Simple Knotting Techniques for Jewellery Making

These worksheets from wwwspellboundbead.co.uk will lead you through the simple materials and straightforward techniques you need to produce the classic look of a neatly knotted bead string. Traditionally knots are used between pearl type beads and crystals to prevent the beads from rubbing against one another. Knots also help a string length to flex and drape around the neck or wrist, especially, if you are using washer-shaped discs, flat-ended beads or chunky beads that do not sit well against one another. Try floating style necklaces with knots on ribbon or cord instead of crimps and tigertail wire for a quick and easy make.

CHOOSING BEADS FOR KNOTTING

To make the knotting easy you need to choose beads with similar sized holes - freshwater pearls tend to have tiny holes; crystals of all sizes tend to have matching holes across the range but glass, wooden and semi precious beads can have tiny, medium or enormous holes so if you are mixing and matching the beads in your design keep an eye on the hole sizes. If you have a selection of beads with various hole sizes you will have to choose the thread based on the beads with the smallest holes - the beads with larger holes can have bead cups/figlies or smaller beads (such as seed beads) used at either side to prevent the knots from slipping inside the bigger holes of these beads. Also take care with some larger semi precious chunks - these beads are often drilled from both ends and the drill holes do not always meet up true in the centre - sometimes the hole is not straight or it narrows at the centre of the bead so check them out carefully.

THREADS FOR KNOTTING

You will need to examine the holes in your beads to choose the correct thread for the job - your choice will also be influenced, in part, by the weight of the beads and the finished purpose of the knotted string (some threads are very strong indeed). You can use any type of strong thread, yarn, ribbon or fibre for knotting as long as it will fit through the holes in your selected beads. Ideally the thread should fit quite snugly through the beads although you can use multiple thicknesses of the thread to achieve this fit. If you are going to use multiple threads try not to use more than four thicknesses at a time as it can be difficult to get a neat knot with more threads than this.

**Superlon Beading Thread**
(BT101-BT150)
A slightly waxed stranded nylon style thread available in 36 colours. The thread has a flattened profile to thread easily onto a beading needle. Available in D and AA thicknesses. Use doubled Superlon D for knotting very fine hole beads such as freshwater pearls. Finish with calottes or gimp.

**Rayon Knotting Thread**
(BT343 - BT345)
Woven rayon thread for knotting small and medium-sized hole semi precious and glass beads. Also great for making floating style knotted necklaces with small beads. Two diameters available. Finish with calottes or gimp.

**C-Lon Macrame Thread**
0.3mm (BT500 - BT570)
Designed for micro macrame jewellery it also makes a great thin knotting thread for simple designs and can be used three or four strands at a time. Use for small and medium-sized hole beads of all sorts. Outstanding colour range. Finish with macrame knots; lace ends; gimp or calottes.

**Cotton Thonging**
0.5mm (TG300 - TG304)
1.0mm (TG270-TG290)
2mm (TG001 - TG002)
Very strong, very flexible and available in three diameters and loads of colours. Knots easily and reliably. Use for medium/large hole sizes and ideal for floating style necklaces with medium to large beads. Finish with lace ends.

CALCULATING THE LENGTH OF THREAD REQUIRED

Tieing knots uses up quite a bit of thread - the more knots you need to tie (eg lots of small beads) the more the thread length will be used up. In general if you are knotting a length of 8mm beads you will need two and a half times the finished length of the necklace in straight thread to start with (remember you will need to double this if you are using a double thickness of thread). For larger beads (less knots) two times the length. For smaller beads up to four times the finished length. Allow extra length if you are making double knots. It is not possible to join on more thread so use enough to start with!

NEEDLES, THREAD ENDS AND CUPS

For Tiny Holes - You will need a wire needle with a collapsible eye (fig 1). The needle is supplied with the eye open as shown to make it easy to attach the thread - when you pull it through the first bead it will collapse completely flat so it can glide through the beads.

Choose BN006 for really tiny holes (freshwater pearls etc) and BN005 for small holes, hand drilled beads with holes that do not run true and beads with a tight thread fit when the thread is doubled up.

If you are using C-lon, ribbon or yarn for your beads you will find it useful to make a needle from a length of fine wire. Use a 10cm length of 0.2mm or 0.31mm wire - bring the two cut ends together and twist to leave a small eye at the folded end (as fig 1). You will be able to get at least two threads through the eye but you may find it easier to use two wire needles in parallel if you are using more threads than this.

Cotton thong (and single thicknesses of C-lon or rayon) will fit straight through the beads without a needle - if it is a tight fit you will need to prepare the end of the thread first. Paint the last 2cm of the thong/thread with a thin coat of nail varnish or PVA glue (NOT superglue). Run the end of the thread quickly through your fingers to smooth the varnish glue and force it into the fibres of the thread. Leave to dry and harden. Trim the end of the hardened thread to a slight point - the thread will now go through the beads without constantly fraying.

**Gimp**
GP001-011; GP020-028
The traditional and professional way to finish off a knotted length - gimp (or french wire or bullion) is a very fine flexible spring of wire which protects the thread from wear as it passes through the loop of the clasp. Use size B for Superlon D, size C for a single strand of C-lon or rayon and size A if you are attaching to a clasp with very small holes. Also available in colours.

Bead filigree cups
FN900 - FN902
for either side of medium and larger hole beads make knotting easier and give an attractive effect.

Calotte Crimps
FN060 - FN061
for a simple finish on a Superlon, Rayon or C-lon length

Lace Ends
FN035, FN149 - FN150
for multi-strands of C-lon and single rows of thong
Making really neat knots in the right place takes a little practice - especially if you are using a very fine thread such as Superlon D but a few knots down the line it becomes much easier. You will need a pair of tweezers with a fine point or a pair of fine nosed pliers (round nosed pliers are ideal).

**Knitting Practice**

Use 50 - 60 cm of thread to practice. Tie a simple knot a few cm from the end of the thread and pass your first bead - push it right up to the knot. Make a small loop 3 - 5 cm in diameter quite close to the bead. Pass the end of the thread through the loop to start the knot but do not pull tight yet (fig 2). Reach through the loop of the knot with your tweezers or pliers and grip the thread where it emerges from the bead (or where you want the knot to form) (fig 3). Gently pull the knot tight - the loop will travel down the nose of the tool and tighten where you are gripping the thread - use your finger and thumb nails to push the knot off the end of the tools and into the correct place (fig 4). Thread on the next bead and repeat (fig 5). Make five or six knots to practice before you move onto the project proper.

**If A Single Knot Is Too Small!**

Sometimes - even though the thread seems the correct thickness - a single knot is just too small and the bead slips over the knot. This sometimes happens if the bead holes vary along the design - you will need to use a double knot.

To form a double knot make the loop in the thread as before but this time take the end of the thread through the loop twice (fig 6). Carefully pull the knot down into place over the tool and push the knot off the end with a firm action to make the knot tie as a ball shape (if you don’t pull firmly the knot can elongate and not be fat enough to hold the bead). Triple knots can be tied in a similar fashion but are more difficult to control as you tighten down - try a thicker thread or a double thread instead.

Try to use all single knots or all double knots down the design to get even spacing between the beads.

**Gimp With a Professional Finish - Using Gimp**

Gimp is a fine flexible tube used to cover the thread where it attaches to the clasp. Used in the main for pearls and other fine knotting or stringing jobs it gives a neat, professional and invisible finish to your work. Gimp is made from extremely thin wire and is very delicate in its unused state - it needs to be treated with care - not crushed or dropped as it can distort. It is supplied by the gram or the cut length - you will need approximately 6 mm of gimp for each end of your design (a little more in the wider gauges) - cut the gimp with the tips of very sharp scissors to avoid crushing the tube.

**Starting Off**

Before you do any beading lay out the bead sequence. The last three or four beads at each end of the design will need to have a large enough hole for the thread (when attached to the needle) to pass through twice. With freshwater pearls or older beads you may find that the string is slightly graduated - try to swap around the last few beads on either side to bring any with a larger hole to the ends without upsetting the graduated pattern.

Prepare the needle with the correct amount of thread and tie a slip knot (fig 7). 5 cm from the end.

Thread on the first three beads at the start of the design IN REVERSE ORDER (fig 8). Pass the needle very carefully through the 6-7 mm of gimp you have prepared and push down to the first bead of the design.

Pass the needle through the loop of the clasp (or the ring that will attach to the clasp) and back down the first bead of the design (fig 9) to pull the gimp into a tight curve through the clasp loop and the needle through to emerge between the first and second beads.

Pass the needle around the threads between the beads to make a loop and pass the needle through this loop twice to form a knot gently pulling the knot down between the beads to finish up tight to bead one (fig 10).

Pass the needle through bead two and repeat the knot (fig 11).

Pass the needle through bead three. Ignoring the slip knot (push it to one side out of the way) make the first proper knot (as fig 3 above) of the design (fig 12). Thread on the next bead of the sequence and make the next knot. Knot up to and including the fourth bead from the other end of the design.

Thread on the last three beads of the design and the second piece of gimp. Pass the needle through the loop of the clasp and back through the last bead of the design (fig 13). Adjust the tension in the thread so the gimp is neat and tight to the end of the work but there is just enough 'play' in the thread to make a knot between the beads at the present needle position and the next gap back along the length.

Make a knot here as in fig 10 and pass back through the next bead along. Make a final knot here and pass the needle back through the third to last bead of the design.

With a great deal of care trim away the excess thread length attached to the needle. Return to the slip knot. Untie the slip knot and trim the excess thread away.

If you wish you can dab the last two knots at either end of the design with a tiny dab of clear drying nail polish or glue to make them extra secure.

**Alternatives to Gimp**

Sometimes the holes in the beads are too small to thread back through and use the gimp technique - if you are using Superlon, rayon or C-lon you can use a calotte at the end of the thread. Multiple rows of C-lon and single rows of thong are best finished off with a lace end.

You will find detailed instructions for using calottes on the download ‘Working With Beading Threads’.

If you need to use lace ends see the download ‘Threading With Thonging’ for instruction on how to use box style and spiral style lace ends.

Knotting with fine threads and gimp can give you a traditional and highly stylish finish but knotting is not just for pearls. Check out the projects on the PROJECTS tab on the website www.spellboundbead.co.uk for some ideas of different ways to use knotting in designs.

©The Spellbound Bead Co 2009