

National Camping School



OUTDOOR SKILLS LESSON PLAN **Resource Manual**

BOY SCOUTS  OF AMERICA

National Camping School Outdoor Skills Lesson Plan Resource Manual



Acknowledgments

Special thanks to the following members of the Outdoor Skills Lesson Plan task force for their assistance in the preparation of this lesson plan: Douglas C. Fullman, chairman; Dr. Irving Conrad; Chubby Earnest; Robert J. Gregory; Keith L. Symmes; Harris M. Tanner; and Arnell Walker.

Preface

The resource materials in this manual were developed by National Camping School directors and faculty members, with assistance from the NCS participants who willingly shared their good ideas, as well as the regional directors of program and other regional staff members who are active in coordinating camping schools.

As National Camping School instructors use this resource manual, their suggestions for improvement will be welcomed. Comments should be sent to:

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Purpose of Boy Scouts of America

It is the purpose of the Boy Scouts of America to provide for boys an effective program designed to build desirable qualities of character, to train them in the responsibilities of participating citizenship, and to develop in them physical fitness, thus to help in the development of American citizens who:

- Are physically, mentally, and emotionally fit.
- Have a high degree of self-reliance as evidenced in such qualities as initiative, courage, and resourcefulness.
- Have the desire and the skills to help others.
- Understand the principles of the American social, economic, and governmental systems.
- Are knowledgeable about and take pride in their American heritage and understand America's role in the world.
- Have a keen respect for the basic rights of all people.
- Are prepared to fulfill the varied responsibilities of participating in and giving leadership to American society and in the forums of the world.

The Boy Scouts of America accomplishes this purpose by making its program available in partnership with existing groups having compatible goals, including religious, educational, civic, fraternal, business, labor, and governmental bodies.

OUTDOOR SKILLS LESSON PLAN RESOURCE MANUAL

Contents

Subject: Section Interviews	
Participant's Interview Sheet	7
Personal Resource Questionnaire	9
Outdoor Skills Questionnaire	10
Subject: The Role of the Outdoor Skills Director	
Camping Skills—Rank, Awards, and Merit Badge Requirements	11
Cooking Skills—Rank, Awards, and Merit Badge Requirements	12
First Aid Skills—Rank, Awards, and Merit Badge Requirements	13
Hiking Skills—Rank, Awards, and Merit Badge Requirements	14
Orienteering Skills—Rank, Awards, and Merit Badge Requirements	15
Pioneering Skills—Rank, Awards, and Merit Badge Requirements	16
Woods Tools Skills—Rank, Awards, and Merit Badge Requirements	17
Subject: Outdoor Skills and Teaching Methods	
Effective Learning Process	19
Subject: Principles of Leave No Trace	
Leave No Trace Quiz	21
Subject: Pioneering	
About Rope	23
Learn to Tie Knots	24
Constructing a Catapult	26
Pioneering Projects	28
Make Your Own Camp Furniture	35
Subject: Fire Building	
Building the Fire	37
Identifying Wood	38
Subject: Utensil-less and Aluminum Foil Cooking	
Backwoods Cooking	39
Recipes for Utensil-less Cooking	40
Subject: Cooking and Baking	
Solar Hot Dog Cooker	41
Temperature Chart	42
Pastry	43
Subject: Campsite Selection	
Teach Your Patrol About Campsite Layouts	45

OUTDOOR SKILLS LESSON PLAN RESOURCE MANUAL

Subject: Backpacking and Equipment	
Backpacking Equipment	47
Subject: Backpacking Preparation	
Outpost Camp Activities	49
Outpost Projects	50
Trail Foods	51
Packing In	54
Your Clothing Is Key to Winter Comfort	56
Versatile Tarp Shelter	58
Subject: Orientation to Basic First Aid	
Wallet First Aid	59
Subject: Orienteering	
Compasses	61
Direction and Time	62
Subject: Food Storage and Sanitation in Camp	
Food Storage and Sanitation in Camp	63
Subject: Fishing	
Primitive Fishhooks	65
Subject: Woods Tools	
Care of the Ax	67
Whistles	68
Subject: First-Time Camper Program	
Program Outlines	69
Progress Report	73
Subject: Staff Training	
Camp Staff Training Outline	75
How to Teach a Skill	76
Subject: Cooking Fish and Fowl	
Preparing Fish	77
Subject: The Role of Aquatics in the Camp Program	
Camp Aquatics Equipment	78

SUBJECT: SECTION INTERVIEWS

Participant's Interview Sheet

National Camping School

Name _____ Age _____

1. What do you expect to learn at National Camping School?

2. When do you report to your camp? _____

3. What is your main goal for camp this summer?

4. What do you feel the most prepared to do in camp?

5. What do you feel the least prepared to do in camp?

6. If you could change one thing about camp this year, what would it be?

Personal Resource Questionnaire

Please print.

Name _____ Date of birth _____

Address _____ City _____ State _____ Zip _____

Telephone _____

Council you will be working for _____ Headquarters city _____

Position in camp _____

Years in Scouting: ___ Volunteer ___ Youth ___ Professional

I have completed National Camping School in: _____ Section _____ Year _____

Years of camping experience: Camper _____ Staff member _____

Religious preference: Catholic Protestant Jewish Mormon Islam Other: _____

My hobbies are: _____

Do you have physical or medical limitations? _____

Do you have special dietary requirements? _____

Cardiopulmonary resuscitation-trained? Yes No

Certificate of training issued by (agency name): _____ Date: _____

Campfire resources MC Song leader Musical instrument

Adult Scout training: Fast Start Scoutmastership Fundamentals Wood Badge BSA Youth Protection

Other (please list): _____

Education: High school student High school graduate

College student College graduate Degree: _____

How can you best support troops this summer in camp? _____

What responsibilities would you feel **least** comfortable with this summer? _____

What do you expect to learn from National Camping School? _____

Indicate *current* first aid and cardiopulmonary resuscitation (CPR) certification: _____

Give month and year of certification Standard First Aid _____ (Certifying Agency) _____ American Red Cross

CPR _____, American Heart Association CPR _____, CPR for the Professional Rescuer _____, Other

_____, None _____

On the reverse side of this form is a checklist that will assist your section staff in helping you have a successful learning experience in this NCS section. Be as honest and objective as possible. Thank you.

Outdoor Skills Questionnaire

Name _____

	Skill	Can Teach	Have Knowledge	Need Help
Health and Safety	Cardiopulmonary resuscitation			
	Recognizing shock and knowing treatment			
	Familiar with lightning precaution			
	Camp and trail sanitation			
	General first aid			
Woods Tools	Proper care and use of knife			
	Proper care and use of ax			
	Proper care and use of a saw			
	Dovetail notch—simple tools			
Rope Work	Rope			
	Whip end of rope—basic knots			
	Shear, square, and diagonal lashings			
	Pioneering projects/planning, building			
	Splicing/back, eye, short			
	Other lashings			
Fires	Flint-steel/fire by friction/matchless fires			
	Proper fire building/safety			
	Fire plan for camp			
	Trail stoves—safety and use			
Cooking	Outdoor—general cooking			
	Food storage and handling in camp			
	Dutch oven—reflector oven—box oven			
	Aluminum foil cooking			
	Cooking freeze dried/dehydrated foods			
	Utensil-less/primitive cooking			
Program	Leave No Trace principles			
	Leave No Trace skills			
	Use of games			
Campfire Skills	Cheerleader			
	Campfire leader			
	Song leader			
	Campfire program planning			
Camping Skills	Orient a map with a compass			
	Map symbols—map reading			
	Backpacking basics			
	Backpacks/types, selection, care			
	Tents/types, selection, care, pitching			
	Measurements—height, width			
	Hiking/safety, planning, good practices			
	Outdoor survival skills/shelters			
High Adventure		Attended	Have Knowledge	No Knowledge
	Philmont Scout Ranch			
	Northern Tier			
	Florida National High-Adventure Sea Base			
	Other High Adventure			

SUBJECT: THE ROLE OF THE OUTDOOR SKILLS DIRECTOR

The following charts provide a quick reference as to which outdoor skills must be mastered to achieve specific advancement requirements.

Camping Skills—Rank, Awards, and Merit Badge Requirements

Camping Skill	Rank/Merit Badge/Award	Requirement No.
Campsite selection	Second Class	2b
Clothing	Camping merit badge	5
Ground bed	Camping merit badge	6d
Kinds of tents	Camping merit badge	6a
Pack carried properly	Tenderfoot	1
Packed properly	Tenderfoot	1
Patrol assignments	Camping merit badge	4
Personal and patrol gear	Camping merit badge	7
Personal gear	Tenderfoot	1
Pitch tent	Camping merit badge	6a
Pitch tent	Second Class	2b
Pitch tent	Tenderfoot	2
Planning	Camping merit badge	3
Properly dressed	Tenderfoot	1
Three overnight camps	First Class	3
Two overnight camps	Second Class	2a
Weather protection	Camping merit badge	5a, 5b

Cooking Skills—Rank, Awards, and Merit Badge Requirements

Cooking Skill	Rank/Merit Badge/Award	Requirement No.
Cleanup	Tenderfoot	3
Clean up three meals	First Class	4e
Cook and supervise three meals	First Class	4e
Cook meal	Tenderfoot	3
Cook meals	Cooking merit badge	4a
Disposal	First Class	4d
Fire and stove lighting	Second Class	2f
Fire building and charcoal	Cooking merit badge	4b
Fire permits	Firem'n Chit	2
Fire pit	Firem'n Chit	3
Fire safety	Firem'n Chit	1
Fire starting without matches	Wilderness Survival merit badge	6
Fire tools	Firem'n Chit	5
Food costs and amounts	First Class	4b
Food handling	First Class	4d
Food lists and weights	Cooking merit badge	3a, 3c
Food preparation	Second Class	2g
Fuels for fire	Second Class	2d
Full dinner	Cooking merit badge	4a
Grace	First Class	4e
Meal preparation	Second Class	2g
Menu and recipes	Camping merit badge	7b
Menu for nine meals	Cooking merit badge	2
Nutrition and menu planning	Second Class	2g
One-pot dinner	Cooking merit badge	2b
Three-meal cooking	First Class	4
Three-meal menus and nutrition	First Class	4
Three meals on stoves	Backpacking merit badge	8c
Putting out fires	Firem'n Chit	6
Sanitation	Cooking merit badge	4c
Secure ingredients	First Class	4b
Stoves and fuel safety	Backpacking merit badge	8b
Stoves and fuel types	Backpacking merit badge	8a
Trail breakfast, lunch, and dinner	Cooking merit badge	4a
Trail lunch	Hiking merit badge	4
Transport and store foods	Second Class	2g
Use of fires and stoves	Second Class	2e
Utensils	Cooking merit badge	3b
Utensils and pans	First Class	4c

First Aid Skills—Rank, Awards, and Merit Badge Requirements

First Aid and Safety Skill	Rank/Merit Badge/Award	Requirement No.
Avoid panic	Wilderness Survival merit badge	3
Bandages for collarbone and ankle	First Class	8b
Bandages for head and arm	First Class	8b
Blisters on the hand and foot	Tenderfoot	12b
CPR steps	First Class	8d
Cuts and scratches	Tenderfoot	12b
Dangers of drugs	Second Class	8
Edible wild plants	Wilderness Survival merit badge	13
Environmental survival	Wilderness Survival merit badge	4
Fire safety	Firem'n Chit	1
First aid for backcountry	Wilderness Survival merit badge	1
First aid for backpacking	Backpacking merit badge	1
First aid for camping	Camping merit badge	1
First aid for cooking-related burns and scalds	Cooking merit badge	1
First aid for hiking	Hiking merit badge	1
First-degree burns	Tenderfoot	12b
Five signs of heart attack	First Class	8d
Frostbite/sunburn	Tenderfoot	12b
Heat exhaustion	Second Class	6c
Heatstroke and dehydration	Second Class	6c
Heimlich maneuver	Tenderfoot	12a
Hypothermia and hyperventilation	Second Class	6c
Insect bites or stings	Tenderfoot	12b
Internal poisoning	Second Class	6a
Maintain morale	Wilderness Survival merit badge	3
Nosebleed	Tenderfoot	12b
Object in eye	Second Class	6c
Personal first aid kit	Second Class	6b
Poisonous plants	Tenderfoot	11
Proper clothing	Wilderness Survival merit badge	12
Protection from animals	Wilderness Survival merit badge	10
Puncture wounds	Second Class	6c
Purify water	Wilderness Survival merit badge	11
Rabid animal bite	Second Class	6c
Safety Afloat	First Class	9a
Second-degree burns	Second Class	6c
Serious bleeding	Second Class	6a
Shelters	Wilderness Survival merit badge	8, 9
Shock	Second Class	6c
Signaling	Wilderness Survival merit badge	7
Snakebite	Tenderfoot	12b
Stopped breathing	Second Class	6a
Stoves and fuel safety	Backpacking merit badge	8a, 8b
Stoves and fuel safety	Second Class	2e
Survival kit	Wilderness Survival merit badge	5
Survival priorities	Wilderness Survival merit badge	2
Transporting an injured person from a smoke-filled room	First Class	8c
Transporting a person with a sprained ankle	First Class	8c

Hiking Skills—Rank, Awards, and Merit Badge Requirements

Hiking Skill	Rank/Merit Badge/Award	Requirement No.
Clothing	Hiking merit badge	4
Comfortably carry pack	Backpacking merit badge	9b
Crew limits	Backpacking merit badge	3a, 3b
Display and fold flag	Tenderfoot	6
Environmental impact	Backpacking merit badge	4
Equipment	Hiking merit badge	4
Essential items	Backpacking merit badge	2a
Five-mile hike	Second Class	1b
Good hiking practices	Hiking merit badge	2
Hike evaluation	Backpacking merit badge	11b
Hike planning	Backpacking merit badge	9a
Hike planning	Backpacking merit badge	11a
Inclement weather	Backpacking merit badge	7
Limit weight/bulk	Backpacking merit badge	2b
Pack frame	Camping merit badge	7c
Packing personal and patrol gear	Backpacking merit badge	9b
Packing personal and patrol gear	Camping merit badge	7c
Prehike inspection	Backpacking merit badge	9c
Report and evaluation	Hiking merit badge	7
Routes	Hiking merit badge	4
Safe hiking	Tenderfoot	5
Solid and liquid wastes	Backpacking merit badge	4
Water purification	Backpacking merit badge	5
What to do if lost	Tenderfoot	5
Written plan	Hiking merit badge	4

Orienteering Skills—Rank, Awards, and Merit Badge Requirements

Orienteering Skill	Rank/Merit Badge/Award	Requirement No.
Attack points	Orienteering merit badge	6b
Collecting features	Orienteering merit badge	6b
Compass features	Orienteering merit badge	3a
Compass bearings	Orienteering merit badge	3a
Declinations	Orienteering merit badge	4a
Directions without compass (day)	First Class	1
Directions without compass (night)	Backpacking merit badge	6
Establish positions	Second Class	1a
How a compass works and its features	Orienteering merit badge	3a
Magnetic north-south lines	Second Class	1b
Map and compass use	Orienteering merit badge	2b
Map symbols	Second Class	1a
Measure height and width	Orienteering merit badge	5a
Measuring distances	Orienteering merit badge	6b
Offset technique	Second Class	1a
One-mile course	First Class	2
Orient map	Orienteering merit badge	5b
Pace and running pace	Backpacking merit badge	6
Report writing and evaluation	Orienteering merit badge	7b
Teaching orienteering	Orienteering merit badge	10
Terrain features	Orienteering merit badge	2a

Pioneering Skills—Rank, Awards, and Merit Badge Requirements

Pioneering Skill	Rank/Merit Badge/Award	Requirement No.
Anchors	Pioneering merit badge	6
Basic knots	Pioneering merit badge	3
Bowline	First Class	8a
Camp gadget with lashing	First Class	7c
Coil and throw rope	Pioneering merit badge	1
Diagonal lashing	First Class	7b
Diamond hitch	Camping merit badge	7d
Knots	Pioneering merit badge	3
Rope making	Pioneering merit badge	5
Rope types	Pioneering merit badge	2
Shear lashing	First Class	7b
Shear lashing	Pioneering merit badge	8
Sketch and equipment	Pioneering merit badge	9
Splices	Pioneering merit badge	4
Square lashing	First Class	7b
Tackles	Pioneering merit badge	7
Taut-line hitch	Tenderfoot	4b
Timber and clove hitch	First Class	7b
Trestle with lashings	Pioneering merit badge	8
Two half-hitches	Tenderfoot	4b
Whip and fuse rope	Tenderfoot	4a
Whipping	Pioneering merit badge	5

Woods Tools Skills—Rank, Awards, and Merit Badge Requirements

Woods Tools Skills	Rank/Merit Badge/Award	Requirement No.
Brush pile	Paul Bunyan Woodsman	3
Care, handling, and use of an ax	Totin' Chip	2
Care, handling, and use of a knife	Totin' Chip	2
Care, handling, and use of a saw	Totin' Chip	2
Care, sharpening, and use of an ax	Second Class	2c
Care, sharpening, and use of a knife	Second Class	2c
Care, sharpening, and use of a saw	Second Class	2c
Clear trails	Paul Bunyan Woodsman	3
Outdoor Code	Firem'n Chit	7
Outdoor Code	Totin' Chip	6
Pocketknife use on trail	Camping	8f
Pocketknife use on trail	Camping	8d
Prepare fuel	Second Class	2d
Prepare tinder, kindling, and firewood	Totin' Chip	5
Respect property	Totin' Chip	5
Safety rules	Totin' Chip	4
Value of woods tools	Paul Bunyan Woodsman	2

SUBJECT: OUTDOOR SKILLS AND TEACHING METHODS

Effective Learning Process

How Learning Occurs

How We Achieve Learning

Examples

Facts



- Instructor
- Handouts
- Books
- Visuals



- Safe Swim Defense plan

Concepts



- Discussions
- Synergy
- Problem solving
- Guided practice
- Applications



- Successful methods
- Discussion
- Practice teaching
- Creative ideas

Understanding



Implementation

+

Teaching



- Successfully implemented in summer camps

SUBJECT: PRINCIPLES OF LEAVE NO TRACE

Leave No Trace Quiz

- T F** 1. Leave No Trace is a national program of outdoor skills and ethics. Leave No Trace principles depend more on rules and regulations than attitude and awareness because attitude is based on judgment and experience.
- T F** 2. Before traveling into the backcountry, there is no need to check for advice and regulations specific to the area you plan to visit because Leave No Trace is not based on rules and regulations.

Plan Ahead and Prepare

- T F** 3. Carefully designing your trip to match your expectations and outdoor skill level is the first step in being prepared.
- T F** 4. If you know that the area you plan to visit will have lean-to or cabin-style shelters that are used on a first-come, first-served basis, there is no need to carry your own shelter.
- T F** 5. Although noise, visibility, and the imposing feeling imparted by large groups are all impacts that can be reduced, it is best to keep group size to 10 or more to concentrate the impact of the group and lessen the amount of supervision needed.
- T F** 6. Brightly colored tents, packs, and clothing may look attractive, but stand out in the backcountry. To minimize your visual impact, select earth-toned clothes and equipment (except during hunting season when blaze orange should be used for safety reasons).
- T F** 7. Planning meals carefully and using the packages that foods are purchased in will save weight and space and reduce the amount of potential litter you bring into the backcountry.

Camp and Travel on Durable Surfaces

- T F** 8. When in popular or high-use areas, scatter your activity beyond established campsites and trails to speed recovery of the area.
- T F** 9. Hiking outside the established treadway tramples plants, contributes to erosion, and creates wide or multiple paths.
- T F** 10. Many types of alpine vegetation are extremely durable, and damage is usually short-term.
- T F** 11. Take rest breaks on durable surfaces, such as thick vegetation that is easily crushed or a more comfortable resting place, especially for your feet.
- T F** 12. Choose an established campsite that is at least 20 feet away from trails and water.
- T F** 13. When you arrive at your destination and find that it is full, you can use the extra daylight to set up your tent for the night, even though the campsite is full.
- T F** 14. Choose a campsite that is elevated so water will not pool if it rains. If rain seems likely, dig a trench at least two inches deep around your tent.
- T F** 15. Choose a campsite that is big enough for your group to avoid enlarging the hardened area or developing adjacent use areas.
- T F** 16. Leave your site clean to increase the likelihood that other visitors will use it.
- T F** 17. Remote or pristine areas, often referred to as being off-trail, are typically seldom visited and show little sign of human use.
- T F** 18. In remote areas, off-trail travel in groups of more than four to six people is not recommended.
- T F** 19. In remote areas, utilize durable surfaces and stay in line while hiking.

- T F** 20. In fragile areas, you should select routes that avoid fragile terrain, critical wildlife habitat, or any area where signs of your passage will invite others to follow.
- T F** 21. Camp layout is important at remote sites. Keep cooking, sleeping, and gear storage areas as close together as possible so any trampling that occurs will be concentrated.
- T F** 22. Most campsites can recover completely from a limited amount of use.
- T F** 23. Avoid lightly impacted trails and campsites to allow impacts to recover over time.

Pack It In, Pack It Out

- T F** 24. Twist-ties are very handy in the backcountry and help to secure food that may otherwise spill and attract animals. Carry extra twist-ties in case you lose some.
- T F** 25. Garbage is food waste left after cooking. It should be burned or buried, since this will reduce food odors that may attract animals.

Properly Dispose of What You Can't Pack Out

- T F** 26. The four guiding principles for sanitation are avoid polluting water sources, eliminate contact with insects and animals, maximize decomposition, and minimize the chances of social impacts.
- T F** 27. An individually dug cathole is the most widely accepted means of backcountry waste disposal. A cathole should be 4 to 8 inches deep and at least 20 feet from a water source.
- T F** 28. Urine has little direct effect on vegetation or soils.
- T F** 29. Burying used toilet paper or feminine hygiene products is unacceptable because of slow decomposition and the high likelihood that animals will dig it up. Therefore, a good method is to pack it out in double-wrapped plastic bags.

- T F** 30. Hot water and a little elbow grease can tackle most backcountry cleaning chores. Soap is unnecessary for most dishwashing and is difficult to rinse completely.
- T F** 31. Fish and game viscera are a natural part of the ecosystem and may be placed where they will decompose quickly or be consumed by animals or birds.
- T F** 32. The most widely used method of food storage in bear country is to hang food at least 10 to 12 feet off the ground and 4 to 5 feet away from the trunks of trees.
- T F** 33. Use a sump hole for depositing gray water from cleaning dishes in bear country to concentrate wastewater and localize odor.

Leave What You Find

- T F** 34. You should minimize site alterations and not construct lean-tos, tables, chairs, or other rudimentary improvements at your campsite.
- T F** 35. In national parks and other public lands, federal law protects archeological, cultural, and historic artifacts, and it is illegal to excavate, disturb, or remove these resources.

Minimize Use and Impact of Fires

- T F** 36. In alpine zones, fires should never be built.
- T F** 37. At established campsites, use existing fire rings to concentrate the impact of the fire and keep surrounding areas in a natural condition.
- T F** 38. A Leave No Trace fire may include a portable fire pan, a mound fire, or a pit fire.
- T F** 39. Fire pans are metal trays with sides high enough (more than 3 inches) to contain wood and ashes. They were first used by river runners.
- T F** 40. The advantage of a mound fire is that it can be built on durable surfaces such as flat exposed rock or ledge, or on a nonvegetated surface such as leaf litter or pine needles, without damage to the surface or soil.

SUBJECT: PIONEERING

About Rope

Pioneering projects should use proper rope. Rope is expensive, however, and somehow seems to disappear in the woods. Here is a way to solve that:

- Step 1.** Cut pioneering ropes into 15-, 20-, 25-, and 30-foot lengths. When planning pioneering projects for camp, you can estimate how many of each length might be needed.
- Step 2.** Whip the ends of the ropes.
- Step 3.** Paint the ends of the 15-foot lengths with red paint. The word “red” has three letters, each letter stands for 5 feet—3 multiplied by 5 is 15. Use blue paint for the 20-foot lengths (four letters multiplied by 5 feet), green for the 25-foot lengths, and purple for the 30-footers.
- Step 4.** Establish the firm rule, “We *never* cut rope.” If a rope is too short, use a longer rope. If some rope is left over in a lashing, use a shorter rope or tuck the ends. This system really works. Camps have actually worn out rope from constant use.

If an outdoor skills director expresses concern about rope, the Scouts will recognize its importance. Check *The Boy Scout Handbook*, *Fieldbook*, or *Pioneering* merit badge pamphlet and decide on an official way to coil rope in the camp. Insist on it! Build a special rack for storing rope in the outdoor skills area. Wooden pegs driven into holes bored in a plank or slab will do nicely. Paint the ends of the pegs with the color of the whippings, and you can keep things organized.

Some special projects such as the monkey bridge require special ropes and equipment. Ropes for these projects should be carefully measured, cut, whipped, tagged, and bundled together as a kit. This will keep things from getting mixed up.

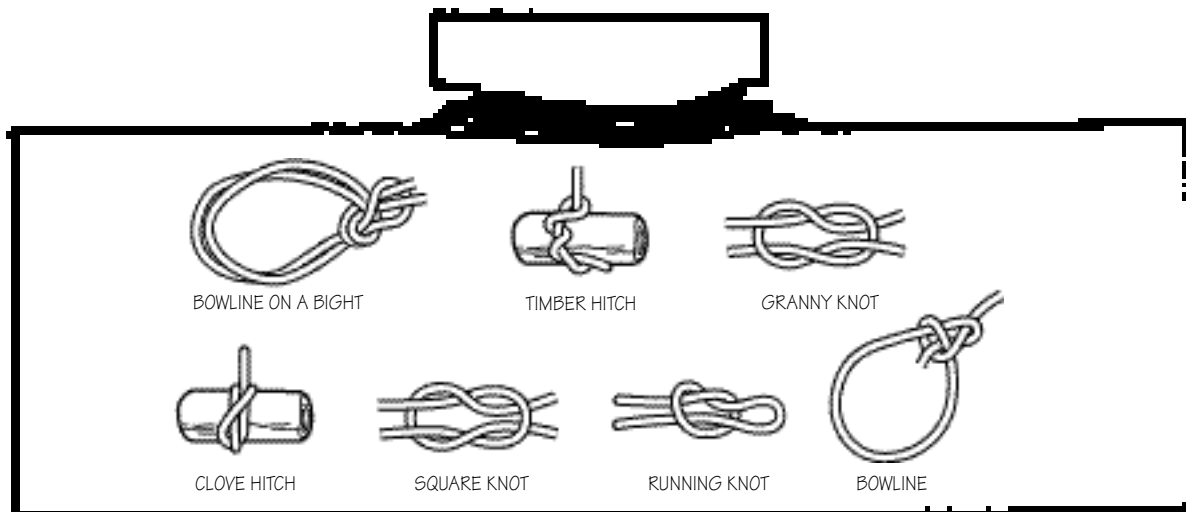
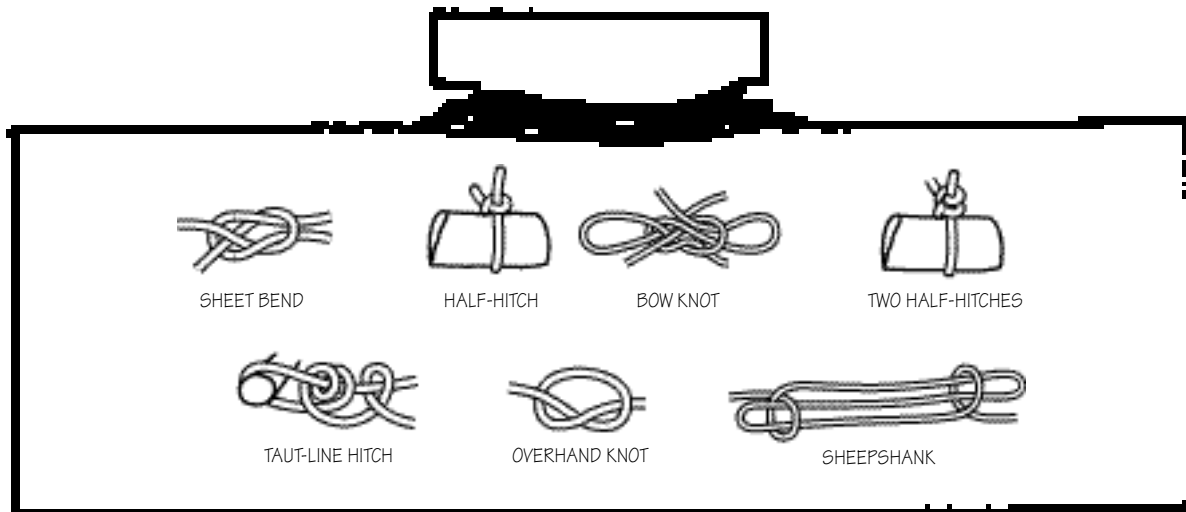
Learn to Tie Knots

Learning to tie knots doesn't have to be dull. Demonstrate the following knot-tying games or others you are comfortable with.

- Using string, transport a paper cup of water from one table to another at least 6 feet away. The cup may not be punctured or touched by anything other than the string.
- Package wrapping. This may sound too simple. But, when the package is a basketball or soccer ball, the task takes on a new challenge. Use twine and newspaper. Each package is wrapped by two people, using only one hand each.
- Knot races. Depending on the size and age of a troop, some knot games may not be practical. However, the following list should cover any level of knot-tying skill.

1. Hold a relay with each member tying the same knot at one end of the room and returning to the other end of the room to tag the next patrol member.
2. Each patrol, working as a team but with each member tying only one knot, ties all the knots required.
3. Tie the same knots as above, but behind your back.
4. Two Scouts work together to tie a clove hitch around a tree or a pole. The twist is that each can put only one hand on the rope and cannot let go of the rope until the hitch is secure.

Practice Knot Board



Constructing a Catapult

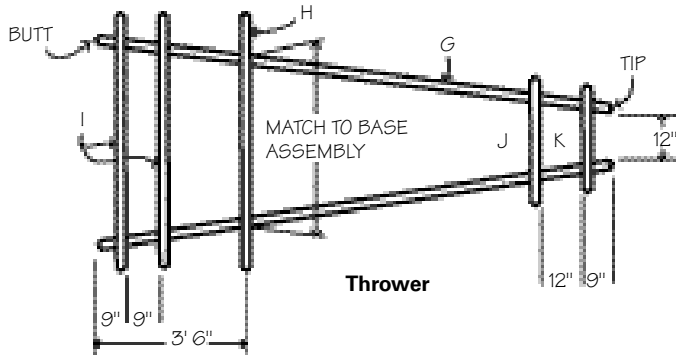
There are two keys to successfully constructing this catapult:

- Make all lashings proper and tight.
- Follow all directions and dimensions.

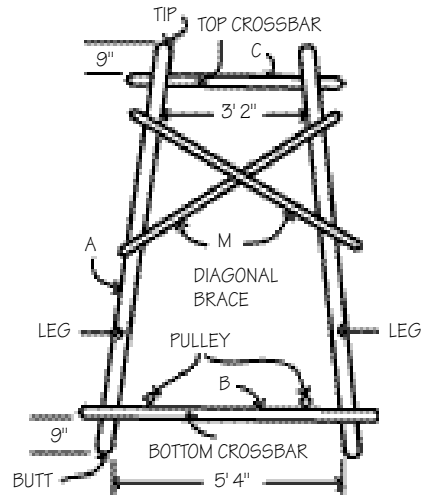
Catapult Parts List

Quantity	Part	Size
2	A	5-inch diameter by 10 feet long
1	B	4-inch diameter by 7 feet long
1	C	4-inch diameter by 5 feet long
2	D	4-inch diameter by 11 feet long
2	E	3-inch diameter by 10½ feet long
1	F	3-inch diameter by 5 feet long
2	G	3-inch diameter by 12 feet long
1	H	3-inch diameter by 6 feet long
2	I	3-inch diameter by 6 feet long
1	J	2-inch diameter by 3 feet long
1	K	2-inch diameter by 2½ feet long
1	L	18-inch diameter by 2 feet long (approximate length—cut to balance)
2	M	2-inch diameter by 6 feet long

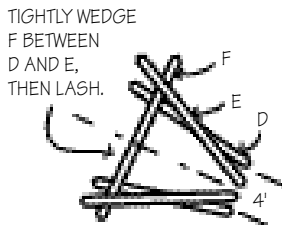
Catapult Construction



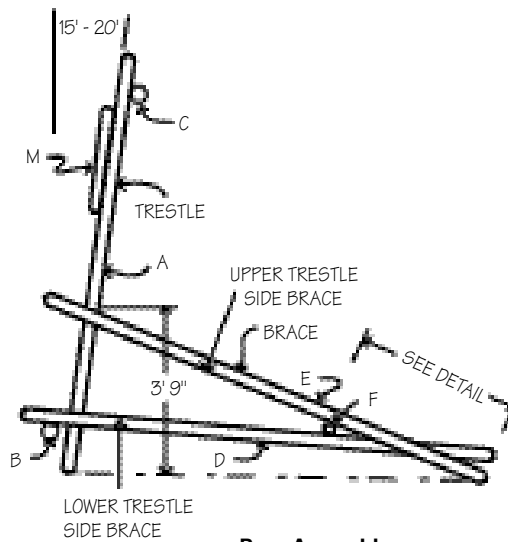
Thrower



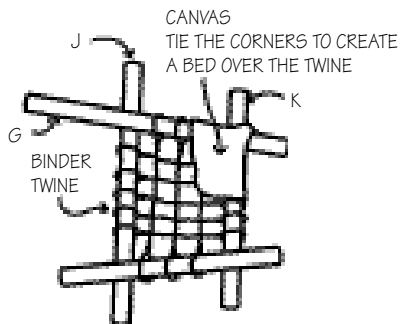
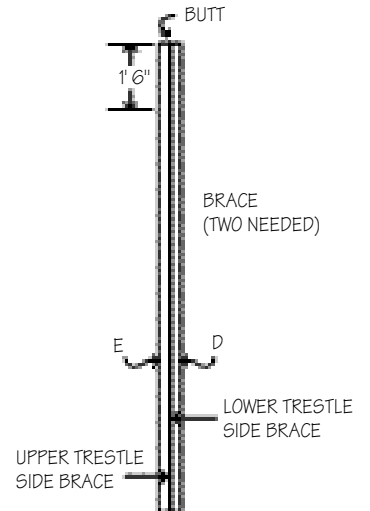
Trestle



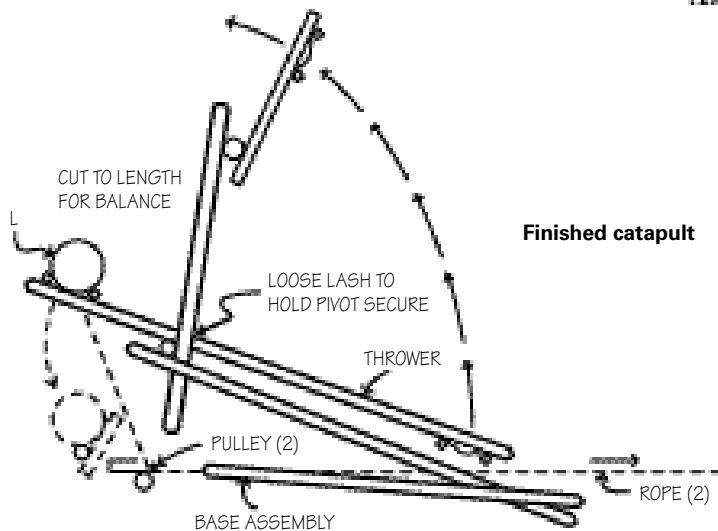
Detail view



Base Assembly



Basket—Make into a pocket

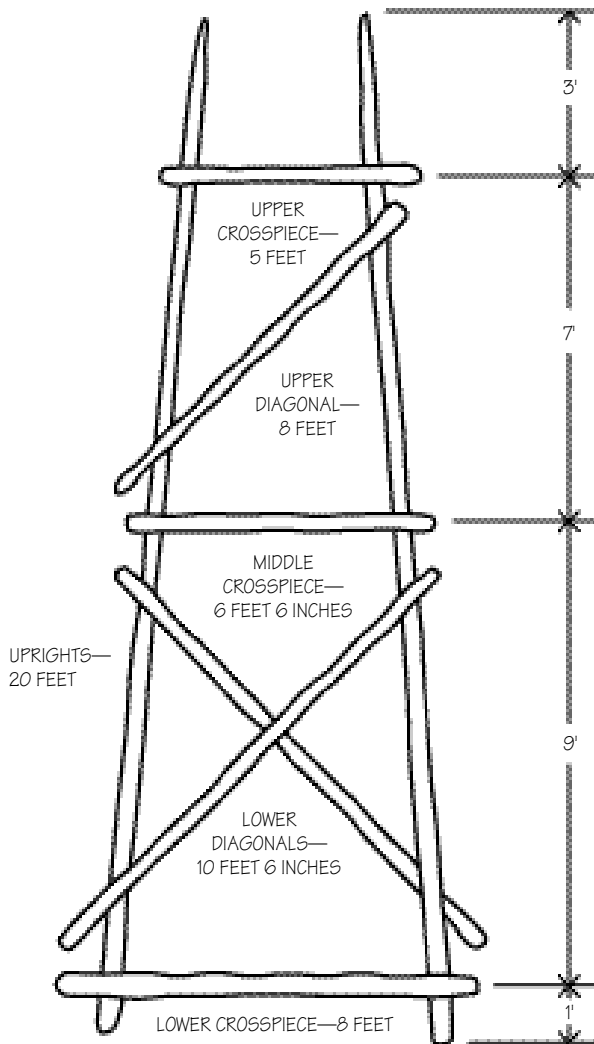


Finished catapult

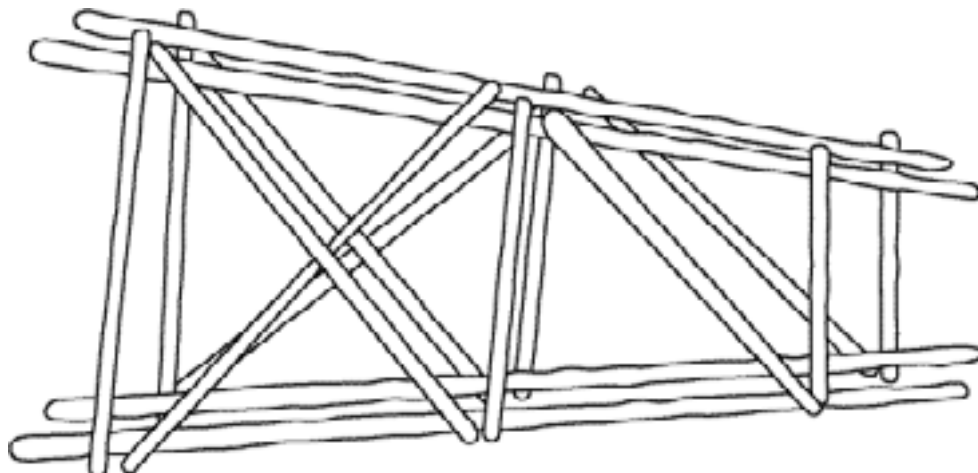
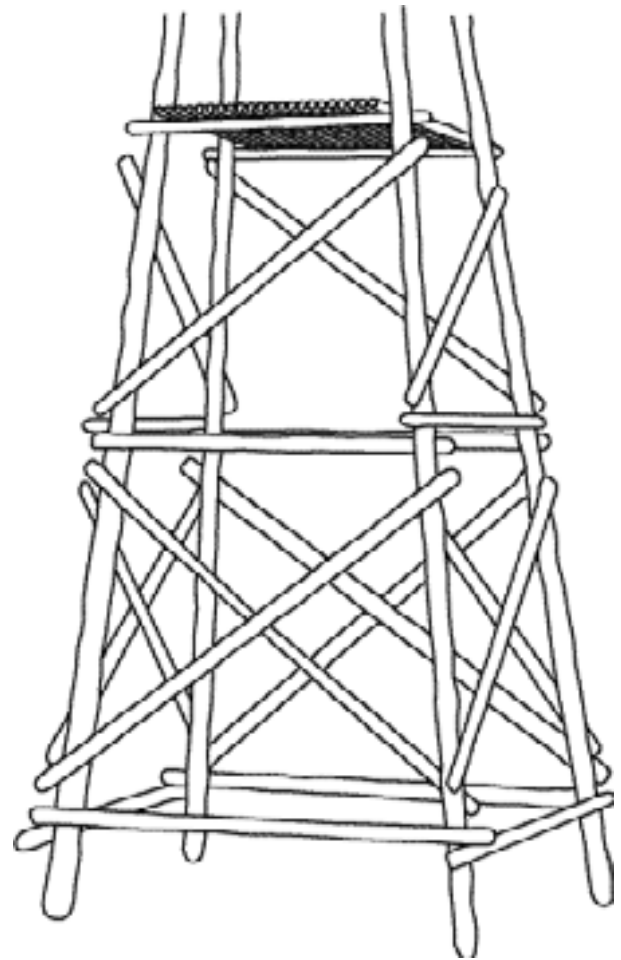
*MUST BE GREEN HARDWOOD AND AT LEAST 2 INCHES DIAMETER AT THE TIP.

Pioneering Projects

Signal Tower

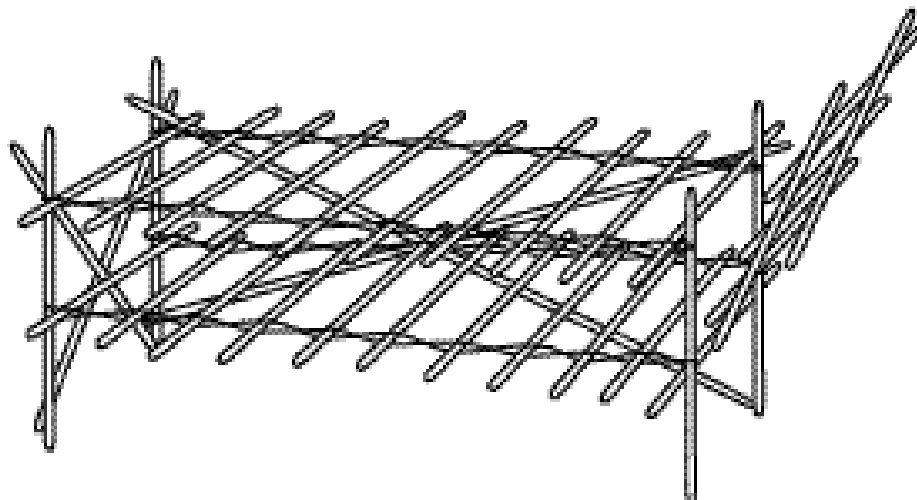
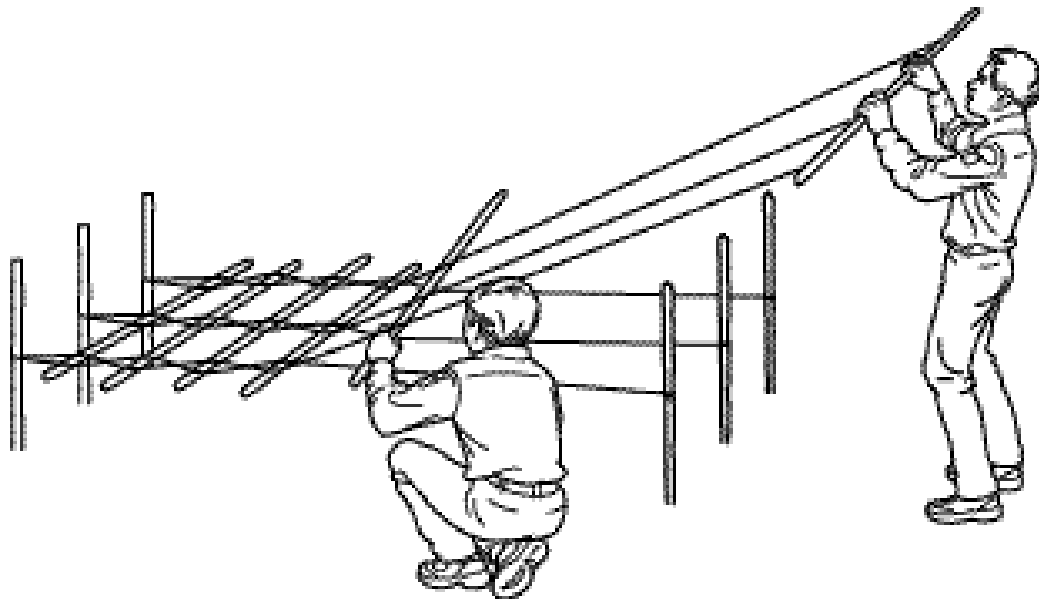


Finished signal tower

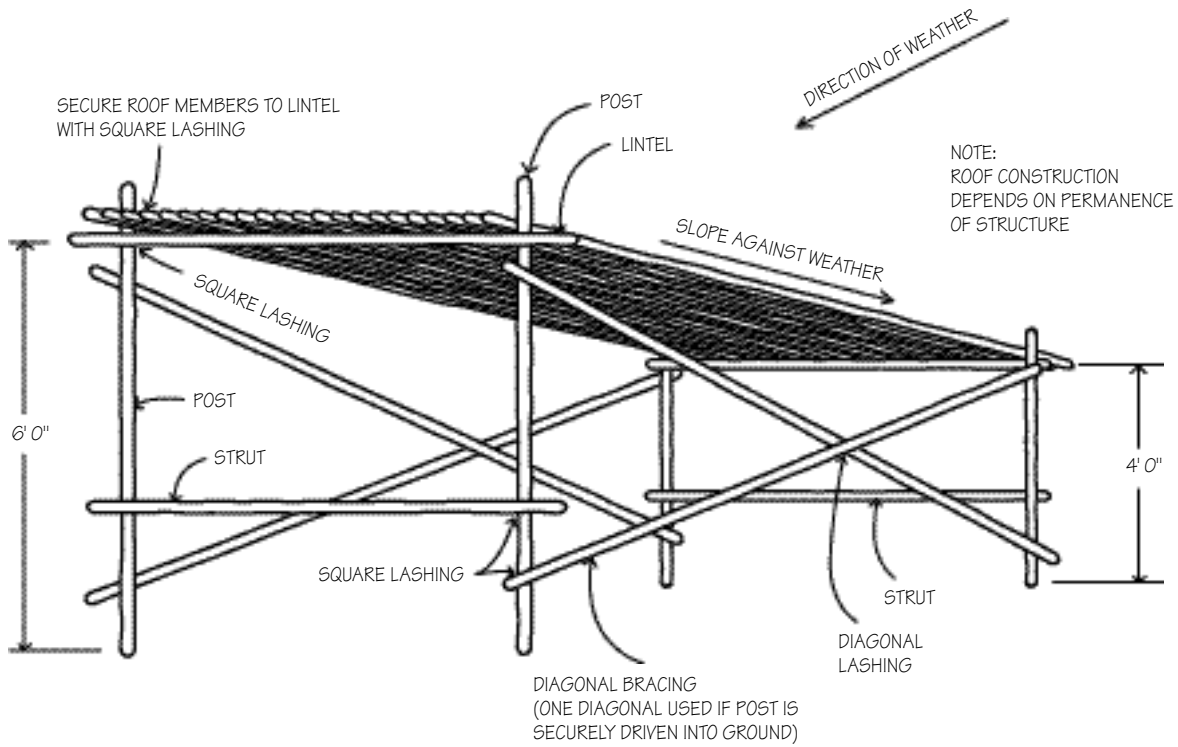


Camp Loom

Devices of this type have been used in camp since the earliest days of Scouting. A loom can be used to make tabletops and shelving with sticks or to weave primitive mattresses and lean-to roofs out of grass thatch, palm leaves, or similar materials.



Shed Construction



Rope Bridge

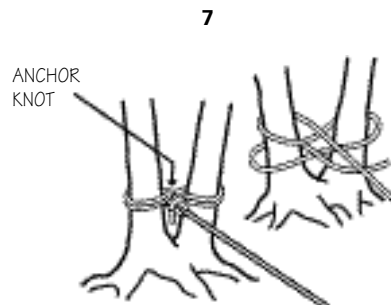
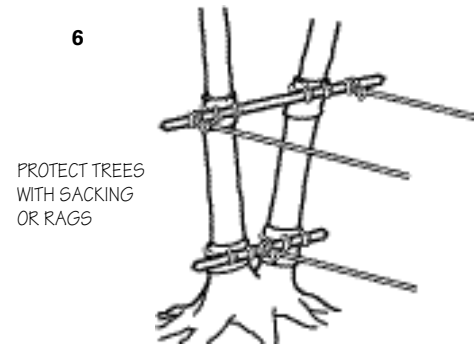
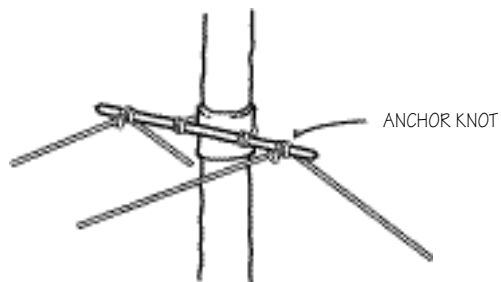
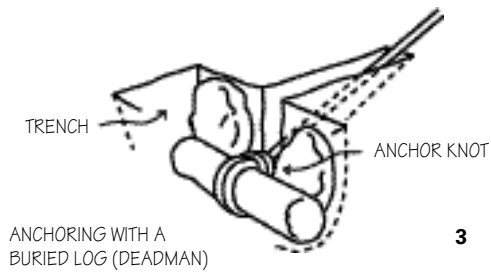
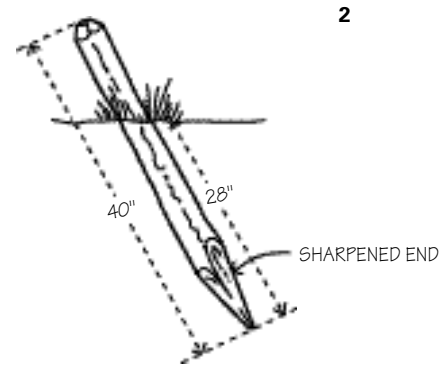
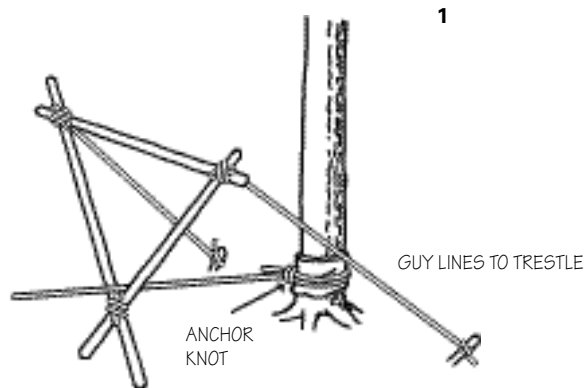
Three teams work at the same time:

Team A: Trestle on side number 1

Team B: Trestle on side number 2

Team C: The rope bridge on side number 1

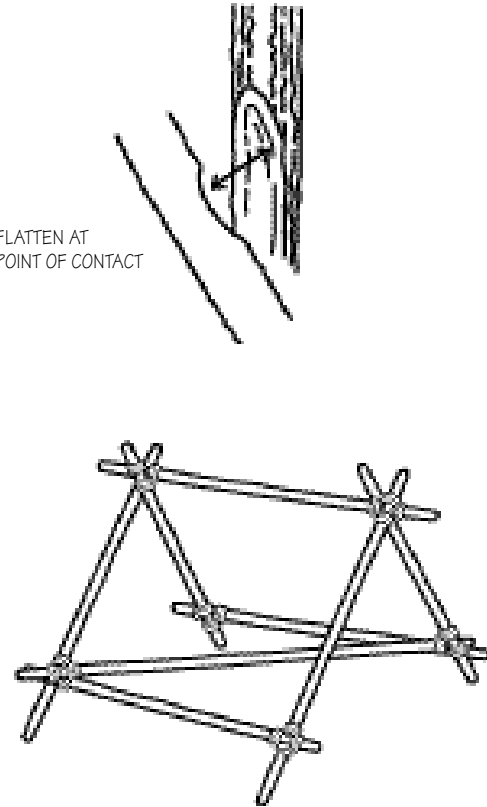
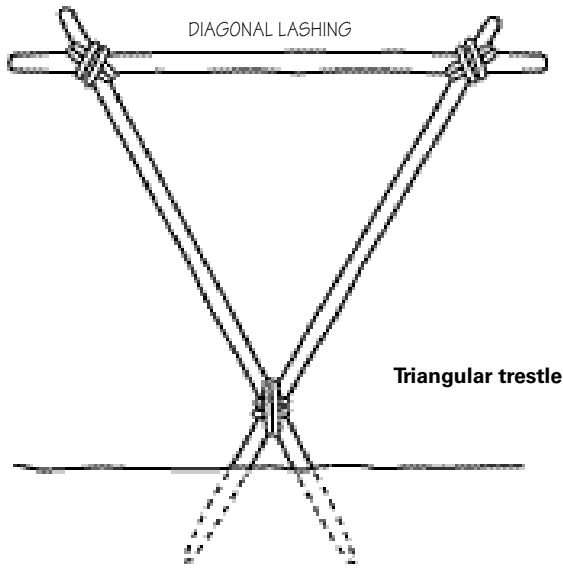
Step 1: Anchorings



Step 2: Trestles

The most efficient is the triangular trestle. Three poles are carefully lashed. Take care with the angle of the V. (Refer to the illustrations for the proportions.)

The trestles can be replaced by anchoring to trees. (This is quite common.) In this case, two poles lashed to trees will do nicely. Don't forget to protect the trees. Be careful of the elevation of the main support. This should be at least 5 feet above the ground. This will determine the dimensions and placements of the trestles. Install their anchors with great care.

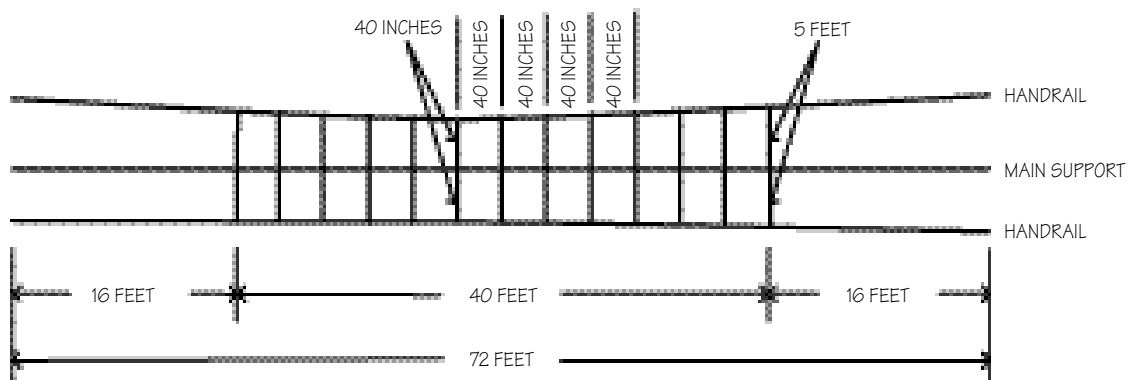


Construction

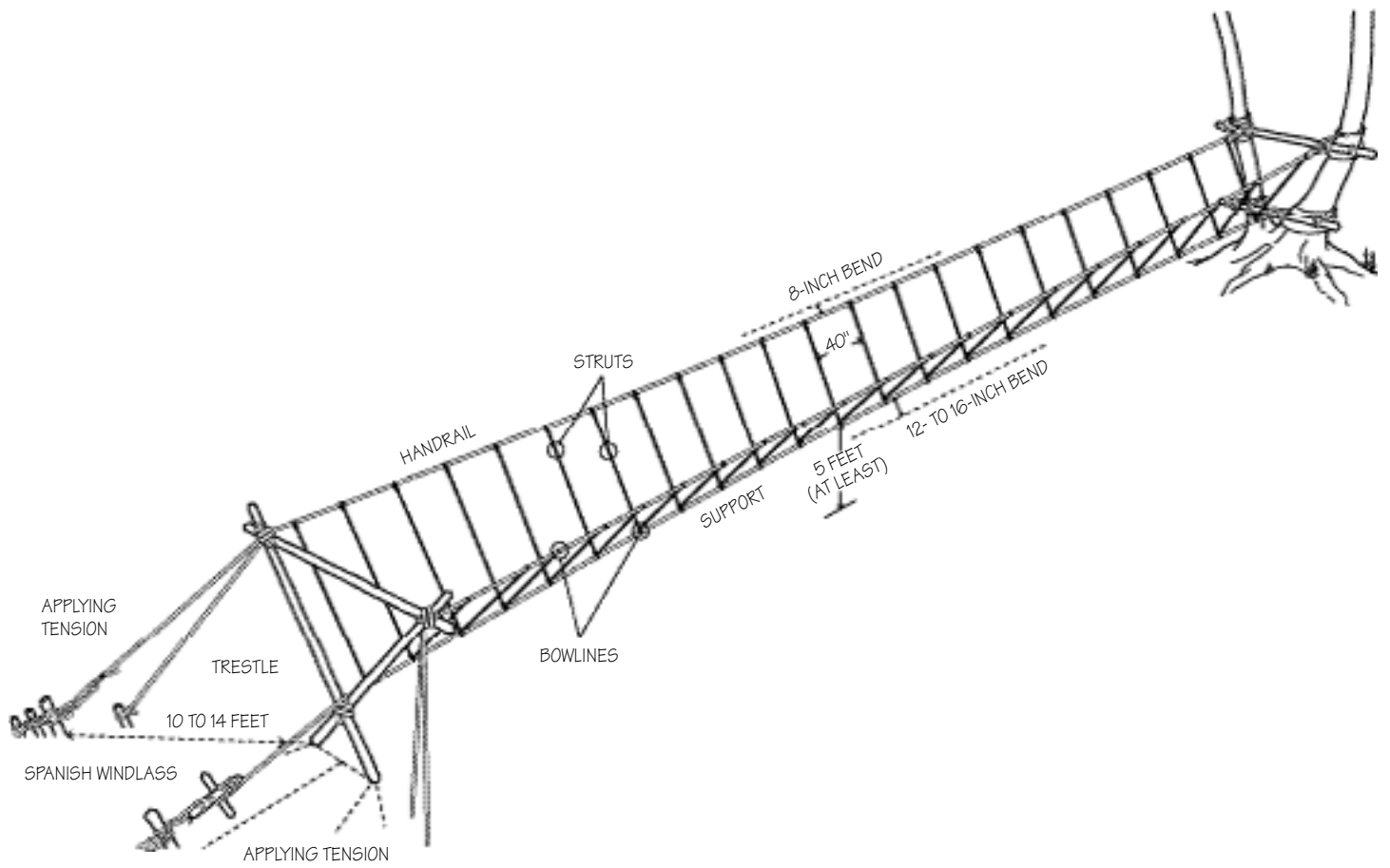
The bridge is constructed flat on the ground. Unroll the ropes and lay them parallel to each other.

1. Place the two struts at each end.
2. Place the center strut.
3. Place the remaining struts.

Be careful of the length of the struts, because they determine the curve of the handrails in relation to the main support.



The Finished Bridge



Launching

Good work requires that the free ends of the bowlines on the struts be finished with a whipping.

1. When the bridge is complete, team C ties together one end of the main support and hand rails to the fourth rope.

2. Meanwhile, team A fastens the end of the ball of string to a stick and throws the stick to the other side.

Note: Watch the wind direction and throw with it.

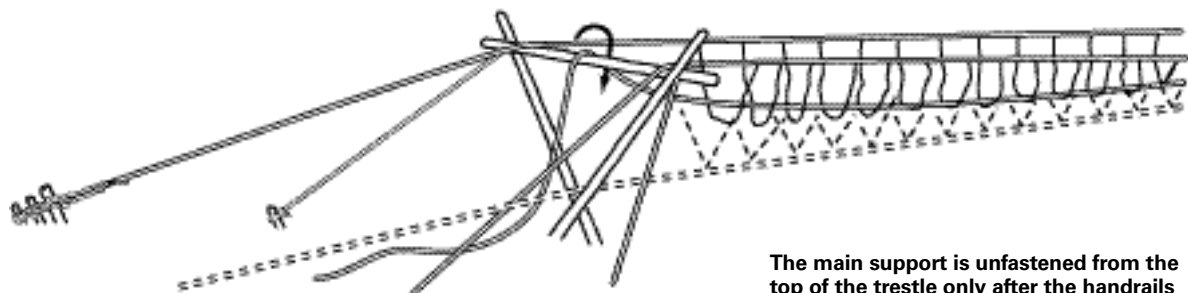
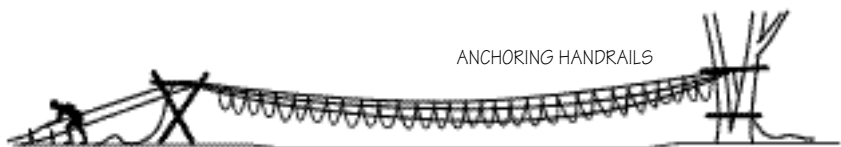
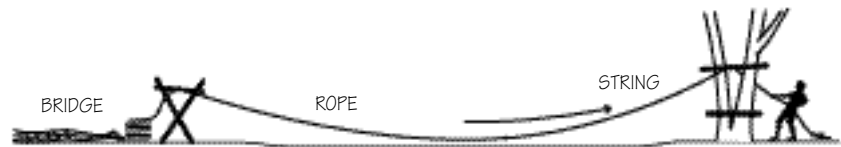
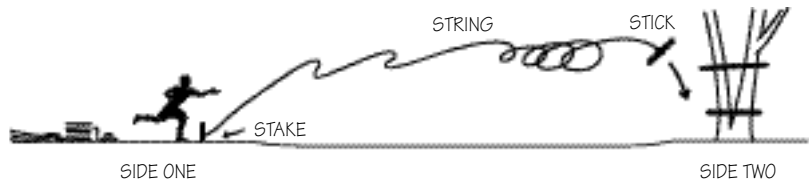
3. The other end of the string is fastened to the fourth rope, and team B now hauls the bridge across by drawing in the string, the top, and then the bridge itself. Team A lets the bridge out over the top of the trestle and holds back when necessary to keep the bridge from touching the ground.

4. When the bridge is finally across, teams A and B anchor their respective handrails. One uses the anchor knot, the other the sheepshank with a half-hitch and bowline. All anchorings must be solid and secure.

5. The main support, which is still lying across the top crosspiece of the trestles, is now slipped under it and solidly moored. Put an anchor knot at each end. When the tension is applied, the main support should then get its classic upward curve.

If adjustments need to be made to the struts, team C proceeds across the bridge and makes the necessary finishing touches.

A trained troop (directed by an experienced leader who can supervise and coordinate the work) should complete this bridge in three hours.



The main support is unfastened from the top of the trestle only after the handrails have been anchored on both sides.

Make Your Own Camp Furniture

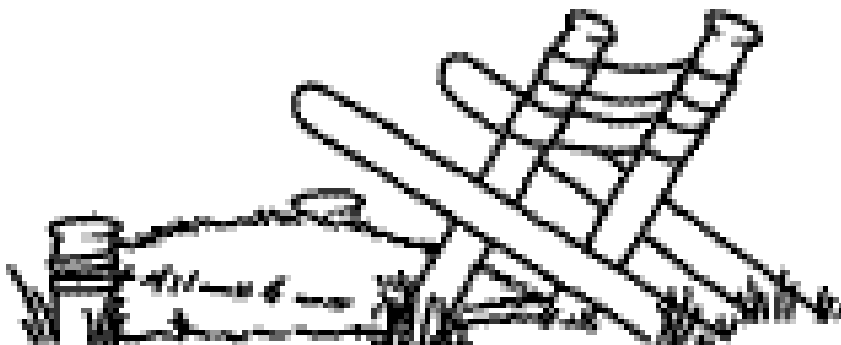
Scoutmaster's Chair

Make a comfortable "Scoutmaster's chair" from a piece of heavy canvas or a canvas hammock.



Camp Chair

There may not be a rocking chair in camp, but this Scout's chair will give you loads of comfort.



SUBJECT: FIRE BUILDING

Building the Fire

Instant Tinder

You'll never be without tinder if you carry a couple of wooden pencils and a pocket sharpener. Use the wood pencil shavings to help get your fire going.

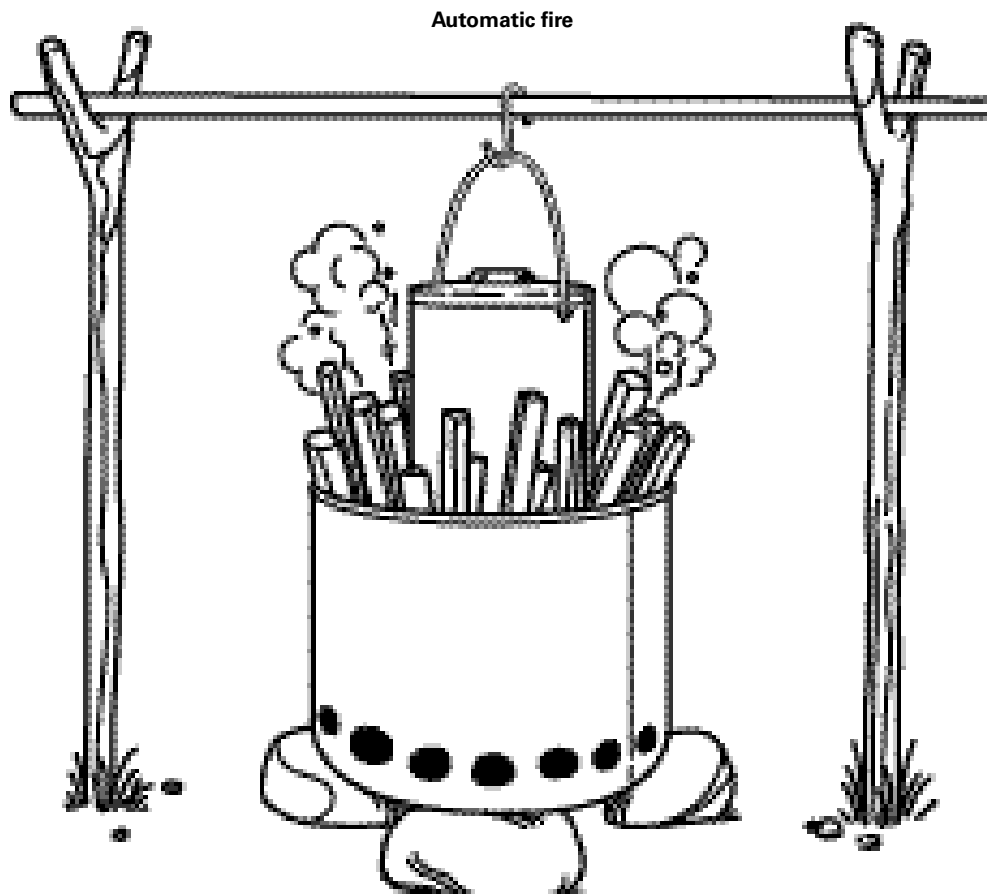
Flint and Steel Firelighter

To make a flint and steel firelighter, embed and glue a cigarette lighter flint in a block of wood. Use a piece of old hacksaw blade for steel—or use a Scout knife blade. Strike metal against the flint for sparks.

This flint and steel firelighter is a handy little sparker a Scout can carry to make a fire without matches.

Automatic Fire

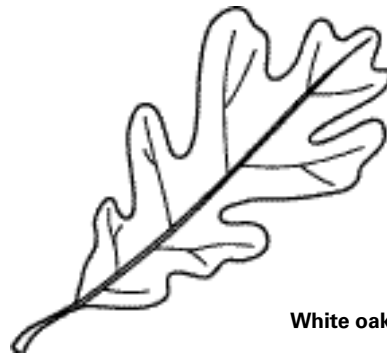
Punch ventilation holes around the bottoms of a large metal drum or bucket. Place it on three flat rocks to protect the soil. Start the fire in the usual way at the bottom of the drum and feed it by standing small branches and large twigs on their ends. As the fire burns, the wood sinks into it, and more wood is added.



Identifying Wood



Hickory



White oak



Beech



Sugar maple



White ash

SUBJECT: UTENSIL-LESS AND ALUMINUM FOIL COOKING

Backwoods Cooking

Cooking without utensils, called backwoods cooking, is not only great fun—it also cuts down on the washup.

Hot Embers

Begin by building the fire with fairly large pieces of wood. Let them burn through to leave you with a bed of hot, glowing embers. This is nearly always the best type of fire for backwoods cooking. Remember, however, open fires are not allowed in many areas, and BSA policy encourages low-impact camping.

Skewers. Many types of food can be cooked on wooden skewers. Find a thin, green stick, one that bends but does not snap. Any wood will do except yew, holly, elm, and laurel, which are poisonous.

Peel the bark off and make a point at one end. The skewer can then be pushed through the food and hung over the fire or laid with one end on the ground and the other on the back of a reflector fire. Or you could simply sit and hold it, turning the food as it cooks.

Use this method to cook:

- Sausages
- Twists
- Chops
- Apples
- Toast
- Bacon
- Tomatoes
- Onion

Potatoes. Cut off the top of a potato. Scoop out the inside—but don't take too much or you might break the skin. Crack an egg into it or put small pieces of cheese inside. Replace the top and fix it in place with thin pieces of wood. Cook it in the embers for about an hour.

Reflector fire. This type of fire is especially good for backwoods cooking because you can direct the heat straight at the food. Use logs or large stones (but not flints) behind the fire, held up with wooden stakes driven into the ground.

Take care not to sit opposite the reflector or you will be baked as well.

Fiji oven. Dig a hole in the ground and build a fire at the bottom. Get it going well and put several large stones (not flints) on top. When the stones are really hot, lay some large leaves (such as cabbage leaves) on them. Next, pile in the food—sausages, chops, potatoes, and other vegetables—then cover with another layer of leaves. Finally, cover well with earth and leave to cook for about six hours.

Cooking With Foil



Place food in center of foil.



Bring sides up loosely.



Fold top ½ inch down. Crease.



Fold top down again. Don't crease.



Fold top down flat. Press ends together.



Fold over corners along the dotted lines.



Fold pointed ends over ½ inch.



Fold ends over again.



Place on coals.

Recipes for Utensil-less Cooking

Orange or Onion-Shell Eggs

Cut an orange in half and remove its fruit. Crack an egg into the emptied rind and place the filled rind directly on the coals. Do the same using a hollowed onion for onion-flavored eggs.

Brown-Bag Biscuit

Saturate the bottom and sides of a paper bag with cooking oil. Place prepared dough in the bag and heat. The bag should hang high enough not to burn but low enough to receive good heat.

Egg on a Stick

Carefully pierce small holes in each end of an egg and pass a thin stick through the egg. Heat the egg over coals. Be sure the stick is from a nonpoisonous plant. Avoid holly, yew, elm, and laurel.

Grocery Sack Bacon and Egg

Prepare and fold the brown grocery sack as shown. Be sure the sack is clean and empty. Find a suitable "handle" and make a pan, as shown. Place the bacon in the sack first. Cook the bacon, and then place the egg in the bag. Cooking time depends on the heat of the prepared coals. Be sure to have sufficient heat without flames.

Paper Cup Rice

Rinse half a cup of rice and add water to just below the top of cup. Seal the top with aluminum foil and place the cup close to the coals but not directly on the coals. Use unlined, unwaxed cups.

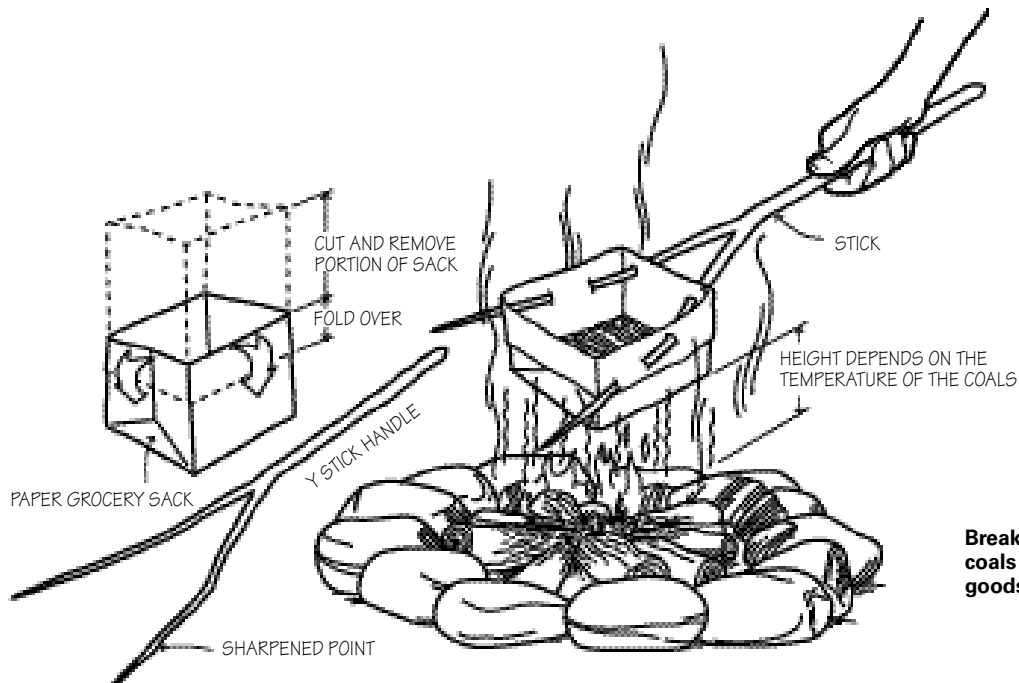
Hot Potatoes

Wrap a cleansed potato in aluminum foil and place over strong heat. Bake approximately one hour, occasionally turning it from side to side. Stick a knife or fork into the potato to check doneness.

Stuffed Tomatoes

Cut the top half inch of the tomato off and place the top to one side. Scrape out the center of the tomato and mix this flesh with grated cheese, adding salt and pepper to taste. Place the mixture into the tomato, replace the top, and wrap the filled tomato in two sheets of foil. Place it in the hot embers and cook for five minutes.

Tasty alternative fillings could include cooked minced beef, baked beans, flaked fish, prawn in tomato sauce, tuna fish, and so on.



Always be sure to have sufficient heat and no flames.

SUBJECT: COOKING AND BAKING

Solar Hot Dog Cooker

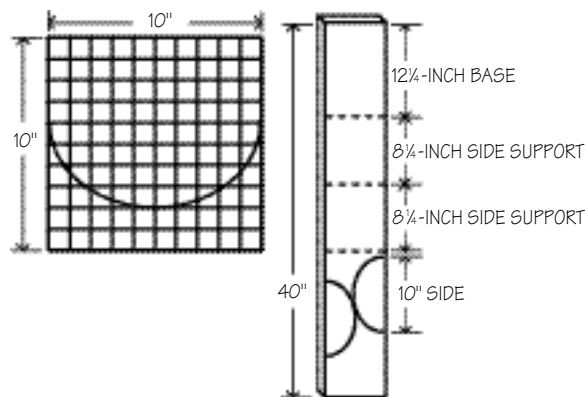
The first Saturday in October is Scouting Energy Day, and perhaps your troop will want to try an energy conservation project such as collecting newspapers for recycling. Or maybe some of the Scouts would prefer to make a solar hot dog cooker to harness the sun's power.

On heavy paper, draw the grid as shown and duplicate the arc. Cut out the pattern and trace it on wood. With a jigsaw or coping saw, cut out two side panels and the base and side support pieces. In each of the side panels, drill two holes as shown. The hole at the top of the arc should be slightly smaller than the diameter of the wood screws. The hole at the bottom should be slightly smaller than the 4-inch nails.

Nail the base and side supports together. Then nail the sheet of aluminum to the side panels to make a curved edge. Polish the inner surface of the aluminum with steel wool and wipe it clean. Apply household cement to this aluminum surface and cover it with aluminum foil, shiny side out.

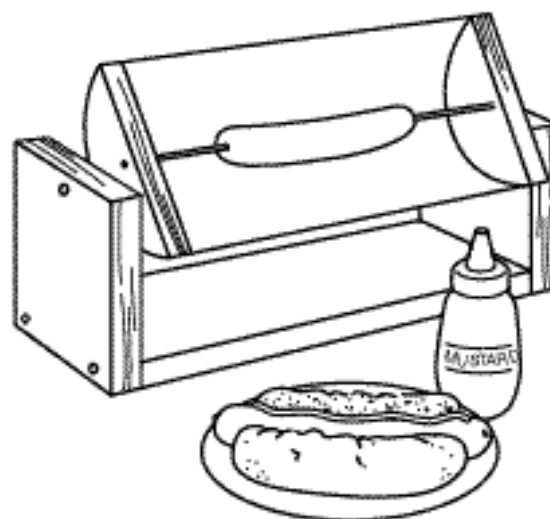
Push the long nails through the holes and fasten with a dab of cement. Clean the nails with steel wool and rinse with water. Mount the holder on the support stand with the wood screws and washers.

To cook, skewer a hot dog or other food on the nails and aim the cooker toward the sun. In a few minutes, you'll have a well-done treat.



Materials:

- 40-inch piece of 1-by-8-inch wood**
- 1-by-2-foot piece of sheet aluminum**
- Two 4-inch nails**
- Assorted short nails**
- Two 2-inch wood screws**
- Two metal washers to fit screws**
- Steel wool**
- Household cement**
- Aluminum foil**



Temperature Chart

Determine the approximate temperature of a fire by the number of seconds you can hold you hand over the coals. Be careful not to burn yourself.

Approximate Temperature	Type Fire	Seconds
250-325 degrees	Slow	6-8
325-400 degrees	Medium	4-5
400-500 degrees	Hot	2-3
More than 500 degrees	Very hot	1

Pastry

You will need:

- 1 cup plain flour
- ½ cup shortening or margarine
- Pinch of salt
- Water (scant)
- 1 pound sugar if pastry is for sweet items

Cut the shortening into the flour using a pastry cutter, two knives, or a fork. Add sugar at this stage if required. When the mixture resembles bread crumbs, add water a spoonful at a time, mix lightly with a fork, and press into a ball. Too much mixing causes pastry to become tough. Use this pastry to make sausage rolls or various sweets.

SUBJECT: CAMPSITE SELECTION

Teach Your Patrol About Campsite Layouts

This is much more realistic and interesting if you can set up a model campsite. You can use a large tray with sand or soil to represent the ground, or better still, use the models and materials from a model railway, such as model trees and people. If your site can have hedges and rocks and so on, this will enable you to discuss making use of shelter. Model brick or stone walls can also be useful. Use a strip of plastic for a river.

If you have time, you can make model gadgets (such as a dresser). And if you have the time and inclination, you could make this part of a patrol or troop meeting. Give each patrol some dowel and string, and spend part of the meeting making gadgets for your model campsite.

SUBJECT: BACKPACKING AND EQUIPMENT

Backpacking Equipment

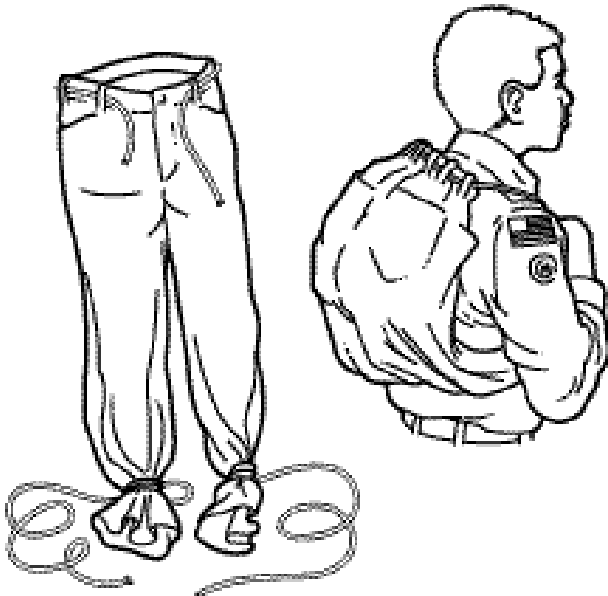
Blanket Roll Pack

New Scouts who do pack can improvise blanket as the earlier Scouts did. Spread a ground cloth and blanket on the ground. Lay extra clothes and personal gear along the center line and roll the ground cloth and blanket as tight as possible. Tie with cords. Then bend the roll into a horseshoe shape, tie the ends together, and sling it on a shoulder.



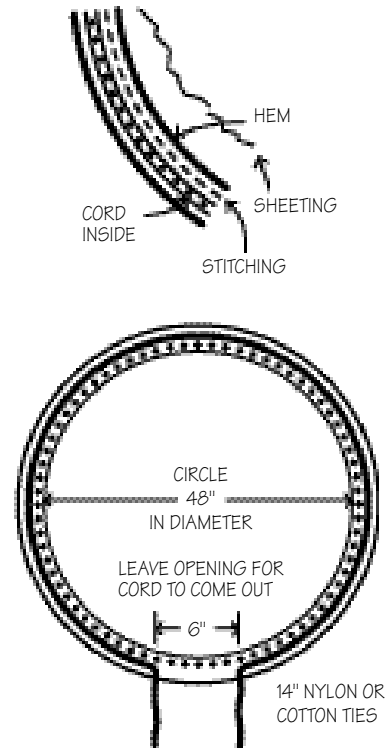
Trouser Pack

A trouser pack can be fashioned by tying the legs of a pair of pants. Fill the legs, and use a long tie through the waist to serve as a handle. Drape it around the body as shown. It won't hold as much as a regular pack, but it will serve for a Scout who needs one.

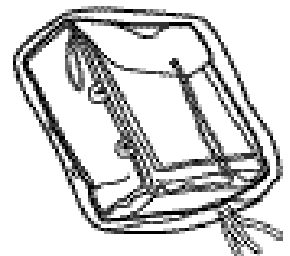


Backpack Cover

Use clear or colored polyethylene plastic sheeting 4 to 6 mils thick. Cut a circle about 48 inches in diameter. Lay a strong, 14-foot cord around the edge and fold a one- or two-inch hem over the cord. Stitch the hem to the sheeting. Be sure the cord will run freely through the hem.



To use the cover, put it over the pack, pull the cord fairly tightly, and tie the ends. The cover also makes a usable washbasin, poncho, cover for firewood, and tablecloth.



SUBJECT: BACKPACKING PREPARATION

Outpost Camp Activities

Search for a “Lost” Person

Explain the purpose of the project and teach leadership in searching, showing how police, rangers, wardens, and Scout leaders may be involved.

Highlight the importance of a thorough briefing before a search and discuss logistics, including the use of trackers and avoidance of night searches.

Teach the methods of projecting the search: confinement, hasty sweep, grid. The first step is to confine the search area by posting someone at each road, trail, and natural rout.

Teach the methods for controlling search parties, including observation, knowledge of surrounding countryside, and making and marking maps. Review how searchers may be organized by job categories, such as runners, leaders, and those who provide food and/or first aid supplies.

Teach about the care of a lost person who is found. Place a person or dummy at some spot in the vicinity of camp. Have the group organize a search using maps, compasses, and the information described above to find the lost person. This project should be carried to completion, including the first aid and transportation required.

Compass Stalking Project

Each person receives a sketch map, compass, and instructions. The instructions could be in the form of a message: “We are in need of an atomic rock for emergency development. It is found at two spots indicated on the map. Proceed immediately to secure samples.”

“To go there and return, you must pass along the border of Regalia. The government of Regalia will take any means to prevent us from getting the sample. If seen by Regalians, you will be captured and will be unable to deliver the samples.”

Divide participants into teams. Each team then follows the route designated on a map and collects the object at designated spots. Teams must pass an area under observation without being seen.

The Trail Way to Adventure

This should be just what it says—a trail and some real adventure. Establish at least five or six trail campsites one to four miles from the base camp. These sites can be on council camp property, on private property (with

permission secured), or on state or federal land (permission also secured). If there is no water at these sites, campers carry their own, or a truck delivers it nearby.

Each trail camp features a different activity, such as:

- The Cowboy Camp at Zilch’s Knob features Dutch oven cooking with Dutch oven blueberry pies or apple pies.
- The Robin Hood Camp at Sherwood Point features target archery and a roving archery course with cutouts of animals to shoot at on bales of straw.
- The Fisherman’s Camp at Denslow’s Cove features fishing with a lure made back in camp. Fishermen plank their fish for supper; no other meat is furnished.
- The Robinson Crusoe Camp features going by rowboat and compass direction to the right campsite using a rough homemade map. Distribute maps to three or four sites provided by the local council.

The Pioneer Camp

This is a short hike to a site where a monkey bridge must be built, preferably across a stream, gully, or end of lake. Take photos of Scouts crossing the bridge.

The council camp staff provides a young man guide to assist units and unit leaders on all these trips. Props, such as Dutch ovens, poles and line for monkey bridge, etc., are cached, if possible, at the outpost camp so they do not have to be carried there each day. Troops schedule one or more of these trips each period. The same staff guides go each day to the same outpost to assist in the particular skill. The units return after breakfast the following day. Guides prepare to take the next troop out around 2 P.M.

Scout leaders are given stamped ribbons 6 inches long for each successful participant on adventure trail. Stamp designates Cowboy Camp, Fish Camp, etc.

The Geiger Hike

The director of some other responsible person in camp could be assigned a Geiger counter for use and demonstration. For information on this, contact the United States Geodetic Survey Office, usually listed under Department of Interior in the phone book, or contact a private geologist or petroleum geologist. The purpose of the hike is to locate new and unusual deposits of “underground treasure.”

Outpost Projects

Piranha!

This project is for use when stream is available.

Your patrol must cross the stream at (*a given compass location*). Because the stream is piranha-infested, no one must get any part of his body in the water. Using material on hand in the near vicinity, plan, build, and use a suitable means of transport.

Suggested material (to make a coracle):

- Large tarp or plastic material
- Binder twine
- Brush or other materials that can be cut without damaging the environment

Cross the Swamp

You must move your entire patrol, as a group, across a swamp located at (*a given compass location*). The water is alligator-infested and mosquitoes swarm over the swamp at a height of approximately seven feet. You will find material on hand to build a conveyance. Plan, build, and use it and be prepared to make it available for other patrols to use.

Suggested material (to make a swamp buggy):

- Four to eight 55-gallon drums
- One tent platform, or equivalent, large enough to hold the entire patrol

Choose an Adventure

You must move your patrol members, one at a time, across the _____ at (*a given compass location*). The water is infested with _____.

Material is scarce, but you should find enough within a _____ radius of the proposed crossing to do the job.

Suggested material (to make a revolving derrick bridge):

- Two 30-foot lengths of 1-inch to 2-inch rope
- One 15-foot length of 1-inch to 2-inch rope
- One 15-foot spar
- Two 10-foot spars
- Two 3-foot spars
- 10 2-foot spars
- One block, single sheave

Trail Foods

Breakfast Menus

- Stewed or raw prunes
- Quick oats with milk
- Homemade pancakes with syrup
- Hot chocolate

- Quick oats with raisins and milk
- Grilled bacon (chunk)
- Hot biscuits and jelly
- Hot chocolate

- Stewed peaches
- Cornmeal mush
- Sausage (canned)
- Milk

Breakfast Shopping List

- | |
|-------------------------|
| Bacon (chunk) or canned |
| Biscuit mix |
| Chocolate drink mix |
| Corn meal |
| Dried peaches |
| Dried prunes |
| Jelly |
| Margarine |
| Pancake mix |
| Pancake syrup |
| Powdered milk |
| Quick oats |
| Sausage (canned) |
| Seedless raisins |
| Sugar |
| |
| |

Luncheon Menu

- Beef bouillon
- Cheese sandwich
- Luncheon-meat sandwich
- Raisins
- Apple
- Soft drink (powdered)

- French onion soup
- Peanut butter sandwich
- Jam sandwich
- Carrot sticks
- Butterscotch pudding (instant)
- Chocolate milk

- Split-pea soup
- Corned-beef sandwich
- Apple-butter sandwich
- Dates
- Soft drink (powdered)

Luncheon Shopping List

Apple butter
Apples
Beef bouillon cubes
Bread
Butterscotch instant pudding mix
Canned corned beef
Canned luncheon meat
Carrots
Chocolate milk mix
Dates
Dehydrated or concentrated French onion soup
Margarine
Peanut butter
Powdered drink mix
Raisins
Sliced cheese
Split-pea soup
Strawberry jam

Supper Menus

Creamed chipped beef on biscuits
 Peas
 Peach cobbler (in foil)
 Chocolate milk

 Spaghetti and meatballs
 Corn cakes with sugar and cinnamon
 Chocolate pudding (instant)
 Tea

 Macaroni and cheese
 Grilled Spam
 Carrots (fresh)
 Fig bars
 Tea

Supper Shopping List

American cheese
Biscuit mix
Canned hamburger
Canned peas
Canned sliced or dried peaches
Carrots
Chipped beef
Chocolate milk mix
Chocolate pudding mix (instant)
Cinnamon
Cream-style corn
Elbow macaroni
Fig bars
Margarine
Powdered milk
Spaghetti
Spaghetti sauce
Spam (canned)
Sugar
Tea bags

Packing In

An advantage of lightweight camping is increased mobility. As all the campers in a group carry in all they will need in camp, transportation is less of a problem. No large quantities of equipment and gear need to be moved. In allowing just one pack for each person, the roadway becomes a gateway rather than the end of the line.

Fitting Your Pack

Choose a pack correct for your height.

- A loaded pack should rest mainly on the hips and legs.
- The fully loaded pack should allow you to stand upright and to walk normally.
- If fully extended shoulder straps cut into you, the pack is too short.

Ask the salesperson to allow you to try on a loaded pack.

Weight Distribution

- The frame should be made of a light, strong alloy.
- A metal frame should have solid joints.
- Adjustable shoulder straps should be padded and wide.
- Back bands should be adjustable.
- A padded waistband is the most comfortable.

Backpack

- Stitching should be straight and even.
- Stress points should be reinforced.
- The bag should be made of waterproof nylon.
- It should have a large storm flap.
- Outside pockets and inside compartments are helpful.
- The bag should have heavy-duty zippers (nylon preferred).



Hiking Comfort

- Carry a filled water bottle.
- Avoid sunburn by using sunscreen and wearing protective clothing such as a hat.
- Use sunglasses.
- Watch for poison ivy, other poisonous plants, and insect bites (use repellent).
- Avoid overheating—strip off outer layers of clothing as you warm up, replace when resting to avoid a chill.
- Don't rush—set a steady pace.

Walking and Care of Feet

- Have spare socks handy to replace sweaty socks.
- Stop occasionally to rest and air feet.
- Check feet for “hot spots” (beginnings of blisters) and apply moleskin.

Clothing

- Wear a hat for sun protection.
- Layer upper clothing to assist in heat regulation of the body.
- Wear loose-fitting pants.
- Bring rain gear.
- Bring extra socks.

Footwear

- Wear two pair socks—heavy over light.
- Wear boots—appropriate for terrain, properly fitted, well broken in, and waterproofed.
- Bring extra laces.

Sleeping Bag Tips

The BSA's medium-weight sleeping bags are designed to keep Scouts warm at temperatures of 25 to 30 degrees Fahrenheit. Heavier bags will be effective at much lower temperatures. Use a flannel sack inside your bag to keep it clean and extend comfort temperature. Wear a stocking cap, long underwear, and solid wool socks for additional warmth.

Your Clothing Is Key to Winter Comfort

Headgear. This is personal preference, but it is always a good idea to have at least one stocking or knit cap for use under a parka hood or in the sleeping bag. Soft, insulated caps with ear flaps are good but should be loose-fitting.

Eye protection. Goggles are best but sunglasses and homemade snow shields will reduce glare from sun off the snow, a situation that can cause painful problems, even “snow blindness.”

Boots. Proper footgear is essential. A boot should fit somewhat loosely for warmth, but the adage “cool is comfortable” is true; the feet should not sweat profusely. Use a combination of a light boot for travel and a thickly insulated boot for camp.

Socks. Wool, or wool and synthetic, is good. Sometimes synthetic fiber stretch socks are worn next to the skin for added warmth.

Boot liner. A specially cut piece of 1-inch foam can be wrapped around the foot, held in place with a nylon “sock” and used with the mukluk in very cold weather. Also, quilted, synthetic liners are used and, sometimes, felt liners.

Scarf. Wool or synthetic fiber makes an excellent cold weather protector, but make sure it is plenty long.

Parka. The anorak or pullover should be windproof, should reach almost to the knees, and be large enough to fit over all the other garments. It should have a hood.

Hand covering. This is a personal preference. Use any loose-fitting combination of the following: wool gloves, wristlets, wool mittens, foam mittens, polyester fiber mittens, leather oven mitts, wind and waterproof expedition mitts.

Jacket. A lightweight jacket used in combination with other outer garments makes a better layering system than one thick, heavy jacket. A hood for extreme cold is a welcome addition.

Vest. This insulated garment keeps the vital organs—heart and lungs—warm. Best style has a flap in back to protect the kidneys. Detachable sleeves convert a vest to an insulated jacket.

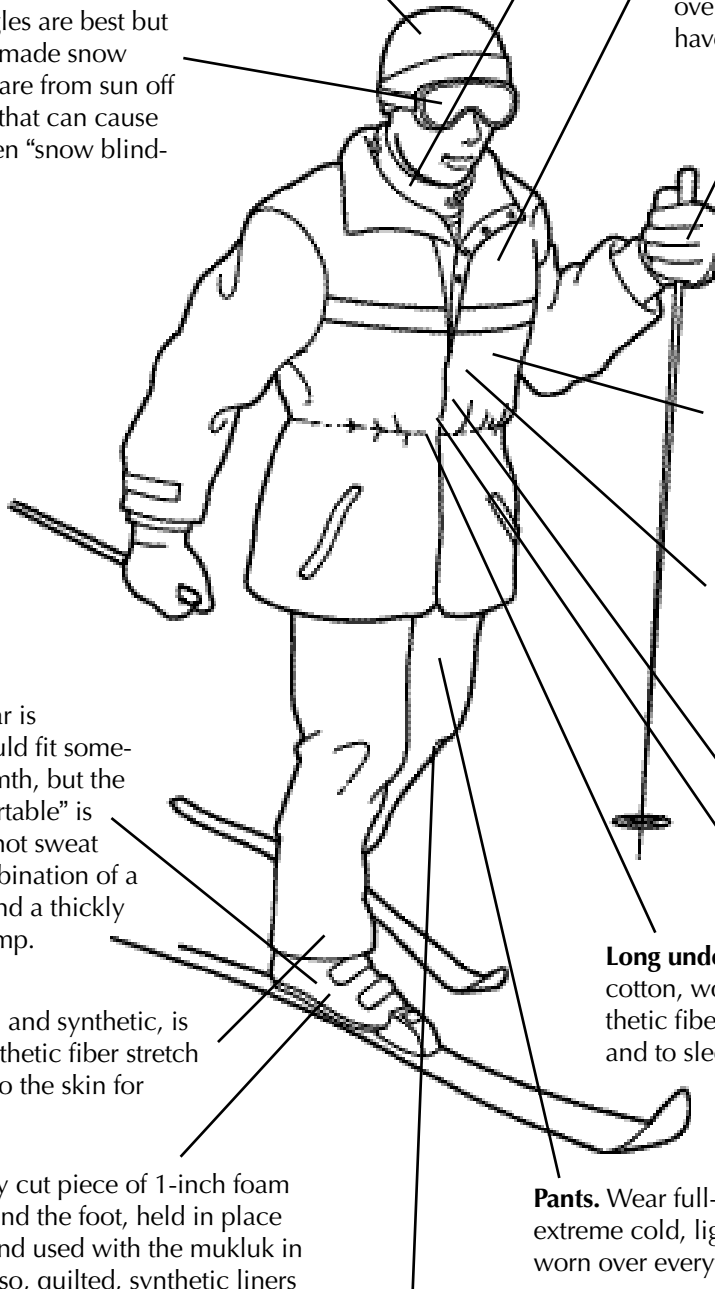
Sweater. Use a wool or wool synthetic sweater to layer.

Shirts. Wear full-cut, loose wool, or wool-and-synthetic fiber shirts.

Long underwear. May be wool, wool and cotton, wool and synthetic fiber, and synthetic fiber. Keep a spare set for emergencies and to sleep in.

Pants. Wear full-cut, preferably with suspenders. In extreme cold, lightweight, windproof pants may be worn over everything.

Insulated chaps. Equipped with snaps down the inseam, they may be put on or taken off without removing the boots. Taken off, the legs may be zippered together to form a half-bag inside the sleeping bag.



What Keeps You Warm?

Your body produces all the heat you need. Clothing is designed to hold in whatever heat you need to feel comfortable under a variety of conditions and activities. You will notice all our clothing is loose. That is because tight clothing constricts the flow of blood so the body heat cannot move around—just like when a faucet is turned off. That is why tight boots mean cold feet, and a tight belt means cold legs.

COLD

C.O.L.D. is an easily remembered key to keeping warm.

- C.** Keep yourself and your clothes *clean*. Dirt and body oils that build up on clothing destroy its insulating properties.
- O.** Avoid *overheating*. Clothing is designed to be taken off or added to in layers to maintain an even body heat.
- L.** Wear clothes *loose* and in *layers*.
- D.** Keep *dry*. Wet clothing removes body heat 240 times faster than it will dissipate through dry clothing. Wet is trouble.

Ventilation

To regulate the amount of heat yet not get overheated and wet with perspiration, adjustments can be made to loosen up the waist, the cuff, and the neck opening, allowing more heat to escape.

Wet, Windy, Cold

This is the combination that spells danger to the winter camper. We avoid it by keeping dry, getting out of the wind when possible, and wearing the correct clothes.

Good Clothing and Equipment

Buy the best clothing and equipment you can afford. They are essential for your enjoyment of the outdoors in winter.

Fire

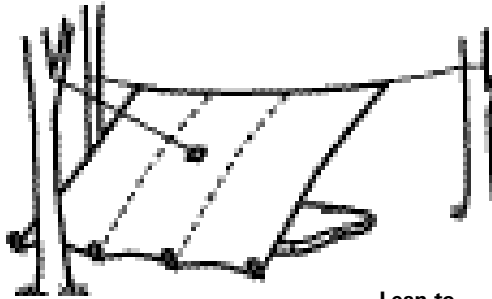
Nowhere in the winter clothing or sleeping systems will you see any provision for fire to provide body heat. Fire in the winter is a “false god” in regard to warmth. The body itself is like a big furnace. You stoke your furnace with good food; it burns the food and provides the heat that your heart circulates through your body. Layers of insulation determine how much of that heat is retained and how warm you will feel. Fire is useful for turning snow into water, for its cheerful glow, and for heating water in an emergency. Extreme care must be taken around an open fire not to get too close with synthetic fiber garments, which can shrivel or melt just from reflected heat.

Winter

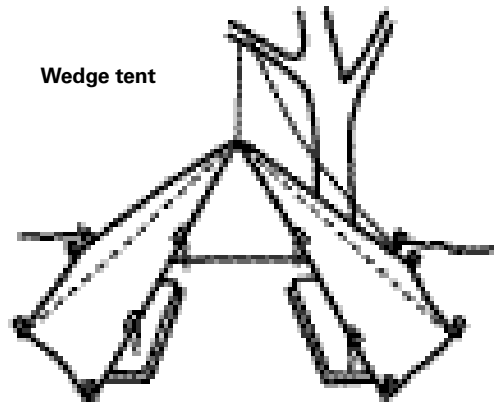
Short days, deep snow, and cold, clear, dry air characterize deep winter. The beauty of snow-covered terrain and the hushed silence of frozen lakes provide a unique setting for those who answer the call of winter camping. Learning to live in and enjoy the snow country is a challenge few dare to take. But once you have answered this call and have slept beneath the stars and the northern lights arrayed against a black velvet sky, or listened to the distant howl of a hunting wolf, snow camping will become an unforgettable experience that calls you back again and again.

Versatile Tarp Shelter

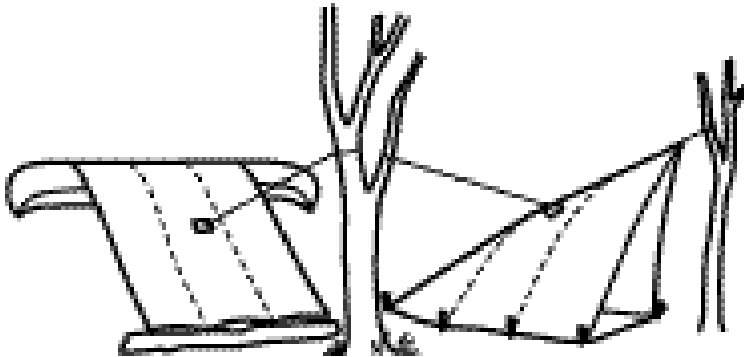
With a 7-by-11-foot piece of canvas, patrols can make this versatile tarp. Stitch ties and tabs between canvas and reinforcing squares. For waterproofing, use sprays sold in most home-furnishings, hardware, and variety stores.



Lean-to

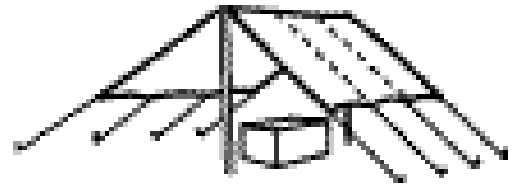


Wedge tent



Canoe shelter

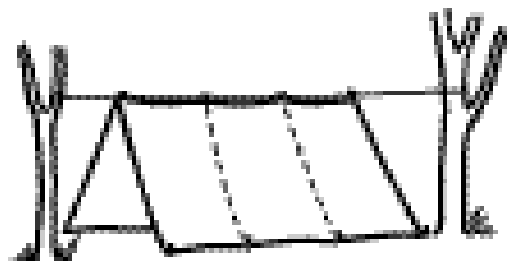
Modified forester



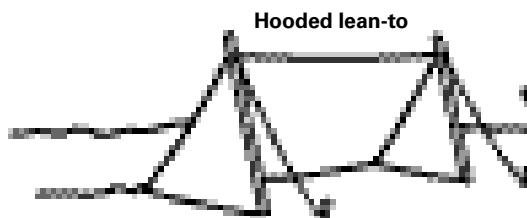
Dining shelter



Wigwam/gypsy tent over framework of lashed saplings



"A" tent



Hooded lean-to



Baker tent

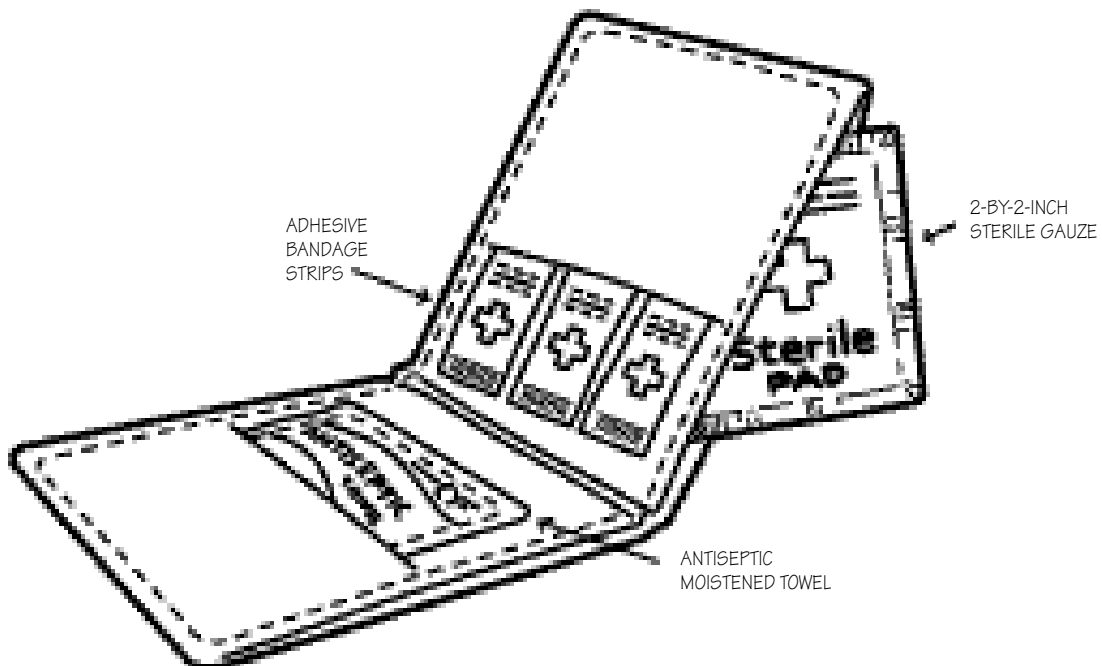
SUBJECT: ORIENTATION TO BASIC FIRST AID

Wallet First Aid

Make a first aid kit for your wallet. Here's what you need:

- Two or three adhesive bandage strips
- One 2-by-2-inch sterile gauze
- Soap leaves or an antiseptic moistened towel

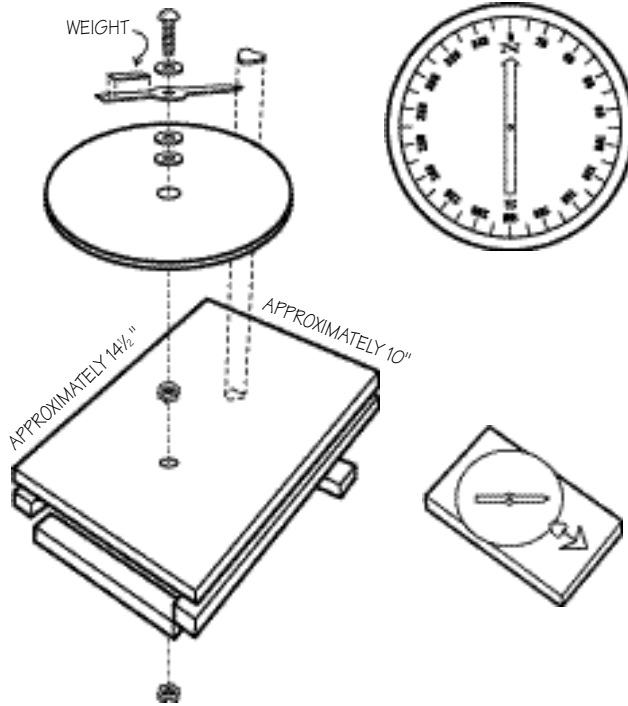
If you also carry a clean handkerchief at all times, you'll have a simple basic first aid kit.



SUBJECT: ORIENTEERING

Compasses

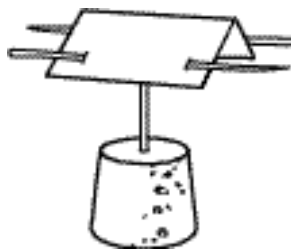
Compass instruction device



Experts say the best way to learn the compass is by using one in the field. But, if you have a large troop and few compasses, this mock-up will prove useful for instruction. The base is 1-inch lumber. The face is 1/4-inch plywood. The needle is weighted so that it points north when the device is held upright.

Two-needle compass

Magnetize two needles with a magnet—the head of one, the point of the other. Fold an inch-square piece of paper, insert needles as shown, and balance the paper on a third needle. The compass should swing north.



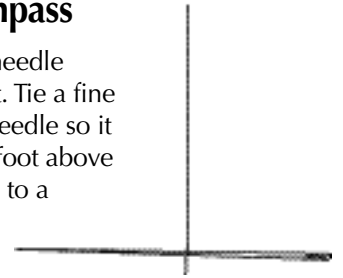
Paper clip compass



Bend a steel paper clip as shown. Stroke the top of the J with a magnet. Balance the compass on a coin or smooth surface, and it will line up north-south.

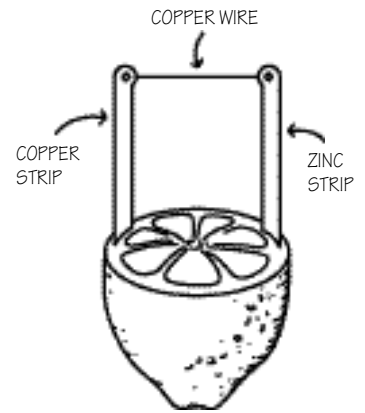
World's simplest compass

Stroke one end of a sewing needle against one pole of a magnet. Tie a fine thread in the middle of the needle so it balances. Hold the thread a foot above the needle, which will swing to a north-south position.

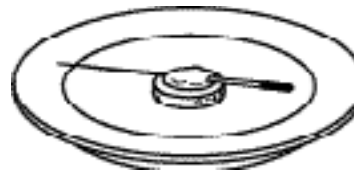


Lemon compass

Push thin strips of copper and zinc into opposite sides of a lemon half and join them with copper wire. Float the lemon in a bowl of water. Electrical current flowing through the wire will cause the lemon to turn until the copper points west and the zinc east.



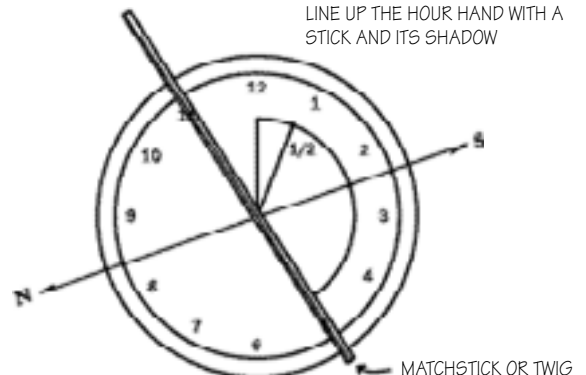
Another easy compass



Magnetize a sewing needle with a magnet. Attach it with wax or chewing gum to a cork about 1/4-inch thick and float it in a saucer of water. The magnetized end will point north.

Wristwatch compass

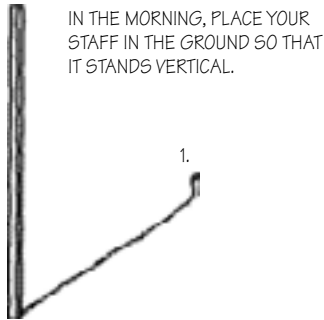
NORTH BY WATCH—AFTER SUNRISE AND BEFORE SUNDOWN
LINE UP THE HOUR HAND WITH A STICK AND ITS SHADOW



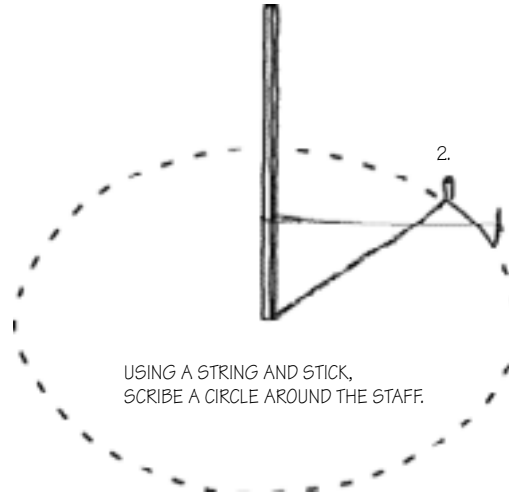
HALFWAY BETWEEN 12 AND THE HOUR IS SOUTH.

Direction and Time

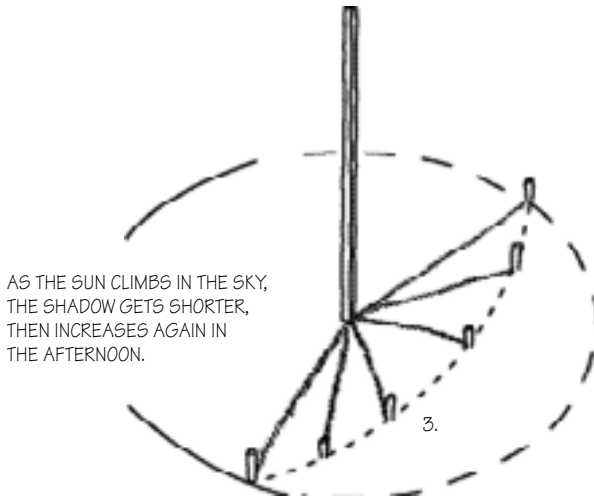
True North Line



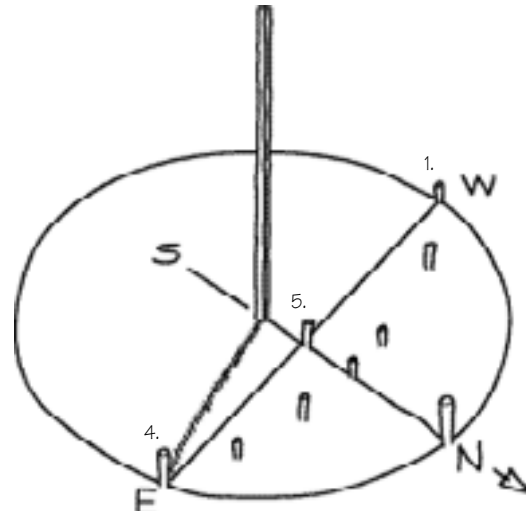
THE LENGTH OF THE STAFF SHADOW IS THE RADIUS. PLACE A SHORT STAKE AT THIS POINT.



Draw a straight line between 1 and 4. Halfway between 1 and 4, place another stake, 5. Draw a line from this stake to the staff. This is the north-south line. North will be on the stake side of the staff.

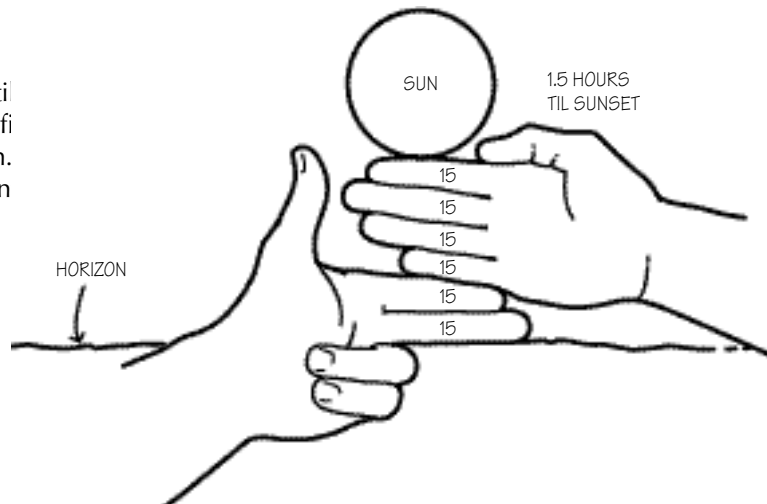


MARK THE SHADOW LENGTHS AT DIFFERENT TIMES OF THE DAY.



Estimating Time

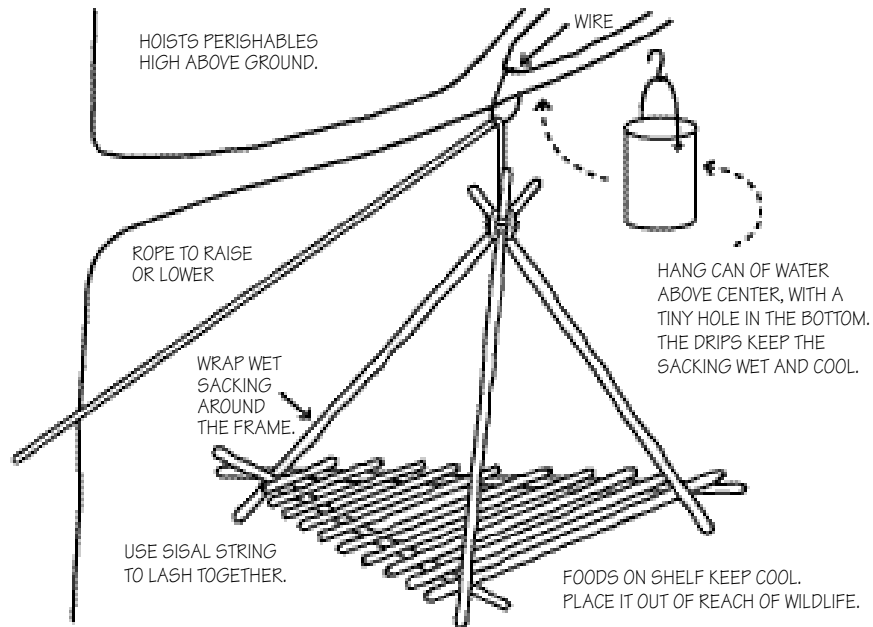
Try this method of gauging the time until sunset. Extend arms to full length and position fingers between the horizon and bottom of sun. Each finger represents approximately 15 minutes until sunset.



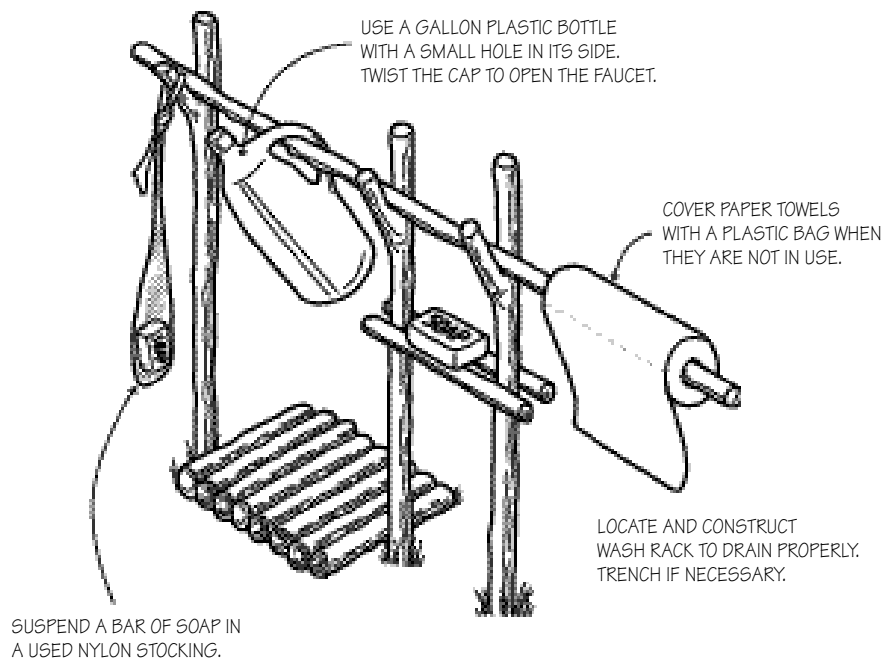
SUBJECT: FOOD STORAGE AND SANITATION IN CAMP

Food Storage and Sanitation in Camp

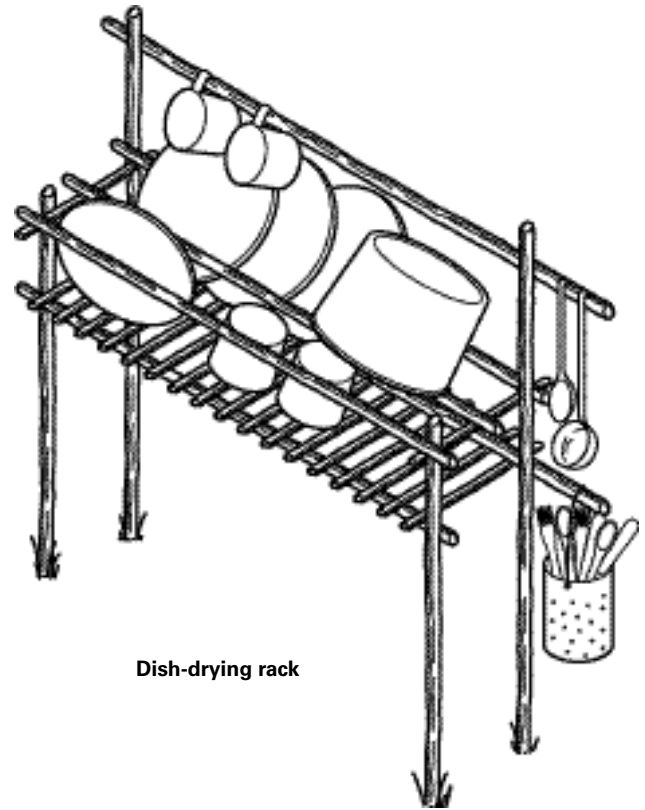
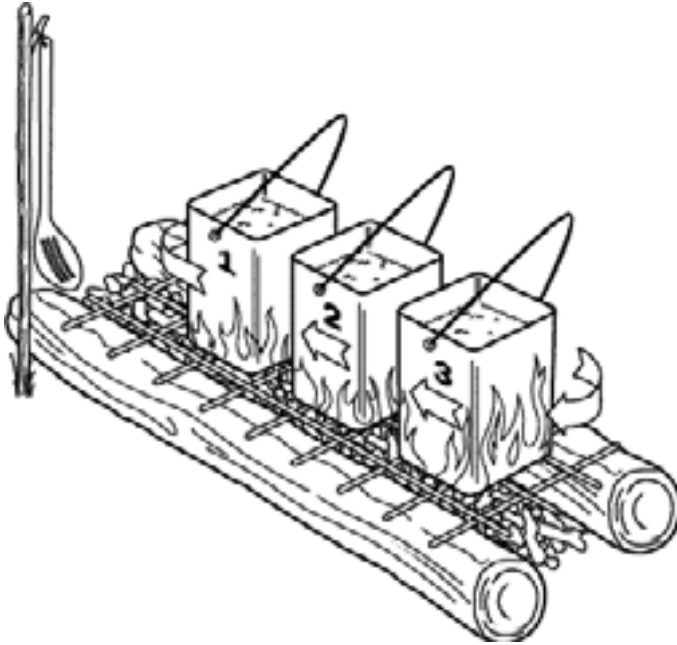
Tree "Fridge"



Hand-Washing Rack



Dishwashing



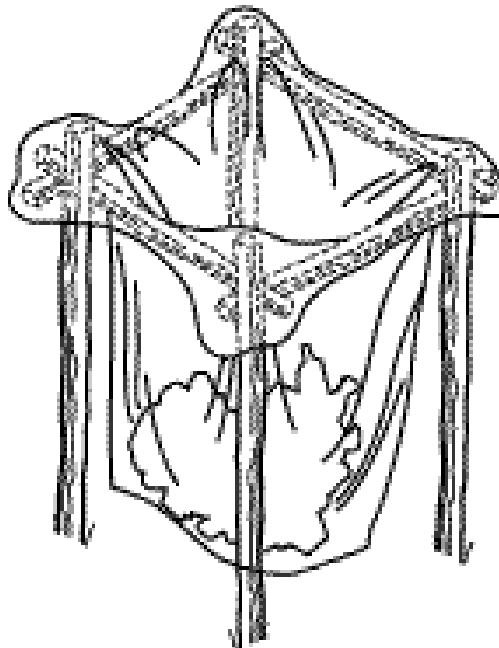
Dish-drying rack

The first can is filled with hot water and detergent.

Second and third cans are filled with boiling water for rinsing. Rotate cans after each meal.

Drain soapy water from first can. Cleanse and fill with water and rotate as shown.

Garbage Rack

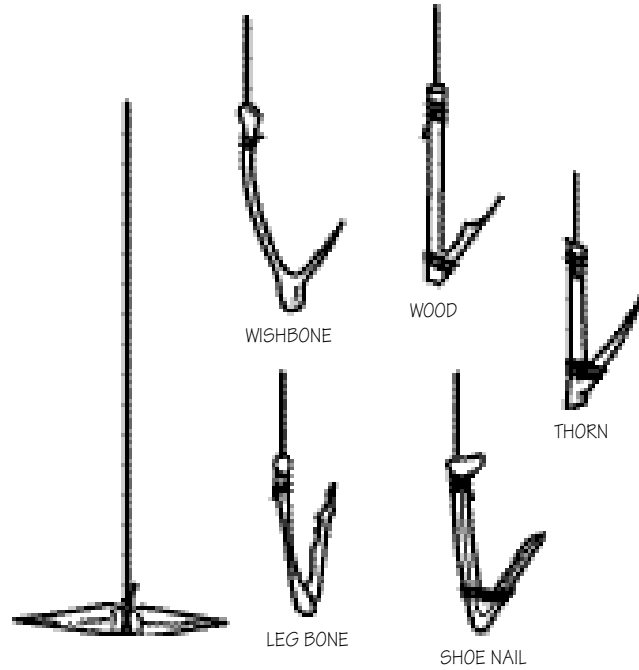


Drape a plastic bag or large market bag over this rack. All trash and garbage must be recycled or packed out properly according to the principles of Leave No Trace. If the camping area does not provide trash cans, all burned trash and cans must be carried out of the campgrounds. Do not bury cans or garbage.

SUBJECT: FISHING

Primitive Fishhooks

On your fishing campout, consider making and using hooks from natural sources.



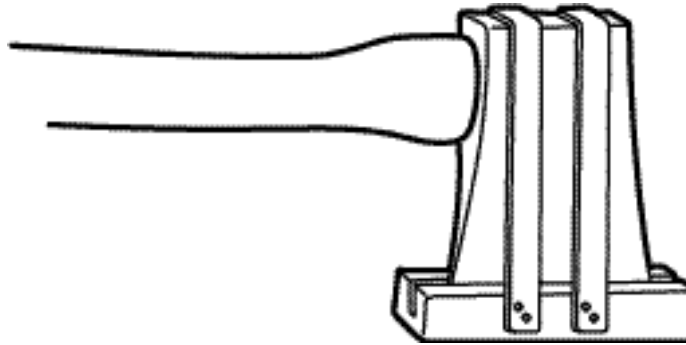
Use wood, bones, thorns. Use stones for sinkers.

SUBJECT: WOODS TOOLS

Care of the Ax

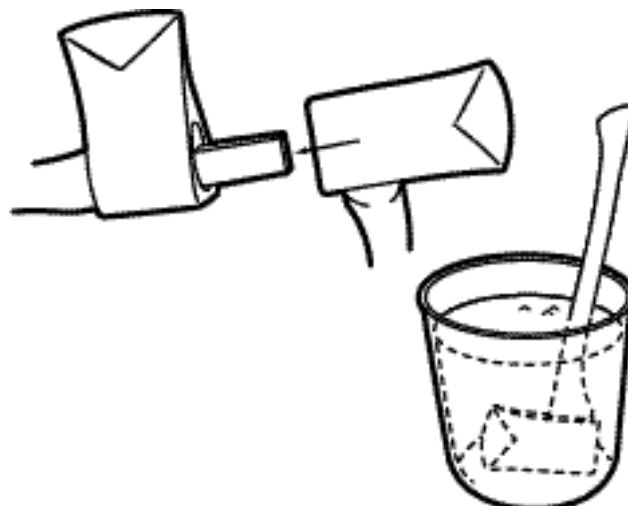
Ax Mask

Cut a groove in a wooden block and tack on two strips of inner tube as shown. Storing an ax in the mask keeps the sharp edge covered for safety and extends the life of the ax.



Ax Repair

Keep ax heads tight. Drive a new wedge alongside the older one if the handle is loose. In an emergency, soak the ax head in water for half an hour.



Whistles

Whistles can be made from basswood or willow with a bark covering, from elderberry with its large hollow center, or from cane or bamboo.

Basswood or Willow Whistles

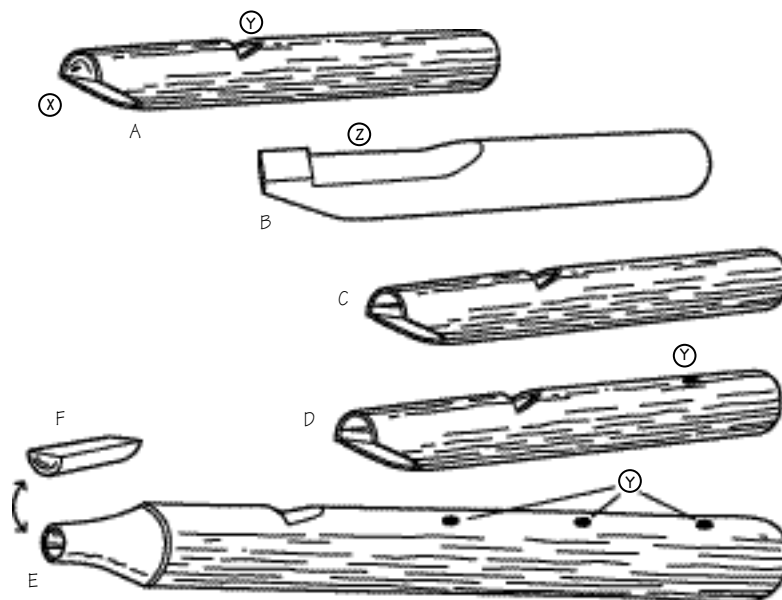
Cut a green branch of basswood or willow $\frac{3}{4}$ inch in diameter and 4 to 6 inches long. Bevel the mouth end on the lower side as seen at X in illustration A, and cut the notch Y on the upper side about an inch from the mouth end. Now pound the bark gently with a stick or roll it between two boards. The bark will soon loosen enough so that it can be slipped off. Whittle the wood center to the shape shown in B, flattening the top at the mouth end enough so that the air can get through when it is blown. Slip the wooden core back into the bark, and the whistle is ready to use, as in C.

If you make the section at Z longer, extending it almost the entire length of the whistle, and then cut a little hole through the bark as seen at Y in D, you will have a two-tone whistle. Blowing in it with the hole at Y open to get one tone, and place a finger over the hole when blowing to get another tone.

“Clean as a whistle!” How did the old saying originate? You will know when first you slip off the basswood bark to reveal the matchless whiteness and purity of the wood beneath.

Elderberry Whistles

The large pithy center in an elderberry branch can easily be pushed out with a wire and the inside further cleaned out with a long pointed instrument to make a hole large enough for the whistle. Because the shell of this whistle is of wood, it is more substantial and enduring than those of basswood or willow with only bark covering the excavated sections. We see such a whistle in E in the illustration. The elderberry stick should be an inch in diameter and 6 or more inches in length. Whittle the mouth end down small enough so that it is a convenient size and then whittle a plug of basswood or other soft wood as seen at F to be inserted in the hole at the mouth end. Cut the notch as shown, drill one or more holes along the top as seen at Y, and plug up the far end.



SUBJECT: FIRST-TIME CAMPER PROGRAM

Program Outlines

Tenderfoot—Rope

- Using sisal or manila rope, demonstrate how to whip rope using waxed stitching string as whipping material. (See *The Boy Scout Handbook*.)
- Using nylon or polypropylene rope, demonstrate fusing a rope. (See *The Boy Scout Handbook*.)
- Demonstrate tying two half-hitches and a taut-line hitch and show how it is used in tent pitching. (See *The Boy Scout Handbook*.)

Knot Trail (Knot Kim’s Game)

Equipment needed: Several pieces of rope of varying thickness, tied together using different knots (square, sheet bend, bowline, two half-hitches, taut-line hitch). One end of a rope tied to a tree with a clove hitch, the other end tied to another tree with a taut-line hitch.

Method: Each patrol walks along the rope from tree to tree and back again, silently, to observe and remember (approximately two minutes). Patrols then go into a huddle to come up with a list of the knots seen (including knots around trees) in the right order.

Tent-Pitching Contest

Equipment needed for each half-patrol team: One two-boy tent, poles, pegs, and guy lines, properly packed; one or two axes.

Method: Teams line up across from the equipment. At the signal, each team puts up its tent. When it is completed, the guy lines must be taut with the knots correctly tied, the tent sides should be smooth, the pegs properly placed, and the tent door closed.

Chain Gang

Equipment needed for each patrol: One rope at least 14 feet long.

Method: Patrols line up in relay formation. At the signal, the first Scout ties a bowline around his right ankle and hands the long end to the next Scout, who ties a clove hitch around his right ankle. Everyone on down the line also ties a clove hitch, continuing until the team is “all tied up.” The team then races to a finish line.

Scoring: The first patrol to reach the finish line with all the clove hitches and the one bowline tied correctly wins.

Tenderfoot—Flag Care and Presentation

Demonstrate how to

- Raise the U.S. flag.
- Lower the U.S. flag.
- Fold the U.S. flag.

Divide the Scouts into groups and set a schedule for the week assigning the groups to perform the flag ceremonies.

Tenderfoot—Physical Fitness

Go to the camp obstacle course. Have Scouts record their highest number of

- Push-ups
- Sit-ups
- Pull-ups

Also, have them record their longest standing long jump and fastest run/walk of 500 yards.

Tenderfoot—First Aid

Demonstrate first aid for

- Simple blisters and scratches
- Blisters on the foot or hand
- Minor burns or scalds
- Bites or stings of insects or ticks
- Poisonous snakebite and nosebleed

Also correctly demonstrate the Heimlich maneuver.

First Aid Baseball

Equipment needed: 10 cards numbered from 1 to 10, list of questions based on Second and First Class first aid requirements, piece of chalk.

Rules: Card No. 2 is a double, card No. 6 is a triple, and card No. 10 is a home run. All other cards are singles.

Method: Draw a miniature baseball diamond on the floor with chalk. Line up the team (patrol) behind home plate. The umpire (game leader) holds cards in his hands. In turn, each Scout tries to answer a question the umpire gives him. 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 the question correctly, he is out. After three outs, the next patrol comes to bat.

Kim's First-Aid Game

Equipment needed: Blanket or tarp; collection of 10 or more first aid items—gauze pads, bandages, splints, adhesive tape, absorbent cotton, soap, scissors, tweezers, sunburn ointment, snakebite kit, calamine lotion, thermometer, etc; two or more items not used in first aid—ball, paper clip, *The Scoutmaster Handbook*, pencil, penny, photo, shoe, glove, hand ax, toothpaste, etc.

Method: Spread all items on the floor and cover them with a blanket or tarp. Group patrols around the blanket, then remove the cover for exactly one minute. Afterward, patrols huddle separately and write down all *first aid items* they remember.

Second Class—First Aid

Demonstrate first aid for

- An object in the eye
- The bite of a suspected rabid animal
- Serious burns
- Heat exhaustion
- Shock
- Hurry cases

Stretcher Relay (Not for Speed)

Equipment needed: Two staves, one strong blanket, and one inflated balloon for each patrol.

Method: Patrols line up in relay formation, with two “victims” in front of each. On signal, two members of each patrol run up with blanket and two staves, make a stretcher, and put one victim on it. The junior leader (or judge) places an inflated balloon on the victim when the stretcher carriers are ready to lift the stretcher. The victim is carried to the starting line without the balloon falling off (balloon is to assure care rather than speed). At the starting line, the victim is lifted off and the stretcher bearers take apart the stretcher, handing the blanket and staves to the next two people in line. They then run up to make a stretcher for transporting the second victim.

Remedies

Equipment needed: A complete first aid kit for each patrol; splints and first aid supplies as needed.

Method: The patrols sit in their patrol corners. A leader then takes from the kit those first aid items that have been used to treat a hypothetical first aid case. The patrol members carefully observe the items as they are presented. The leader then replaces all the items, and the patrol must decide what the injury has been.

Scoring: The first patrol to come up with the correct answer wins. If a patrol guesses wrong, it is disqualified.

Variation: After the leader replaces the first aid items, he may answer the patrol's questions, but only with “yes” or “no.” Score as above, or limit the number of questions.

Second Class—Woods Tools

Demonstrate how to use and care for the following woods tools:

- Pocketknife
- Bow saw
- Felling ax
- Demonstrate using woods tools to prepare tinder, kindling, and fuel for a cooking fire. After cutting the fuel for the fire, build a fire and boil a pot of water. Later, the Scouts will use this skill to build a fire to cook a lunch.

String-Burning Race

Equipment needed for each team: Two 2-foot sticks, two 3-foot lengths of twine, two matches.

Method: Before the race, two sticks are pushed into the ground 24 inches apart. One piece of string is tied between the sticks at 12 inches off the ground; the other is tied between the sticks at 18 inches above ground. Each patrol gathers tinder and firewood. The patrol then selects two representatives. On signal, the two Scouts lay the fire (but not higher than the lower string) and light it. After lighting, the fire must not be touched, nor can more wood be added. The winner is the pair that burns the string first.

Water-Boiling Race

Equipment needed for each team: One No. 10 metal can, one teaspoon soap powder or detergent, two matches.

Method: Before the race, each patrol gathers native tinder, firewood, and three rocks for the fireplace. The can is filled with water to within 1 inch of the top, with soap or detergent added. The patrol then selects its two representatives. On signal, the two Scouts set up their stone fireplace, lay and light a fire, place the can of water over the fire, and keep feeding the fire until the water boils.

Second Class—Ecology and Conservation

Before taking a nature hike, identify for the Scouts:

- Poisonous snakes, if any
- A combination of 10 wild animals, fish, birds, and reptiles that may be found on the camp property

Nature Sensing

Equipment needed: None.

Method: Each patrol sits quietly outdoors, and members record the sounds, smells, sights, and feelings of nature in their mind. After five minutes, each patrol has three minutes to compile one written list of the different observations of its members. Before the contest, give suggestions to stimulate the observational powers of Scouts—wind in trees, waves on beach, sounds of birds and insects, smell of different trees, feel of insects, feel of wind on the face. Warn Scouts that lists must be made up of natural things—no train whistles or car horns.

Nature Memory Hunt

Equipment needed: On a large table, spread out a nature display consisting of approximately 20 items, such as: acorn cups, small rocks, large burdock leaf, bundle of pine needles, broken bird eggshell, bird feather, local wildflower, fern frond, local wild berry or nut.

Method: The patrol has five minutes to observe the display, in silence, as Scouts try to memorize the items. After a huddle, Scouts scatter for 10 minutes to collect corresponding items and place their items next to those in the original display.

Second Class—Map and Compass

- Demonstrate how to use a compass.
- Demonstrate how to orient a map and read map symbols.

Map Symbol Relay

Equipment needed: Several identical sheets of paper with numbered map symbols—including contour lines drawn on them.

Method: Patrols line up in relay formation facing opposite wall, on which map symbol sheets (one for each patrol) have been posted. On signal, the first Scout runs up, names the first symbol, then runs back and touches off the next Scout, who runs up and names the second symbol. Continue the relay until all symbols have been named.

Direction Hunt

Equipment needed: Eight (or more) tall stakes with pointers, pointing to distant landmarks or clearly identified objects (large tree, large rock, etc.). Each participant has an orienteering compass, pencil, and paper.

Method: Scouts from each patrol distribute themselves at the different stakes. They check landmarks toward which the markers on stakes are pointing, set their compasses for the degree directions to the landmarks, and write them down. The Scouts then move to the next pointer and determine the next degree direction. At the end of the specified time, each Scout turns his findings over to the judge.

First Class—Map and Compass

Demonstrate first aid for: (See appropriate pages in *The Boy Scout Handbook*.)

- Bandages for head injuries, broken bones, sprained ankles
- Transporting a person with broken leg
- Transporting a person from a smoke-filled room
- Five signs of a heart attack
- Steps in cardiopulmonary resuscitation (CPR)

First-Aid Problems

Problem A: On an extremely hot day, a group of boys is sitting on a fence in front of their high school, watching a parade. One of the boys falls to the ground. His face is hot, dry, and flushed, and his pulse is exceptionally rapid. His left ear is torn and bleeds profusely.

Problem B: On a very cold day, an unconscious man is found lying behind a train shed. It is evident that he slipped on the railway track and struck his head. There is a gash running five inches from front to back of his head; it is bleeding profusely. The skin on his face is very cold, and his ears are pale.

Bandage Relay

Equipment needed: Scout neckerchief or triangular bandage for each Scout.

Method: Patrols are seated in their patrol corners. A judge is assigned to each patrol. Each Scout selects a buddy from his own patrol. The name of a bandage is announced. On signal, one Scout from each team ties the named bandage on his buddy. The judge checks bandages as they are finished. As soon as the judge approves a bandage, it is removed, and the Scout on whom the bandage was tied now ties the same bandage on his buddy. When the judge approves both bandages for each team in the patrol, the patrol has finished the first round. They use another type of bandage for the second round, and so on.

First Class—Nature

- Before taking a nature hike, identify a few plants for the Scouts.
- Identify or show evidence of at least 10 kinds of native plants found in camp. (See appropriate pages in *The Boy Scout Handbook*.)

First Class—Rope

Demonstrate the following knots and lashings: (See appropriate pages in *The Boy Scout Handbook*.)

- Timber hitch
- Clove hitch
- Shear, square, and diagonal lashings

Have Scouts practice lashings by making a simple camp gadget.

Race

Equipment needed for each patrol: Six Scout staves and nine pieces of sash cord for lashing.

Method: Equipment is placed in piles across from patrols. On signal, patrols run and lash a “chariot.” They do this by making a trestle frame, as in building a bridge. Four staves form a square, the fifth and sixth staves are lashed diagonally to the opposite two sides. When the frame is finished, two Scouts pull the “chariot” and rider down the field around a marker and back to the finish line.

Progress Report

Activities Planned for Scouts Working on the Tenderfoot Rank

Completed Well Done	Completed Satisfactorily	Needs Help With	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Be able to present yourself, properly dressed, for an overnight camping trip. Show the gear and properly pack and carry it. This can be done in troop site.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spend at least one night in a tent that you have helped pitch. This can be done in a troop site.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate how to whip and fuse the ends of a rope.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate tying two half-hitches and a taut-line hitch.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate how to display, raise, lower, and fold the American flag.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Record your best in the following areas: push-ups, pull-ups, sit-ups, standing long jump, and run/walk 500 yards. These exercises should be started before coming to camp.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate the Heimlich maneuver and tell when it is used.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify local poisonous plants; tell how to treat for exposure to them.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show first aid for the following: simple cuts and scratches, blisters on the hand or foot, minor burns or scalds, bites or stings of insects or ticks, poisonous snakebite, and nosebleed.

Activities Planned for Scouts Working on the Second Class Rank

Completed Well Done	Completed Satisfactorily	Needs Help With	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate how a map and compass work and how to orient a map. Explain what the map symbols mean.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate proper care, sharpening, and use of knife, saw, and ax.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use the tools in preparing tinder and fuel for a cooking fire for a meal.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Participate in a flag ceremony.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify or show evidence of at least 10 kinds of wild animals, birds, fish, and reptiles.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show what to do for "hurry" first-aid cases.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Show first aid for an object in the eye, a bite of a suspected rabid animal, serious burns, heat exhaustion, and shock.

Activities Planned for Scouts Working on the First Class Rank

Completed Well Done	Completed Satisfactorily	Needs Help With	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate how to determine directions during the day and at night without using a compass.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Using a compass, complete an orienteering course that covers at least one mile and requires measuring the height and/or width of designated items.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify or show evidence of at least 10 kinds of native plants found in your locale.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate tying the timber hitch and clove hitch and their use in square, shear, and diagonal lashings.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use a lashing to make a useful camp gadget.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate tying the bowline knot and how it is used.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Demonstrate bandages for injuries on the head, the upper arm, and the collarbone, and for a sprained ankle.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	By yourself or with another person, show how to transport at least 25 yards a person who has a sprained ankle.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tell the five common signs of a heart attack. Explain the steps in CPR.

SUBJECT: STAFF TRAINING

Camp Staff Training Outline

Here is an example of a training outline that could be done with your staff.

10 minutes	<p>General discovery—break from what they’ve done</p> <ul style="list-style-type: none"> • Participants share what they do for staff training • Limit to one minute • Creates interest 								
5 minutes	<p>Overhead</p>								
15 to 20 minutes	<p>Two buzz groups</p> <ol style="list-style-type: none"> 1. Write a set of learning objectives for technical skills. 2. Write a set of learning objectives for behavioral skills. <p>Reports on flip charts</p>								
15 minutes	<p>Available resources: Some of them are dyads. Develop real examples of resources within the resource.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">• Camp</td> <td style="width: 50%;">• Volunteers</td> </tr> <tr> <td>• Council</td> <td>• Money</td> </tr> <tr> <td>• Camp staff</td> <td>• Time</td> </tr> <tr> <td>• Post charts</td> <td>• Vendors</td> </tr> </table>	• Camp	• Volunteers	• Council	• Money	• Camp staff	• Time	• Post charts	• Vendors
• Camp	• Volunteers								
• Council	• Money								
• Camp staff	• Time								
• Post charts	• Vendors								
10 minutes	<p>Minilecture on instructional design</p>								

How to Teach a Skill

Preparation

Create in your participants a receptive attitude and a desire to learn the skill.

1. Put your students at ease.
2. Name the skill.
3. Use stories to prove the importance of a skill.
4. Give necessary background; for example:
 - Purpose of a skill
 - When it is used
 - How it is used
 - Why it is used
 - Where it is used

Presentation

Arrange aids and equipment in such a way that the participants can follow the demonstration easily and see all that is to be seen.

1. Teach one skill at a time.
2. Explain while showing—tell and show.
3. Face the participants while telling and showing.
4. Speak clearly and demonstrate deliberately in a continuous sequence.
5. Stress the key points of the skill.
6. Stress the need for repetition.
7. Use the “Whole-Part-Whole” method of presenting a skill:
 - Show the whole skill first.
 - Break the skill into parts.
 - Show the whole skill again in slow motion.

Application

Make use of group, partners, and individual methods of class organizations according to the type of skill, size of the class, size of the class area.

1. Have participants do the skill.
2. Have participants practice progressively in parts leading to attainment of the whole skill.
3. Watch for and correct errors immediately. Early correction of an error leads to increased success.
4. Compliment and encourage participants.

Follow-Up

The “Law of Use and Disuse” states “that a skill that is used frequently becomes a habit and if not used frequently may be forgotten.”

1. Apply and adapt the skill to numerous situations, such as:
 - Testing
 - Problem work or drills
 - Teaching to a student who has difficulty
2. Encourage its use in actual situations.
3. Have people teach the skill to others—individually or as a class.
4. Review skills periodically.

Summary

A good teacher challenges, inspires, encourages, and helps his or her participants with skills. A good teacher never gives up, is patient, avoids bad mannerisms, speaks clearly and distinctly, uses simple language that all can understand, and emphasizes key points when talking directly to a group of participants.

SUBJECT: COOKING FISH AND FOWL

Preparing Fish

Before you cook freshly caught fish, it is important that you clean and prepare them properly. The following procedure is straightforward and requires only the use of a sharp knife and a clean, firm cutting surface—plus a bit of courage!

Method:

- Wash the fish thoroughly in clean water.
- Remove the scales by scraping with the back of the knife (that is, not the sharp edge), working from the tail toward the head.
- Cut the spine at the point just behind the gills and tear the head off with a steady, slow, forward motion. If you are careful, the fish's entrails will come out with it.
- Slice the belly open from the tail to the gills and thoroughly clean the inside.
- Finally, cut off the fins and tail and cook as desired.

Broiled Fish

You will need:

- A supply of green sticks
- One fish per person

Method:

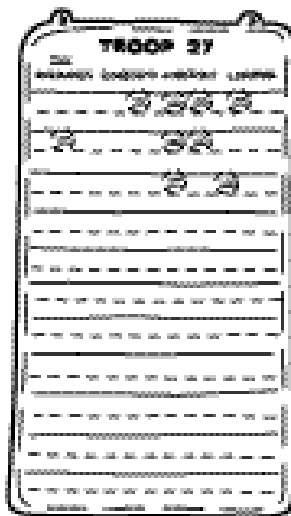
- Strip the bark off the green sticks you are to use and seal them by placing them briefly over hot coals.
- Find a large Y-shaped green stick (ash, hazel, or willow are suitable, not holly or yew) and weave it into a tennis-racket shape.
- Open out the gutted fish and place it upon three sticks laid lengthways on the "racket."
- Lay three or four more sticks across the top of the fish at right angles to the other sticks, tucking the ends underneath the sides of the "racket" as shown, to keep the fish in place.
- Prop the broiler a short distance above glowing coals and cook for about 20 minutes. Turn occasionally.

SUBJECT: THE ROLE OF AQUATICS IN THE CAMP PROGRAM

Camp Aquatics Equipment

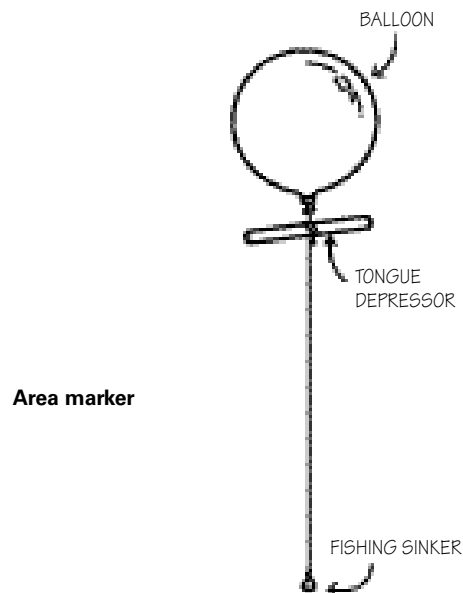
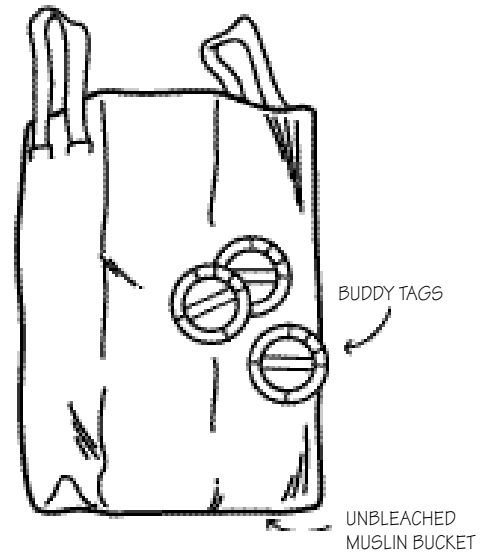
Portable Plastic Buddy Board

The portable buddy check board shown here can be made and used by units at all swimming activities. The top section, used for the actual check-in procedure, can be constructed of red oilcloth or colored plastic. The bottom or tag-storage section is made of clear plastic. Clear plastic pockets are then sewn on both sections to enable easy reading of tags. Adaptable to all surroundings, this board can be fastened to a wall at the YMCA pool, a fence at the city pool, or a tree at the unit swimming hole. To carry: Fold lengthwise down the center and carefully roll from bottom to ensure keeping tags in place.



Troop Swim Kit

This troop swim kit contains all the elements for setting up a safe swimming area for the troop. Store in an unbleached muslin bucket that can also be used as a rescue float when wet and inverted. The kit includes buddy tags; 100 feet of twine for boundary lines; six tongue depressors for area markers, each tied with seven to 12 feet of fish line and with ends weighted with lead sinkers or stones; six balloons to tie over the sticks; 100 feet of 3/8-inch nylon line or rescue line (chain-link it for easy storage).



National Camping School



OUTDOOR SKILLS LESSON PLAN
Resource Manual

BOY SCOUTS  **OF AMERICA**