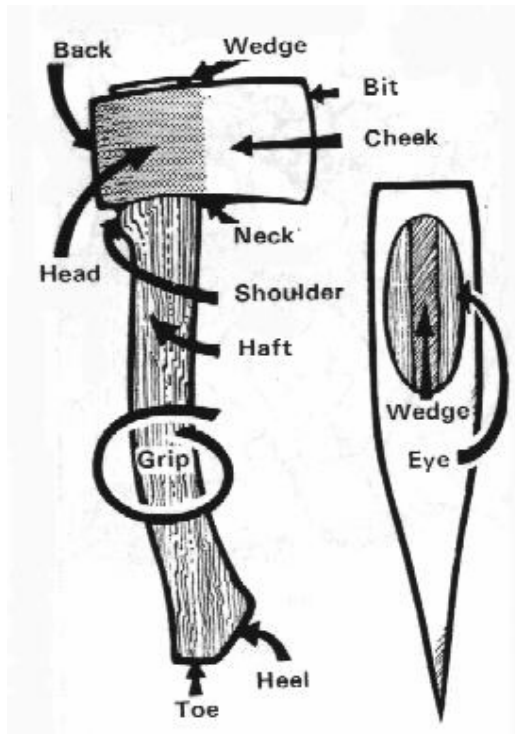


Axes



The information below will assist the Scout in obtaining their Forester badge.

Axes can come in different shapes and sizes, the two axes that are of most relevance to any Scout Troop will be the HANDAXE and the FELLING AXE. These two axes are different in size and in use (as their names suggest).

THE HANDAXE.

Always make sure the head (see diagram) of the axe is tight before use. Use proper wedging - wedges may be metal or wood. If the head becomes loose because the handle dries out soak the wood in raw linseed oil. For temporary swelling soak in water.

An axe haft is usually made of hickory.

Never buy an axe haft with labels or paint on it - your hands will blister. Always keep the haft clean.

THE FELLING AXE.

There are two types of felling axe:

- i) The Rounding Axe
- ii) The Wedge Axe

The rounding axe is used on hardwoods. It will cut deep on hardwoods but will tend to become wedged if used upon softwoods. It is different in the fact that it has a thin tapering blade, and that it has a smaller shoulder than the Wedge axe.

The wedge axe is used for felling softwoods, and will not become wedged in the tree. Very hard dead branches will damage the bit of a rounding axe but not of a wedge axe. The wedge axe has a less tapered blade than the rounding axe. It also has a larger shoulder than the rounding axe.

USING AN AXE

When using any axe boots should ALWAYS be worn.

- ✓ When using an axe a designated chopping area should be cordoned off. This should be in an area where there are few if any overhead branches.
- ✓ Spectators should always be kept at least two axe lengths away.
- ✓ NEVER chop on the ground always use a chopping block, and aim at where the branch is supported by the block.
- ✓ NEVER use the axe if you are tired, and stop using an axe if you become tired.
- ✓ Irrelevant as to which axe you have been using, when finished with or not in use the axe should always be masked. This can be done with a leather (or similar material) cover, or by being left in a log. When doing this make sure that the axe handle is never overhanging the length of the log.

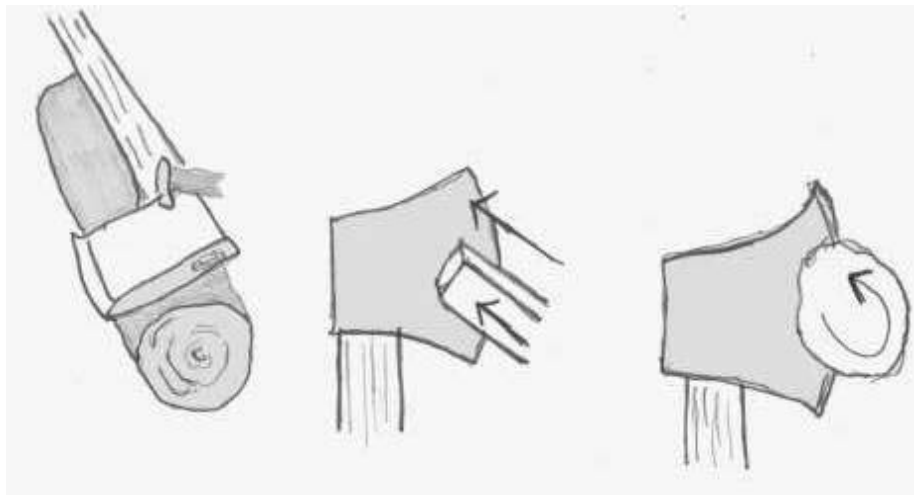
- ✓ When the axe has to be transported from one area to another, it should be masked (obviously not within a log) and should be carried so that the head is in your hand with the blade facing forwards and the toe facing towards the sky.
- ✓ NEVER use an axe with a split haft. Always replace a damaged haft with a new one - NEVER attempt to repair a haft however slight the damage.
- ✓ CARE
- ✓ For day to day sharpening use a circular carborundrum axe stone (wet or dry), making a rotary motion. Keep your finger tips away from the blade.

Sharpening an Axe

An axe with a blunt edge becomes no more than an inefficient hammer, and indeed a great deal more dangerous as you struggle to use it. Always keep your axe sharp. For large 'burrs' a file is probably your best bet. Make sure you use the file correctly though, it will only work in one direction, it works when pushed, not pulled.

To sharpen your axe prop the axehead between a log and a peg driven into the ground. Always try to sharpen inwards from the cutting edge (to avoid producing any burrs). First use a file or rough stone to remove any burrs and rucks. Then finish with a smoother stone, using a circular motion. Don't drag the stone off the cutting edge, push on to the blade.

Turn the axe over and repeat the process, circling in the opposite direction.



Chopping Areas

When chopping wood at camp, you will need to create a specific chopping area. Choose a site that is fairly close to the fire and clear of any obstructions (not only on the ground. Ensure there are no overhead obstructions that could catch your axe as you swing). Make a circle that is at least 2m (6 ft) in radius (or at least 3 axe lengths). Rope this area off and ensure it is clearly marked. Make sure that everyone knows where the chopping area is. No loose clothing should be taken into the area, and no one should enter the area without strong shoes or boots (and of course checking it is safe to enter).

Tree Felling

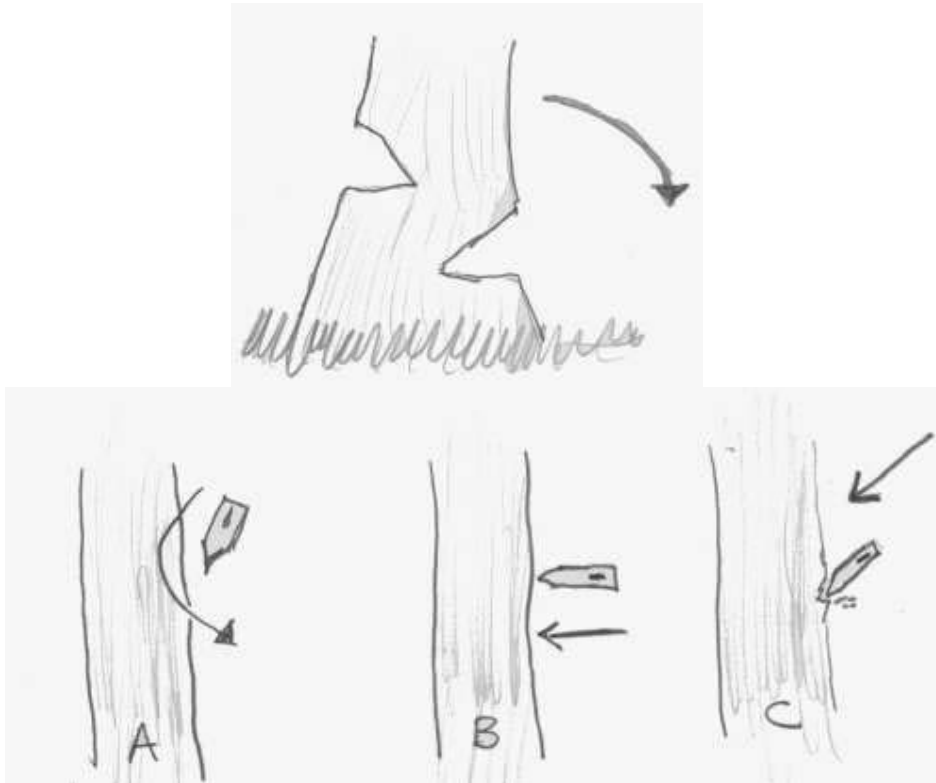
Main Cuts

Before you do anything else, check overhead for dead branches which may fall and injure you, and for things like hornets nests. Clear the area around the tree of any undergrowth or branches that could deflect your blows. If the tree has a particularly large spread of roots or boles around the base you may want to construct a platform so that you can reach a thinner part of the trunk and save time and effort. Obviously if you do this make sure the platform is stable and you have a clear route of escape (in case something goes wrong!).

Cut from both sides of the tree. First you chop a notch out at an angle of about 45 degrees and then another on the opposite side at a lower level, on the side which you want the tree to fall.

Do not cut through more than half the tree before starting the other notch.

You must work at a height that is comfortable for you. Try to cut downwards at 45 degrees (you may need a horizontal cut occasionally to clear debris etc.).



A steady rhythm of blows will cut much more efficiently than fewer big blows. If you put too much effort behind the axe your aim will suffer, you will tire and then every swing becomes more dangerous. Always let the weight of the axe do the work.

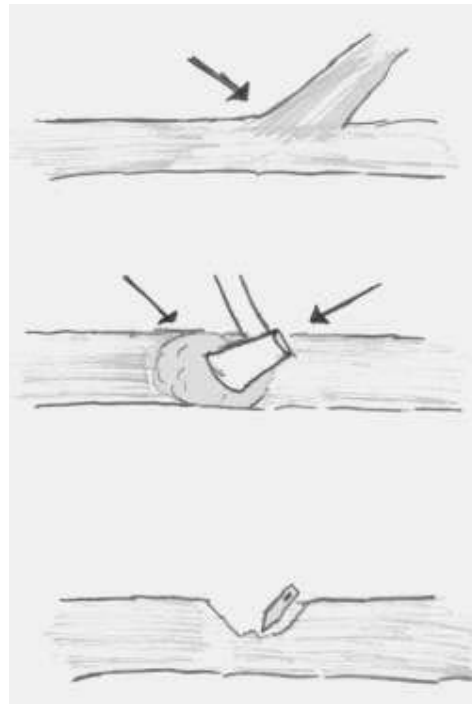
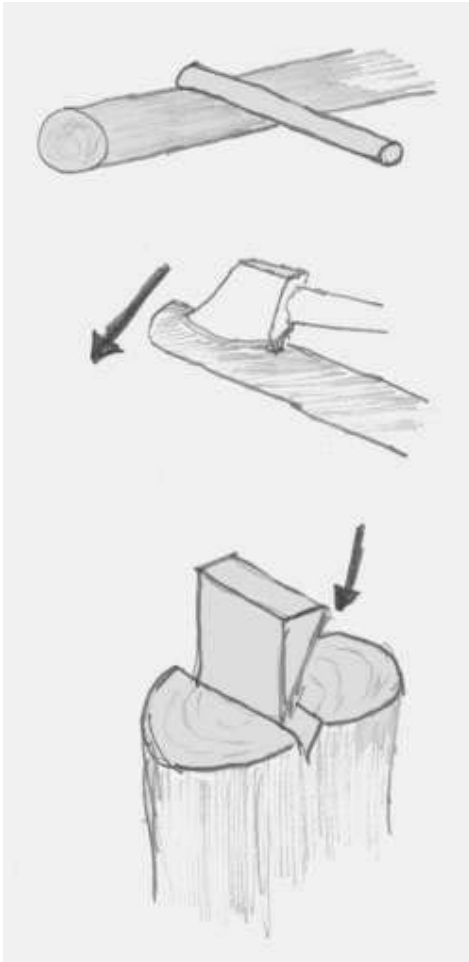
Alternating the angle of the stroke will prevent the axe from jamming. Too steep an angle will cause the axe to glance off, end-on will make the axe jam (or simply be inefficient). Try to aim for a 45 degree angle.

Splitting Logs

For a large log, as before, stand behind the log with your feet well apart. Swing down the cut the side away from you. Do not chop downwards. If you wish to split a smaller log, lay it against another log. Do not put your foot on it. There is an alternative to this though, hold the smaller log against the cutting edge and bring them both down together on to a larger log. If in doubt, or if you have any difficulty, split larger logs with a wedge and a rock. Do not hold the wood upright in your hand and try to split with an axe.

Hitting Angle

When chopping branches from a large log, always stand on the side away from the axe. Always cut branches from the outside of the fork, not the inside.



Fitting an Axe with a Handle

If the head is loose you can soak the axe for a few hours in a bucket of water but this will only ever be a temporary fix (the wood will swell and the handle will be tight for a little while). Ideally you need to replace the handle or at least replace the wedge.

Saw off the old handle close to the axe head (Note: you should not just burn the handle off as this will cause the bit to lose its temper, note the above arrangements) and drill out the wood that is left in the axe head. You can punch the rest of the wood backward from the handle side and then clean inside the hole.

Get the new handle and pound it into the head. Make sure the handle passes out the other side by at least an inch. Also be sure that the new handle is correctly aligned.

Put some glue on a wedge and in the slit for the wedge in the end of the handle (you did make a slit didn't you?) and then drive in the wedge. You can now saw off the excess handle and wedge.

It would be a good idea to fix the wooden wedge in place with a steel wedge, placed diagonal to the wooden wedge

Broken Axe Handle

Using an axe takes a lot of practice and occasionally along the way handles get broken. This usually occurs when the head misses the target and the handle takes all the force from the blow. To remove a broken handle, the easiest way is to put it in a fire, burying as much as possible of the metal in the earth (to prevent it losing temper).

Never attempt to repair an axe handle

Never use any axe that has a damaged or split handle.

Thanks to Darren Dowling for input to this resource.

<http://www.scoutingresources.org.uk/>