



Ropes & Knots

Outdoor Skills – Step 1

Purpose

The “Ropes & Knots” Step is to provide a basic knowledge and foundation on ropes and knots as tools. Upon completion of this step, Trailmen should understand how to safely use ropes to perform basic functions.




1. What are the different types of rope?
2. What can rope do?
3. What are the parts of the rope called?
4. How can I properly care for a rope?
5. What are the parts of a knot?
6. What are some basic knots and how are they used?
7. What are the best methods for breaking a knot?

Notes to the Trail Guide//

1. The goal is not for the boys to be experts on these topics but to gain an increased knowledge and awareness of the Step.
2. Make it relative to your patrol.
3. Remember, these lessons should build from Fox to Hawk and from Hawk to Mountain Lion.
4. See the Leaders Guide for more information on Steps.

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Skill Progression

	<ol style="list-style-type: none">1. Picture matching2. Identification Game3. Nomenclature4. Simple Knots
	<ol style="list-style-type: none">1. Knot nomenclature2. Medium Knots3. Rope Coiling
	<ol style="list-style-type: none">1. Rope care2. Advanced knots

Helps

1. What are the different types of rope?
 - a. **Goal:** To understand that each rope has a purpose and different strengths.
 - b. **Lesson:** Ropes should be used for their intended purpose for safety and effectiveness.
 - c. **Examples:**
 - i. Twisted Rope/Laid Rope: General purpose.
 - ii. Braided Rope: Rappelling, moving objects.
 - iii. Climbing Rope: Rock climbing
 - iv. Parachute Cord: Parachutes, survival ropes, personal accessories.
 - v. Guyline Cord: Secure standing poles.
 - vi. Bungee Cord: Secure equipment.
 - vii. Sisal: General purpose.
 - viii. Baling Twine: Small projects.
 - ix. Tow Strap: Towing automobiles and equipment.
2. What can rope do?
 - a. **Goal:** To understand how rope performs work.
 - b. **Lesson:** Rope has a wide variety of uses.
 - c. **Examples**
 - i. Build things: Shelter, raft
 - ii. Climbing & Rappelling
 - iii. Move things: Pulleys and simple cranes
 - iv. Trapping: small game, fishing net
 - v. Secure items: Suspend food and objects, lash items to an object
 - vi. Rope Ladder
 - vii. First Aid: Sling, splint
3. What are the parts of the rope called?
 - a. **Goal:** To understand the parts of a rope.
 - b. **Lesson:** Knowing the parts of a rope helps in knowing how to tie knots and work with others with a rope.
 - c. **Examples:**
 - i. Standing End: **The long part of the rope that's not active while tying your knot.**
 - ii. Working End: **The short end of the rope that you're actively using to tie your knot.**
 - iii. Loop: form a circle without crossing the two ends.
 - iv. Bight: create this by folding a piece of rope in half, so your working end and standing end are next to each other. The ends do not cross.
 - v. Turns: When securing a knot to another rope, a pole or another circular object, there are two different turns to choose from.

- vi. Lay: The direction in which the strands of a rope twist
4. How can I properly care for a rope?
- a. **Goal:** To understand that rope needs to be cared for to maintain its usefulness.
 - b. **Lesson:** Rope comes in different materials and often requires some maintenance.
 - c. **Examples:**
 - i. Cleaning: Cold water with mild soap then air dried.
 - ii. Protection: Store in a storage bag at room temperature.
 - iii. Rope ends: Prevent fraying. Treating the ends.
 - iv. Coiling: Proper storage
 - v. Whipping: Protecting the rope ends with smaller rope.
5. What are the parts of a knot?
- a. **Goal:** To understand what the parts of a knot are called to help learn knot tying from different sources.
 - b. **Lesson:** Learn to recognize each part of a knot.
 - c. **Examples:**
 - i. Bend: Joins two ropes.
 - ii. Dressing: Arranging the components of the knot to optimize security and/or strength
 - iii. Tail: The short end – the part getting knotted.
 - iv. Turn: One pass of the rope around or through an object.
 - v. Standing End: The long end - the part not knotted
6. What are some basic knots and how are they used?
- a. **Goal:** To understand the purpose of knots.
 - b. **Lesson:** Learn to tie some basic knots.
 - c. **Examples:** (In order of difficulty)
 - i. Overhand
 - ii. Figure-Eight
 - iii. Square
 - iv. Sheet Bend
 - v. Clove Hitch
 - vi. Timber Hitch
 - vii. Taut-Line Hitch
 - viii. Bowline
7. What are the best methods for breaking a knot?
- a. **Goal:** To understand that knots can also weaken a rope.
 - b. **Lesson:** Learn to break down a knot.
 - c. **Examples:**
 - i. Twist and push
 - ii. **Breaking its “back.”**
 - iii. Sailors Fid or Awl

Scripture Ideas

Psalm 32:9

- Fox – Do not be stubborn.
- Hawk - We must not be like animals, like the horse and the mule. We must be like people that God can talk to.
- Mt Lion - We must not be like animals, like the horse and the mule. We must be like people that God can talk to.

Proverbs 6:20-21

- Fox – God desires for you to listen to the wisdom of your parents.
- Hawk - We should love wisdom. Wisdom should be in our hearts and in our minds.
- Mt Lion - We cannot physically keep wisdom in our hearts. We might not physically carry wise words about our necks. But we can live in a wise manner.

Activity Ideas

- See the relevant patrol and branch section of the activities
- Or, create your own activity relevant to your troop and region

Game Ideas

- Check the games section online for game ideas
- Or, create a game that works for your patrol
- A couple of ideas are listed below

Name of Group Game: Knot Relay

Time: 15 – 20 minutes

Summary: Simple relay game where teams compete to tie knots.

Goal: Win the race.

Preparation:

- Multiple ropes
- Knot cards

How to Play:

1. Have all the kids break into teams.
2. Explain the rules: The object is for each Trailman to run to the end of the course and tie the selected knot then run back to tag the next runner. Play continues until all participants have run the course.

Tips:

- You could have a person with a stopwatch at the knot station who will time the runner. If the time hits a specific mark (maybe 30 secs) then they are to proceed. The idea is **not to hold up the game if someone doesn't know how to tie the knot.**
- Knots can be predetermined or by random cards.

Name of Group Game: Tug of War

Time: 15 - 20 minutes

Summary: Simple tug of war game.

Goal: Two teams try to pull the rope across a line.

Preparation:

- A long heavy rope.
- A smaller rope as a marker.
- 2 ropes on the ground for boundaries

How to Play:

1. Split everyone into teams.
2. Explain the rules. The team to pull the marker across their boundary wins.

Name of Group Game: Lasso the horse

Time: 10 - 15 minutes

Summary: Each player tries to lasso an object for points.

Goal: Try to get as points for your team.

Preparation:

- Rope
- Objects to lasso (Chair, Traffic cones)

How to Play:

1. Divide into teams.
2. Each Trailman gets 3 turns to lasso an object.
3. Each object has different point values based on difficulty and range.
4. Team with the most points wins.

Ropes



Figure 1 – Twisted Rope



Figure 2 - Braided Rope



Figure 3 - Climbing Rope



Figure 4 – Paracord (550 Cord)



Figure 5 - Sisal Rope



Figure 6 - Baling Twine

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