

Ropes and Knots

Learning Objectives	As a result of this training experience, participants should be able to <ul style="list-style-type: none">• Whip and fuse rope.• Tie the six basic knots and hitches used by Webelos Scouts and describe how they are used.
Trainer Preparation	<ul style="list-style-type: none">• Study the training outline.• Review the information on rope and knots in the Outdoorsman activity badge section of the <i>Webelos Handbook</i>.• Practice and time your presentation in advance to help you stay within the time limits.• If this course is not run in conjunction with Introduction to Outdoor Skills, then prepare to present the Introduction to Outdoor Leader Skills “Ropes—Whipping, Tying, and Lashing” section.
Materials	6-foot length of 1/4-inch-diameter rope, with ends that have started unraveling, for each person (as described in the Outdoor Leader Skills syllabus) 33452, <i>Webelos Handbook</i> , Outdoorsman activity badge—“Knots” 33640, <i>Introduction to Outdoor Leader Skills</i> , “Ropes—Whipping, Tying, and Lashing” session 33170, <i>Knots and How to Tie Them</i>
Time	50 minutes. Start on time. End on time.

Outdoor Leader Skills This session begins with the Webelos den leaders joining the Boy Scout leaders in the skill session “Ropes—Whipping, Tying, and Lashing.” The only Webelos-specific instruction in this module is how to tie a square knot. If this knot is not covered in Outdoor Leader Skills, then make sure to cover it in the breakout session with the Webelos den leaders.

Webelos den leaders join the Outdoor Leader Skills session at its beginning.

Rope Basics Rope is made by twisting together the stringy fibers of certain plants, or by twisting together or weaving strands of nylon, plastic, or other modern materials. Wear and tear sometimes cause a rope to unravel. For a temporary fix, tie a knot in each end or wrap it with duct tape. For a more permanent fix, whip or fuse the ends.

Whipping Give each participant a piece of rope that has started unraveling. To whip a rope:

1. Cut off any of the rope that has already unraveled.
2. Take a piece of strong string—preferably waxed and at least two feet long—and form a loop with it.
3. Lay the loop near the end of the rope and tightly wrap—whip—the string around the rope.

4. When the whipping is at least as wide as the rope is thick, slip the end through the loop and pull hard.
5. Trim off the excess string, then whip the rope's other end.

Fusing

Plastic or nylon rope and cord melt when exposed to high heat. To fuse a rope:

1. Cut away the frayed part of the rope.
2. Working in a well-ventilated area, hold each end a few inches above a lighted match or candle to melt and fuse the strands together.

Melted rope can be hot and sticky; *don't touch the end until it has cooled*. Do not try to fuse ropes made of manila, sisal, hemp, cotton, or other natural fibers, because they will burn rather than melt.

Knots and Hitches

Learning how to tie knots takes practice. Carry a piece of cord in your pocket and, several times a day, pull it out and tie the knots you have learned. Practice until you can tie them quickly—even with your eyes closed—and you'll be confident and ready to use them whenever necessary.

A knot should

- Be easy to tie.
- Stay tied.
- Be easy to untie.

A *hitch* is a knot that ties a rope to something. Friction caused by the wraps of the rope holds the hitch in place.

Hitches, Knots, and Bends

- **Two half hitches.** Use two half hitches to tie a rope around a post.
- **Taut-line hitch.** The taut-line hitch is tied on a line that is tight, or *taut*. Use the taut-line hitch to tighten or loosen a tent guyline by pushing the hitch up or down.
When participants have learned the two half hitches and taut-line knots, remind them to check their tent set-ups at their campsite and retie any incorrect knots.
- **Timber hitch.** Use the timber hitch for dragging heavy objects such as a log. The timber hitch starts a diagonal lashing, too. When dragging, use a steady motion; slacking and jerking may loosen the hitch.
- **Clove hitch.** The clove hitch is a widely used knot and can be used to start most lashings. This is the knot for attaching a rope or cord to your bear bag—a bag of food hung from a tree, out of reach of animals. The clove hitch can also be tied by laying the knot over the open end of a pole. Drop one overhand and one underhand loop over the post and draw them together.
- **Bowline knot.** Properly tied, a bowline never slips or jams. It holds permanent or adjustable loops and may be used to attach a cord to a pack frame, secure tarps and tents, secure a line to a canoe, in rescue situations, and in many other ways.
- **Sheet bend.** This knot works well for tying together two ropes of the same or different diameters. It's similar to the bowline, and it's untied in the same way.

Webelos den leaders leave the Outdoor Leader Skills session after the first five items of the "Hitches, Knots, and Bends" topic.

Discussion

After leaving the Outdoor Leader Skills session and returning to the Webelos den leader meeting place, review the following.

Point out that some Webelos Scouts may have learned how to whip the ends of a rope and to tie some knots as they worked on Bear Cub Scout rank. If so, Webelos den leaders can help them perfect their ability and put these skills to use on campouts.

Show and discuss the information on rope and knots in the Outdoorsman activity badge section of the *Webelos Handbook*.

Also point out that a good piece of rope is worth taking care of. Keep it clean and free of mud or grease. Show how to coil and uncoil rope properly to keep it from knotting or tangling.

Summary

Summarize by stressing that, in earning the Outdoorsman activity badge, Webelos Scouts can learn to tie six knots. Although the leaders may know how to tie more knots than those listed in the requirements, it is important to leave additional knot-tying adventures to the Boy Scout experience. One way to continue to challenge the den in its knot-tying skills without moving to more advanced knots is to challenge the boys to see how fast they can tie them.