Track 1: Outdoor Skills and Survival

SESSION 4: KNOTS AND LASHINGS

Overview: Knots and Lashings introduces youth to the practical skills of tying secure knots and constructing useful structures with rope and poles. These foundational techniques are essential for camping, survival, and outdoor problem-solving. In this session, participants learn how to tie basic knots and practice lashings used to build simple camp gadgets. Through hands-on repetition and teamwork, youth develop fine motor skills, patience, and the ability to apply these skills in real outdoor scenarios — from setting up shelters to building pioneering projects.

Objectives

- Learn and practice essential knots used in outdoor adventures.
- Understand the purpose and application of lashings in campcraft and survival.
- Develop teamwork and problem-solving skills through hands-on activities.
- Build confidence in using rope and poles to create functional outdoor structures.

Supplies

- Rope (varied thickness and color)
- Poles (broomsticks, dowels, PVC)
- Timer (for relay games)

Advisor Notes

- Start with the Icebreaker to energize the group and introduce the theme.
- Demonstrate each knot slowly and clearly, using different colored ropes to show steps.
- Use stories or analogies (for example, the rabbit and the tree for the bowline) to help youth remember knot patterns.
- Encourage repetition — have youth tie each knot multiple times and help each other.
- For lashings, show how to start with a clove hitch and explain wrapping vs. frapping turns.
- Guide youth through building a small structure, offering tips and checking for safety and stability.
- Rotate between groups to offer support and reinforce correct technique.
- Celebrate creativity and teamwork, not just technical perfection.

SESSION OUTLINE

Welcome and Icebreaker Activity: Human Knot (10 min)

- Have youth stand in a circle and reach across to grab hands with two different people.
- Without letting go, the group must work together to untangle themselves into a circle.
- Debrief by connecting the activity to the importance of teamwork and knot skills.

Safety Moment: Use Ropes Responsibly

- No wrapping ropes around people — this can cause injury or restrict movement.
- Avoid pulling or tugging games — unless specifically designed and supervised.
- Keep rope areas clear — to prevent tripping hazards.
- Practice knots slowly and carefully — to avoid strain or rope burns.
- Inspect ropes before use — frayed or damaged ropes should be replaced.

Knots and Lashings (20-30 min)

- Learn basic knots and lashings.
- Advisor notes: three tests of a good knot:
- It should be easy to tie.
- It should stay tied.
- It should be easy to untie.

Basic Knots

- **Square Knot:** Used to join two ropes of equal diameter. Demonstrate by crossing right over left, then left over right. Have youth practice with two different colored ropes.
- **Sheet Bend:** Used for joining two ropes of different diameters.
- **Two Half Hitches:** Used to secure a rope to a post or ring. Show how the knot slides and tightens. Practice tying around a stick or pole.
- **Taut-Line Hitch:** Creates an adjustable loop to stay in place for tensioning tent lines. Demonstrate on a mock tent line. Explain how the knot holds under tension.
- **Bowline:** Forms a fixed loop that won't slip. Use the "rabbit comes out of the hole, around the tree, and back down" story to teach.
- **Clove Hitch:** Quick tie-off to a pole. Show how to wrap the rope around the pole and cross over. This knot is used to begin and end many lashings. Practice on broomsticks or PVC.
- **Timber Hitch:** Used for securing and hauling large cylindrical objects like logs or branches. When tying a timber hitch, typically, the more loops you make back on the looping line, the stronger the knot will be. You should have three loops, minimum.

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Lashings

- **Square Lashing:** Used to join two poles that are touching at a right angle. This lashing gets its name from the fact that the wrapping turns are at 90 degrees — or "square" to the poles. Demonstrate wrapping and frapping turns. Use poles to build a small frame.
- **Diagonal Lashing:** Used to secure poles that cross at an angle, but do not touch. Start with a timber hitch and wrap diagonally. Build a tripod or drying rack.
- **Shear Lashing:** Used to join two poles side-by-side. Demonstrate wrapping and frapping, then spread poles to form an A-frame. Useful for stretchers.

Knot Relay Race (10-15 min)

- Teams race to tie assigned knots correctly. Set up stations with ropes and cards with the names of the seven different knots. Time each team and encourage accuracy.

Mini Pioneering Project (20-30 min)

- Build a simple structure using lashings. Provide poles and rope. Guide youth to build a flagpole, tripod, or rack.

Resources

- Knot challenge cards
- Scan or click for a video on basic knots:
- Scan or click for a video on lashings:

REFLECTION SECTION

Advisor note: These are sample questions. They are designed to help the participants apply what they have learned to their own interests. You are welcome to use these questions or develop your own questions.

Focusing Questions

- What knots or lashings did you find easiest or hardest to learn?
- Which knot do you think is most useful in camping situations?

Analysis Questions

- Why is it important to know how to tie knots and lashings correctly?
- How did teamwork help during the lashing activity?

Generalization Questions

- How can you use these skills in other areas of life?
- What did you learn about problem-solving through these activities?

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PRINTABLE HANDOUT: KNOT RELAY RACE

Challenge Cards

Seven Basic Knots

Print and cut out one set per team

Square Knot



Sheet Bend



Bowline



Taut-Line Hitch



Clove Hitch



Timber Hitch



Two Half-Hitches

