



PIONEERING

Merit Badge Requirements

- 1) Demonstrate how to coil and throw a 40-foot length of 1/4-inch rope.
- 2) Present five different rope samples, of any size or material. Explain the characteristics of each rope - its strength, mildew resistance, durability, and stretch. Explain where and how each type of rope can be used in pioneering work.
- 3) Demonstrate how to tie the following seven basic knots: square knot, timber hitch, clove hitch, bowline, sheepshank, sheet bend, and roundturn with two half hitches. Also select five more knots found in the *Pioneering* merit badge pamphlet. Tie each one for the examiner, and tell where it could be used in pioneering, camping, or other Scout activities.
- 4) Demonstrate how to make the back splice, eye splice, and short splice using 1/4-inch three-strand rope.
- 5) Construct a device or machine to make rope. Then use the device with binder twine to make a 6-foot length of rope consisting of three strands, each having three yarns. Also demonstrate one method of whipping the end of the rope.
- 6) Build a three-two-one or a log-and-stakes anchor using pioneering stakes. Build the anchor at a size suitable to anchor one end of a monkey bridge.
- 7) Demonstrate the use of rope tackle to lift a weight of 25 pounds. Pull a log at least 6 inches in diameter and 6 feet long with the tackle. Use the tackle to put a strain on a line.
- 8) By yourself, build an H-frame trestle with ropes and spars using square and diagonal lashings. Demonstrate how to tie two spars together using a west country shear lashing.
- 9) With a group of Scouts, build a pioneering project. Before building, present a rough sketch of the project and a list of the ropes and spars needed to build it. (Note: This requirement may be done at summer camp, district or council events, or on a troop camp outing.)

Requirement 1

For this requirement you have been asked to demonstrate how to coil and throw a 40-foot length of 1/4-inch rope. Demonstrate to your counselor that you can do this properly.

Requirement 2

Gather five different rope samples of any size or material. Use the area below to describe the characteristics of each rope sample. Also, explain where and how each type of rope can be used in pioneering work.

Rope #1 Description or Name: _____

Strength: _____

Mildew Resistance: _____

Durability: _____

Stretch: _____

Where & How Used In Pioneering Work: _____

Rope #2 Description or Name: _____

Strength: _____

Mildew Resistance: _____

Durability: _____

Stretch: _____

Where & How Used In Pioneering Work: _____

Rope #3 Description or Name: _____

Strength: _____

Mildew Resistance: _____

Durability: _____

Stretch: _____

Where & How Used In Pioneering Work: _____

Rope #4 Description or Name: _____

Strength: _____

Mildew Resistance: _____

Durability: _____

Stretch: _____

Where & How Used In Pioneering Work: _____

Rope #5 Description or Name: _____

Strength: _____

Mildew Resistance: _____

Durability: _____

Stretch: _____

Where & How Used In Pioneering Work: _____

Requirement 3

Demonstrate to your counselor how to tie the following seven basic knots:

___ Square Knot ___ Timber Hitch ___ Clove Hitch ___ Bowline ___ Sheepshank ___ Sheet Bend ___ Roundturn w/ 2 Half Hitches

Select five different knots from the *Pioneering* merit badge pamphlet. Tie each of these for your counselor. List the knots below that you selected and tied:

Using the five knots you selected and tied for your Counselor, tell how or where the knot can be used in pioneering, camping, or other Scout activities:

Knot 1: _____

Knot 2: _____

Knot 3: _____

Knot 4: _____

Knot 5: _____

Requirement 4

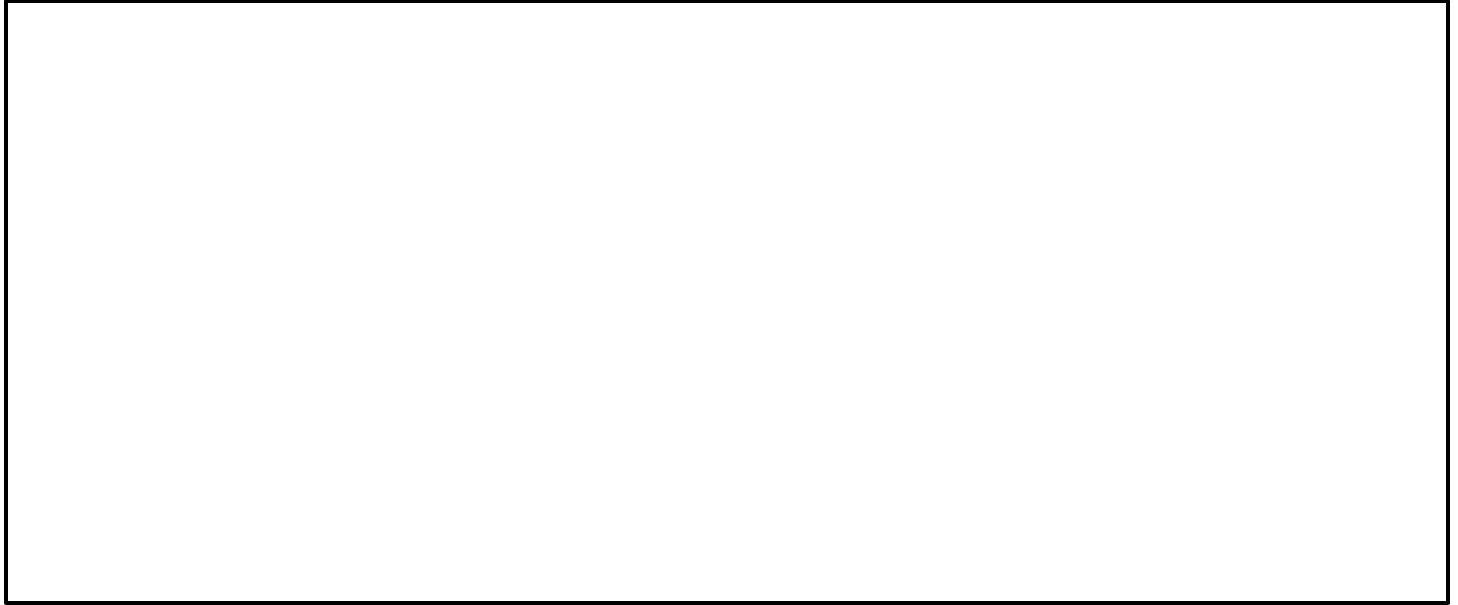
Learn how to make the back splice, eye splice, and the short splice. Do it using a 1/4th inch three-strand rope. Once you have practiced these splices, demonstrate to your counselor that you can make these splices correctly.

**Extra Mile (not required for merit badge)*

Teach the other members of your Scout unit how to make the splices that you just learned.

Requirement 5

For this requirement you are to construct a device or machine to make rope. Then you need to use the device with binder twine to make a 6-foot length of rope consisting of three strands, each having three yarns. Use the area below to draw a picture of your device and give an explanation of how it works.



How does your device work: _____

Where did you get the design or idea for your design? Was it difficult to build? _____

Describe how to whip the end of a rope: _____

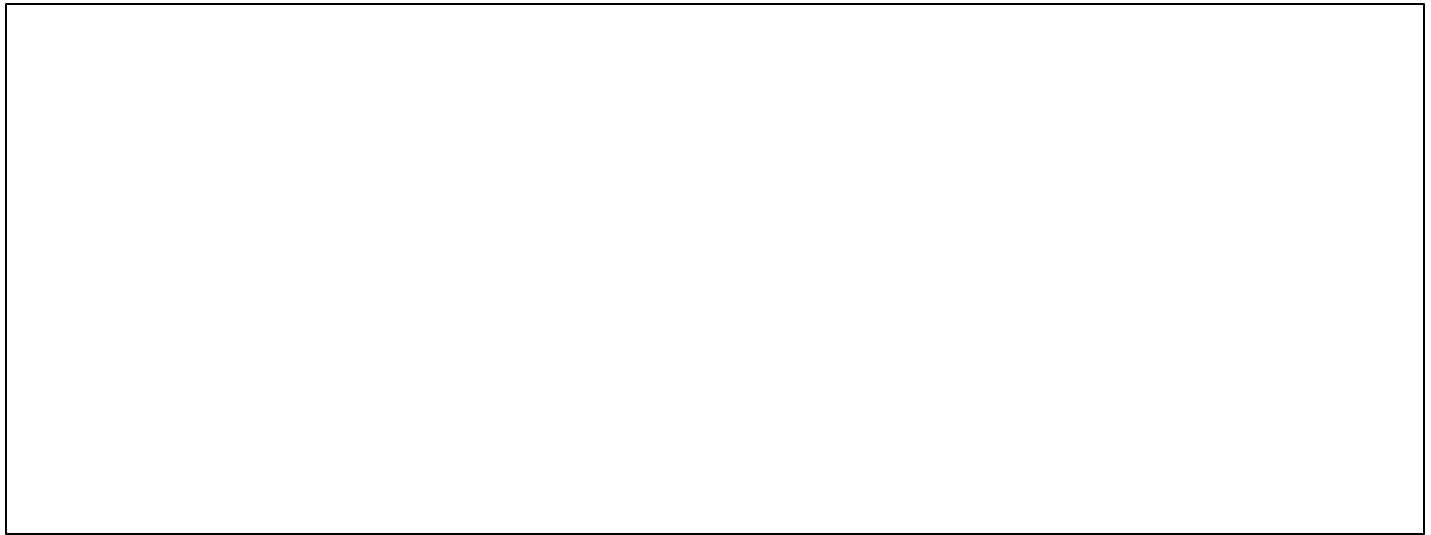
Demonstrate to your counselor at least one method of whipping the end of a rope. If you would like to go the extra mile (not required for badge), teach the other members of your Scout unit one method of whipping the end of a rope.

Requirement 6

Build a three-two-one or a log-and-stakes anchor using pioneering stakes. Build it big enough to anchor one end of a monkey bridge. Show this to your counselor. Draw a small sketch below of your project.

Requirement 7

Demonstrate to your counselor the use of rope tackle to lift a weight of 25 pounds. Make a small sketch of how you did it and give an explanation.



Describe: _____

Pull a log at least 6 inches in diameter and 6 feet long with the tackle you have created. Demonstrate this for your counselor.

Using the tackle, put a strain on a line. Demonstrate this for your counselor.

What exactly does it mean to "put a strain on a line"? _____

Requirement 8

You are required to build an H-frame trestle with ropes and spars using square and diagonal lashings. You need to build this by yourself. Use the remaining part of this page to draw a small sketch of what your trestle will look like when finished.

Demonstrate to your counselor how to tie two spars together using a west country shear lashing. Again, if you would like to go the extra mile (not required for badge), teach other members of your Scout unit how to do this also.

Requirement 9

This requirement may be done at summer camp, district or council events, or on a troop camp outing.

BEFORE BUILDING: use the area below to create a sketch of the pioneering project you want to build.



Make a list of the ropes and spars needed to build your project:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Build your project. Once it has been completed take a team photo of the project attach it to this worksheet so that you can show it to your counselor if they were not present at the building.

****Extra Mile (not required for badge)***

Use another piece of paper to make a report of the requirements you completed. Give good details, descriptions, and even take photos.