

Let us be familiar with knots and lashings

Engaging in outdoor activities helps learn how to enjoy the natural beauty of the environment and, when faced with challenging situations, how to respond to such challenges. Doing knots and lashings is an important skill that is involved with outdoor activities. Different types of knots and lashings are used in order to fulfil day-to-day tasks more easily and effectively. If you are a Scout or a Girl Guide you may have already gained some knowledge about knots and lashings.

By now, you have gained knowledge about classification of organized games and outdoor activities from Lesson 04.

From this lesson you can gain knowledge about knots and lashings which will be useful in various situations when engaged in outdoor activities.

Importance in gaining knowledge about knots and lashings

In our day-to-day activities we have to carry out various tasks which require doing knots or tying things with ropes. On some occasions where we need a very long rope, we may have to join together two or more pieces of ropes. In such situations, if we do not tie the knot properly to join the pieces of rope, the knot will get loose and undone when the rope is pulled tightly from either end. Further, if knots and lashings are not done properly, it could lead to accidents. What type of a knot do you use to tie up your shoelaces? The type of knot you use should be one that can be undone easily. Accordingly, possessing a proper knowledge about knots and lashings is vital for carrying out of day-to-day activities more easily and effectively.



Activity

Take a piece of rope or string of about one meter in length, and engage in practicing different types of knots that you use in day-to-day activities.

Characteristics of a good knot

- A knot should be able to stand the weight or the pull of the required task.
- A knot should be able to be undone as required.

Different types of commonly used knots and lashings

1. Reef knot
2. Sheet bend
3. Bowline knot
4. Clove hitch
5. Square lashing
6. Shear lashing

1. Reef knot

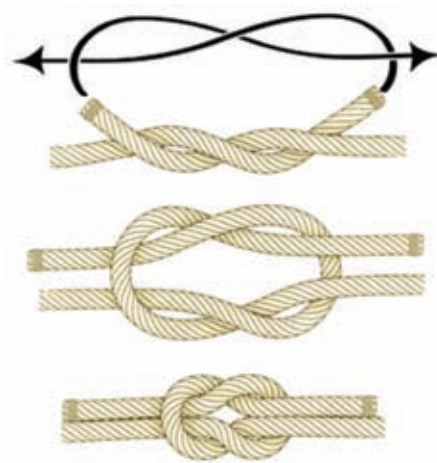


Figure 13.1

Reef knot can be used to tie together two pieces of ropes of similar type. Reef knot is also used when putting a shoulder sling. Being able to tighten quickly, being able to undo quickly, and having a flat nature are the characteristics of the reef knot.

Let us learn to do the reef knot

- Take the ends of the two ropes in the two hands.
- Place the rope in the left hand over the rope in the right hand.
- Take the rope end that has come to the right hand side with the right hand and bring it up from under the rope on the right.

- Bend back the rope end that is in the left hand and place it under the rope end that was in the right hand.
- Now a loop has been created with a rope end extending to the right.
- Put that rope end on the right through the loop bringing it over the rope of the loop and pull it in the opposite directions.

When this knot needs to be tightened, the shorter strand and the longer strand on either side should be held by the two hands and the two ends should be pulled in the opposite directions. Similarly, in order to loosen the knot, the two strands on either side should be held in the two hands and should be pushed forwards.

2. Sheet bend



Figure 13.2

Sheet bend is very useful to join ropes with different thicknesses.

Let us learn how to do the sheet bend.

- First bend an end of one rope and make a bight with it.
- Hold that bight in the left hand and take an end of the other rope in the right hand.
- Now put the rope end in the right hand under the bight and push it up through the bight.
- Now take the end that was pushed through the bight and push it under both strings of the bight.
- Now take that end and push it through the bight again from under the same string.
- Hold the four strings with the two hands and pull them in opposite directions.

3. Bowline knot

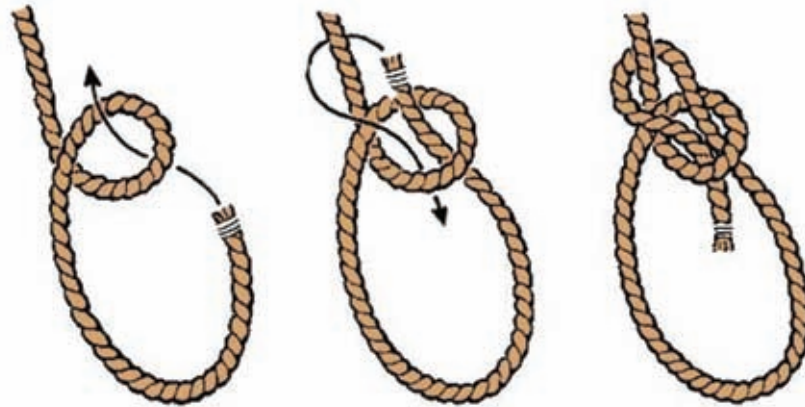


Figure 13.3

When engaged in tasks that involve a risk to life, bowline knot is used to keep the body tied to a safe place in order to ensure the safety of life. For example, this knot is used when a person climbs to the top of a very tall tree to cut down its branches. When a certain object has to be kept pulled hard and tied to something, the bowline knot is used for that, too. For example, this knot can be used to tie a clothes line.

Let us learn how to tie the bowline knot

- Take a rope and tie a knot at one end.
- Now take that end and make a bight.
- Push the end of the rope through the bight making a noose to the required size and take the end of the rope round the string of rope and push it through the bight once again and pull hard.

4. Clove hitch

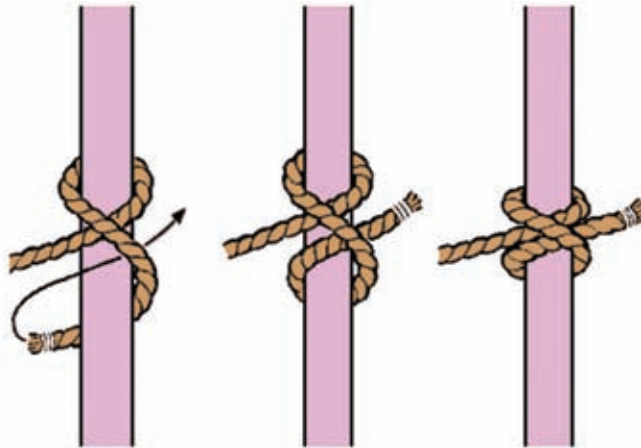


Figure 13.4

The clove hitch is used to tie a rope tightly on to a log. What is important about this knot is that the knot does not slip on the log. The more you pull the rope, the further this knot gets tightened. Clove hitch is used to tie a rope to the handle of a bucket and to tie poles of scaffoldings together.

Let us learn how to tie the clove hitch

- Stand before a vertical pole with a gap of about one foot between you and the pole and hold the rope with the two hands (This gap may vary depending on the diameter of the pole).
- The end of the rope that is in the right hand should be brought around the pole from the right to the left from behind the pole and it should be pushed under the string of rope in the left hand. Now bring the rope around the pole once again as done earlier making a round below the previous encircle.
- Finally, push the end of the rope through the space between the pole and the starting point of the second round of the rope and pull the strings of rope in opposite directions.

5. Square lashing



Figure 13.5

Square lashing is used to tie two poles that are put together crosswise. In day-to-day life, square lashing can be used in activities such as making a kite or making a Vesak lantern.

Let us learn how to do the square lashing.

- Put two poles together crosswise as shown in the figure above.
- Then take one end of the rope and tie the clove hitch on the bottom pole close to the place where the two poles cross each other.
- Then wrap the rope around both poles as shown in the figure so that the two poles are tightened together.
- Finally stop wrapping the rope using the clove hitch again.

6. Shear lashing



Figure 13.6

Shear lashing is a type of knot that can be used to tie together two poles as shown in the figure.

Let us learn how to do the shear lashing

- Take two poles and tie the clove hitch on one pole.
- Then wrap the rope around both poles tightly.
- Now push the rope between the two poles and wrap it around the tie several times in order to frap it tightly.
- Now complete the shear lashing by tying the clove hitch once again on a pole.

Summary

Knowledge about doing knots and lashings are considered to be very useful when engaging in outdoor activities.

Various types of knots and lashings are used to fulfil the day-to-day tasks more easily and effectively. When using knots and lashings, they should be done to suit the occasion and the purpose.

The reef knot, sheet bend, bowline knot, clove hitch, square lashing, and shear lashing are different types of knots and lashings that are used in day-to-day activities.



Exercise

1. What characteristics should knots and lashings have?
2. What would be the effects of not doing a knot or a lashing properly?
3. Write two occasions where the clove hitch is useful in day-to-day activities.
4. Write the type of knot or lashing that is most suitable in the following situations and demonstrate how the knot or the lashing is done.
 - To join together ropes of different thicknesses.
 - To make an arm sling.
 - To tie a rope to the handle of a bucket.
 - In life saving activities; and
 - To tie two poles put together.