Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Patrol Method
Lesson 1

Objective: As a result of this experience, Scouts will know:

- What the Patrol Method means to a Scout
- Why we use it in the Scouting program
- The makeup of a successful patrol

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998. 11th ed. 3rd prt, pg. 56

Rank Requirement: Tenderfoot #8 - Know your patrol name, give the patrol yell, and describe your patrol flag.

Camp Staff Note: This should be the first bead completed immediately following the opening ceremony. It is very important for the new Scouts to learn the names of the other people in their patrol. When a group of people all know each other's name it opens up lines of communication and sets the foundation for a patrol to come together. Please don't rush the game.

Equipment Needed: 1 tennis ball

Problem Exposure:
Why aren't there 25 people on a basketball team? Why aren't there 2 people on a baseball team? Why are there 5 people on a basketball team?

Teaching/Learning:
It is important to have the correct number of people on a team to accomplish the given task at hand. Too many and you have people standing around and getting bored. Too few and you can't get the job done or get it done poorly.

What do you feel is the best number of people for a class in school? Why?

What do you feel is the best number of people for a game of kickball? Why?

What do you feel is the best number of people for a scouting patrol? Why?

We use ten for many different reasons:

- It offers us 5 pairs of buddies.
- You can work as a team to accomplish goals like rescues and pioneering projects.
- It gives you a nice number to be led by a single patrol leader.

What are some elements of a good Scouting patrol?

- The Patrol Name
- The Patrol Yell
- The Patrol Flag
- The Patrol Leader.

Patrol Guides, explain the following:

A patrol is just the right size for outdoor adventures. On camping trips, a few tents will shelter everyone, and a couple backpacking stoves are enough for cooking hearty meals. Patrol members can learn to roam the backcountry together without leaving any signs that they were there.

Because all of you are different, each member of your patrol will have much to share. You can teach each other the skills you know. As friends you can look out for one another. Friendship, fun, adventure—that's what a Scout patrol is all about. This week, we are going to use the Patrol Method and we are going to stick together through the good and the bad. I want us to get us started with a Name Game. . .

Application:

1. **Name Game:** The Patrol Guide asks his group to form a circle. He explains that this is a game to get to know everyone in the Patrol. The rules are to go around the circle starting with the Patrol Guide and state your name, then give yourself a modifier starting with the first letter of your name. For example, My name is Greg Harmon, call me Groovey Greg. Then proceed around the circle with each Scout stating their name. (Remember Scouting is a safe haven and remind the kids, that names must be positive.) Take a tennis ball and starting with the Guide say your name & modifier then pass the ball to another Scout saying his name and modifier while the ball is in the air. If the person is correct play continues with the person catching the ball repeating his name then passing the ball and saying the next person's name in the air and so forth. If a person is wrong the ball is returned to them and they have to correctly say the persons name and modifier before play continues.

2. Hold elections for a leader. Explain that everyone should have an opportunity for leadership during the week.

3. Decide upon a patrol name: Play the game "I've Never." Form a circle and beginning with staff member say "I've never _____." Those who have remain standing while those who haven't squat. This proceeds around the circle until you can tell the Scouts are ready to move on. Thinking back, note some of the questions that the majority of the Scouts have done and relate the following information about how to choose a patrol name.

   Put some time into choosing a Patrol name so that you'll be positive that you get one with real meaning to every Scout in the Patrol. Let's imagine that your gang consists of fellows who like swimming and are perfectly at home in the water. What would be an

appropriate name, “Otters” or “Seals” or something along that line. In the same way you would expect the fellows of the “Panther Patrol” to be excellent Stalkers, the “Beavers” to be wizards at Pioneering, and the “Buffaloes,” Scouts who eternally roam and explore the countryside. Finally, remember to make your name more unique by adding a modifier, Stealth Panthers.

4. Create a Patrol Yell: Did you ever attend a college football game? If you did, you’ll remember the way the college boys cheered their teams with thundering yells. Did you see what effect that cheerleading had on the players? It made them want to do their best for their alma mater. The same kind of cheering works in a patrol. A good yell puts pep into the gang and builds team spirit. So make up your own and practice it until the fellows put everything they’ve got into it. Here are some examples:

    a. Rah-rah-rah! Mud or Dust! We’re the otters! Shout we must!
    b. We’ve done fine! We’ve done well! Now for an ear-drum splitting yell! Panthers! Panthers! Panthers!
    c. A-M-E-R-I-C-A! Boy Scouts! Boy Scouts! USA
    d. Leader: Who are we? Patrol: We’re the boys who make no noise! Hoo-ha! Hoo-ha-ha! Hoo-ha! Hoo-ha! Hoo-ha-ha! Eagles! Eagles! Rah! ! !

5. The Patrol Flag: Making a patrol flag should be a patrol job, not a one-man affair. Have all the Scouts design their own flag and then pick and choose from the many elements. The attached pictures might prove useful. When you have the patrol flag ready, remember that it isn’t a patrol flag unless it follows the patrol wherever it goes. (Tell the guys that if they do a good job, and all participate, this can satisfy requirement 2 of Art Merit Badge). Scan pg 17

Troop Competition:

Extra points may be given for patrols carrying their flag to and from troop competitions and patrol spirit with the yells. It is very important to show Scout spirit in your patrol the first day to establish the tone of the week. The director will be looking for patrol spirit at the ceremonies, competitions, and just around camp when you pass him. Tell the Scouts that one competition is all about patrol spirit.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Buddy System
Lesson 2

Objective: As a result of this experience, Scouts will know:

- Understand the purpose of the Buddy System in Scouting
- How the Buddy System used at S-F Scout Ranch

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, page 57

Rank Requirement: Tenderfoot 9 - Explain why we use the buddy system in Scouting.

Camp Staff Note: This should be completed immediately after Lesson 1 on Monday morning.

Equipment:

- Blindfolds

Problem Exposure:
Pick one Scout to be an actor. Explain to him that you are going to tell a story and you want him to act it out. "Johnny Scout was hiking deep into the woods enjoying the beauty of God's creation." Let the Scout act out hiking in the woods. "The Johnny Scout suddenly trips over a log and breaks both of his legs" let the Scout have fun playing up the pain. "He is 6 miles from the nearest road for help and now in serious trouble. What could he have done differently?" Be ready for the answer that he could have stepped over the log and not tripped in the first place; then reinforce that accidents happen and you have to be ready. Replay the Johnny Scout story with another Scout that can run for help. Then replay the Johnny story with four Scouts (one to stay with Johnny and two to run for help) which should be used when hiking deep into back country.

Teaching Learning:
The buddy system has been used throughout history in times of war and peace. It is a valuable tool that has and could save lives. The armed forces use it as a safety device, and it is a founding principal at military learning institutions.

The Boy Scouts of America uses it also as a means for safety with Boy Scouts. Your buddy can be a valuable asset when tackling challenges in your daily life. Two heads truly are better than one, and you will find that more can be accomplished when you and your buddy work together.

At S-F Scout Ranch, we use the buddy system for virtually every activity. However, the buddy system is most obvious at places like the waterfront. We ask that Scouts always have a buddy (and a leader's approval) before leaving camp at night or hiking beyond the boundaries of camp.

Application:
Do a trust walk to a spot in camp with one of the buddy pair blindfolded, switch 1/4 of the way. Repeat so that each leads and follows twice.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Citizenship
Lesson 3

Objective: As a result of this experience, the Scout will know:

- How to raise, lower and salute the Flag of the United States
- How to care for the flag of the United States
- How to care for flags other than that of the U.S.

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing

Rank Requirement: Tenderfoot 6 - Demonstrate how to display, raise, lower, and fold the American flag.

Equipment Needed:

- Sheets of blue flag paper for each Scout
- American flag

Problem Exposure: Your principal catches word that you are a Boy Scout, and thus thinks that you know everything about flag etiquette. He then asks you to perform a flag ceremony in front of the entire school. What do you do?

Teaching/Learning: Using the blue flag paper, teach the kids how to make paper footballs. Have some of the Scouts play games while the others learn to fold the U.S. flag in the same way. Have buddies fold the flag, and then mix it up a little.

Have a conversation about when the flag can be flown and when it cannot.

- Flags can be flown in rain only if the are all-weather (made out of a nylon material). They can be flown at night only if they are lit.
- They are raised briskly. (a hint to remember is you want to have maximum time flying the flag…so get it up quick)
- They are lowered slowly. (same hint…maximum time means lowering it slowly so it's on the pole longer)
- If you are to raise a flag to half-staff, you take it all the way to the top, and then bring it down to half-staff.
- If you are to lower a half-staff flag, you take it all the way to the top and then back down.
- Against a wall the blue field should be on the left
- On a horizontal or slanted flag pole (like the ones on homes near the front door) the blue field should be at the end tip of the flag.

Application: Have Scouts fold flag on numerous occasions. Pretend the patrol flag is just like a normal flag. Take it down and fold it up at night properly. Practice raising and lowering the flag.

Troop Competition:
Patrols will get points for respecting the flag and may be asked to demonstrate folding the flag for the director.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Fire Building
Lesson 4

Objective: As a result of this experience, Scouts will know:

- How to light a fire.
- The different styles of fire and why they should be used.
- The safety precautions that must be taken when dealing with fire.

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scouts of America, 1998, 11th edition, 7th printing

Equipment Needed:

- Bow saw
- Pocketknife
- Ax
- Matches
- Steel wool
- 9-volt battery
- Binders twine

Problem Exposure:
Three scenarios:
(1) You need to start a fire for cooking.
(2) You need to start a fire on a rainy day
(3) You are at a camporee and are challenged to start a fire without using matches.

Teaching/Learning: Before tackling the above scenarios you must learn the five ingredients for a successful fire:

1. **Ignition source.** What are some of these you know about?
2. **Tinder** – Material that will light easily from a match. Can you gather some now?
3. **Kindling** – Material that is the same size or smaller than your pinky finger. This will be the base of your fire. Let's find some of this.
4. **Fuel** – Pieces of wood that range from the diameter of your thumb to the diameter of your ankle. This is the wood that will keep your fire going. We will need to use the skills we learned in our Totin' Chip to get us this wood. Let's go get some.
5. **Dousing material** – Water, soil, sand, and dirt. Have a large enough supply handy to completely snuff out your fire.

In addition, the site:
1 – Must be clear overhead

2 – Must have a 10ft diameter that is clear of any combustible materials
3 – Must be at least 20 feet from any tent or tarp structures

Scenario 1
Your patrol has just completed a day of working on their pioneering skills with knots and lashings. They are hungry and want to eat dinner but it first has to be cooked. Build a fire based on what your camp staff member tells you what is for dinner.

Scenario 2
We know what we need to start a fire on a clear day, but what should be do if all the woods are wet? Where do we find dry wood? Let the Scouts discuss ways of handling this problem.

Solutions – heartwood is dry. Show proper ways of splitting wood. Show how to make fuzz sticks out of heartwood. You still use normal ignition sources and starter materials, but your fuzz sticks will take the place of your kindling. Split the logs into thin enough strips to make your fuel.

Scenario 3
We now know how to make fires easily with matches as our ignition source, but what if matches is not available? Show how to make a bird's nest out of bailer's twine. Ignite this bird's nest with a small piece of steel wool and a 9-volt battery. Discuss alternative methods including flint and steel as well as fire-by-friction.

Application:
Have a contest to burn a string that is suspended 20 inches off the ground.

Evaluation:
Have the Scouts repeat the five ingredients of a good fire…

- Ignition source
- Tinder
- Kindling
- Fuel
- Dousing material

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Plants
Lesson 5 (Lesson 5 should be taught before Lesson 6)

Objective: As a result of this experience, Scouts will understand:

- Why plants are an essential part of the ecosystem
- The different structures of plant life
- The difference between gymnosperms and angiosperms
- How to identify some of the local flora

References:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 131-136

Rank Requirement: First Class 6 - Identify or show evidence of at least ten kinds of native plants found in your community.

Camp Staff Note: This module could be conducted on your 4 mile hike.

Equipment Needed: White paper, charcoal (from a fire), and aerosol hairspray

Problem Exposure: Have the Scouts draw a picture of a tree from memory (do this in an inside location if at all possible), then take them to a forested area (possibly one of the charcoal pit sites). Tell the Scouts to look around and guess the age of the forest. After getting an answer from each, tell them a story about the Reservation's History. Tell the story in your own words!

History

Three past events have greatly influenced the life cycle of our forest. First, was the use of the land during the late 1800s and early 1900s for the production of iron at the iron furnace located at the Camp Powhatan Gate. Charcoal to fuel the iron making process was made on the property. All timber in the area was harvested, cut into short lengths, covered with dirt, and burned under anaerobic conditions to make the charcoal. It is estimated that 1000 acres of timber was needed each year to make charcoal for the iron furnace. The other problem with making charcoal is the risk of fire. In the 1800s there was no Smokey the Bear or even fire departments in this area so when fire escaped the pits, and it frequently did, all the seed trees (trees left to regenerate the area) would be burned. The loss of hardwood seed trees allowed sun loving and fire resistant trees such as pines to grow in greater quantities. Also, loggers at this time basically removed all the trees in one location before leaving; therefore, the average age of our forest is 80-120 years.

The second event was the introduction of the American chestnut blight near the end of the furnace operation. The mass death of American chestnuts allowed various species of oaks to become the dominant tree in the forest. You can still find small chestnuts in this area, but they

die when they reach a certain age. Also, many of the split rail fences in this area are made from chestnut wood that was harvested over 100 years ago.

The third event was the logging that occurred in the 60s and 70s. Logging was primarily done in the hollows and on the more productive land. Logging roads were often built in or near the creek. The area was again basically clear cut favoring the growth of sun loving trees. The logging also caused significant erosion.

So what do we have now?
In general, eight tree species or families dominate the present forest over story, the red oak group (northern red oak, black oak, scarlet oak, and bear oak), the white oak group (white oak and chestnut oak), yellow poplar, hemlock, hickory, white pine, red maple, and the yellow pine group (VA Pine, pitch pine, Table-mountain pine). Many other species are present to a lesser extent: sourwood, black gum, black locust, basswood, beech, sycamore, white ash, red cedar, black birch, black cherry, and cucumber.

The under story is composed of Dogwood, mountain laurel, rhododendron, red maple, hemlock, blueberry, huckleberry, greenbrier, chinkapin, witch-hazel, white pine, serviceberry, sourwood, spicebush, beech, and black gum. Some of these, which are also in the over story, are found in the under story because of their ability to thrive in shade.

The current composition of our forest is highly dependent upon the actions of mankind over the past century. For example, trees in the over story from the oak groups, yellow poplar, the yellow pine group, black locust, basswood, white ash, red cedar, black cherry, and cucumber are present due to the extensive harvesting of the past. That is because they require lots of sunlight in their juvenile stages.

Activity: "The Closer You Look"

Have each Scout make a drawing of a tree from memory, without using a model, and without going next to the tree. Then, take out and let them examine several trees. Ask some of the following questions.

- How many colors can you find? To make them really look, ask how many shades of green or brown are in the tree.
- How many different shapes of leaves can you find.
- Listen to hear what sounds the leaves make.
- Sniff to find out what trees smell like.
- Look to see if the trees have fruit or flowers.
- Look to see if any animals (insects, birds, or mammals) or plants (lichen or moss) live on the tree.
- How do the bark and leaves feel?
- Do the branches point up, down, or straight out.

Once you have fully explored the trees using several senses, have the Scouts draw a tree again. Compare this to the first drawing.

Teaching/Learning: There are basically two types of trees: Evergreens or deciduous trees. Deciduous trees drop their leaves in autumn and grow them back in the spring while evergreens remain in leaf all year round. In North America, most needle-leaf trees are evergreen and most broadleaf trees are deciduous. The few broad leaf trees that are evergreen tend to occur in the southern states (for example, the magnolia).

Trees come in two basic kinds, broad-leafed or needle-leafed. The leaf may also be simple or compound. Broad-leaved trees have wide flat leaves. Oaks and maples are good examples. The leaf may be simple or compound. A simple leaf consists of a single blade on a leaf stalk called a petiole. A compound leaf consists of several leaflets on a petiole. Maple leaves are simple while hickory leaves are compound. In some trees (maple) the leaves grow opposite each other while in others they alternate. Leaves may be oval, heart-shaped, or elongate. Some trees have leaves with small saw-like teeth around the edge. Leaves may have lobes that may be rounded or pointed. The texture of leaves can be dry and leathery or smooth like paper. Needle-leafed trees on the other hand have leaves that are either hard, soft, short, or long. They usually grow in climbs called bundles (use the number of needles to identify the tree).

Bark color and texture are also useful for identifying trees. Bark may be scaly, ridged, or smooth. It may adhere tightly or peel of in strips or scales. It may be grey, reddish, or some other color. Be aware that bark changes in color and texture as the tree ages.

Activity: Have each Scout collect a different leaf, that they can identify and make a rubbing. To do this, lay the leaf down, cover it with a piece of white paper, and use charcoal to rub across the leaf. Seal the charcoal with hairspray. Rubbing firmly all over the leaf will show the veins as well as the outline.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Poisonous Plants
Lesson 6 (Lesson 6 should be taught after Lesson 5)

Objective: As a result of this experience, Scouts will know:
- Know and avoid the three common poisonous plants

References:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 59 and 318.

Rank Requirement: Tenderfoot 11 - Identify local poisonous plants; tell how to treat for exposure to them.

Camp Staff Note: This module could be conducted on your 4 mile hike.

Equipment Needed:
- Scout handbook

Problem Exposure: You're taking a group of Wolf Cub Scouts on a short nature hike. The group is lucky and sees three deer grazing about 200 feet from the trail. As you stand in silence to observe these beautiful creatures the Cub Scouts scream "bambi" and run full speed at the deer. When you finally stop them you realize your whole group is standing in a huge patch of three leaf bushes that come up just below your knees.

Teaching / Learning:
Use the pictures from page 318 of the Scout handbook to teach the patrol what the three poisonous plants are:
- Poison ivy
- Poison oak
- Poison sumac

Stress with the patrol that a Scout is always aware of his surroundings when hiking and the best way to not have poison rashes is to avoid contact with the plants in the first place.

Explain that even if you come into contact with one of the above plants the oil that causes irritation will not bond to a person's skin cells for 10 to 20 minutes and can easily be removed with soap and water. Therefore if you think you have come into contact with a poisonous plant was the suspect area immediately. Remember that the oils of the plant will stay on clothing to spread to the skin so remove all effected clothes as soon as possible

Application: On your hikes during the week challenge the Scouts to find, but not touch, poisonous plants. Poison ivy is on the Ranch property but can be difficult to find at times.

Evaluation: Review if necessary.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Animals
Lesson 7

Objective: As a result of this experience, Scouts will know:
- How to identify or show evidence of at least 10 kinds of animals

References:
The Nature/Ecology Staff: Find out what animals and signs they have seen

Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition 7th printing, pages 89-96.

Boy Scouts of America, The Boy Scout Fieldbook. Irving, Texas: BSA, 1984

Rank Requirement: Second Class 5 - Identify or show evidence of at least ten kinds of wild animals (birds, mammals, reptiles, fish, mollusk) found in your community.

Camp Staff Note: This module could be conducted on your 4 mile hike.

Equipment Needed: 1 pencil or pen and log sheet, or 1 sheet of notebook paper or small pad, per Scout

Problem Exposure: Pretend you are a crow / a trout / a raccoon. What do you need to survive? Where will you go? At what times of day? For what purposes? What signs might you leave of your visit?

Teaching / Learning: Lead a discussion that points out animals' needs for water, food, shelter, mates, and safety for self and for young, and that addresses observation techniques:

1. Foods: Plants as food (young shoots, leaves, berries, nuts, microscopic vegetable matter in the water), animals as food (insects, fish, carrion, smaller animals)
2. Water: Stream, lake, puddles, droplets, moisture in fruits and flowers, moisture in other animals (spiders suck the "juice" out of flies)
3. Shelters/homes: Nests in tree branches, nests in tree trunks, nests under tent platforms (field mice), holes in the ground, holes in the stream banks, dens in thickets or rocky areas, deep water holes, rocks in streams (crayfish), marshy areas; portable or personal shelters such as shells.
4. Mating Behaviors: Distinctive sounds to define territory, markings in specific territory, nest building.
5. Safety: Protective colorations, hiding behaviors, herding or schooling behaviors, warning signals when danger threatens; flight reflex when danger approaches;

aggressive behavior to protect young from danger, or when cornered, or when sick (rabies).

6. Time of day issues: Early AM, midday, late afternoon, evening, and night behaviors or various animals

Observation technique:

1. Location: Find a likely spot. Then BE QUIET AND STAY STILL SO YOU CAN LOOK AND LISTEN.
2. Senses to use: Sight (look in the air, in the trees, in the bushes, on the ground, in the water) hearing (songs, calls, and sounds of animals moving); sometimes smell (dead animals, stagnant water, flowers, fruits, and saps that may attract animals).
3. Signs to look and listen for, in addition to direct sightings: Nests, shells, feathers, fur, footprints, scat, other food residue (chewed nuts, roots, shells of seeds, bones), disturbed water or ground; movement in the brush or the air or the water, sounds (calls, songs, chatter, sounds of fish jumping, sounds of raccoons fighting).

Applicable Leave No Trace Principles:

- #4 Leave What You Find. When you find a turtle shell, a deer antler, or even a fossil, leave the object where it lies. Not only is it important to allow others to enjoy the same sense of discovery you have had, many animals also depend on these items to survive. For example, rodents gnaw on antlers to supplement their calcium intake.
- Respect Wildlife. Avoid quick movements and loud noises that are stressful to wildlife. Observe animals from far enough away that you do not disturb them. Be especially cautious during breeding, nesting, and birthing seasons. Store your own food securely; keep garbage and food scraps away from animals so that they do not acquire bad habits; and do not feed wildlife. Help keep wildlife wild.

Application: With a buddy, find signs or make direct sightings of 10 different animals. Log the nature of the sighting or sign; the date, the time of day, and the exact location (so you could lead a buddy to the spot if necessary), and have your buddy or another Scout or adult sign your paper to verify the sighting. Animals and artifacts at the Nature Lodge DO NOT COUNT! However, use the Nature Lode as a resource.

Evaluation: Report your results to you Patrol Leader each day at the specified time and answer his questions. (This module will fulfill requirements for Second Class #5)

Troop Competition:

1. Competition among patrols for the greatest number of different verified sightings by patrol members during the week. This will produce a cumulative list for the patrol. Ask each day for additions to your patrol's list, and keep a running tally. BSI Staff will need to decide whether each entry on the cumulative list must represent a different animal, or whether signs of the same animal type (for instance, deer antler, deer scat, or blue jay feather or blue jay nest) qualify for the cumulative list; this writer tends toward allowing multiple different signs of one animal type because it encourages creativity and initiative.
2. Competition among patrols for the most unusual sighting of the week

*The Handbook lists amphibians in the discussion of “wild animals” (90) but omits them (alone among the classes of vertebrates) from the statement of the requirement. There seems to be no good reason of omitting amphibians, so it is assumed that this is an error in the Handbook.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Knots
Lesson 8 (Lesson 8 should be taught before Lesson 9)

Objective: As a result of this experience, the Scout will know:
- Know two of the basic knots in Scouting
- Understand the difference between a good and bad knot
- Gain confidence in working with rope

Reference: Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998. 11th edition, 7th printing

Rank Requirement: Scout Rank - know how to tie the square knot and give its uses
First Class 8a - know the uses and how to tie the Bowline rescue knot

Equipment Needed: 5' piece of synthetic rope for each Scout, lighter, 10' piece of natural fiber rope for whipping, wax sinew or thread

Problem Exposure: How many of you can think back to when you first learned to tie your shoes? Do you remember who taught you? Was it easy at first or hard? Make up a story about how you made the big knot doubled over and crisscrossed through the loop and then over again knot so it would never slip off. Ask the Scouts if when they need to tie something they just made up a knot by tying things over and over. Ask them what the problem with doing that is (might slip, hard to untie, not a real knot). Explain that when someone learns that you are a scout they assume you know your knots; so we're going to learn the right knot for the right job starting with two basic knots.

Teaching/Learning: Tell the Scouts that rope can be made of many different materials, but rope can be categorized into two main types:
- Natural fiber: manila, sisal, hemp, most binder twine- made from fibers in nature
- Synthetic: polypropylene, nylon, polyethylene, polyester- man-made fibers (generally types of plastic)

To keep rope from fraying there are two main methods used- one for each type of rope:
- Demonstrate fusing a synthetic rope with the lighter. The Scouts should NOT do this.
- Demonstrate whipping a natural fiber rope from page 34 in the BSA Handbook using wax sinew. The Scouts MUST do this to continue.

Explain to the Scouts that there will be a knot relay at the end of the day for the "golden stave" or another recognition item (this will motivate them to listen and practice the knots you teach.)

Explain that a good knot has three characteristics:
- Easy to tie

- Holds for the job
- Easy to untie

Also explain that knots can be frustrating to learn at first and it takes multiple times tying the same knot to really remember it. Reinforce they'll need to be patient if they don't understand yet and to help a buddy if they do have a knot down. Tell them they will need to tie each knot at least 5 times before we'll move on to the next.

Teach the square knot - "right over left, left over right" is a good way.

Teach the bowline - first explain why it is called the rescue knot by giving the scouts a scenario that they have fallen in a hole and a fellow Scout has throw in a rope - "what knot do you tie to get out?" The bowline is a quick and easy knot on the end of a line that is strong and won't slip if tie properly. Use the method of the rabbit coming out of the hole and running around the tree (the tree needs to be growing under the ground.)

Application: Tie each knot in a circle with a 10 second countdown. When a Scout finishes the knot he drops it to the ground. At the end of 10 seconds all the Scouts should be finished or you repeat. Check the knots on the ground to make sure they are tied correctly.

Troop Competition: Wait until you have completed the next rope module "Knots and Lashings – Lesson 9" before playing the following game:

Play an interpatrol competition of rat tails. Each Scout takes his rope and puts a small portion down the back of his shorts so a tail is left touching the ground. When you say "go" each patrol tries to pull out the tails of the Scouts from the other patrol. When a Scout has his tail pulled he is removed from the game. The last Scout remaining with his tail still on wins the game. A good various is to play this game within your patrol and give Scouts the opportunity to get back into the game if they can tie three knots in a row correctly.

Explain to the Scouts that there will be a knot relay at the end of the day for the "golden stave" or another recognition item.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Knots and Lashings
Lesson 9 (Lesson 9 should be taught after Lesson 8)

Objective: As a result of this experience, the Scout will know:
- Know the four basic hitches of Scouting
- Understand the basic lashings of Scouting and their functions
- Gain confidence in working with rope

Reference: Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998. 11th edition 7th printing

Rank Requirement: Tenderfoot 4b - Demonstrate that you know how to tie the following knots and tell what their uses are: two half hitches and taut-line hitch
First Class 7b - Demonstrate tying the timber hitch and clove hitch and their uses in square, shear, and diagonal lashings by joining two or more poles or staves together

Camp Staff Note: This module should be done in conjunction with "Knots – Lesson ". The preferred order would be introduce the Scouts to knot basics with "Knots – Lesson 8" and then move on to the more challenging hitches found in this module.

Equipment Needed: 5' piece of synthetic rope for each Scout. 10' length of natural fiber rope for lashing. Stave or pole for each Scout .

Problem Exposure: When you set up a tent what are some of the steps? (Let the boys run through the process- hopefully they will remember the rain fly) That's right, one of the last things you do is put on the rain fly. Many rain flies have lines coming out from the side of the tent, what are these for? (discuss keeping water from tent walls, drainage, etc.) One of the most important steps is staking the lines so the rain fly is taut to properly drain water. It is very important that the lines be tight which sometimes requires a Scout to adjust them. Many knots could be tied around a stake and hold, but wouldn't it be nice to have one that could slide along the rope to tighten or loosen the line?

Teaching/Learning:
Remind them of what they learned earlier in "Knots – Lesson 8"
Explain that a good knot has three characteristics:
- Easy to tie
- Holds for the job
- Easy to untie

Emphasize that sometimes we have two or more knots that will 'hold for the job", but one knot is preferred because it has certain advantages over other knots. Maybe it is quicker to tie and easier to untie while still "holding for the job". Some knots can slide and adjust without having to retie them. In many situations there is an accepted "right" knot or knots for a job.

Explain that when tying hitches and many knots it helps to look at the rope as having two parts:

- Running end- the end of the rope that is being used to tie the knot
- Standing part- the rest of the rope that with most hitches seldom moves

Teach two-half hitches - wrap the rope around a stave, tree, or your knot board.

- "under and over to the inside, under and over to the outside"

Explain that this is a fast and easy hitch to tie a line off with and because it doesn't have sharp bends it reduces wear on the rope line.

Teach taut-line hitch - this hitch is almost the same -

- "under and over to the inside (twice), under and over to the outside"

Explain that this knot is very similar to two half hitches, but takes a little longer to tie. It has one large advantage over two half hitches though- it can slide to be adjustable. Ask the Scouts which knot would be better for our tent lines that we talked about at the beginning of the module. The answer is the taut-line is the preferred hitch for tent lines.

Teach basic lashings by starting with the square lashing using two staves. Demonstrate the clove hitch and have each Scout tie it on their staves then show them how it is used for the square lashing. Break the Scouts into buddy pairs and have them use their staves to tie a square lashing to their two staves. If they finish quick have them repeat until everyone has the opportunity to tie the lashing.

Teach the timber hitch and describe its uses. Be very careful that the Scouts understand that the three loops of the timber hitch wrap around the running end of the hitch- making a "needle eye". They do not wrap around the standing part of the rope. Have each Scout tie a timber hitch around their stave. Demonstrate the diagonal lashing starting with the timber hitch. Have the Scouts break into buddy pairs again and complete the diagonal lashing themselves.

Depending on the size of your patrol break the Scouts into groups of three and four. Assign each group one of the following lashings and objects:

- Tripod lashing - to make a tripod - page 146 in the Boy Scout Handbook
- Round lashing - to make a flagpole of 3 or 4 staves- page 147 in the Boy Scout Handbook
- Shear Lashing - used with square lashing to make an A-frame as seen on the monkey bridge on page 142 & 144

Give each group 10 minutes to complete their project. Then have each group explain to the entire patrol how they completed their task.

Application: The process of building items in groups is an excellent application for the knots. It also provides the opportunity for Scouts to start teaching Scouts. As in "Knots – Lesson 8", reinforce all the knots learned by tying each knot in a circle with a 10 second countdown. When a Scout finishes the knot he drops it to the ground. At the end of 10 seconds all the Scouts should be finished or you repeat. Check the knots on the ground to make sure they are tied correctly.

Troop Competition: Play an interpatrol competition of rat tails. Each Scout takes his rope and puts a small portion down the back of his shorts so a tail is left touching the ground. When you say "go" each patrol tries to pull out the tails of the Scouts from the other patrol. When a Scout has his tail pulled he is removed from the game. The last Scout remaining with his tail still on wins the game. A good variation is to play this game within your patrol and give Scouts the opportunity to get back into the game if they can tie three knots in a row correctly.

Explain to the Scouts that there will be a knot relay at the end of the day for the "golden stave" or some other patrol recognition.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Hiking Skills
Lesson 3

Objective: As a result of this experience, the Scout will know:

- Safe hiking practices.
- How to avoid getting lost.
- What to do if lost.

References: Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing

Boy Scouts of America. Hiking Merit Badge Phamplet. Irving, Texas: Boy Scout of America, 1999.

Rank Requirement: Tenderfoot 5 - Explain the rules of safe hiking, both on the highway and cross-country, during the day and night. Explain what to do if you are lost.

Camp Staff Note: The hike need not be longer than 10-15 minutes but should involve a creek crossing, a road where they might encounter a vehicle, and be somewhat roundabout. The point is to give them an experience to evaluate. This module should be completed before your four mile hike and the overnighter.

Equipment Needed: A map of camp with a route marked.

Problem Exposure: Announce that the group will take a shout hike to a another part of camp for the purpose of collecting as many different leaves as possible and give the patrol leader a route map to get there. The chapel or Scoutcraft may be a good destination. Go to the designated site and note how the group arrives.

Teaching/Learning: Ask the Scouts about their hike. Is everyone present and accounted for? Did the group arrive together? Were they walking with a buddy? Did they stay a group? Did they stay on the trails or go cross-country? Did they encounter any vehicles? If so, what did they do when the vehicle passed? Did they try to hitch a ride? Did they encounter any streams? How did they cross? Did they have a map or compass? Who kept the map? Did everyone know the route they would take or were the following the leader? Make the questions as open ended as possible and don't let one leader do all of the talking. The questions are leading and can be used to start discussion of good hiking practice. Make particular note of the safe rules and the buddy system.

Daniel Boone was once asked if he were ever lost to which he replied "No but I was once confused for about five days over where I was." The point of the quote is that not knowing where you are is not the same as being lost. Ask a few scouts to describe how to get from where

they are sitting to their home. Most would be lost before they left the reservation. Question time again. Do they have a map that they can use to get home? What landmarks did they see along the way to help them? Do they know how to use a compass? These questions introduce the skills to avoid being lost including preparation, map and compass skills, and observation.

Introduce the keyword "**STOP"**.
Stay calm
Think
Observe
Plan

Application: This prepares them for an overnighter and/or their four mile hike.

Evaluation: Upon their return from each of the above hikes discuss how they followed the safe rules of hiking.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Map Reading
Lesson 11

Objective: As a result of this experience, Scouts will know how to:

- Recognize common map symbols used on topographic maps.
- Read contour lines
- Identify map scales

References:
Boy Scouts of America. The Boy Scout Handbook. Irving, TX: Boy Scout of America, 1998, 11th edition, 7th printing, pages 66-72

Boy Scouts of America. Orienteering Merit Badge Pamphlet. Irving, TX: Boy Scout of America, 1992.

Rank Requirement: Second Class1a - partial - Demonstrate how a compass works and how to orient a map. Explain what map symbols mean.

Camp Staff Note: This module should be completed with Lesson 12 – Map and Compass to complete the rank requirement. Teach this module first before moving to Lesson 12 – Map and Compass.

Equipment Needed:

- Map symbol flash cards
- Newsprint paper and pens
- USGS Quad map
- S-F Scout Ranch Orienteering map
- Camp map

Camp Staff Note: This session is intended to introduce basic map reading skills. The Teaching/Learning is divided into three parts: Map Symbols, Contour Lines, and Maps and Scale. There is both variety and interaction in this session but it mainly consists of academic work and should move along rather quickly. It is better to give the Scouts skills that they can apply later and move on to another activity as soon as possible.

Problem Exposure:
Post a copy of the small scale map and ask each scout to point to their current location on the map. Expect a variety of locations and do not give them the correct answer at this time. Note the different locations and go on to describe common map symbols used on topographic maps.

Teaching/Learning:

Map Symbols
Ask the Scouts why does a map need symbols? Ask them what things they would want to know when looking at a map: the roads the trails, water elements, terrain, etc. Tell them map symbols help answer these questions.

Point the meaning of each symbol color as described on page 68 of the Scout handbook. Note that the scout handbook has left our red which is used for roads and fence lines.

Divide the patrol into two groups and play the flash card game as a competitive event. Alternately give each team an opportunity to name a symbol. If a team cannot identify a symbol, the other team gets a chance. Each team gets one point for a correct answer and no point for an incorrect answer. There are some symbols on the flash cards that were not on the Quad or the Scout handbook. Encourage the teams to use the shape and color to figure out those symbols and reward them with two points for doing so.

Contour Lines
Point out the interval contours, index contours, and the contour interval on the map quad.

Maps and Scale
Point out the map name in the lower right corner along with the date of publication and the date of photo revision. Point out the buildings on the map. Knowing the revision date is important in recognizing man made features.

Ask the Scouts how far in real distance would one inch on the map represent. Would this be the same as one inch on a map of the United States? Obviously not, an inch on a US map would be hundreds of miles. Point out the scale on the map and explain how the Scale is used to estimate real distance. Have the Scouts use a string to determine the straight line distance from two points on a map.

Application: Return to the problem exposure and instruct the patrol to come up with a single location.

Evaluation:
Evaluate performance in Application section and follow up on any deviations from Teaching/Learning

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: Map and Compass
Lesson 12

Objective: As a result of this experience, Scouts will know how to:

- Orient a map
- Take bearings with compass
- Measure distances from their strides

References:

Boy Scouts of America. The Boy Scout Handbook. Irving, TX: Boy Scout of America, 1998, 11th edition, 7th printing

Boy Scouts of America. Orienteering Merit Badge Pamphlet. Irving, TX: Boy Scout of America, 1992.

Rank Advancement: Second Class1a - partial - Demonstrate how a compass works and how to orient a map. Explain what map symbols mean.

Patrol Guide Note: The purpose of this session is to get the Scouts familiar with taking bearings with a compass after they have completed the Lesson 11 module and understand how to read a map.

Equipment Needed:

- Compass
- Three leg compass courses
- 16 Stakes and a measuring tape

Problem Exposure: Ask each Scout to take a bearing to a nearby landmark such as a tree or hill. Observe the results.

Teaching/Learning: Using the Silva training compass, show how a compass works. Point out the magnetic north and true north arrows on the map and show how to orient the map. Have the Scouts practice this. Then have the Scouts practice taking bearings to various objects visible from the campsite or the Voyageur Area.

Application: Develop a simple course for the Scouts to practice on. The course should have no more than 3 compass readings.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: First Aid for Flesh Wounds
Lesson 13

Objective: As a result of this experience, Scouts will:
- Be able to treat basic cuts and scratches
- Know how to treat and prevent blisters
- Understand the dangers of puncture wounds
- Be able to help someone with an object in their eye

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 304-314.

Rank Advancement:
Tenderfoot 12b - partial - Show first aid for the following: simple cuts and scratches, blisters on the hand and foot, minor burns or scalds, bites or stings of insects and ticks, poisonous snakes, nosebleed, frostbite or sunburn.
Second Class 6c - partial - Demonstrate first aid for the following: object in the eye, bite of a suspected rabid animal, puncture wounds from a splinter, nail, and fishhook, serious burns, heat exhaustion, shock, heatstroke, dehydration, hypothermia, hyperventilation

Camp Staff Note: This module should be the first module taught in your basic first aid block that includes: Lessons 14, 15, and 16.

Equipment: tennis ball

Problem Exposure: Ask the Scouts what First Aid is? After a few responses, tell them that the 1939 First Aid Pamphlet described it as so: "First Aid must be both expert and friendly. You must know what has to be done and how to do it quickly and neatly. No bungling!" Today we think of first aid as serving three functions: To stop life-threatening dangers, To protect an injured or ill person from further harm, and To get proper medical help for the victim. These are all true, but First Aid is also the little things we do to take care of ourselves. Even today, people die from things as simple as a cut or scratch. Skin is the body's largest organ, so it only makes sense to start our discussion of First Aid with "Flesh Wounds."

Teaching/Learning: This is one of the few modules where you will just have to sit and use the Scout handbook. Ask a lot of questions about who has ever had a blister? Did it pop? Who has ever stepped on a nail? Ask for a show of hands and don't allow the boys to start telling "war stories" of every injury they have ever had (it will waste time and get them off focus). Be certain to cover the following material:
1. How to treat basic cuts and scratches (handbook 304)
2. Know how to treat and prevent blisters (handbook 308)

3. Understand the dangers of puncture wounds including splinter, nail, or fishhook (handbook 305)
4. Be able to help someone with an object in their eye (handbook 314)

Introduce the bouncing ball of knowledge (tennis ball.) You can come up with your own name, just don't call it the tennis ball! Randomly while you're talking stop and bounce the ball off the table and ask a question about something you just covered. The person who catches it must answer that question. If they are incorrect the ball is returned to the guide who bounces it to another Scout asking the same question. If they are correct they can bounce it to a person and ask them a question about recent material. Stop after the ball has been bounced to three people and congratulate them. Do this often and randomly throughout the module to add some interest and keep the Scouts on their toes. Have fun with ball and don't take it too seriously; it's meant to break up the lecture atmosphere that can easily develop when teaching these modules.

Application: Play the First Aid Acting Awards Game when all of the basic first aid modules are completed. Remember to take breaks in between each module for a cheer, song, or game of silent ball.

Evaluation: Review if necessary. It is very important to recognize each participant after **each** of the basic first aid modules are completed. This immediate recognition reinforces their involvement in each module and gives them a short term motivation for each module.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: First Aid for Bites and Stings
Lesson 14

Objective: As a result of this experience, Scouts will be able to treat:

- Poisonous and non-poisonous snake bites
- Bites or Stings of insects
- Tick bites
- Bites of rabid animals

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 310-13.

Rank Advancement:
Tenderfoot 12b - partial - Show first aid for the following: simple cuts and scratches, blisters on the hand and foot, minor burns or scalds, bites or stings of insects and ticks, poisonous snakes, nosebleed, frostbite or sunburn.
Second Class 6c - partial - Demonstrate first aid for the following: object in the eye, bite of a suspected rabid animal, puncture wounds from a splinter, nail, and fishhook, serious burns, heat exhaustion, shock, heatstroke, dehydration, hypothermia, hyperventilation

Patrol Guide Note: This module should be taught in your basic first aid block that includes: Lessons 13, 15, and 16.

Equipment Needed: tennis ball

Problem Exposure: Show color photos of different wildlife and their names. See if the Scouts can properly identify the wildlife.

Teaching/Learning:

Snake Bites:
Why do snakes bite? Imagine yourself trying to catch a small mammal for dinner, equipped only with a long, limbless body. Approximately 45,000 snakebites occur in the US each year, 8,000 of them from venomous snakes. Twelve to 15 people die a year from these bites, mostly the young, elderly, and infirm. Bites commonly occur on the arms below the elbow and on the legs below the knee. In most cases, being handled, antagonized or inadvertently stepped upon provokes the snake.

Prevent snakebites by: watching closely where you step, never reach into concealed areas, shake out sleeping bags and clothes before use, and never handle snakes, even if you think they are dead.

Treatment—Is the snake poisonous or not? (Look at the pictures and note differences in appearance like triangular heads, thick bodies, and pits between the eyes and nostrils) If bit by a poisonous snake, look for pain, rapid swelling, bruising, metallic taste in mouth, fever, chills, blurred vision, and muscle tremors. Refer to page 313 for the treatment plan.

B. Bees and Wasps:
Bees and wasps cause more deaths in the US than snakes—approximately 100 deaths per year, which usually result from acute allergic reaction known as anaphylactic shock.

Treatment—Scrape or flick off stinger (prevents squeezing more poison into skin), clean the wound, apply ice or topical ointments (sting ease) to reduce pain and swelling, and watch for signs of anaphylaxis (be ready to treat if necessary).

C. Arachnids:

1. Ticks:
Prevention: Only the mosquito carries more diseases than the tick; therefore, preventing exposure in essential in tick infested areas. Wear long pants (tucked into boots) and long sleeves (buttoned all the way up) and apply topical tick repellent (look for the chemical ingredient "premethrin"). A visual inspection of all body parts at least twice a day is recommended, as adult ticks generally stay on the body for a few hours before attaching. Even after a tick has attached itself, prompt removal may prevent transmission of disease.

Treatment: If the tick has embedded itself in your skin, grasp it firmly with a pair of tweezers and pull with a gentle, steady motion. Examine the bite site to make sure no tick parts have been left in the skin, then clean the area with soap and water. If the patient develops a rash, fever, flu-like symptoms, or continued muscle aches and pains, transport to a physician.

2. Spiders:
Spiders are often blamed for any unusual swelling or pain experienced by humans. Though all spiders are poisonous, only two cause death in humans—the black widow (4 to 6 deaths per year) and the brown recluse. Page 311 has more signs and symptoms.

Treatment: Clean the wound with antiseptic soap, ice area for pain, evacuate for medical help if systematic symptoms develop (rigid abdomen, fever, . . .).

3. Scorpions:
Scorpions first appeared on the earth 300 million years ago. The sting produces a prickling sensation accompanied by burning pain, swelling, redness, numbness, and tingling. Prevent stings by not reaching blindly into woodpiles or under rocks and develop a habit of shaking out shoes, clothes, and sleeping bags when in scorpion country.

Treatment: Treat just like a spider bite. However, if the patient experiences sluggish tongue, tightening jaw, nausea, vomiting, convulsions, or incontinence, splint the area and transport to an ER immediately.

4. Chiggers:
Closely related to ticks, chiggers are almost invisible. They burrow into the skin and cause small welts that itch. Do not scratch the area. Instead, apply clear fingernail polish (to smother the arachnid) or topical anti-itching cream.

D. Mammal Bites
Refer to page 312 for treatment

Remind the scouts that they should never attempt to pick up any wild animal, particularly those behaving in a strange manner (bats walking around during the daytime, etc)

Bears—Bears have recently become more of a problem due to mankind's expansion into their territories.

Application: Remember to use the bouncing ball of knowledge to keep the Scouts engaged through this lecture heavy module.

Evaluation: Review if necessary.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: First Aid for Frostbite, Sunburn, Dehydration, etc
Lesson 15

Objective: Upon completion of this module, Scouts will:

- Understand how to prevent and treat the following environmental conditions: sunburn, frostbite, hypothermia, hyperthermia, dehydration, and lightning strike.

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 307 and 319-24.

Rank Advancement:
Tenderfoot 12b - partial - Show first aid for the following: simple cuts and scratches, blisters on the hand and foot, minor burns or scalds, bites or stings of insects and ticks, poisonous snakes, nosebleed, frostbite or sunburn.

Second Class 6c - partial - Demonstrate first aid for the following: object in the eye, bite of a suspected rabid animal, puncture wounds from a splinter, nail, and fishhook, serious burns, heat exhaustion, shock, heatstroke, dehydration, hypothermia, hyperventilation

Camp Staff Note: This module should be taught in your basic first aid block that includes: Lessons 13, 14, and 16.

Equipment Needed: Copy of scenario

Problem Exposure: Read the story from the attached scenario. Ask the Scouts what possible injuries the man might have? Tell them to think about the story as you cover this topic because it will be part of a game at the end.

Teaching/Learning: Cover the following topics located in the Boy Scout Handbook:
**Emphasize the signs/symptoms and treatment*

A. Heat Related Injuries:
- Hyperthermia
  - Heat Exhaustion—page 319
  - ❑ Heat Stroke—page 320
- Dehydration—page 321
- Heat Cramps—Painful muscle contractions caused by a lack of salt in muscles fatigued by exercise. People who sweat profusely and drink only water to replace lost fluids are more susceptible to heat cramps. Treat by moving the patient to a cool spot, have him lie flat, elevate his legs, and replenish the lost salt with sport drinks

(Power aid) or water with salt (half teaspoon per litter). Neither give salt tablets, which causes nausea nor massage the muscles, which often increases pain.

B. Cold Related Injuries:

- Hypothermia—page 323 (only warm if you can keep the patient warm)
- Frostbite—page 324 (never rub frostbite, ice crystals in skin tear tissue)

*Ask, How is treatment different when camping and when at home? (equipment, etc.)

- Lightning Injuries:
- Lightning is the only significant cause of backcountry electrical burns. Lightning injures 1,000 people in the US every year. Of those, approximately 30% die.

- Lightning contains between 200 to 300 million volts of energy. Injury occurs in 5 ways:
  1. Direct Hit
  2. Lightning "splash:" Lightning hits another object and splashes onto objects or people nearby.
  3. Direct Transmission: Being in contact with an object that has been hit directly.
  4. Ground Current: Receiving ground current as it dissipates form the hit object.
  5. Blunt trauma from the explosive force of the shock wave.

- Lightning knocks 72% of its victims unconscious, 50% rupture one or both eardrums, most burns are superficial and form odd patterns (can follow sweat concentration, electron showers leave feather-like patterns on skin, victims can be thrown considerable distances.

- Protect yourself (refer to attached guide for more information).

Application: Divide the Scouts into groups of two and present the scenario again. This time ask them to take notes and determine: 1. the current problems 2. anticipated problems 3. treatment plan.

Evaluation: Review if necessary.

"Lost"

Story: You are the medical person for a search team looking for a lost male hunter, 46 year old, who didn't return to his hunting camp the previous evening. It's early December in Maine with one foot of new snow on the ground. Nighttime temperatures fell to –25 F during the night. Friends reported that the man was an accomplished woodsman, but he was not prepared for temperatures that extreme. You have access to both a helicopter and a fixed wing aircraft, snowmobile and motor vehicle transport via radio contact with the search command. You are about 3 miles uphill from an old logging road that is accessible by snowmobile; it is an additional 10 miles by snowmobile to a cleared road. There is no place to land an aircraft; however, a helipad could be cleared nearby within 3 hours.

Determine your current problems, anticipated problems, and treatment plan.

1:20 p.m. At 1:20 p.m. on the first day of the search, the lost hunter was found huddled around a small fire in a makeshift brush shelter after responding to the rescuer's air horn. He answers with yells and multiple gunshots. He was lethargic, complaining of cold and states that he got lost sometime yesterday afternoon. He also stated that he had injured his right knee and ankle in a fall while trying to find his way, and couldn't walk. He said he know that if he waited, someone would come looking for him. In addition to feeling very tired, cold, and hungry, he said that he couldn't feel the toes in either of his feet. He has no allergies, is not taking any medications, and has no relevant past medical history. He ate the last of his food about 8:30 p.m. yesterday and has been melting snow for water.

The physical exam revealed the toes on both feet to be white, waxy, and hard. Both his right knee and ankle are tender and slightly swollen with reduced range of motion; there is a distal pulse in each foot.

The rest of the exam is normal. His vital signs at 1:40 p.m. are:

Pulse: 58 and regular

Respiration: 16 and easy

Blood Pressure: 130/P

Skin: pale, cool, and dry

Body Temperature: 94 F

The patient is alert and lethargic

KEY

1:20 p.m. **Problem List:**

- Mild Hypothermia
- Deep frostbite on both feet
- Unstable injury to right knee and ankle

Anticipated Problems:

- Increased tissue damage secondary to spontaneous re-warming and possible refreezing during evacuation.

- Increased hypothermia

Treatment Plan:

- Give oral food (sugars and simple carbohydrates) and warm fluids
- Splint both the right knee and ankle
- Hypothermia package: dry clothes, vapor barrier, insulation with heat packs on torso. Subjectively monitor his toes for spontaneous re-warming and prevent refreezing during the evacuation.
- Immediate evacuation to controlled re-warming for frostbite (litter and snow mobile evacuation is OK).

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: First Aid for Burns
Lesson 16

Objective: As a result of this experience, Scouts will:
- Be able to differentiate between and treat First, Second, and Third Degree Burns.
- Understand the underlying dangers associated with burns.

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 306-307.

Rank Advancement:
Tenderfoot 12b - partial - Show first aid for the following: simple cuts and scratches, blisters on the hand and foot, minor burns or scalds, bites or stings of insects and ticks, poisonous snakes, nosebleed, frostbite or sunburn.
Second Class 6c - partial - Demonstrate first aid for the following: object in the eye, bite of a suspected rabid animal, puncture wounds from a splinter, nail, and fishhook, serious burns, heat exhaustion, shock, heatstroke, dehydration, hypothermia, hyperventilation

Camp Staff Note: This module should be the taught in your basic first aid block that includes: Lessons 13, 14, and 15. This module should be conducted after Lesson 15 module. You construct the "skin" model by covering a piece of cardboard with Vaseline and covering the Vaseline with plastic wrap. The plastic wrap represents the epidermis and the cardboard represents the deep tissue. If you are careful with the matches, the burns should appear fairly realistic.

Equipment Needed: Vaseline, cardboard and plastic wrap, matches, note cards for application

Problem Exposure: Let's talk about burns. Who here has been burned before? How did the adults around you suggest treating the burn? (Hopefully you will hear all types of folk remedies like mustard, lard, butter, toothpaste, buttermilk, egg whites, and so on) Explain that some of the answers are correct and some actually make the problem worse. For example, butter offers temporary relief because it is cool and prevents air from hitting the burn, but the pain quickly returns because the heat is trapped).

Teaching/Learning: There are three types of burns. Lets look together on page 306 in your book. Ask the boys to read out loud. After each section, summarize the important information and use a match to burn your "skin" model to illustrate your point.
- First Degree—Epidermis only burned, skin red and painful.
- Second Degree—Epidermis and Dermis burned, skin is blistered (may take 24 hours), red, mottled, wet, and painful.

- Third Degree—Epidermis, Dermis, and Subcutaneous Tissue burned, skin is leathery, dry, charred, and pearly gray in color.

General Treatment:

- Remove from the source of the burn:
  - For thermal burns, stop, drop, and roll
  - For dry chemical burns, brush off dry chemicals
  - For wet chemical burns, flush with water for 20 minutes
  - Remove clothing and jewelry which can hold heat in and further the burn
- Assess the airway (for inhalation burns, consider carbon monoxide poisoning)
- Cool the burn
- Assess the depth and extent of the burn (use the "rule of palms" your palm represents roughly 1% body)
- Clean the burn
- Apply a cool, moist dressing

What are the two major life-threatening risks of burns?

- Infection—there is a hole in your body's first line of defense against pathogens
- Environmental Injuries—Placing ice directly on a burn can cause frost bite, cooling over 10% of the body at a time can cause hypothermia, there is a high risk of dehydration, and the loss of body fluids means that there is a greater risk of hypothermia or hyperthermia.

Application: Once you are finished with all of the basic first aid modules:

First Aid Baseball—Divide the patrol in half and create a baseball diamond. Give each team a chance to create several questions about burns or environmental injuries. Use these cards to augment those attached to this sheet. Line up the first team behind home plate. The umpire (troop guide) holds the cards in his hands. In turn, each Scout tries to answer a question given to him by the umpire. If the Scout gives the correct answer, he draws a card. He scores whatever hit is indicated on the card and becomes a base runner as in regular baseball. If he does not answer correctly, he is out. Three outs and the next patrol comes to bat.

Evaluation: Review if necessary.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: First Aid for Strains and Sprains
Lesson 17

Objective: As a result of this experience, Scouts will:

- Be able to recognize and treat the two major types of fractures.
- Describe how to treat head injuries.
- Understand the difference between Sprains and Strains and be able to treat both.

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 309 and 315-317.

Rank Requirement: First Class 8b - Demonstrate bandages for a sprained ankle and for injuries on the head, upper arm, and the collarbone.

Equipment Needed:

- Cravats
- ACE bandages

Problem Exposure: Pick up a stick and say, imagine this is your leg. Now snap the stick and manipulate it to represent the following types of fractures:

How do you treat a fracture? Listen for answers. Luckily, we treat all the types of fractures exactly alike.

Teaching/Learning:

- What are the two major types of fractures? (Open or Compound and Closed or Simple) Which is more dangerous? (Open due to a higher risk of infection).

- What are the signs and symptoms of a fracture? (Read five bullets on page 315)

- How do we treat the fracture? (green box on page 315)
  Demonstrate how to splint the following: lower arm, upper leg, and collar bone. Practice!

- Can you fracture your skull? Take a stick and hit a hard, round object (like a rock). Point out how the stick slides off the skull reducing the impact. Explain that this is why the bones in our heads
  are shaped differently. Our skulls consist of 22 fused bones; fractures of the skull itself are not life-
  threatening except when associated with underlying brain injury or spinal cord injury.

Treatment: The first thing one notices about a head injury is lots of bleeding due to the large number of vessels that feed the scalp. Temporally ignore the bleeding and follow your ABC's. An urgent evacuation is required for any patient who has become unconscious or exhibits vision or balance disturbances, irritableness, lethargy, or nausea and vomiting. The patients should be stabilized and carried out on a backboard. A patient who experiences a brief episode of unconsciousness but who awakens without any other symptoms may be walked out to medical care. *Any patient with a head injury should be monitored closely for the next 24 hours.

Demonstrate and practice bandaging a head injury (page 309).

- What is the difference between a sprain and a strain? (Sprains are trauma to joint damaging ligaments and tendons while strains involve muscles).

How do you treat sprains and strains?
RICE — Rest, Ice, Compression, and Elevation

For a sprained ankle, when should you and shouldn't you remove the patient's shoe?
Don't remove the shoe when the pain is minor, you need to be able to walk, or you are a long way from help.

Demonstrate and practice bandaging an ankle with and without a shoe. Demonstrate first on scene treatment for an ankle injury. (Twist a sock around the injured site like a cushion, secure with half an ACE bandage, place ice pack over the injured site, secure with the remaining portion of the ACE bandage, elevate injured site, and seek medical care.

Application:

Ambulance Action—Pull out an object and state that it is an ambulance. Ask the group to form a circle and pass the object around. The person passing the object, the patient, points to a part of the body that is fractured. The person catching the object, the medic, must describe how to treat the injury. For example, lower arm (splint the injury and secure with two bandages, one above the fracture, one below, and secure with a sling and swath), head injury (obtain a history, follow ABC's, get patient to a doctor), etc. You can also ask questions such as: What are the two types of fractures, What does a greenstick fracture look like, . . .

Evaluation: Review if necessary.

Voyageur Program
S-F Scout Ranch
Lesson Plan

Subject: First Aid for Hurry Cases
Lesson 18

Objective: As a result of this experience, Scouts will know what to do for "hurry" cases of:

- Stopped breathing
- Serious bleeding
- Internal Poisoning

Reference:
Boy Scouts of America. The Boy Scout Handbook. Irving, Texas: Boy Scout of America, 1998, 11th edition, 7th printing, pages 293-302.

Rank Requirement:
Tenderfoot 12a - Demonstrate the Heimlich maneuver and tell when it is used.
First Class 6a - Show what to do for "hurry" cases of stopped breathing, serious bleeding, and internal poisoning.

Camp Staff Note: Plan ahead if you would like to complete the mock problem. It works best in an adult bathroom to simulate an electrocution. Scheme your day accordingly so you can start this module without having to hike to a restroom.

Equipment Needed:

- Triangular Bandages
- Ice pack
- Hair dryer or other small electrical appliance for mock problem

Problem Exposure: This problem requires a small room such as a bathroom. Take one Scout in (or use a staff member if possible) and tell him to "play dead." Have the patient lay on top of a hair dryer, etc and have water dripping in the room (so that there are signs of electrocution). Now, bring the Scouts in one at a time. Tell each before entering, "there is a patient down inside, treat his injuries." Have a real since of urgency in your voice and rush the Scout to touch the patient. If the Scout asks, "is the scene safe?" send him back outside. If the Scout touches the patient, he is now dead and lies near the patient. Do this for all Scouts; you could end up with a room full of "dead" people.

Teaching/Learning: Most of the first aid you use will be for minor injuries—a scrape, a bruise, a sore ankle. You will have plenty of time to decide what to do and then to do it. However, sometimes you will be faced with injuries that pose an immediate danger to the victim's life. These injuries require a quick, educated response or the patient will die.

What did we learn from the problem in the bathroom? (Check scene safety first) As rescuers, our personal safety is the top priority. If we are injured, there are now two patients and there may not be anyone else to go for help to render first aid.

- ❑ Scene Survey
  - Approach the patient carefully; call out "Are you ok?"
  - Make sure the scene is safe (be aware of slippery footing, steep slopes, electrical wires, traffic, etc)
  - Consider the Mechanism of Injury—How did the patient get hurt? Is there evidence of poisoning?

- ❑ Primary Survey (15 to 20 seconds)
  - Check level of consciousness using AVPU—Alert, Verbal, Painful, or Unresponsive
  - The primary goal is to rule out life threatening injuries (use the ABCs)
  - Airway
    —Is the spine stabilized and is the airway clear of obstruction?
    —Open the airway with the Head/tilt-chin/lift or the modified jaw thrust
    —Look, listen, and feel for air movement
    —Immediately correct obstructed airway
  - Breathing
    —Are respirations adequate in volume and rate?
    —Access breathing rate and quality
    —Inspect chest and back, palpate areas
  - Circulation
    —Is capillary refill more than 3 sec, is skin cool and clammy, are pulses rapid and weak, are distal pulses present or absent?
    —Check carotid and radial pulses for rate and quality
    —Check skin color, temperature, moisture, and cap refill
    —Control gross hemorrhage (expose as needed, the patient's life is more important than modesty)

- ❑ Send for help, begin treating the injuries
  6. Be prepared to give emergency services the following information
     —Location of patient
     —Description of injuries or illness
     —What time the injury or illness occurred.
     —Any treatment the victim has received
     —Number of people with the victim and their general skill level.
     —What special assistance and equipment might be needed, including food, shelter, or care for non-victims.

- ❑ Teach first aid for :
  - Stopped breathing page 294-295
  - Heimlich Maneuver pages 296-297 (tell them NOT to use it when the victim can still make vocal noises- airway not completely block, but Heimlich thrust might cause the object to lodge even deeper)

- Internal Poisoning page 302
- Severe Bleeding page 299-301
  —Emphasize Body Substance Isolation (BSI)
  —Direct Pressure, Elevation, Ice, and Pressure Points. The kids are likely to suggest using a
  tourniquet. Point out how dangerous (and rarely needed) tourniquets are and if necessary teach the proper use.

  *Tourniquet—Only apply to a limb if bleeding cannot be controlled using the above four methods and you are certain the patient will die without drastic measures. Place a T on the patient's forehead along with the time the tourniquet was applied. Tighten the tourniquet until bleeding stops. Never remove or loosen a tourniquet once it is in place!

Application:

Victim or Patient? Select a patient from the group and quietly tell him how he is injured (one of the hurry cases). Ask for a volunteer to be the medic and tell him to treat the patient's injuries. Follow the ABC's and afterwards have the group decide if the injured party was a patient or a victim. Repeat this several times allowing everyone a turn as medic or if you feel the Scouts have a good grasp of the material divide them into pairs and have them play the game.

Evaluation: Review if necessary.