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Square Knot (has a square-like shape when tied correctly)

- Application: Joining two ropes
- Strengths:
 - Simple
 - Strong
- Weaknesses:
 - It is easy to mis-tie this knot as a "granny" which is a much weaker knot
 - It can be difficult to untie after load has been applied
 - It does not work well for ropes with different diameters



Tie two overhand knots. Remember: left over right and twist, then right over left and twist.



Sheet Bend

- Application: Joining two ropes (especially ropes of different diameters)
- Strengths:
 - Simple
 - Works for ropes with different diameters
 - Can be easily untied (even after load has been applied)
- Weaknesses:
 - Can come undone (especially when load is not applied)



Two Half Hitches

- Application: Attaching a rope to an object
- Strengths:
 - Simple
 - Strong
- Weaknesses:
 - Can be difficult to untie (especially after load has been applied)



Taut-Line Hitch

- Application: Joining a rope to an object
- Example: Tying tent guy ropes to stakes
- Strengths:
 - The knot can be slid up and down the guy rope to ensure the line is taut
- Weaknesses:
 - The knot can slide back under large loads, causing the line to become slack

TAVILINE HITCH

Secure one end of rope. Pass other end around stake and run parallel to standing line. Make two turns around standing line turning toward stake. Finish with a half hitch tied on the far side of the previous two turns. Tighten knot and slide on standing part to tighten or loosen the line.

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Clove Hitch

- Application: Joining a line to a post
- Strengths:
 - Simple
- Weaknesses:
 - Can come undone (especially under large loads)



Make a turn around a post with the standing part on the top. Take a second turn around in the same direction and feed the free end through the eye of the second turn. Pull tight.



Timber Hitch

- Application: Joining a rope to timber
- Example: Tying a rope to a log to drag it back to camp
- Strengths:
 - Simple
 - Can be easily untied (even after load has been applied)
- Weaknesses:
 - Is not strong and can come undone



Lark's Head (Cow) Hitch

- Application: Joining a rope to a post
- Example: Tying a cow lead to a post
- Strengths:
 - Simple
 - A bit stronger than a clove hitch
 - Can be easily untied (even after load has been applied)
- Weaknesses:
 - Can come undone (especially when load is applied)



Bowline

"The King of Knots"

Application: Joining lines bearing large loads to objects • Example: Tying a rope to the front of a boat (called the "bow") – thus the name "Bowline" For man eye in the rope with the standing part underneath. Run the free end up through the eye then take a turn around the standing part. Strengths: Feed the free end back down into the eye and hold there while pulling standing part to tighten down - Strong knot. - Can be easily untied even after large ...goes around the tree.. loads have been applied з Weaknesses: Can come undone when load is not The rabbit comes applied or light up through the holeand back into the hole BSAinfo.com

You can also find numerous good websites with step-by-step pictures and videos of knots being tied

- http://www.bsahandbook.org
- http://www.animatedknots.com/indexscouting.php
- http://boyslife.org/video-audio/644/learn-to-tie-knots/
- http://www.animatedscoutknots.com/
- http://www.troop127.org/knots.htm

Animal Track Recognition

Deer	Wolf	Bear	Raccoon
 Deer prints look like a heart (think "Dear Heart") 	Wolf prints look like dog prints	 Look for claws and size – rear prints are commonly 7" by 3 ½" 	• Front prints have long fingers

Opossum	Skunk	Porcupine	Beaver
 "OPossums have OPPosing thumbs" 	 "It stinks to have plain looking footprints" 	 Look for dragging quills (tail) 	 Look for webbed feet and dragging tail
rear print front print	r. t. r. h. 21/2 in. saven Lange		6" Marks of webs not always distinct

Tree Identification

White Oak	Red Oak	Maple	Honey Locust
Rounded Leaves	 Pointy Leaves (like points of red fire) 	Like Toronto Maple Leaf uniform	 Many leaves per stem and long, crescent shaped pods

Horse Chestnut	Staghorn Sumac	Sweet Gum	Catalpa
 Multiple rounded leaves per stem 	 Shrub or tree seldom over 15 feet tall Flower like a stag's antler 	 Five pointed leaf Seed looks like Blowpop (a type of GUM) Native to South Eastern US 	 Teardrop shaped leaf Native to warm, temperate regions of the US

And also look out for Poison Ivy and Poison Oak

- Allergies to these plants are the most common allergies in this country, affecting over 50% of people
- Rashes can take 7-10 days after exposure to occur
- Avoid contacting them
 - Stay "on path" where possible
 - Know what these plants look like
 - Wear long pants and long sleeves
- If you come in contact with them:
 - Wash the exposed area thoroughly with soap and water (the oil commonly needs to sit on your skin to have an effect – the rash is not contagious if the oil has been washed away)
 - Treat rashes with rubbing alcohol, Calamine lotion or other non-prescription to help relieve itching
 - Seek immediate medical attention if the reaction is severe, if the eyes or genital area is affected, or if plant parts were chewed or swallowed
 - Wash your clothes (the oil on them can still cause rashes)

Poison Ivy	Poison Oak	
 "Teardrop" shaped leaves 	 Small oak-shaped leaves 	
 Vine grows on the ground our 	 Vine or small shrub 	
can climb on other plants	 Leaves often have a reddish tint (red = "watch out") Three leaves per group 	
 Often has as a reddish tint to leaves or stems 		
(red = "watch out")		
 Three leaves per group 		

Navigation

- Compasses divide all directions (North, South, East and West) into 360 "Degrees"
 - 90 Degrees is ¼ way around the circle
 - 180 Degrees is ¹/₂ way around the circle
 - 270 Degrees is ³/₄ way around the circle
- To use a compass:
 - 1. Twist the compass housing until your intended bearing is aligned with the Direction of Travel Arrow. For example, if your bearing is Northwest (315 Degrees) twist the housing until 315 Degrees aligns with the Direction of Travel Arrow)
 - 2. Hold the compass horizontally (as if it were on a table) and allow the needle to rotate freely and point North
 - Make sure there are no magnetic attractions (e.g., cell phones) nearby. They can cause the needle to point in the wrong direction!
 - Make sure the needle's direction is consistent with your celestial observations (e.g., the sun rises in the East and sets in the West).
 - 3. Turn your entire body until the magnetic needle covers the orienting arrow on the floor of the compass housing. It is imperative to align with the North pointing side of the needle, not the South pointing side.
 - 4. Walk in the direction of the Travel Arrow. For longer distances "sight" along this arrow by identifying distant landmarks in your desired direction of travel
 - 5. Walk in that direction the desired distance, sighting additional landmarks as necessary



