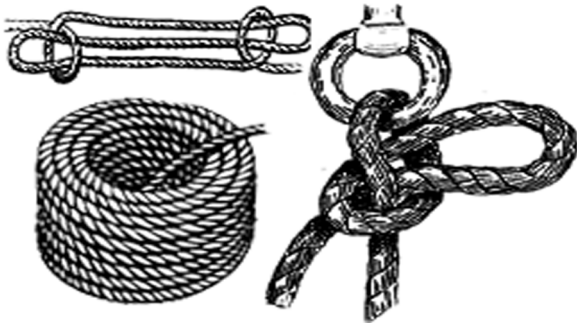


# Project Ideas & Information

## Rope Tying



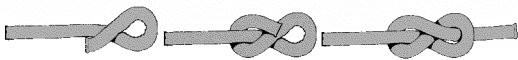
**Before purchasing rope, twine or fittings, read every step thoroughly then talk to one of our experts**

Knots are essential in many industrial, work, home or recreational activities but the number of knots, ties, bends, hitches, and shortenings in use is almost unlimited and they can be confusing and bewildering to the uninitiated.

For the average person who only uses knots occasionally, it is useful to learn just a few knots which are easy to tie and easy to remember, yet are strong and secure and safe for a wide variety of purposes.

### The Figure Eight

The Figure Eight knot is a good knot to put in the end of a rope when you want to stop fraying or need a bulky knot for some other purpose. The finished knot looks like its name.



Often used in such places as the end of a string when tying a package with a slipknot or in the end of a rope forming a lariat loop.

### Bowline

The Bowline is a commonly used knot to tie a loop in the end of a rope. It has the advantage of not jamming, compared to some other loop forming knots.



A Bowline makes a poor safety knot because when it is unloaded, it can very readily work its way untied.

For added security, finish the knot with a stop knot such as a Figure of Eight knot to remove any possibility of it slipping.

You can make a dog leash by using a running bowline in concert with a figure 8 stopper knot to keep the running bowline from running too far and choking your dog.

### Reef Knot

The Reef Knot is an excellent general purpose knot for tying two pieces of string or twine together.



However, it cannot be overly stressed that it is not a long term or secure knot, and it should only be used to finish parcels or bindings.

In other words, the Reef Knot should never be used for tying two ends of rope together.

### Carrick Bend

A Carrick Bend is used to join together two large ropes. The knot's smooth curves put as low a strain as possible on the line.



The Carrick has the enormous advantage of being easy to undo even after carrying a significant load and/or getting wet.

### Fisherman's Bend

The fisherman's Knot is one of the strongest and most resistant to slippage of all knots for tying two lines together.



It is often used by fishermen to join fishing line, and is very effective with small diameter strings and twines.

### The Constrictor Knot

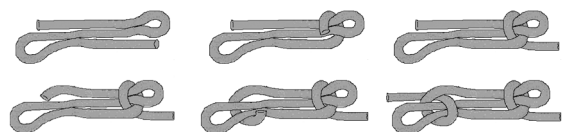
The best and most secure of all binder knots. Provided that it is tied on a curved surface it cannot slip and grips like a boa-constrictor. Its attributes are that it can be tied quickly and it binds so that it can be almost impossible to untie.



It is an excellent quick temporary whipping for a fraying rope's end. It might be used for tying the neck of a bag and is ideal to hold items together for gluing. It is normally tied in twine or other small diameter line.

### Sheepshank

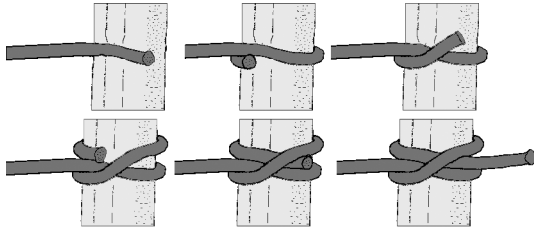
The Sheepshank Knot is used to shorten a rope non-destructively that is fastened at both ends.



It can also be used to take the strain off a worn area of rope. The worn area must be in the centre turn of the knot so that the tightened outer turns bear the weight.

## Clove Hitch

The Clove Hitch is normally used for securing objects, such as tying a load on a trailer or truck as a means of securing one end of the rope.



When used to attach a rope to a pole, this knot provides a quick and secure result.

## Timber Hitch

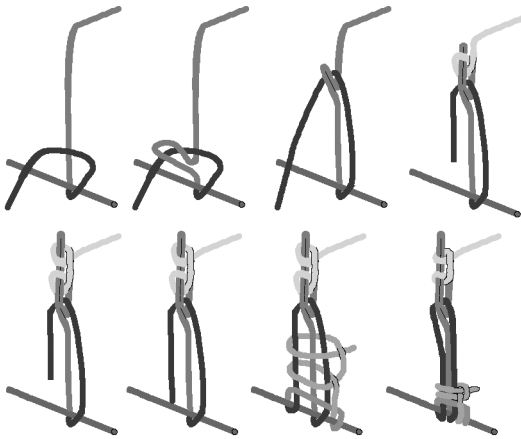
Timber Hitches were used traditionally for skidding logs sometimes used with an additional half hitch. Its beauty is that it tightens under strain, but comes undone extremely easily when the rope is slack.



Tie a Timber Hitch, with extra half hitches added, around a tree or branch that you want to drag. It will keep the branch parallel to the rope so it does not hang up on brush or rocks

## Trucker's Hitch

If you really need to get a rope tight to tie down a load on your car top, trailer or boat, really well, use the Trucker's Hitch.



This combination of knots (which are very easy to untie) provides a three to one mechanical advantage to get really high tension on the rope.

It's very easy to over tighten a Trucker's Hitch. If you aren't careful, you can bend or even snap the tie rails on your trailer or ute and it's possible to actually crush the load you are tying on. So take it easy!

## Rope Terms

Before you try out the knots that have been presented here it might be useful to learn some rope terminology.

**Free End (or a Bitter End)** - Is the short end of the line: this will be used for actually tying the knot.

**Standing Part** - The part of a rope not involved with the knot, the rope not being tied is the standing part.

Between these two parts you will have a knot.

**Bight** - A bend in the rope that does not cross back across itself.

**Loop** - Also called a turn; a circle of rope in which the rope crosses over itself, i.e. the end is placed over the standing part.

**Overhand Loop** - A loop passing over the standing part.

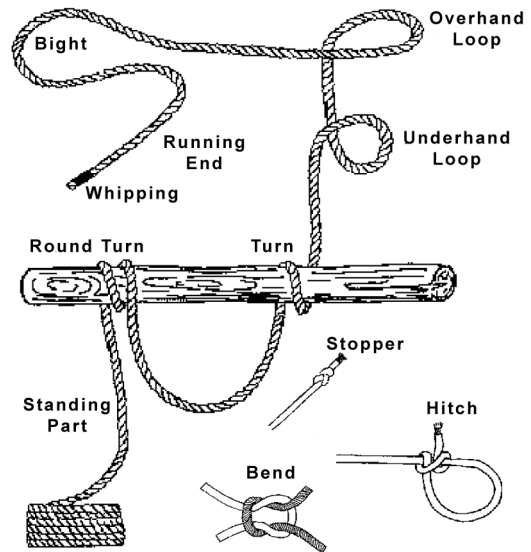
**Underhand Loop** - A loop passing under the standing part.

**Turn** - When the two legs of a loop cross the rope has 'taken a turn'. If one leg is taken round a second time, i.e. a second cross, it is a **Round Turn**.

**Bend** - A bend is used to join two lengths of rope together by their ends.

**Hitch** - A hitch is used to tie a rope to or around an object. This may be a post, a tree or another rope.

**Stopper** - Stopper Knots are often used to bind the end of a rope so it does not fray. They can also be used to stop a rope from slipping through a hole or to provide a handhold.



## Tying Hints

- On average, any knot will reduce the breaking strength of any line or rope by about 15%.
- Get yourself some nice, thick rope, don't learn with string! String is extremely hard to control, and your knots will be so small that you won't be able to see what is going on.
- Once you've mastered how to tie a knot try tying it around different objects, at different angles.

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