

KNOTTING

Before this session, the Cub must revise the Bronze Arrow knots (the Reef Knot, The Figure of Eight, The Thumb Knot, Shoe Laces, and the Hank a Rope) and the Silver Arrow knots (Sheet band and Clove Hitch) .

For the Gold Arrow, the Cubs will learn how to tie the Bowline, round turn and two half hitches, Square lashing and diagonal lashing.

Bowline (King of knots)

The Bowline is a knot used for forming a non-slip loop to go around your waist, for securing a line to a post or for rescue purposes. Under load, it does not slip or bind. With no load it can be untied easily. Two bowlines can be linked together to join two ropes.

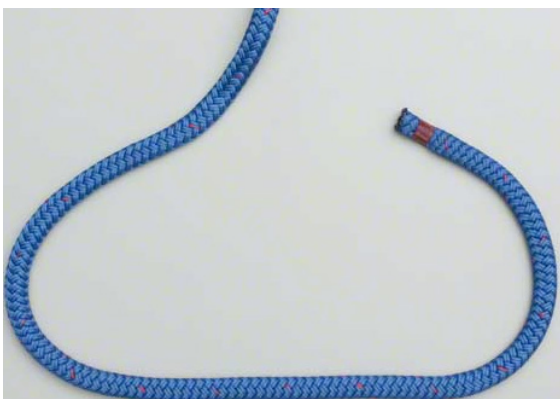
It is tied with the rope's working end also known as the "tail" or "end". The loop may pass around or through an object during the making of the knot. The knot tightens when loaded at (pulled by) the standing part of the line.

The bowline is well known as a rescue knot for such purposes as rescuing people who might have fallen down a hole, or off a cliff onto a ledge. They would put it around themselves and sit on the loop. This makes it easy to heft them up away from danger.

A good teaching method is to take jungle characters: Kaa comes out of the well, goes round the tree and back down to the well again. Grab the tree and the well, and Kaa from head and tail and tighten.

How to tie:

- Cross the end of the rope over the top of the remaining rope making a Q shape (steps 1- 2)
- Pass a short portion of the end of rope trough the loop from behind and back to the end of the rope, tread it loosely leaving a new large loop (steps 3-4)
- Pass the short portion of the rope around the back of the remaining rope (step 5)
- Bring the short portion back up and once again pass it through the small loop (step 6)
- Pull tightly (step 7)



Step 1

G091





Step 2



Step 3



Step 4



Step 5



Step 6



Step 7

Another method to tie the Bowline:

Hold the rope in the left hand and form a small loop over the top of the standing part. Hold the loop in place with the thumb of your left hand. Then lead the end up through the loop (from behind), round behind the standing part and back down (from the front) through the loop again.

Round Turn and Two Half Hitches

The Round Turn and Two Half Hitches is a very secure knot and is used to secure the end of a rope to a post or to moor a boat for an extended period. The round turn provides extra friction and takes much more strain off the two half hitches.

As the name suggests, the Round Turn and Two Half Hitches is composed of two important parts:

(i) **Round Turn:** The initial 'Round Turn' take the initial strain while you complete the knot. An additional turn, or even two additional turns, should be added initially if you are handling a heavy load, e.g., with a large vessel or in a strong wind. These turns allow you to control the load while you add the:

(ii) **Two or More Half Hitches:** The two Half Hitches actually form a clove hitch round the standing end. However, it is common to see an additional one, or more Half Hitches - either to make the knot more secure or to use up excess line. Always tie the Half Hitches in the same 'direction'. If you start the first Half Hitch with the tail passing away from you above the rope, then do the same with the next.

How to tie:

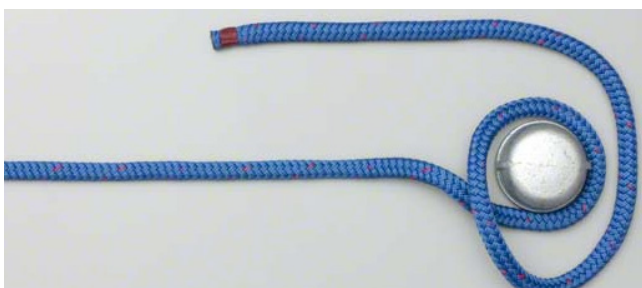
- Pass the end around the post twice. (steps 1- 4)
- Go around the standing end to make the first Half Hitch and pull it tight. (steps 5-6)
- Continue around in the same direction to make the second Half Hitch, pull it tight to complete the knot. (steps 7-9)



Step 1



Step 2



Step 3





Step 4



Step 5



Step 6



Step 7



Step 8



Step 9



Lashings

Lashings are used to hold spars together. This allows the Cubs to make things they can use. The most useful lashing for Cub Scouts to learn is a square lashing.

Square Lashing

Square lashing is used to lash two poles together at right angles to one another and in direct contact with each other. The strength of the lashing can be improved if care is taken to lay the wraps and fraps parallel to one another. Square lashings are similar to diagonal lashing in formation although it is slightly stronger and a better option for load bearing poles, whereas diagonal lashing is better suited to cross bracing poles.

They are started and ended using a clove hitch. The rope is wrapped (tightly) around the poles. This is known as wrapping and generally goes completely around about three times. To further tighten the lashing the rope is brought completely around the wrapping turns tightly twice. This is called frapping. End with a clove hitch around one of the spars.

How to tie:

- Start with a Clove Hitch around one pole. (step 1)
- Twist short end around long and wrap the rope around both poles. (steps 2-4)
- Go over and under each pole about three or four turns. (steps 5-6)
- Tighten the lashing by surrounding it with three or four frapping turns. (steps 7-12)
- Finish with two or three tight half hitches. (steps 13-14)



Step 1



Step 2





Step 3



Step 4



Step 5



Step 6



Step 7



Step 8



Step 9



Step 10



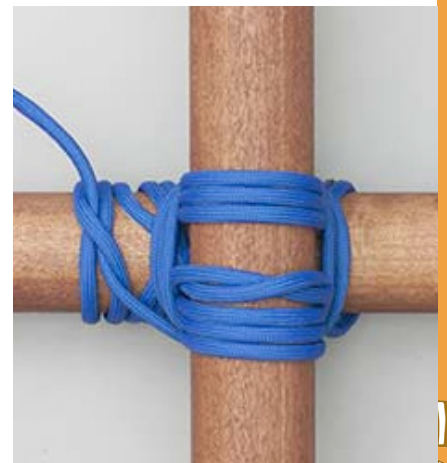
Step 11



Step 12



Step 13



Step 14

Diagonal Lashing

The diagonal lashing gets its name from the fact that the wrapping turns cross the poles diagonally. This lashing makes use of the timber hitch to pull and bind poles together that are not touching each other and allows them to be drawn together without changing the relative positions of the poles.

If a square lashing were used to bind poles that do not touch, the beginning clove hitch would pull the cross pole toward the clove hitch causing unnecessary bowing of the cross pole and could also produce a force that would act along the length of the pole to which the clove hitch is tied. These additional force, can place unnecessary strain on other lashing within the structure causing the structure to twist and fail.

How to tie:

- Start with a Clove Hitch or Timber Hitch around one pole. (step 1)
- Wrap three or four turns around the two poles in the horizontal axis (steps 2-3)
- Then wrap three or four turns in the vertical axis. (step 4)
- Tighten the lashing by surrounding it (between the central part) with three or four frapping turns. (steps 5-6)
- Finish with a Clove Hitch. (step 7)



Step 1



Step 2



Step 3





Step 4



Step 5



Step 6



Step 7

Suggestions:

Revise the Bronze and Silver Arrow section before this part. Lashings require lots of time and individual attention in order to teach them to the cubs so it is ideally to have help from other leaders, or older members from the Troop and Unit. It is also encouraged to have Cubs who learn a knot help out the other Cubs. This helps instil several qualities in the Cub who is teaching. The concepts of the knotting should be done in practical sessions during the meeting or a camping.



ACTIVITY FACT SHEET



Activity: Create a model or structure



Objective: Learn Lashings



Time: 6-8 weeks



Outline:

The Cubs ended up on a stranded island, and they need to start thinking about some basics to survive. The knots learnt in the Gold arrow are very helpful in this situation. The lashings can be used to build the skeleton of a shelter. The bowline is useful to know in case someone ends up in need of help. The round turn and two half hitches can be used to tie and raise a flag, to attract the attention of any passing ships. Show the Cubs example of what they can build using the lashings before teaching them the knot, so they can be inspired and become more eager to learn the knot.



Equipment: Ropes and poles



Place: HQ/Campsite/Outdoors



Group Size: Gold Arrow









3rd Parties: N/A



ACTIVITY FACT SHEET



During the Activity:

-  – The cubs help each other by explaining and showing the knots to each other.
-  – ‘Strong’ physical aspect is important so the knots won’t untie and the lashing will hold the structure.
-  – This aspect is important since knots and lashing are part of the core of scouting and the cubs start to see clearer their uses and why they are important.
-  – Cubs are allowed to create different structures or models eg: raft, swings or catapult.
-  – Cubs may feel feeling of frustration or anger. However, once they master a knot, they have feelings of pride and achievement.
-  – Cubs do their best to fulfil their goal and succeed in their task as a team (six/pack).

GOLD ARROW

