

## Pioneering Merit Badge Requirements 2012

1. Show that you know first aid for injuries or illness that could occur while working on pioneering projects, including minor [cuts](#) and [abrasions](#), [bruises](#), [rope burns](#), [blisters](#), [splinters](#), [sprains](#), [heat](#) and [cold reactions](#), [dehydration](#), and [insect bites](#) or [stings](#).
2. Do the following:
  - a. Successfully complete [Tenderfoot](#) requirements 4a and 4b and [First Class](#) requirements 7a, 7b, and 7c. (These are the rope-related requirements.)
  - b. Tie the following: [square knot](#), [bowline](#), [sheepshank](#), [sheet bend](#), and roundturn with two half hitches.
  - c. Demonstrate the following: tripod and round lashings.
3. Explain why it is useful to be able to throw a rope, then demonstrate how to coil and throw a 40-foot length of 1/4- or 3/8-inch rope. Explain how to improve your throwing distance by adding weight to the end of your rope.
4. Explain the differences between synthetic ropes and natural-fiber ropes. Discuss which types of rope are suitable for pioneering work and why. Include the following in your discussion: breaking strength, safe working loads, and the care and storage of rope.
5. Explain the uses for the back splice, eye splice, and short splice. Using 1/4- or 3/8-inch three-stranded rope, demonstrate how to form each splice.
6. Using a rope-making device or machine, make a rope at least 6 feet long consisting of three strands, each having three yarns.
7. Build a scale model of a signal tower or a monkey bridge. Correctly anchor the model using either the 1-1-1 anchoring system or the log and stake anchoring method. Describe the design of your project and explain how the anchoring system works.

8. Demonstrate the use of rope tackle to lift a weight of 25 pounds and pulling a log at least 6 inches in diameter and 6 feet long with the tackle. Use the tackle to put tension on a line. Explain the advantages and limitations of using a rope tackle. In your explanation, describe the potential damage that friction can do to a rope.
9. By yourself, build an A-trestle OR X-trestle OR H-trestle using [square](#) and [diagonal lashings](#). Explain the application of the trestle you build. Demonstrate how to tie two spars together using a [shear lashing](#).
10. With a group of Scouts, OR on your own, select a pioneering project. With your counselor's guidance, create a rough sketch of the project. Make a list of the ropes and spars needed, then build the project. (Note: This requirement may be done at summer camp, at district or council events, or on a troop camp outing.)