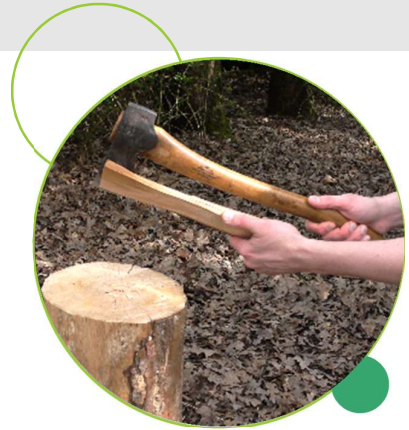


Side splitting

This technique is used when the splits of wood no longer stand stable on the cutting block without falling.

Hold the axe in your dominant hand and the split of wood under the axe head in the other hand, raise both and hit together onto the cutting block.

When the axe is through, rotate the split sideways to separate the pieces.



Recommended tools

Fiskars X7 hatchet, Wilkinson Sword 35cm Hatchet Axe.

SAW

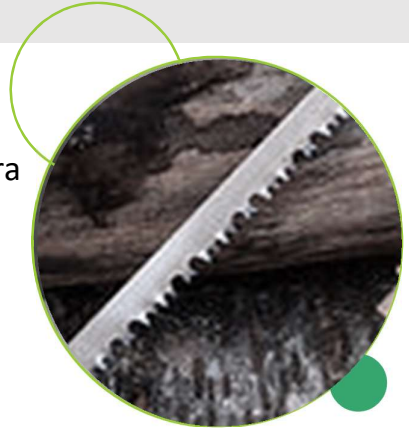
Saws have teeth which make them excel at cutting across the grain. Most portable saws are not suited to cutting along the grain, where an axe should be used.

Passing and carrying a saw

Folding saws should be closed when not in use.

Bow saws should be carried by the saw back, with the blade down and parallel to the ground. If there is no guard then extra care should be taken not to snag legs or undergrowth whilst moving around.

Both types of saw should be held by the back and presented handle first to the recipient.

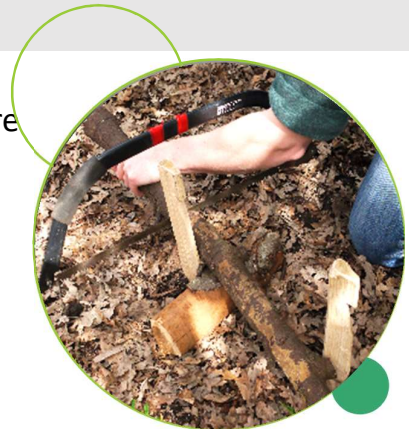


Work holding

Saws cut on either the push or pull stroke and you must hold the piece of wood steady for efficient sawing. Main options are a saw horse, hand holding or a saw brake

If hand holding, reach over the blade as this prevents the saw skittering out of the cut and into your hand.

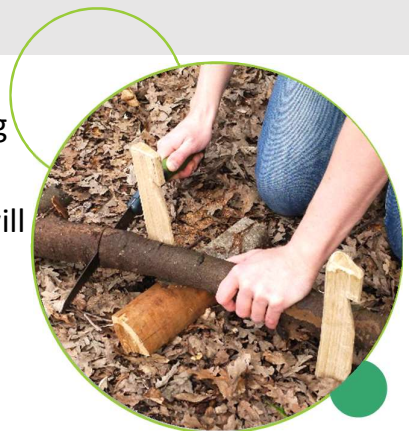
A saw brake can be simply made with two stakes or tent pegs and a log as pictured.



Cutting

Whether using a bow saw or a folding saw, grip the handle lightly and push/pull the saw forwards and backwards keeping it straight and using long, smooth, rhythmical action. Do not press down, rush or force the saw into the wood as the saw will bind if forced or twisted in the cut.

Keep your other hand the other side of the saw brake to the saw, and keep your legs to the side of the saw.



Recommended tools

Bahco Laplander saw 190mm, Fiskars 24 inch bow saw

**TOP TIP – WHEN PROCESSING FIREWOOD,
PARTICULARLY KINDLING, STACK IT AS YOU GO TO
KEEP IT OFF WET GROUND**

EXERCISES AND FURTHER READING

Try making a toasting skewer, maul, a tent peg, a wedge, a pot hanger or a feather stick.



Try stick project

Elder whistle project

Make a wedge

Make tree hooks

Sharpen up

These websites offer much more guidance to expand your skills.

CONTACT

If you need more information or would like to book onto one of our skills days, please see our website; pangvalleyscouts.org.uk, or email support@pangvalleyscouts.org.uk