

Training others

This sheet provides practical ideas to help teach other volunteers and young people how to tie lashings and use them for pioneering. Training might take place informally on camp, or more formally as part of a skills workshop or training course.

Objectives

By the end of this session, participants will be able to:

1. Explain what pioneering is and what it can be used for
2. Tie a square lashing

3. Tie a sheer lashing
4. Tie a diagonal lashing
5. Tie a figure of eight lashing
6. Create a pioneering structure using lashings.

Equipment

- Various types and sizes of rope/cord
- Various sizes of spars including small canes
- Items as required for training activities.

01

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Lesson 1: Understanding pioneering (20 minutes)

INTRODUCE...

What? So what exactly is pioneering?

How? Play the classic game, 'Just a minute', to find out what the group already knows about pioneering. If a participant runs out of things to say, another participant takes over until someone manages to speak for a full minute.

DEMONSTRATE...

What? How pioneering can be used to make structures.

How? Before the session, construct a number of small models from garden canes and string or straws and elastic bands. Make some interesting structures such as catapults, rafts, swings or bridges. Talk through some of the possibilities that pioneering offers.

EXPLAIN...

What? The basic principles of the structures and how they are constructed.

How? Show the group some of the basic principles – e.g. connecting two poles together to create A-frames and pyramids. Get them to make their own simple structures from straws and elastic bands.

APPLY...

What? This section reinforces the skills learned earlier in the lesson.

How? Ask teams of participants to come up with something that they could build using pioneering skills. Then ask them to use the straws and elastic bands to build a model of that item, in preparation for a later session.

SUMMARISE...

What? This section checks understanding of the skills taught in the lesson.

How? Play 'fast hands modelling'. Shout out the name of a simple structure, such as a swing or an A-frame, which teams then have to build from straws and elastic bands. Give them 10 minutes to do this, then compare the results. Did the teams manage to make the structures? Where did they struggle? Offer suggestions to improve the designs.

Lesson 2: Square lashings (20 minutes)

Introduce...

What? Explain what a square lashing is and what it is used for.

How? Using one of the models, explain that different types of lashing are used to make strong connections. A square lashing is a strong method of joining two spars together to form a right angle.

Demonstrate...

What? How to tie a square lashing.

How? Good demonstrations allow people to learn visually, without vocal distractions, by clearly showing the different steps involved. Using slow, deliberate movements, ensuring that all participants can clearly see what you are doing. Demonstrate each stage of the square lashing: tying the first clove hitch, making several turns to create a square lashing, how to frap and how to tie off the rope at the end with another clove hitch.

Explain...

What? Now that the group has seen a square lashing being tied, repeat it with a verbal explanation of how it is performed.

How? Repeat the demonstration, breaking down each stage to explain what you are doing and why.

Apply...

What? This section reinforces the skills learned earlier in the lesson.

How? Ask pairs of participants to practice square lashings by lashing small spars together to form basic structures, such as a cube. As they do this, move around the group, coaching and offering advice.

Summarise...

What? This section checks understanding of the skills taught in the lesson.

How? Travois racing – challenge teams of participants to make a simple triangular frame using three square lashings, in order to carry a team-member from one point to another as quickly and safely as possible. Make sure the travois are safe before allowing teams to use them. Complete the challenge by ensuring that equipment is dismantled ready for storage.

Lesson 3: Sheer lashing (25 minutes)

Following a similar structure to the previous lesson, explain how a sheer lashing is tied as well as why and where it might be used. A great activity is to place a

candle at one end of a room and a box of matches at the other. Teams have to lash together a long pole that can hold a match at one end, and then use this to light the candle!

Lesson 4: Diagonal lashings (25 minutes)

Again, use a similar structure as the previous lessons to explain how a diagonal lashing is tied as well as why and where it might be used. A suggested activity for this lesson is to ask teams to create A-frame stilts. Use

a sheer lashing at the top, then two diagonal lashings to make a pair of stilts – then see how far people can walk with them. Remember to have spotters on hand in case they slip!

Lesson 5: Figure of eight lashings (25 minutes)

Use a similar structure as the previous lessons to explain how a figure of eight lashing is tied as well as why and where it might be used. A suggested activity for this lesson is to play 'nuclear reactor'. In this game, a no-go area is marked out on the floor, and a tin (the 'reactor') is placed in the middle. The group has to lower a cooling rod (anything you like!) into the tin without

touching the sides. To do this, they should build a tripod which fits over the marked area, lowering the rod on a rope directly down into the tin. Other solutions are possible, so encourage participants to be creative, but tell them their design has to include at least one figure of eight lashing!

03

Lesson 6: Mini project: creating a structures (20 minutes)

Introduce...

What? The project and rules.

How? Explain the premise of the project, which will combine all the skills previously learned.

Demonstrate...

What? Examples of a large pioneering project that uses examples of various different lashings.

How? Show pictures or models to give the group ideas of the sort of projects they could build. Then split them into teams and give them some time to plan their projects – they could either use the ideas they came up with in the first lesson or think of new ideas. They will need a list of available materials to help them with their planning.

Explain...

What? The rules and any specific considerations.

How? Devise an appropriate set of rules and create a mark scheme. Make sure you explain these rules to the teams so they understand how they will be marked. You could give a certain number of marks for each type of lashing, and bonuses for using all four different types. You could also give marks for matching their project to the original design, and marks for whether the project works or not (if applicable).

Apply...

What? Undertake and complete the project.

How? Give the teams a time limit and set them off!

Summarise...

What? Check understanding by scoring the projects.

How? Assess each of the projects and give each a score. You could even get groups to mark each others' projects using the mark scheme.

For example, you could blindfold some members of the team or say that the river is 'shark-infested', so that no-one is allowed to enter it.

Taking it further...

- The following activities are all fun pioneering projects, which are the most practical way to both practise lashings and illustrate the importance of tying them well. For more pioneering ideas, see the factsheet on pioneering.
 1. Prehistoric pioneering – make a device using spars and ropes capable of transporting 'dinosaur eggs' (sponge balls or water balloons) safely through an obstacle course and back to base.
 2. Micro raft – Create a miniature raft from twigs or lollipop sticks, lashing them together with string. The aim is to place a tea light on the raft and float it in a bucket of water.
 3. Tipi tales – working in groups, challenge participants to design and build a tipi from spars, lashings and canvas or a large sheet.
 4. Get across that – give participants an imaginary scenario in which they must cross a six-metre wide river using nothing but spars and rope. Create the 'river' using two parallel pieces of rope six metres apart, and encourage participants to think of potential solutions to the problem. This might involve constructing a type of bridge, an aerial runway or transporter, or even a trapeze. Introduce time limits and other restrictions.
- As well as the clove hitch, the timber hitch and the sheet bend, other knots that are useful for pioneering include the scaffold hitch or bo'sun's chair knot, which is used to attach a rope to a plank to make a seat, and the Blackwall hitch, for fixing a rope to a hook. Learn these knots to enable the construction of more complex projects.
- Additional lashings that may be useful in pioneering include Japanese lashings, the Filipino lashing, the sailmaker's lashing and the half knot or West Country sheer lashing. Learn to tie these lashings in addition to the four basic lashings.
- Make edible pioneering structures with bread sticks and strawberry laces!
- Small scale camp gadgets can be built in free time on camp – or this could be an ongoing challenge throughout the stay.