

KNOW YOUR KNOTS

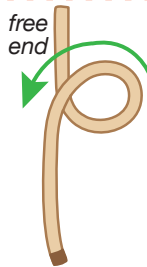
When exploring and studying caves, speleologists use the right equipment and skills to make sure not to hurt themselves or the caves. One important skill is knot-tying. All cavers use knots to secure their rigging. Rigging helps cavers move safely through vertical passages without damaging the surfaces of the cave. Follow the instructions to learn how to tie four knots like experienced cavers and speleologists would.

Materials: 2 feet of rope for each knot

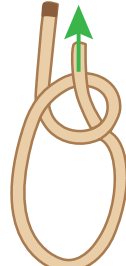
Bowline

This knot is adjustable, easy to tie and untie

Step 1: Hold the rope at the top and form a small loop.



Step 2: Bring the free end of the rope up and through the loop.



Step 3: Wrap the free end around the top rope, then thread the free end back through the loop.



Step 4: Tighten the loop by pulling at the top and free end.



This is an incorrect bowline. The free end is to the outside of the loop.

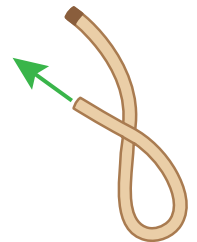


The complete knot

Figure 8 Knot

This knot makes a place for a clip to attach at the end or middle of a rope.

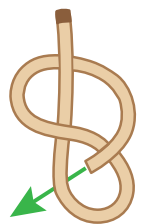
Step 1: Make a loop.



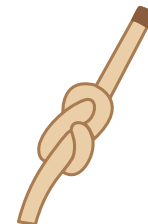
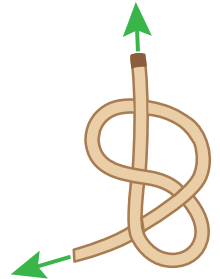
Step 2: Wrap the free end behind the top.



Step 3: Thread the free end down through the loop.



Step 4: Pull both ends.

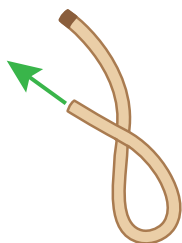


The complete knot

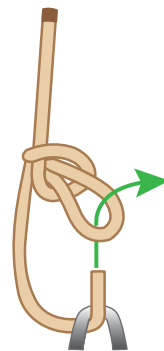
Trucker's Hitch

This knot can be used as a pulley and to secure heavy items.

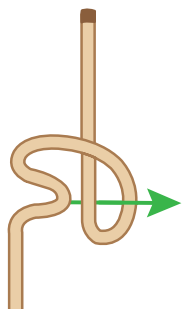
Step 1: Make a loop



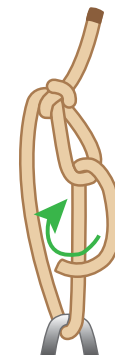
Step 4: Thread the rope through the loop you made in Step 2.



Step 2: Pull a section of the rope near the free end through the loop, to make another loop.



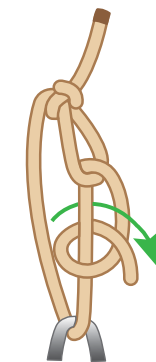
Step 5: Bring the free end down and between the two ropes.



Step 3: Guide the free end through what you're trying to hitch to (like a handle).



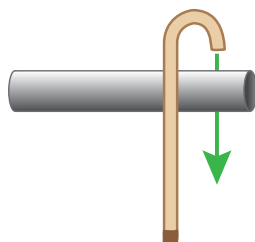
Step 6: Thread the rope around to secure it.



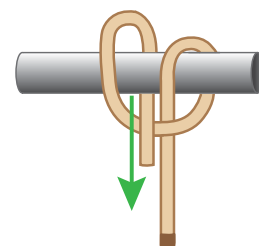
Clove Hitch

This knot is used to tie a line around a rail or post.

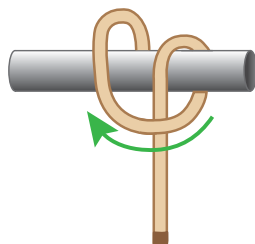
Step 1: Put the tying end over the thing you will hitch to (like a strong bar.)



Step 3: Thread the tying end through the loop.



Step 2: Bring the tying end over the bar and over the free length of rope.



Step 4: Pull the clove hitch tight in both directions.

