

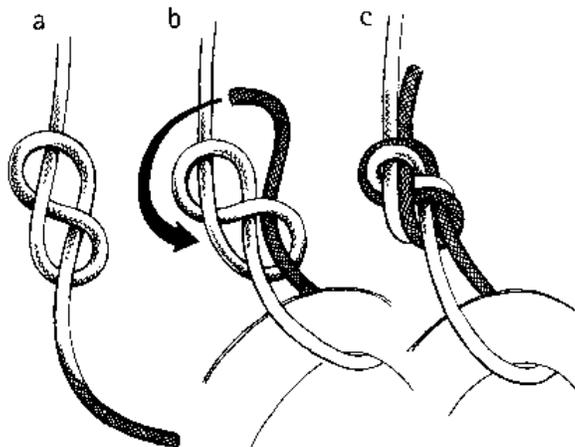
## Classroom Activity: Research Gear and Equipment Climbing Knots



Created by Montana State University Extended University and Montana NSF EPSCoR  
[www.montana.edu/everest](http://www.montana.edu/everest)

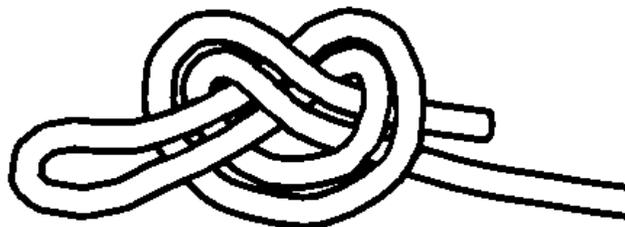
The Everest Education Expedition Kits received by some Montana classrooms included a small section of climbing rope so students could learn to tie climbing knots. You can ask a rock climber or ice climber to visit your classroom and demonstrate how to tie these knots.

**Figure Eight Knot:** The figure eight is one of the most commonly used knots for tying the end of a rope onto a climber's harness. It can also be used to tie the end of a rope to an anchor.



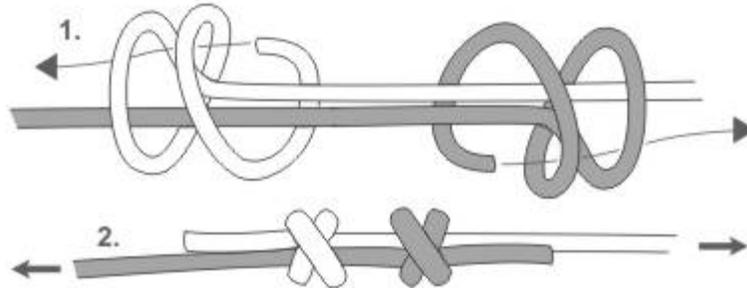
<http://pages.swcp.com/~nmmc/climbrocks/knots/knots.html>

**Over Hand Knot:** An over hand knot is commonly used to create a loop in the rope which then can be clipped to a climber or anchor with the use of a carabiner. Depending on the intended use of the knot, a climber may tie it at any point along the length of the rope.



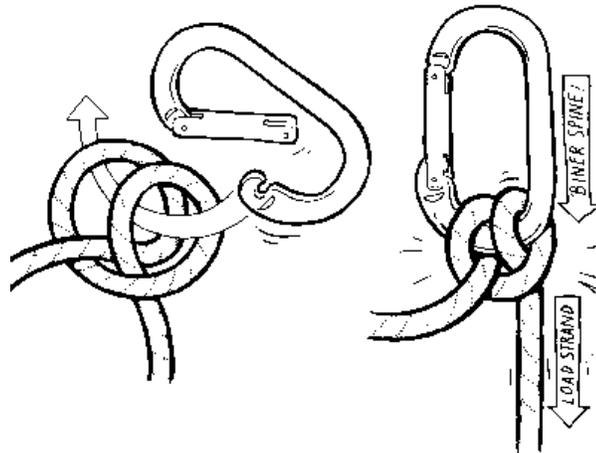
[http://www.leverknot.com/basic\\_use/basic\\_use.htm](http://www.leverknot.com/basic_use/basic_use.htm)

**Double Fisherman's Knot:** The double fisherman's knot is used to tie two ropes together. Climbers commonly do this to increase the length of their rope when rappelling cliffs too large to be spanned by one rope.



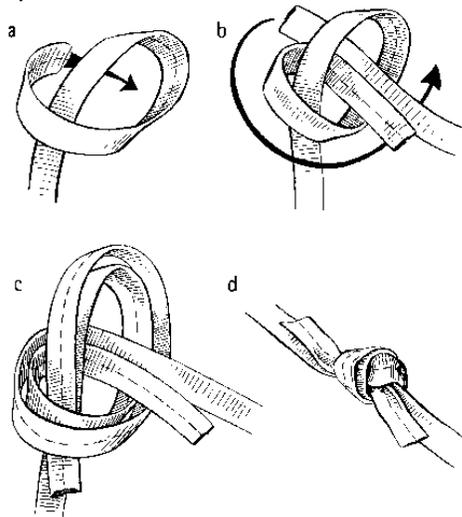
<http://justsandandsand.blogspot.com/2011/11/simpul-knots.html>

**Clove Hitch Knot:** The clove hitch is a very easy knot to tie and it's used in similar ways as the overhand knot. One important quality of this knot is that when tied in the middle of the rope, either length of rope leaving the knot can be unequally weighted without compromising the knot's strength.



[http://pages.swcp.com/~nmmc/climbrocks/knots/knots.html#clove\\_hitch](http://pages.swcp.com/~nmmc/climbrocks/knots/knots.html#clove_hitch)

**Water Knot:** A water knot is specifically used to tie the ends of two pieces of webbing together to create a longer length of webbing or to tie the ends of one piece of webbing together, creating a loop known as a “runner.”



<http://pages.swcp.com/~nmmc/climbrocks/knots/knots.html>



<http://canyoneeringusa.com/cusapress/knots/web/web06.jpg>