Ropes & Knots

**WHY???? Protect lives. Protect lives and secure gear/equipment.**

**Why Learn different knots? Properly tied knots will secure or hold whatever you need and will then untie without difficulty**



**Figure 8 Knot (Stopper Knot)**  
Use- A quick and simple to tie knot that

prevents the rope from coming through a hole  
Advantage – Strong knot that is easy to undo even after

being under heavy load  
Disadvantage- Can fall undone easily

How to tie:https://www.animatedknots.com/figure-8-knot

Diagram

Description automatically generated

**Bowline Knot**   
  
Use- A quick and simple to tie knot with a standing loop  
Advantage – Even after heavy load it will come undone easy   
Disadvantage- Cannot be undone while under load

How to tie: <https://www.animatedknots.com/bowline-knot>

A picture containing yellow, connector

Description automatically generated

**Clove Hitch**  
Use- Widely considered one of the most important knots   
Advantage – Line can be slipped to adjust knot from either end  
Disadvantage – Can slip

How to tie: <https://www.animatedknots.com/clove-hitch-knot-using-loops>

**A picture containing connector

Description automatically generatedRound Turn & 2 half hitches**

Use- A versatile knot to fasten around a rail or hook.

Advantage – A good versatile knot to tie up to a rail or

hook and will not slip like a clove hitch can

Disadvantage – None

How to tie: <https://www.animatedknots.com/clove-hitch-knot-using-loops>

A picture containing wall, orange, rope

Description automatically generated**Square Knot (Reef Knot)**

Use- A good way to join 2 ropes together.

Advantage – It will come undone easily

Disadvantage - It will come undone easily

How to tie: <https://www.animatedknots.com/square-knot>

**A picture containing wall, connector

Description automatically generated**

**SheepShank Knot**

Use- A quick way to shorten a rope or take up slack.

Advantage – It will stay secured as long as under load

Disadvantage - It will come undone easily when load is removed

How to tie: <https://www.animatedknots.com/sheepshank-knot>

**A picture containing yellow, connector

Description automatically generated**

**Quick Hitch Knot**

Use- Good for pulling another rope

Advantage – quickly released by pulling on the end

Disadvantage – no other real uses for this knot

How to tie: <https://www.animatedknots.com/quick-hitch-knot>

**Types of lines / ropes**

**Nylon** – (three-strand or braided)

Advantage - It doesn't snag, it is easy to splice, and it is considerably less costly than braided rope. It has great strength, "gives" under load to absorb energy. Resists mildew and rot

Disadvantage – Can easily snag, loses up to 25% of strength when wet

**Polypropylene** – (that yellow rope) that's commonly used to tow skiers, wake boards and dinghies.

Advantage – Floats, Cheapest to buy

Disadvantage – Less resistant to damage from UV, slips or comes untied easier

**Polyester** – (Dacron)

Advantage – wears better than polypropylene and retains strength when wet. highly abrasion resistance and long lasting.

Disadvantage – It will chafe easily, Ends need to be sealed to prevent fraying

**Natural Material** – (manila, sisal, hemp, and cotton)

Advantage – Strong with minimal stretch

Disadvantage – Will shrink, it typically costs more, will rot, become brittle or mildew