

Adirondack Foothills District



2012

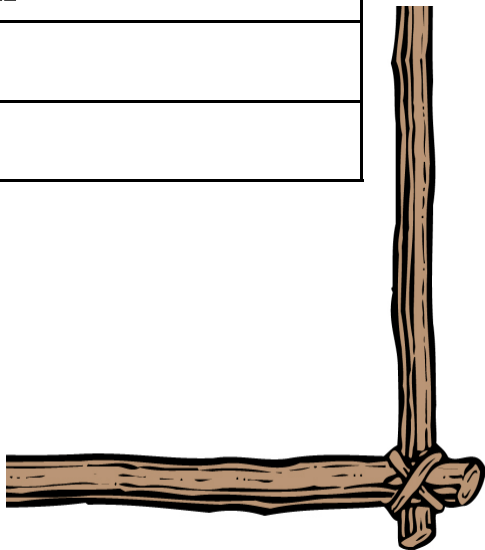
Klondike Derby

**Guide for Leaders
& Participants**



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Cold Weather Outing

A Klondike derby is first and foremost a cold weather outdoor event, and it is expected that all scouts and scouters will prepare and dress accordingly. Dressing accordingly will not only ensure the safety of all participants, but also provide for the maximum level of potential enjoyment.

Cold Weather Comfort & Safety

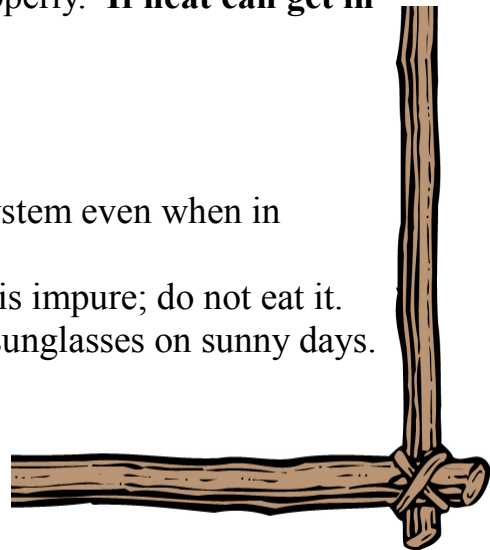
A key fundamental of cold weather camping and outings is to KEEP DRY. Moisture will reduce the insulating properties of almost everything. An easy acronym to remember is COLD.

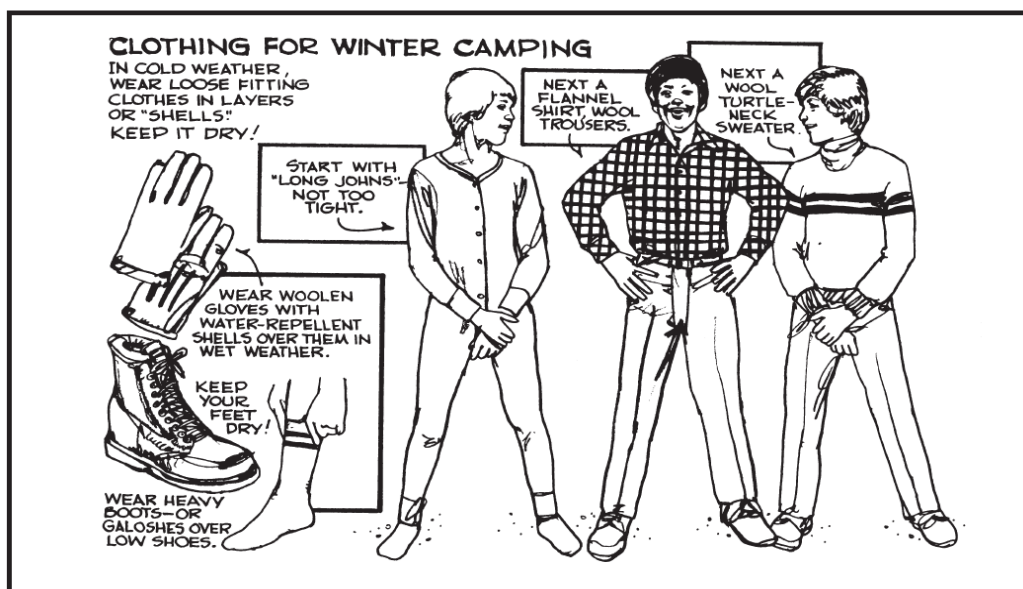
- C Keep yourself and your clothes Clean.
- O Avoid Overheating.
- L Wear clothes loose and in Layers
- D Keep Dry

A few thoughts on clothing and layering:

- Make sure all layers are loose fitting to optimize insulation.
- Keep yourself dry, both from weather and perspiration.
- Remember, wool retains most of its insulating properties when wet, while cotton loses almost all insulating properties when wet.
- Boots with good insulating and waterproofing properties should be worn, **tennis shoes or sneakers are not appropriate footwear.**
- Use wicking/liner socks along with wool socks to improve insulation.
- Upper and lower thermal underwear.
- Head cover; remember, most of your body heat escapes through your head, a wool cap that can cover your ears is best.
- While gloves provide independent use of fingers, mittens provide better warmth.
- If you require a fire to keep warm, then you are not dressed properly. **If heat can get in through the layers, so can the cold.**

Cold weather reminders:

- Drink plenty of water.
 - Learn to recognize cold weather health problems, use buddy system even when in groups to ensure everyone is safe.
 - Eating ice and snow will reduce your body temperature, and it is impure; do not eat it.
 - The glare of sun off snow can cause snow blindness, use dark sunglasses on sunny days.
- 



Boy Scouts of America. Troop Program Resources for Scout Troops and Varsity Teams, 11/02/2011, from: http://www.scouting.org/FILESTORE/pdf/33112_WEB.pdf

Clothing for Cold weather activities:

Torso:

- Long, thermal underwear
- Shirt or inner layer
- Sweater or light jacket
- Wind or rain gear

Legs:

- Long, thermal underwear
- Inner pants, wool or wool blend
- Wind or rain pants

Feet:

- Wicking inner socks
- Insulating socks; wool or wool blend
- Boot liners with insulated insoles
- Waterproof, loose fitting boots

Other extremities:

- Head coverings, wool, with ability to cover ears
- Wool scarf, or other neck covering
- Mittens or gloves



Health and Safety

Weather

All scouts and scouters should be mindful of the environmental factors involved with a Klondike Derby. Everyone should be mindful of their own and others health and welfare. The use of the buddy system can be invaluable in situations like this. Any signs of cold weather related injuries should be addressed promptly.

Warming Station

The Camp Russell dining hall will be used as a warming and first aid station. Hot beverages will be available for sale at this location.

Health Officer

There will be a designated health officer and aid station available at this event. All injuries should be reported to the designated health officer.

Health Forms

Scout leaders must have a current copy of part A & B of the BSA health form for all participants (including adult leaders). These will need to be available upon request of the designated health officer or camp master. See Appendix A for a copy of part A & B of the most current BSA health form.

Parking

Participant parking will be available in the designated upper and lower parking lots used during the summer season. No parking will be permitted along roadways, or near buildings. Paths for emergency vehicles must be kept clear. In addition this years Great Sled Race will take place on the roadway around the campsites, so any vehicles on this road will impede activities. See Appendix E for a camp map indicating the location of approved parking locations.



Other Information

Pre-Registration

Pre-Registration is MANDATORY. Accommodations will be made for troop who show up with an extra scout or two, but all troops must pre-register for this event no later than February 1st. This registration must include a roster of scouts and scouters attending the event. The Pre-registration is vital it ensuring an adequate amount of food and patches are made available for all attendees.

Lunch

Lunch will be provided and is included in part of your event fee. Starting at Noon food will be served under that handicraft pavilion for all participants. Lunch will consist of hotdogs, soup, and hot coco.

Sledding Hill

There is a designated sledding hill which is located behind the dining hall just past the staff shower house. Scouts are welcome to utilize this during the Klondike Derby and during any other winter camping event if they wish, we do ask that scouts and scouters review the RTC Slide on Safely guidelines found in appendix B.

Webelos

We are encouraging troops to invite Webelos from their partnering packs to join them and participate in the activities at this years Klondike Derby. This is a great opportunity for the Webelos to attend and participate in a scouting activity to complete the requirement for the Arrow of Light Award. And as this is a popular transition time for Webelos into Boy Scouts it makes for a good transition activity.



Gear for Sled

Any of the gear listed can be used for the scouts benefit at any and all of the stations. In fact failure to bring some key items could create problems in completing some of the tasks scouts will be charged with at this event.

Things you must bring

#1 Most important; Scouts (who are properly dressed)

Webelos	Troop Roster (Appendix F)	Health forms (Appendix A)
Paper & pen/pencil	First Aid Kit	Klondike Sled
Wood for fire starting	Matches, hot spark, or flint & steel	30ft length of rope (for log hoist)
Trash bag	Water	

Highly Recommended Items

Scout Handbook	Patrol Flag	Cravats
Small shovel or entrenching tool	Splints	Additional lengths of rope
Clipboard	Watch	Morse code or other signaling resource guide
Garbage bags	Blanket	Tarp
Two (2) six-foot-long staves	Compass	Snow Snake for each scout
Flashlight	Pocket knife	

What not to bring

Electronic devices (cell phones, I-Pods)	Gas lighters	Chemical fire starters
Poor sportsmanship		





Schedule of Events

Time	Event
8:45-9:15	Registration
9:15 promptly	Opening Ceremony
9:30-12:30	Events
Noon-1:30	Lunch break, turn in score cards, scoring of snow snakes (*score cards not turned in by 1pm will not be counted*)
1:30	Troops gather for Great Sled Race
20 minutes following the completion of the Great Sled Race	Closing Ceremony, presentation of awards



Events

For each of the events that scouts will be participating in, any and all of the items on their sled (that come from the approved list) can be utilized to help in the completion of the tasks they face.

Cross Cut Saw

Scouts will use a 2 man cross cut saw to cut through a log. This will be a timed event, points will be awarded at a rate of 1 point for every 30 seconds below the base time set to cut through the log. Ex. The base time is 12 min, and a troop takes 7 min to cut through the log, they will receive 10 points. (a saw, log, and sawbuck will be provided)

Log Hoist

Scouts will freely suspend a log in the air. Points will be awarded for the proper use of knots and time much like the cross cut saw. (the only item provided, will be the log)

Search & Rescue

Scouts will face a combination of challenges as they participate in a mini search & rescue. Scouts will need to utilize a multitude of skills to successfully complete this activity. Some skills needed include, but are not limited too; orienteering, pioneering, problem solving, land navigation, signaling, winter survival and first aid.

Signaling

Scouts will be given a short message that they must send using non-verbal communication over a distance to another scout in their troop/patrol. The receiving member must correctly record the message. Points will be awarded for successful receipt of message. Options of message sending include morse code, semaphore, other means of transmission may be accepted per the permission of the station judge. No texting or other electronic communication devices will be permitted. (a flashlight and signal flags will be provided)



Events Continued

Firestarting

This is a timed event. Scouts will build and light a fire with the goal of burning through a string 3 ft. off the ground. This station will have a strictly enforced time limit of 15 minutes. Scouts will start with a clear fire pit, and given a signal will begin building and light their fire with the goal of burning through a string. The time building the fire itself will count into the time of the event, so all materials should be prepped prior to the event. Points will be given for each minute under the 15 min. time limit. No chemical fuels or lighters may be used. Any attempt to pre-soak materials with “Boy Scout water” will end with a disqualification. The use of a hot sparker will earn 2 bonus points, the use of a flint and steel will earn 5 bonus point. Scouts are also responsible for putting out, and cleaning their fire after the competition. (the sting that must be burnt is the only thing provided)

Snow Snake

It is encouraged that every scout create and bring their own snow snake to the Klondike derby. At the snow snake event scouts will compete individually for distance. See Appendix D for Snow Snake design plans.

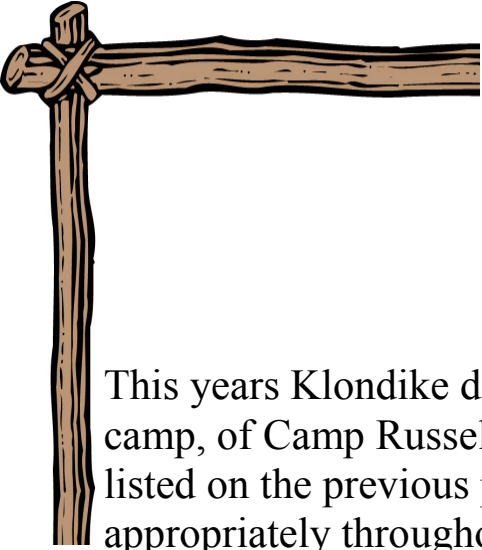
The Great Sled Race

This years Great Sled Race will go around the camp road that encircles the camp sites. We will utilize a staggered start time method to prevent bottle necking. Troops will start with about a 30 second staggered start, then proceed around the roadway. The troop with the fastest time will receive 10 bonus points added to their overall score, 2nd place will receive 8 points, and 3rd place will receive 6 points. All participating troops will receive 3 points.

Match Splitting

Using a hatchet scouts will attempt to split an upright match in half end to end. Bonus points will be earned for lighting the match with the hatchet while splitting.

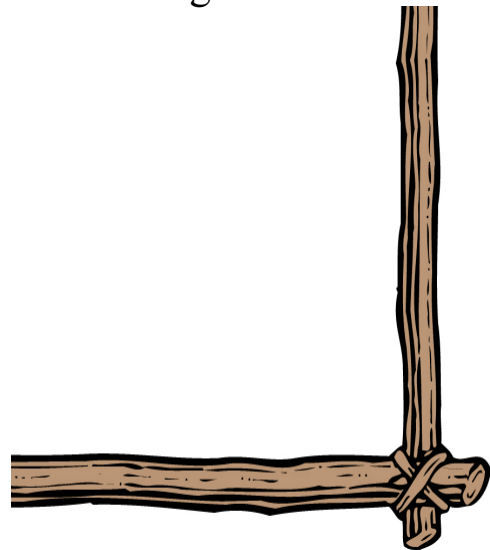
(matches and a hatchet will be provided, though troops/patrols are welcome to use their own hatchets)



Towns

This years Klondike derby will feature “towns” spread all throughout base camp, of Camp Russell. At each town scouts will encounter the different events listed on the previous pages. It will be important that scouts pace themselves appropriately throughout the day to ensure they visit all the towns and complete all the events prior to 12:30, as the event staff will be shutting down at that time to eat their lunch, and scores can be tallied.

<u>Town</u>	<u>Event(s)</u>	<u>Location</u>
Noveria	Snow Snake	Parade Field
Umiat, Alaska	Cross Cut Saw & Match Split	Handicraft
McMurdo Station, Antarctica	Log Hoist	Beard Village
Oymyakon, Siberia	Search and Rescue	Scout Craft
International Falls, Minnesota	Signaling	Boyce Village
Yukon Territory, Canada	Fire Starting	Council Ring





Awards

Klondike Derby Patch

The scout who's Klondike Derby Patch is chosen will be announced.

Snow Snake Awards

1st, 2nd, and 3rd place winners will be announced for the individual scouts with the longest Snow Snake throw.

1st, 2nd and 3rd place winners will be announced for the individual scouts who's Snow Snake receives the most number of votes in the design completion.

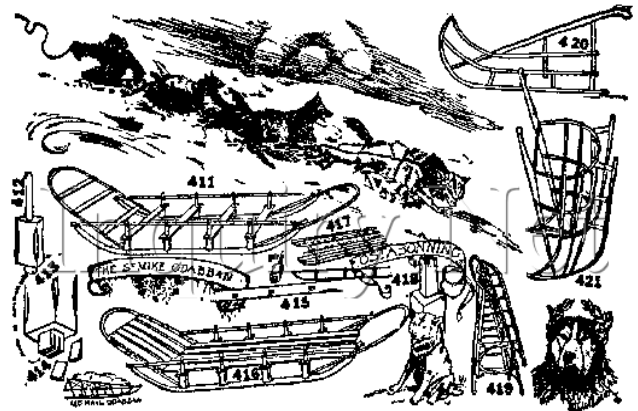
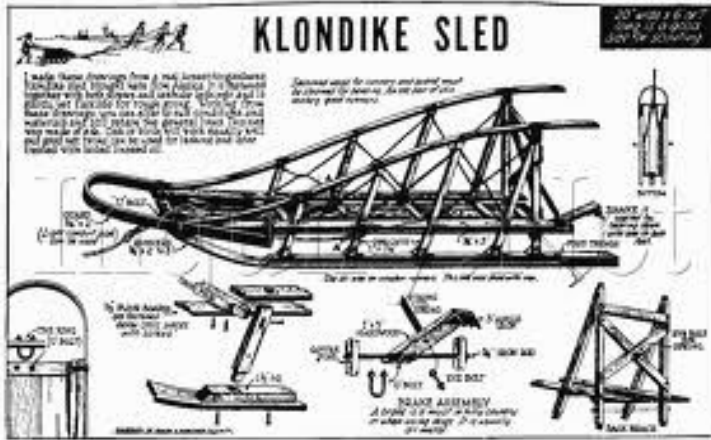
The Great Sled Race

1st, 2nd, and 3rd place winners will be announced for the troops/patrols with the fastest times in the Great Sled Race.

Klondike Derby overall winner

1st, 2nd, and 3rd place winners will be announced for the troops/patrols with the highest overall number of points earned throughout the day.

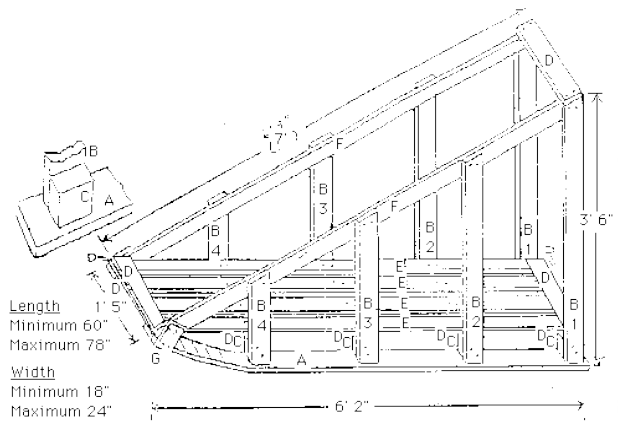
The Klondike Sled



SHOWING HOW THE DOG SLEDS ARE MADE

Modeled after the Eskimo dog sled, the Boy Scout Klondike Derby Sled encourages a connection to the explorers of old. The Klondike Sled should not be looked upon as a hassle of a project for a one day event, but rather a useful tool and opportunity for skill building and team work. A well built sled not only offers opportunity for team building and the construction, but a valuable tool for other winter camping outings, much like a patrol box, they provide a great deal of function for various winter events when hauling gear into and out of camp.

While there are no “official” dimensions for a sled there are some general guidelines. In addition to the information provided here, there is a wealth of resources available with a simple internet search. In appendix C you will find directions for your more common style of Klondike Derby sled taken from a Boy’s Life article.



“If January really is the Moon of Difficulties, let us get busy and overcome some of them, and we’ll do that by building an arctic sled without being in the Arctics, the kind the Eskimos made before white men came to spoil their ingenuity with shop made things.”
 Dan Beard



The Snow Snake

The Challenging and competitive game of Snow Snake has been part of North American culture for hundreds of years. The Snow Snake competition is said to be an Iroquois game that dates back nearly 500 years. It is said that the game developed from a means of communication used among Iroquois villages during the winter months. Each owner took great pride in their own unique snake, decorating them with intricate carving, artistic designs and embellishments of feathers and bones. The Snow Snake became a local community sport during long winter months when the tracks were not occupied in the relay of messages.

The creating of a basic Snow Snake is a fairly easy and cheap process. A single 8 foot 2"x4", can be made into 4 snow snakes using simple hand tools. No great feats of carpentry are required, and many lumber sellers may be happy to provide scrap materials that could also be fashioned into a Snow Snake. In Appendix D you can find just one of many example of how to build a Snow Snake. A simple Google search can provide many more plans and examples.

We would like to encourage every scout to show up with their own custom Snow Snake to this years Klondike Derby. Troops/Patrols can earn additional points if every member of their unit comes with their own snake.

There will be awards given for individual scouts who achieve the longest throw with their snake. And a design competition will also take place during the lunch hour, where all participants will be asked to view and vote on their favorite Snow Snake design. Winners of which will be recognized at the awards ceremony.

Snow Snake Regulations

- Maximum length 4.5'
- Maximum width 2"
- Must be made of wood
- Can not have runners
- No spear points
- Must be launched underhand
- Any kind of wax may be added
- Use of Snow Snake in an unsafe fashion (ex. throwing like a spear) will result in disqualification

Appendix A

Annual BSA Health and Medical Record Part A

High-adventure base participants:

Expedition/crew No.: _____
or staff position: _____

GENERAL INFORMATION

Name _____ Date of birth _____ Age _____ Male Female
 Address _____ Grade completed (youth only) _____
 City _____ State _____ Zip _____ Phone No. _____
 Unit leader _____ Council name/No. _____ Unit No. _____
 Social Security No. (optional; may be required by medical facilities for treatment) _____ Religious preference _____
 Health/accident insurance company _____ Policy No. _____

ATTACH A PHOTOCOPY OF BOTH SIDES OF INSURANCE CARD. IF FAMILY HAS NO MEDICAL INSURANCE, STATE "NONE."

In case of emergency, notify:

Name _____ Relationship _____
 Address _____
 Home phone _____ Business phone _____ Cell phone _____
 Alternate contact _____ Alternate's phone _____

HEALTH HISTORY

Are you now, or have you ever been treated for any of the following:

Yes	No	Condition	Explain
		Asthma Last attack: _____	
		Diabetes Last HbA1c: _____	
		Hypertension (high blood pressure)	
		Heart disease (e.g., CHF, CAD, MI)	
		Stroke/TIA	
		Lung/respiratory disease	
		Ear/sinus problems	
		Muscular/skeletal condition	
		Menstrual problems (women only)	
		Psychiatric/psychological and emotional difficulties	
		Behavioral disorders (e.g., ADD, ADHD, Asperger syndrome, autism)	
		Bleeding disorders	
		Fainting spells	
		Thyroid disease	
		Kidney disease	
		Sickle cell disease	
		Seizures Last seizure: _____	
		Sleep disorders (e.g., sleep apnea)	Use CPAP: Yes <input type="checkbox"/> No <input type="checkbox"/>
		Abdominal/digestive problems	
		Surgery	
		Serious injury	
		Other	

Allergies or Reaction to:

Medication _____
 Food, Plants, or Insect Bites _____

Immunizations:

The following are recommended by the BSA. **Tetanus immunization is required and must have been received within the last 10 years.** If had disease, put "D" and the year. If immunized, check the box and the year received.

Yes	No	Date
<input type="checkbox"/>	<input type="checkbox"/>	Tetanus _____
<input type="checkbox"/>	<input type="checkbox"/>	Pertussis _____
<input type="checkbox"/>	<input type="checkbox"/>	Diphtheria _____
<input type="checkbox"/>	<input type="checkbox"/>	Measles _____
<input type="checkbox"/>	<input type="checkbox"/>	Mumps _____
<input type="checkbox"/>	<input type="checkbox"/>	Rubella _____
<input type="checkbox"/>	<input type="checkbox"/>	Polio _____
<input type="checkbox"/>	<input type="checkbox"/>	Chicken pox _____
<input type="checkbox"/>	<input type="checkbox"/>	Hepatitis A _____
<input type="checkbox"/>	<input type="checkbox"/>	Hepatitis B _____
<input type="checkbox"/>	<input type="checkbox"/>	Influenza _____
<input type="checkbox"/>	<input type="checkbox"/>	Other (i.e., Hib) _____

Exemption to immunizations claimed (form required).

(For more information about immunizations, as well as the immunization exemption form, see Scouting Safety on Scouting.org.)

MEDICATIONS

List all medications currently used. (If additional space is needed, please photocopy this part of the health form.) Inhalers and EpiPen information must be included, even if they are for occasional or emergency use only.

Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____
Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____	Medication _____ Strength _____ Frequency _____ Approximate date started _____ Reason for medication _____

Administration of the above medications is approved by (if required by your state): _____ / _____
Parent/guardian signature and/or MD/DO, NP, or PA signature

Be sure to bring medications in sufficient quantities and the original containers. Make sure that they are NOT expired, including inhalers and EpiPens. You SHOULD NOT STOP taking any maintenance medication.

Emergency contact No.:

Allergies:

DOB:

Full name:

Part B

INFORMED CONSENT AND HOLD HARMLESS/RELEASE AGREEMENT

High-adventure base participants:Expedition/crew No.: _____
or staff position: _____

I understand that participation in Scouting activities involves a certain degree of risk and can be physically, mentally, and emotionally demanding. I also understand that participation in these activities is entirely voluntary and requires participants to abide by applicable rules and standards of conduct.

In case of an emergency involving me or my child, I understand that every effort will be made to contact the individual listed as the emergency contact person. In the event that this person cannot be reached, permission is hereby given to the medical provider selected by the adult leader in charge to secure proper treatment, including hospitalization, anesthesia, surgery, or injections of medication for me or my child. Medical providers are authorized to disclose protected health information to the adult in charge, camp medical staff, camp management, and/or any physician or health care provider involved in providing medical care to the participant. Protected Health Information/Confidential Health Information (PHI/CHI) under the Standards for Privacy of Individually Identifiable Health Information, 45 C.F.R. §§160.103, 164.501, etc. seq., as amended from time to time, includes examination findings, test results, and treatment provided for purposes of medical evaluation of the participant, follow-up and communication with the participant's parents or guardian, and/or determination of the participant's ability to continue in the program activities.

I have carefully considered the risk involved and give consent for myself and/or my child to participate in these activities. I approve the sharing of the information on this form with BSA volunteers and professionals who need to know of medical situations that might require special consideration for the safe conducting of Scouting activities.

I release the Boy Scouts of America, the local council, the activity coordinators, and all employees, volunteers, related parties, or other organizations associated with the activity from any and all claims or liability arising out of this participation.

Without restrictions.

With special considerations or restrictions (list) _____

TALENT RELEASE AGREEMENT

I hereby assign and grant to the local council and the Boy Scouts of America the right and permission to use and publish the photographs/film/videotapes/electronic representations and/or sound recordings made of me or my child at all Scouting activities, and I hereby release the Boy Scouts of America, the local council, the activity coordinators, and all employees, volunteers, related parties, or other organizations associated with the activity from any and all liability from such use and publication.

I hereby authorize the reproduction, sale, copyright, exhibit, broadcast, electronic storage, and/or distribution of said photographs/film/videotapes/electronic representations and/or sound recordings without limitation at the discretion of the Boy Scouts of America, and I specifically waive any right to any compensation I may have for any of the foregoing.

Yes No

ADULTS AUTHORIZED TO TAKE YOUTH TO AND FROM EVENTS:

You must designate at least one adult. Please include a telephone number.

1. Name _____ Telephone _____

2. Name _____ Telephone _____

3. Name _____ Telephone _____

Adults NOT authorized to take youth to and from events:

1. Name _____

2. Name _____

3. Name _____

I understand that, if any information I/we have provided is found to be inaccurate, it may limit and/or eliminate the opportunity for participation in any event or activity.

If I am participating at Philmont, Philmont Training Center, Northern Tier, or Florida Sea Base: I have also read and understand the risk advisories explained in Part D, including height and weight requirements and restrictions, and understand that the participant will not be allowed to participate in applicable high-adventure programs if those requirements are not met. The participant has permission to engage in all high-adventure activities described, except as specifically noted by me or the health-care provider.

Participant's name _____

Participant's signature _____ Date _____

Parent/guardian's signature _____ Date _____

(if participant is under the age of 18)

Second parent/guardian signature _____ Date _____

(if required; for example, CA)

This Annual Health and Medical Record is valid for 12 calendar months.

Part B Full name: _____ DOB: _____

680-001
2011 Printing
Rev. 2/2011

Appendix B

SLIDE ON SAFELY

1. **Adult Supervision** - Direct supervision shall include an adult at least 21 years of age who knows and understands potential hazards, proper equipment and particular skills involved with the activity.
2. **Be aware of Potential Hazards**- Participants should be aware of potential hazards and adult supervisors need to enforce adherence to safety measures
3. **Personal Protective Equipment**- All participants must use proper safety gear including proper dress for the conditions. Helmets are **required** for downhill skiing, snowboarding and snowmobiling. Helmets are **recommended** for all other sliding activities
4. **Physical Fitness**- Adult leaders should be familiar with the physical circumstances of each youth and should have a copy of everyone's Annual BSA Health and Medical Record.
5. **Safe Sliding Area**- Sliding should occur only in designated areas which are clear of fixed objects such as trees, stumps and rocks. Sliding area should be relatively smooth to avoid jumps which could make the participant airborne (NO JUMPS).
6. **Proper Equipment**- Skis, bindings, snowboards, sleds, and toboggans should be in good condition and/or proper size for each participant. **Flying saucers and other non-directional equipment shall not be used.**
7. **Control**- Participants must be able to control their slide. No head first sliding.
8. **HAVE FUN** - but be safe

Klondike Sled Project

By Steven Maxwell • Illustrations by Len Churchill

Cross-country sled races deliver adventure, endurance and a wilderness challenge. And these plans are your ticket to that world. This sled is specially designed for Klondike Derby races in which boys—not dogs—provide the pulling power. Even though this sled is fast and strong, you don't have to be a master carpenter to build it. Cost of materials is about \$100.

How to Use These Directions

The instructions are divided into four parts: Building the Runners, Installing the Floor, Adding the Rails, and Finishing Up. Read everything at least once before you begin so you know how it all fits together. Then focus on each section as you work. Also, be sure to read "Prepared for Safety," which follows. What's the point in building a Klondike sled if you get hurt in the process?

Building the Runners

The runners take more punishment than any other part of the sled. That's why they need to be made of tough wood. Ash is the material of choice here—the same wood used for snowshoes and old-time cross-country skis. It's tough and flexible, and the open grain holds wax well—an important detail that'll help win races.

If you can't find ash lumber where you live, oak, maple or hickory are good, too. Just don't use pine, cedar or any wood soft enough to be dented easily by your thumbnail. These are fine for other parts of the sled, but softwood won't last long as runners or runner blocks.

When professionals build dogsleds they cook the ends of the runners for about an hour in special steam cabinets, then clamp the softened wood to

form curves when it cools. Sound complicated? It's really not. Since you need to curve only the ends of your runners, you can easily make your own steam cabinet using short lengths of galvanized duct pipe and an electric kitchen kettle. The plans show how. Make sure an adult is on hand to help you.

There's another option for runners. The plans show how to slice partway through the ends of the runners to make the wood flexible without steaming. This is called kerf bending, and it works O.K., though it does weaken the runners. They don't look as cool, either. Use this method only if nothing else is possible.

The fastest, easiest way to get your sled on the snow is to use a pair of old downhill skis as runners. Even though they're usually made of fiberglass, skis can still be drilled and fastened easily to the rest of the sled. They're tough, too.

With runners ready, it's time to drill them for the No. 12 x 2-inch screws that fasten them to the runner blocks. The plans show where each block goes and how the screws are positioned. Because they're hardwood, you'll need to create pilot holes using a $\frac{1}{2}$ -inch-diameter drill bit, to ease the entry of the screw. The plans show how to use screws as they extend through the runners to mark the runner blocks for accurate drilling. Also see "Drilling and Gluing" for more help.

Installing the Floor

At this stage, you have two separate runners with four blocks attached to the top of each one. Now it's time to join these into a single unit using the four main floor supports. Cut these to length, then drill screw holes and fasten them to the runner blocks using glue and just one No. 10 x $1\frac{3}{4}$ -inch screw per joint. Even though the front floor support is the same size as the other floor supports, leave it off for now. The plans show how the edge of the front floor support needs to be angled a bit, but that's a job for later.

Pretty easy so far, right? Don't get too confident because there's trouble lurking ahead, something that could make your sled crooked if you don't avoid it. Luckily, there's a slick trick to do just that:

With the two runners joined by the four floor supports, measure the length of diagonal distances taken from the outer corner of one floor support to the diagonally opposite corner of another. The plans show how. If your growing sled is square, then these measurements will be equal. Trouble is,

DID YOU PAY?

These plans are available on the *Boys' Life* Web site (www.boyslife.org) as an Adobe Acrobat PDF file, for downloading. Cost: \$10 per copy. Payment is on the honor system. Failure to pay - whether for a PDF file, photocopy or any other duplication of the plans - limits the magazine's ability to create other exciting, professionally-designed projects (not to mention a lifetime of guilt, and a sled doomed to last-place finishes and certain structural failure). Please remit to: Boys' Life Snow Sled Plans, P.O. Box 152079, Irving, TX 75015-2079.

they're probably not going to be, though that's no reason to panic. Remember how you put only one screw in each joint? That lets you push and pull the runners until diagonals are equal, plus or minus $\frac{1}{8}$ inch. Once they are, the base of your sled is square. You can count on it! Now add the second

screw to each joint to lock everything in place. Then fasten the floor boards with glue and screws.

The plans include a close-up view of how the front floor support, floor boards and runners come together. Take a close look at this now. You'll need to use a hand plane to angle the leading edge of the front floor support so the floor support and runners are in full contact where they meet. This is the hardest part of the project, but even this isn't a big deal. The plans show the angle to be about 35 degrees, but it will vary depending on the curvature on the ends of your runners. When all looks good, clamp the front floor support in place and drive screws through the runners into it. More screws will be added later through the sloped top rail to secure the floor boards.

Adding the Rails

The sled's rail assembly is made of 8 uprights, 2 angled tops, and a hand rail. Like everything else on the sled, these parts fit together in strong, simple ways with screws and glue. Cut the four kinds of rail uprights you'll need now—two of each type—then fasten them to the runner blocks, straight up and down, with glue and two screws per joint. The rail uprights are listed longer than necessary so you can trim along the sloped top rails with a handsaw to remove a triangular block of waste after installation. Follow the plans for the location of these parts and fasten them now. You may be tempted to trim all the rail uprights now, but don't do it. Trim only the back rail uprights so you can install the rail handle, also using

screws and glue. Leave the other rail uprights until the glue dries.

Finishing Up

Your sled's looking pretty good by now, right? But there are still a few things to take care of. The plans show the two 3/8-inch-diameter holes you'll need to drill through the floor boards, behind the front floor support, for the tow rope. You should also sand the sharp corners off the rail handle and sloped top rails, so no one gets slivers. Painting or varnishing your sled is optional. It'll look better if you do, but it is a lot of work, and it won't make the sled last any longer. Whatever you do, don't coat the underside of the runners. See "Wax Works" below for a speed-demon trail-tip.

PREPARED FOR SAFETY

Woodworking is fun—it may even become your career one day—but there's one thing you must remember. Always be careful. You must wear safety glasses when using any wood-working machinery, even if an adult is helping you. And don't forget ear protection. Earmuffs or foam earplugs work fine. And if you're ever uncertain about how to use any tool, ask for help.

WAX WORKS!

You can build the best sled in the world, but it'll never win races unless you've treated the runners right. It's a make-or-break detail, and wax is the key. The best kind is cross-country ski wax—the hardest type you can find, rated for 30 degrees below zero temperatures. Rub the wax onto bare-wood runners (not varnished) when the sled's indoors, smoothing the surface with a piece of cork to get rid of the lumps. Your runners won't feel slippery after this, but that's O.K. Once they get outside, on the cold snow, they'll slide along the trail like a lightning bolt. And the guys pulling will certainly appreciate that. Just remember to let your sled cool down before setting it in the snow. Warm runners can melt snow, forming water droplets that freeze, making the runners rough and slow.

DRILLING AND GLUING

Glue and screws hold this project together, and both are easy to use if you understand a few key points. First of all, don't use ordinary white, yellow or brown carpenter's glue on this project. They're great for indoor projects but are guaranteed to turn to mush when they get wet outside. Even some brands rated as water-resistant on the label won't last long if the snow turns to slush. What you need is something called type II wood glue. It's weatherproof and available under brand names like Titebond II and Weatherite. Polyurethane glue works well outdoors, but it's more expensive. Drilling screw holes is always more accurate if you hammer a nail lightly into the wood before you bore each hole. This makes a little crater so the drill bit won't wander off the mark as the bit starts spinning. After drilling holes in the runners you'll need to flare out the bottom end with something called a countersink bit chucked into your drill. This creates a cone-shaped pocket for the screw head, so it doesn't extend below the underside of the runner and drag on the snow. Holes drilled in soft wood parts don't need to be countersunk because the screws draw themselves level with the surrounding wood.

Materials List

FOR THE RUNNER ASSEMBLIES

RUNNERS	hardwood 1/2"-thick x 3 1/2"-wide x 89"-long	2
RUNNER BLOCKS	hardwood 1 1/2" x 3 1/2" x 3 1/2"	8

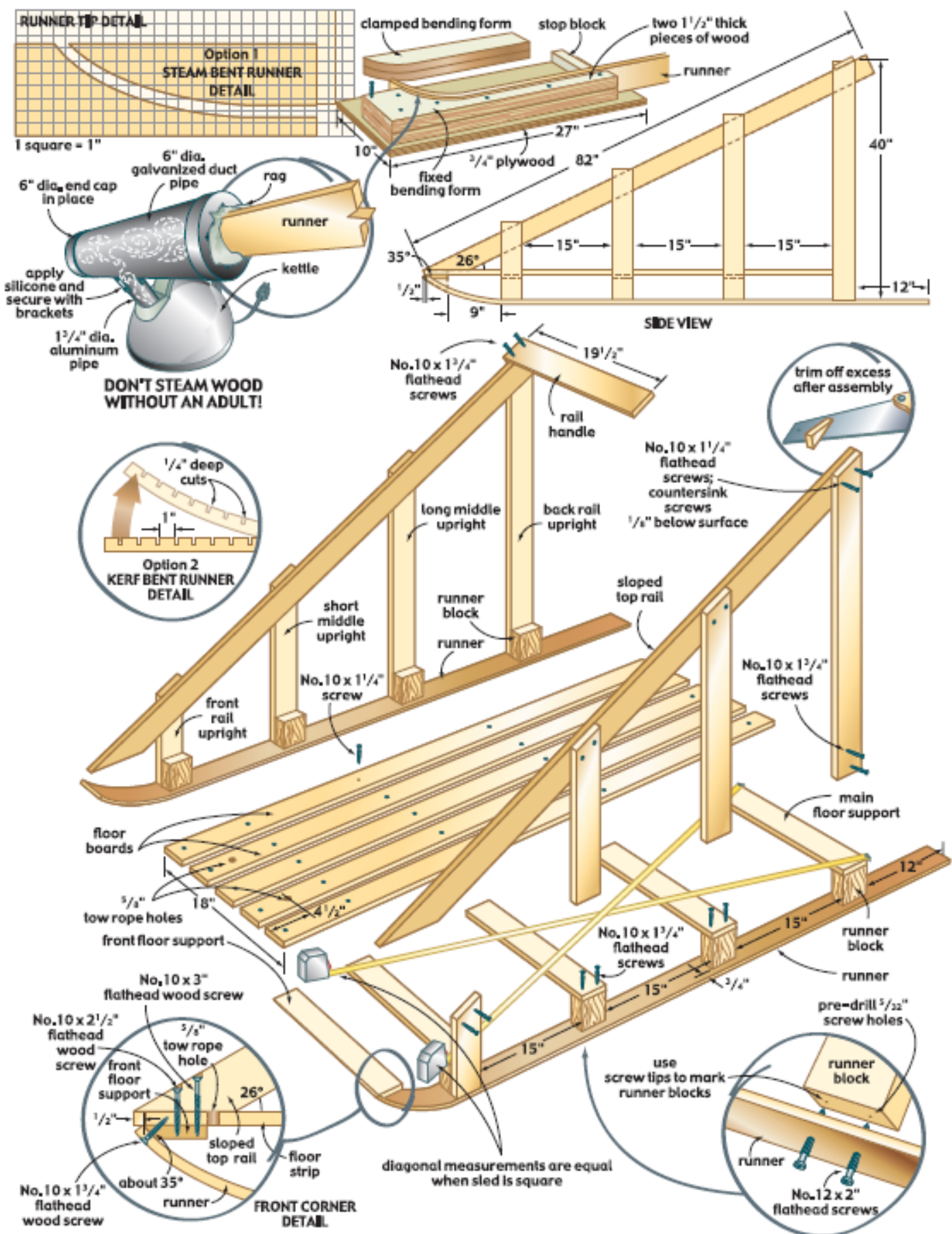
FOR THE FLOOR

FLOOR BOARDS	softwood 3/4" x 3 1/4" x 73"	5
MAIN FLOOR SUPPORTS	softwood 3/4" x 3 1/2" x 18"	4
FRONT FLOOR SUPPORT	softwood 3/4" x 3 1/2" x 19 1/2"	1

FOR THE RAIL ASSEMBLY

SLOPED TOP RAILS	softwood 3/4" x 3 1/2" x 82"	2
RAIL HANDLE	softwood 3/4" x 3 1/2" x 19 1/2"	1
FRONT RAIL UPRIGHT	softwood 3/4" x 3 1/2" x 14"	2
SHORT MIDDLE UPRIGHT	softwood 3/4" x 3 1/2" x 22"	2
LONG MIDDLE UPRIGHT	softwood 3/4" x 3 1/2" x 31"	2
BACK RAIL UPRIGHT	softwood 3/4" x 3 1/2" x 40"	2

*Trim front edge to fit curve of your runners, about 35 degrees.



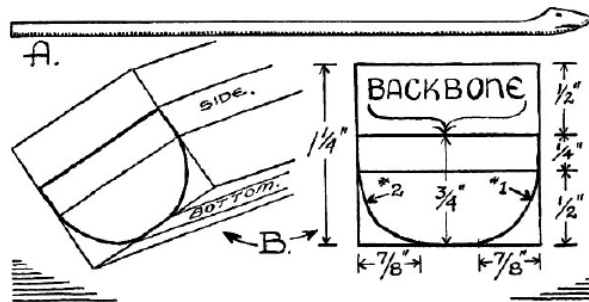
Appendix D

Snow Snake Construction

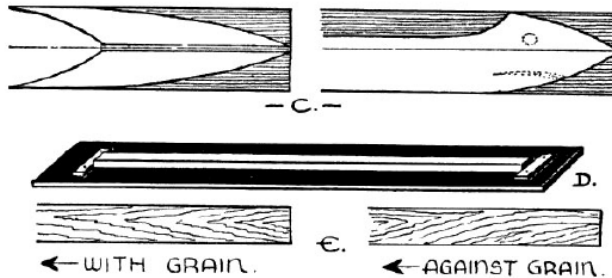
Materials:

- Stave - hickory, ash or pine, 1 1/4" square X 5 feet long
- Pocketknife
- Sandpaper
- Paint – several colors
- Varnish
- Paint Brushes
- Bolt - 1/4" diameter X 1" long
- 2 - Thumb Tacks

To make the snow snake shown in Fig. A, mark off on your wooden stave the dimensions shown in Fig. B. Mark them first on the two sides numbered 1 and 2, then on the rounded lines from end to end of the stave, as indicated.



Draw the outline of the head and the flat back, both top and side views, as shown in Fig. C.



To hold the stave for carving, place it on a workbench or on a rough board, holding it in place by nailing a short crosspiece to the board at each end of the stave, as shown in Fig. D.

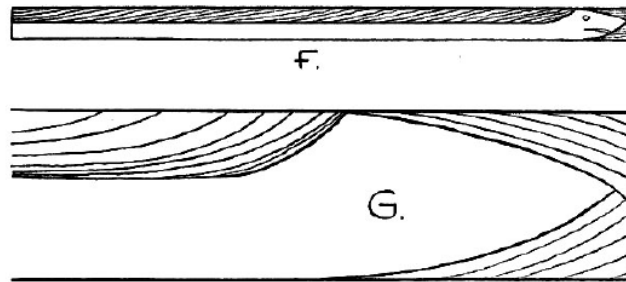
Carve *with* the grain. Working with and against the grain is clearly shown in Fig. E.

Starting with the angular edges of the stave, trim off thin slivers, a little at a time, with your knife. Do not try to take the whole edge down to the line all at one time. If you own a small plane, this could be used instead of the knife.

Repeat this carving on the other side. If it is done slowly and carefully, the belly side of the snake will be smoothly rounded.

While the stave still rests between the blocks, wrap a piece of sandpaper around a small block of wood and sand the rounded sides, removing all roughness. Then polish the sides with fine-grained sandpaper.

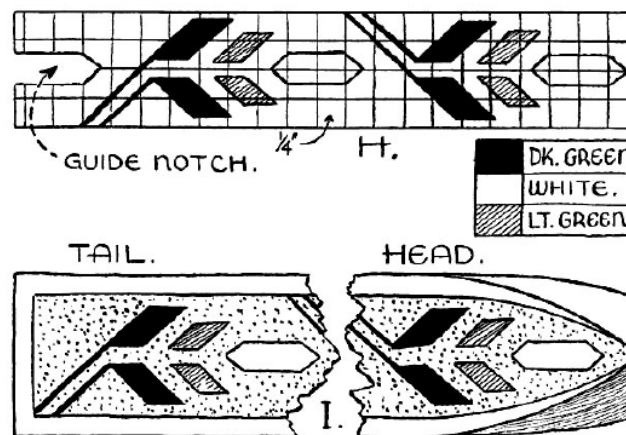
Now turn the stave over and, as shown in Fig. F, whittle the excess wood away from the back of the head and all the way down the straight part of the flat back. Remove layer after layer, as demonstrated in Fig. G.



The next step is to form the snake's head. Start by shaping the top and then the bottom of the head. Finally taper the sides of the head toward the nose, leaving just a very narrow strip along the top of the head. The shaded areas in Fig.s C and F are to be cut away.

The head and flat back must also be given a good sanding, first with coarse and then with fine sandpaper. The sandpaper on the block is to be used when sanding the back. If you hold the block straight, it will prevent you from rounding the edges.

Native decorations should be added along the snake's back. Fig. H shows a simple design. Draw up the squares as indicated on a strip of paper, and sketch in the design on your squares. Using carbon paper, trace your design onto the back of the snake, starting near the head.



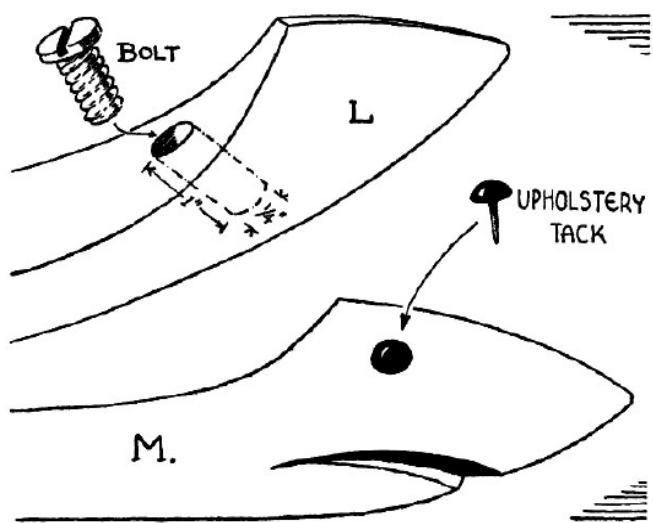
The design should be painted in with in small jars. Three colors are indicated in Fig. H, but use whatever colors you wish. The entire snow snake should then be varnished. If you own a wood-burning set, the design can be

burned in, instead of painted, and then varnished. The dots shown in Fig. I have been burned in with the tip of the iron. Be sure to add features to the head, if desired.

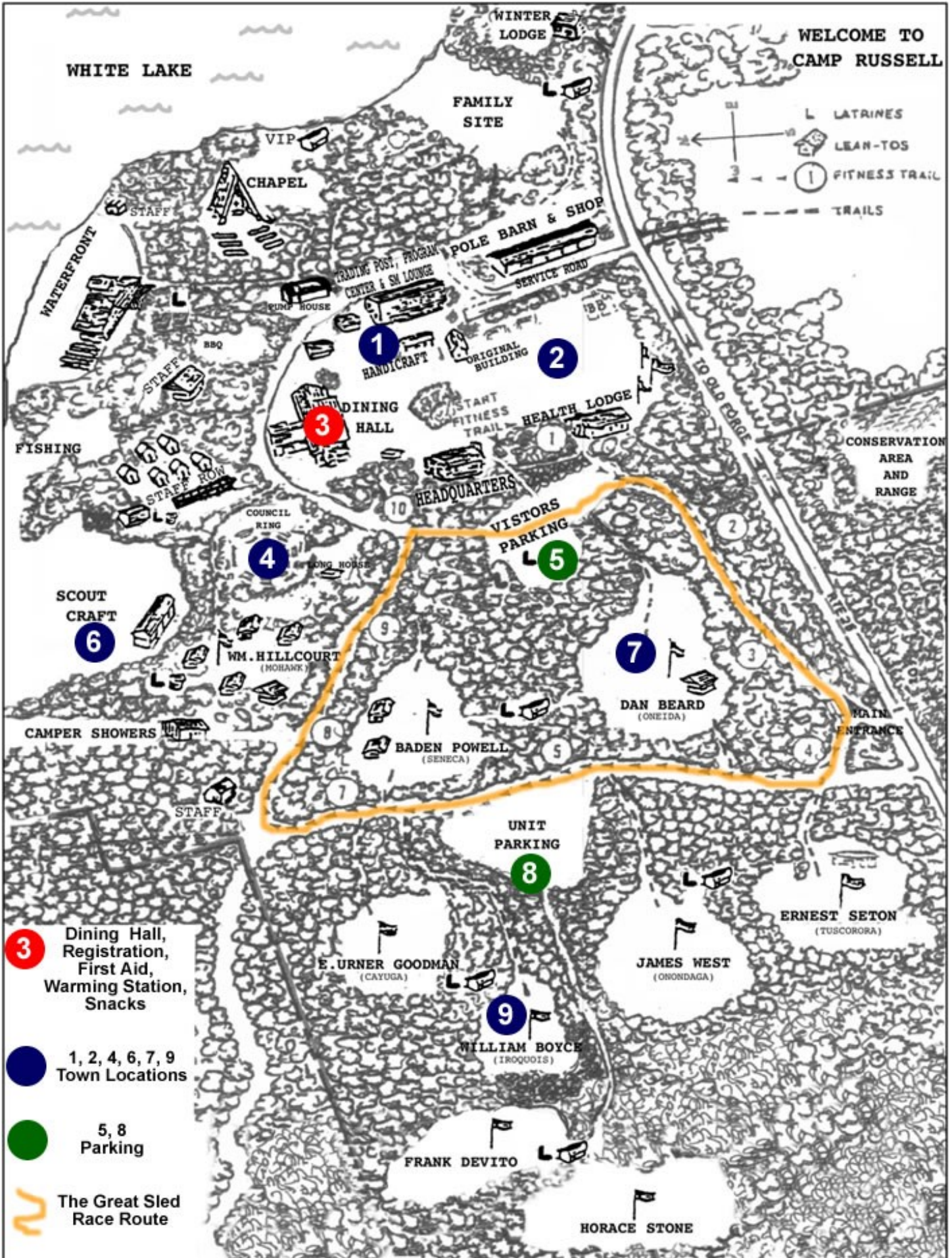
To make it possible to varnish the snake on all sides at one time, a small screw eye can be fastened to the tail end, and the snake can then be hung from a nail.

To make the snow snake waterproof and warp-proof, three thin coats of varnish are better than one thick coat.

The 1/4" bolt can be inserted into the back of the head as shown in Fig. L to increase the weight at the head. The finishing touches on the snake are the eyes and mouth. Insert the two tacks for the eyes and cut the mouth in a v-shape, using the small blade of the pocketknife. Both are shown in Fig. M.



Appendix E



Troop Roster

2012

Adirondack Foothills District

Klondike Derby

February 4th, 2012

Troop: _____

	Scouts		Scouts
1.		16.	
2.		17.	
3.		18.	
4.		19.	
5.		20.	
6.		21.	
7.		22.	
8.		23.	
9.		24.	
10.		25.	
11.		26.	
12.		27.	
13.		28.	
14.		29.	
15.		30.	
	Scouters		Scouters
1.		6.	
2.		7.	
3.		8.	
4.		9.	
5.		10.	

Make sure a current health form is available for everyone listed on this roster.