Teaching young people

Cornwall Woodcarvers seek to pass on the craft and John Samworth explains how

We were approached by a local Scout troop, which asked if we could demonstrate whittling to the troop. As it turned out, the Scout leader was quite inspirational and had asked what activities they would like to do in their next term. Working with knives was top of their list. Word soon spread thoughout the district and we now visit six troops – 150 Scouts. The Scouting organisation, being well-structured and disciplined, is an ideal medium through which to teach woodcarving.

What advice do we at CWCs have to pass on to others, what tricks have we learned? These young people are incredibly enthusiastic and eager to learn. Anybody wanting to learn whittling will pick up good practice quickly, but some guidance will speed up the process. The very first question to ask is 'why whittling?' The answer is simply that knives and materials for whittling are readily available and relatively low cost to acquire. In very basic terms, for a whittling class you require a dozen knives, a dozen sticks and some imagination.

Safety equipment

For young people, safety must come first. It is fair to say that working with sharp knives has its inherent risks. A few nicks and scratches are to be expected, but good practice and methods will keep even these to a minimum and avoid anything more serious. The basic equipment should be cut guards, gloves, bodger board, first aid kit and telephone. Having undertaken a risk assessment you may deem it necessary to include other items in your methods.

Cut guards can be made at home from thick material, preferably leather, or by cutting the fingers or thumbs off an old pair of gloves, or rubber finger cones, sold at many stationery stores. Their purpose is to protect the thumb from blisters while pressing on the back of the blade in the pull cut. Too big and they become cumbersome, likely to fall off and people will avoid using them.

There are many manufacturers of safety gloves for industry for adults at cheaper prices, from £10, but those in the picture are specific for children, and come in four sizes. These gloves offer level five protection against cuts, but not stabs, and come as a pair and are machine washable. The gloves are interchangeable and should at the very least be worn on the knife hand.

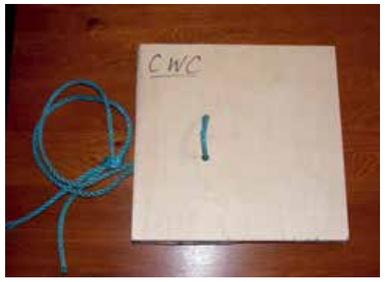
Bodger boards can be made at home from an offcut of many sheet material. This one is made from 18mm birch plywood and is particularly tough, offering a high degree of protection to the body. There is the option to run a cord through the board to make it a foot operated grip, freeing both hands. For comfort in use I have lined the back with carpet underlay.

In conclusion, absolute minimum protection should be a thumb guard, but when teaching the young, especially when they have little or no experience of using a knife, issue safety gloves. Safety gloves offer excellent protection against cuts, but not stabs. Again, I emphasise the importance of good cutting techniques, away from the body, to remove the risk of stabs.

Thumb guards

Rubber finger cones

Cut-resistant gloves



Bodger board

Choice of knife

A wide range of knives are available and they all have their benefits. Many manufactures produce 'child' knives, but I've found these unsuitable for teaching whittling. The wrong knife for the job is dangerous, because the user adopts an awkward hand hold, too close to the vital areas of the body, and applies uncontrollable and excessive force. When the blade slips, as it surly will, injuries will result. Knives with folding blades have an enormous advantage in that they are safe to carry in one's pocket, but for teaching I find the risk of the blade unexpectedly closing and trapping fingers too high and always recommend fixed-blade knives. A varied cross section is listed below. My comments are made with first time use by young people in mind, not the experienced whittler. Safety of the young user is my primary concern.

Flexcut KN12

Flexcut sells an extensive range of whittling knives, each for a specific use. Its knives tend to be in the range of short blades, the KN12 has a blade length of 32mm, which makes it ideal for detail work. The handles are made from wood, ergonomic and comfortable in the hand. Blades come sharp, pre-ground with a single bevel and ready to use straight away. The steel is good and keeps an edge well. The KN12, with its rounded nose, is less likely to cause a stab injury. Carrying case or sheath not supplied.

Mora 106 or 120

Mora sells an extensive range of knives for a wider range of outdoor uses. Many are too big for whittling. The Mora 120 is the smaller of the two, but still with a blade length of 62mm, which is particularly suited to green wood carving using long slicing cuts. The handles are made from wood, a basic round design, but quite functional and comfortable to use. Blades come sharp, pre-ground with a single bevel and ready to use straight away. The steel is good and keeps an edge well. Both the Mora 106 and the 120 blades taper to a sharp point with the potential for serious stab wounds. A plastic sheath is provided, but it often works loose and the knife can fall out.

Hultafors Electrical Fitter's knife

For detail work, the finger guard can obstruct access, but the obvious safety benefits outweigh any aesthetic concerns. A durable plastic sheath is included in the price, which holds the knife safely and has a smooth withdrawal action. I use this knife extensively as a first knife in lessons because it offers such a high degree of safety, works well for rough work and offers excellent value for money.

In conclusion, for a basic, economical and 'safe' introduction knife especially for youngsters, start with the Hultafors Electrical Fitter's knife. If you are considering your first upgrade, try the Mora 120 whittling knife and if you become addicted to the craft explore all the specialist knives that Flexcut has to offer.

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Sharpening

Perhaps at CWCs we are too kind, but we keep the knives sharp for each lesson. Sharpening a knife could discourage some pupils from learning and our aim is to encourage participation. If someone asks a direct question about sharpening then we take this opportunity to discuss and demonstrate sharpening techniques. Stropping, however, is essential and we cover this. We teach stropping techniques and explain the reasons for doing it. Regular stopping is part of the lessons.

Knife holds and cuts

When discussing cuts with people we prefer to start by explaining where the power is coming from and the safety and risks involved. This prevents people from trying the cut too soon with inappropriate force. To avoid confusion between left and right-handed people, we use the terms 'knife hand' for the hand holding the knife and 'wood hand' for the other one holding the wood. Our approach to cut technique is to limit the blade movement, but focusing on the method of powering a cut. If you push down with all your strength and the knife slips then the blade will travel several feet, cutting anything in its path. If the power comes from a restricted body movement, such as clenching a fist, the knife can only ever travel a short distance. Much safer.

A good guide to how safely the students are working and how closely they are following the instructions is to observe the amount of jerking in their movements. Good, safe practice is a smooth operation with no waving of the hands. The chippings on the floor tell the whole story. Small, clean-cut chips forming a cluster about the feet indicate perfect technique. Flying chips mean that too much force or flicks are being used. Large chips mean that a lot of force is being applied from the knife hand, not the restricted body movements. Rough chips indicate working against the grain. With practice you will notice many more clues of bad practice.

Push cut

The power for the push cut comes from extending the wood thumb forward and pushing on the back of the blade. The maximum travel of the blade is now limited to 20mm for a typical thumb. The knife hand only holds the knife. Grip the knife firmly with your thumb on the bottom, but not so tight as to get white knuckles and quickly tire the hand. Place the blade to the wood about 5-10mm from the end, pointing away from you, and push the knife by extending the wood thumb away from you. Too much travel with the knife means that force is being applied with the knife hand, risking injury.

Push cut

Reinforced push cut(s)

In the reinforce push cut(s) the power comes from the knife hand by pivoting on the wood hand thumb and either twisting the wrist down and outwards or by rotating the wrist flat and outwards. In these cuts the knife hand stays in contact with the wood, the tip of the blade moving 30-40mm. Many people find that a bodger board offers particular safety on the push cuts. Check for jerks where the force is coming from the arm, not twisting or rotating the wrist.

Reinforced push cut(s)

Straight arm push cut

In the straight arm push cut, the power comes from the shoulder, conveyed through a straight arm and wrist. This power is large and the knife movement may be up to 150-200mm. Hold the wood hand across your lap, until the outside of the wood hand wrist is resting over the knife side leg, pointing away from the leg. Hold the knife firmly between the thumb and first two fingers. Wrap the last two finger around the handle lightly. A little movement of the handle between the bottom two fingers helps the knife slice through the wood, and increases the slice though any resistant spots in the wood. Point the wood away from you. With a straight knife arm place the knife to the wood. Push the shoulder-arm-hand-knife out and away from you. For extra power, time the cuts to your breathing. Place the knife on the inhale and push on the exhale with a puff. The resulting cut will produce shavings similar to those from a plane. Keep a watchful eye to ensure the pupils keep the wood cuts out beyond their leg and not rest the wood directly on the leg or between the legs. Watch out for waggling of the arms and if the knife becomes stuck. When stuck too deep a cut was attempted. The waggling will lead to frustration and errors.

Important: allow extra space between pupils and keep left handers to the left of right handers, to avoid knives clashing

Chest expansion cut

In the chest expansion cut, the power comes from squeezing the shoulders back and shoulder blades together. This is an extremely powerful cut, but if done correctly the blade travel is limited to 80-100mm, the cut comes from a rotation movement with both hands firmly placed on the chest and not moving off it. Most pupils find this cut counter-intuitive at first. Hold the knife as normal except the blade edge is facing into the V between the thumb and forefinger. Bring the knife to the wood across the middle of the chest over the breastbone. Keep the knife on top of the wood and both wrists in contact with your chest. The blade is now pointing out and away from the body. Squeeze the shoulder blades together as you exhale with a puff. No power should be exerted by the arms or hands, hence the wrists stay in contact with the chest. The action of expanding the chest creates an opening scissor-like slice cut action. Watch out for jerking hands or the knife travelling up towards the face. This is caused by power coming from the arms.

Chest expansion cut

Projects

For the cooking utensils, avoid the poisonous woods of laburnum and yew and, for general safety avoid blackthorn. Most green timbers work well, such as sycamore, lime, beech, ash or maple.

ASSOCIATED ACTIVITIES

Whittling need not be seen as an isolated activity, especially with Scouts, but rather as part of a larger set of life skills, such as giving some thought to sourcing your own timber, managing trees, planting trees, axe and saw use, bodging, design and tool maintenance, to name but a few. But best of all, whittling makes for a wonderful social activity, where a group of people can sit around together, chat and carve a piece of wood. They may start as strangers, but they will finish as friends.

LAW ON KNIVES IN ENGLAND AND WALES

Before embarking on any project of this nature, do check the local laws where you are. This summary applies to England and Wales only. In April 2018, the UK government announced a review of offensive weapons which may change the knife laws. But at the time of writing the following briefly describes the basic laws on knives – ref: www.gov.uk/buying-carrying-knives

It's illegal to:

- Sell a knife to anyone under 18, unless it has a folding blade 3in long (7.62cm) or less;
- Carry a knife in public without good reason, unless it has a folding blade with a cutting edge 3in long or less;
- Carry, buy or sell any type of banned knife;
- Use any knife in a threatening way (even a legal knife).

It should be noted that 'lock' knifes, which are popular with whittlers, in law are not classed as folding knives. Even though the knife folds for safe carrying, the locking mechanism means that the law considers these knives to be the same as fixed-blade knives and will treat them as such.

Good reasons for carrying a knife

Examples of good reasons to carry a knife in public include:

- Taking knives you use at work to and from work
- Taking it to a gallery or museum to be exhibited
- If it'll be used for theatre, film, television, historical reenactment or religious purposes, for example the kirpan some Sikhs carry
- If it'll be used in a demonstration or to teach someone how to use it

A court will decide if you've got a good reason to carry a knife or a weapon if you're charged with carrying it illegally. From above it is evident that both teacher and pupil may carry a knife in public to and from a whittling lesson. Still we recommend discretion and that knives are kept out of harm's way in a tool box or pocket (when safe) and not carried in open view, attached to a belt.

Very similar laws relate to other sharp or pointed objects, such as a piece of whittling. While a whittling knife needs to be sharp and pointed, the choice of whittling project does not need to be either sharp or pointed. Whittling a butter knife or a letter opener are both sensible projects for learning whittling but the butter knife avoids all the legal concerns on carrying sharp or pointed objects, whereas the letter opener in certain circumstances may fall foul of the law.

The police do have powers to stop, search and question people if they have reasonable grounds for suspecting that any person is carrying a weapon. If you are stopped by the police, keep calm and be truthful. Explain that you are carrying the knife to a pre-arranged whittling class and the knife is for whittling. If in any doubt first seek qualified advice from a trusted advice agency, solicitor or local police.

Health and safety laws will also need to be considered and to help the reader I have prepared a risk assessment and method statement.

RISK ASSESSMENT AND METHOD STATEMENTS

The Health & Safety Executive of the United Kingdom states that a risk assessment is a document to:

- Identify the hazards
- Decide who might be harmed and how
- Evaluate the risks and decide on precautions
- Record your significant findings
- Review your assessment and update if necessary

A safety method statement is a document that describes in a logical sequence exactly how a job is to be carried out in a safe manner and without risks to health. It includes all the risks identified in the risk assessment and the measures needed to control those risks.

Although in law the method statement is not required, it allows the teaching to be properly planned and resourced. We find the method statement is most effective if combined with the risk assessment and incorporates a teaching plan.

Please take time to study these documents carefully. They are not prepared to tick a bearcat's box, they are prepared to reduce the risk of injury and to reduce the severity of any injury which might result. We have observed there is an improbable risk of minor injury and a highly improbable risk of injury requiring medical treatment, such as stitches to a cut.