

## Thanks to the following for their contribution:

Karen Smith – original document

Box Oven – US Scouting Service <http://www.usscouts.org>

Campfire Planning diagram – Becky's Guiding Resource Centre  
<http://www.dragon.sleepdeprived.ca>

Fire Safety – Parks Victoria, Department of Sustainability & Environment  
Used with permission **Parks Victoria** | <http://www.parks.vic.au>

Gadget Pictures (page 19)

Camp table, Simple Gadgets

– Arthur's clipart <http://www.arthurs-clipart.org>

Wash basin

– Troop 780Dunn.NC <http://www.bsatroop780.org/>

Knots

Clove hitch, reef knot, sheep shank, bowline, sheet bend

Clipart ETC. <http://etc.usf.edu/clipart>

Trucker's Hitch – Tim Anderson's Home Away From Home

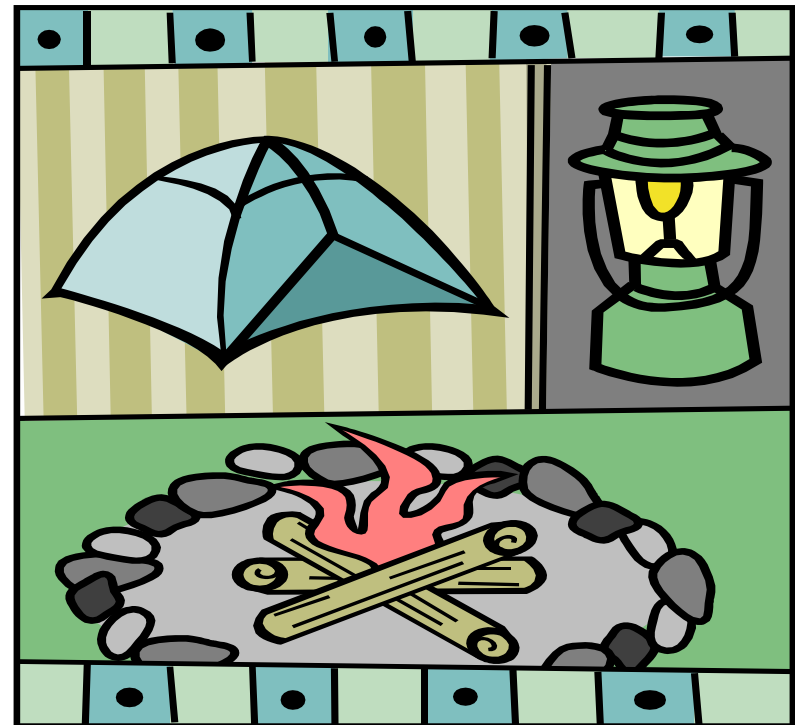
Used with permission <http://www.mit.edu/people/robot/>

Tarp Shelter – PA Hiking Trails

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Other Clip Art – Clker.com <http://www.clker.com>

# Basic Camp Skills For Guiding

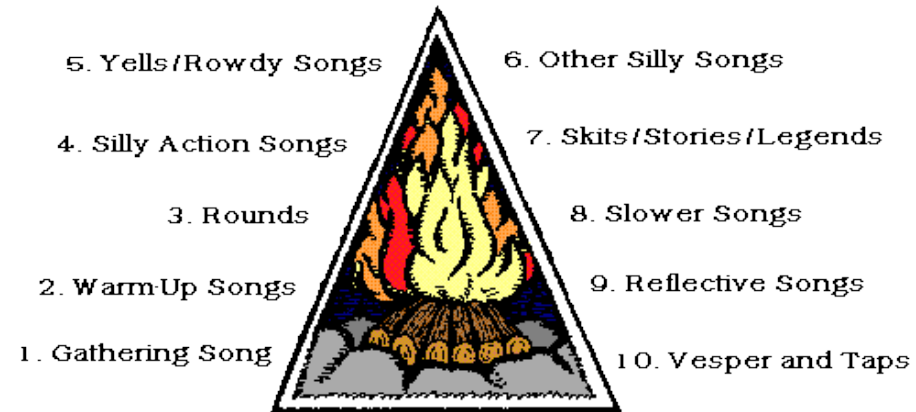


BC Camping Com.  
Revised March 2012  
Joy Andersen

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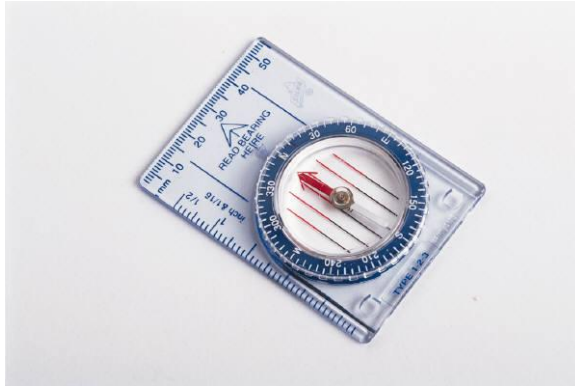
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# Planning a Campfire



- Campfire planning should include a variety of songs and can include skits and games.
- Remember fire safety when planning activities.
- Take into consideration that it is dark in the evening and people are tired from the day's activities and plan accordingly.

# Compass



The red end of the compass needle points to the magnet North Pole.

## Points on the Compass

N = 360 degrees	NE = 45 degrees
E = 45 degrees	SE = 135 degrees
S = 180 degrees	SW = 125 degrees
W = 270 degrees	NW = 315 degrees

## How to use a compass

### TO TAKE A BEARING IN THE FIELD

1. Hold compass level, in front of you, and point direction-of-travel line at desired object.
2. Rotate compass housing to align pointed end of declination arrow with red end of magnetic needle (red in the shed).
3. Read bearing at index line.

### TO FOLLOW A BEARING IN THE FIELD

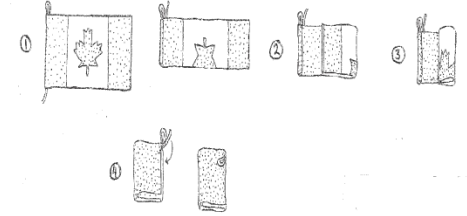
1. Set desired bearing at index line.
2. Hold compass level, in front of you, and turn your entire body, including your feet, until red end of magnetic needle is aligned with pointed end of declination arrow (red in the shed).
3. Travel in the direction shown by the direction-of-travel arrow.

**Note: Never store your compasses in a metal container or stacked together (think of the magnet!)**

# Flag

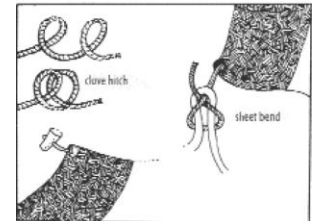
## Folding the Flag

1. The flag is held to be folded in such a way that it should never touch the ground.
2. One person holds the hoist end (the end that goes up the pole). The other holds the fly end (the end that flies freely).
3. Fold the bottom edge of the flag to the top.
4. Fold the fly end to the edge of the red stripe beside the hoist end.
5. Fold the flag again to meet the same red stripe.
6. Fold the flag's red stripe over the folded flag and tuck the rope into the fold leaving the toggle on top of the folded flag.



## Raising the Flag

1. The colour party consists of three people. The person in the center is known as the flag bearer (she carries the flag on her open palms).
2. The person on the left attaches the flag with a clove hitch. This is the top of the flag and the clove hitch goes around the toggle on the flag.
3. The person on the right attaches the flag with a sheet bend to the short rope on the bottom of the flag.
4. The person on the right raises the flag while the flag bearer guides it to prevent it from tangling or touching the ground.
5. When the flag is raised the bearer attaches it to the cleat or to the pole with a round turn and two half hitches.



# Sleeping Gear

## Sleeping Bags:

- **Down Bags** are the most expensive and most durable, but when they get wet they take a long time to dry.
- **Fibre Bags** are the most economical way to go – check out what weather the bag is recommended for. Kid’s sleeping bags such as “Barbie” bags are not recommended for camping as they do not keep the child warm.
- **Sleeping Bag Ratings** Bags come designed for summer and winter camping and are marked by a degree rating (ex. Good to -5). This is just a guideline. Take into consideration the body fat of the person using the bag. Small children require a bag rated for lower temperature levels.
- **Storage** Sleeping Bags should be hung to store for longer life as the fibers break down when left stuffed in a sack.
- **Cleaning** It is not recommended to dry clean sleeping bags.

## Foam:

- **TermaRest/Thinsulate** come in various lengths and thickness. They are lightweight and offer the best insulation to the cold.
- **Condensed (Blue) Foam** is an economical alternative to the above and does not absorb moisture in the air. This alternative is a little bulkier for packing.
- **Corrugated Foam (White Sheets)** This type of foam is not recommended for camping as it absorbs all the moisture in the air and acts like a sponge. Even when camping in a shelter the air is still moist and will be absorbed by this type of foam.

## Ground Sheet:

- A thin sheet of plastic – this is essential for both residential and tenting camps as it stops moisture from below your sleeping bag.
















## Pillow:

- Optional – A good alternative to carrying a bulky pillow is to pack a pillow case that can be stuffed with clothing at night to create a pillow.

**Note: all your bedding should be able to fit into one waterproof bag such as a sports duffle bag for carrying.** (not a garbage bag)

# Trail Signs

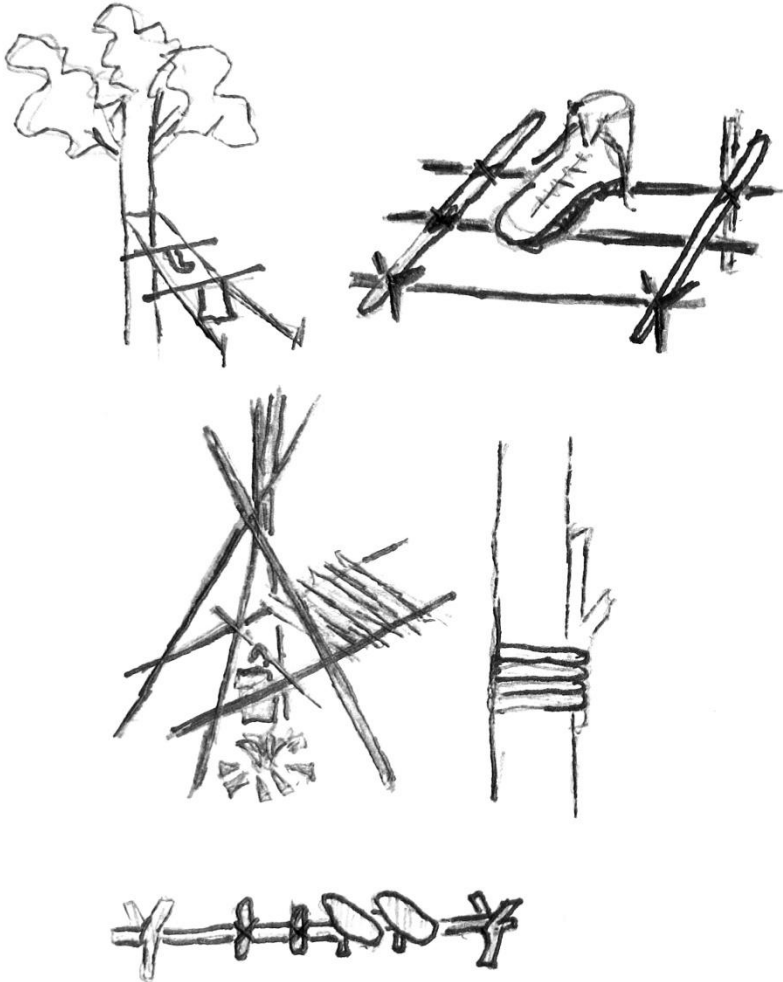
Trails can be laid so that others can follow you or to help aid you in finding your way home. Follow the direction the arrows point. Use sticks, rocks, or other natural objects. Do not destroy living vegetation.

STRAIGHT AHEAD	TURN RIGHT	TURN LEFT	DO NOT GO THIS WAY
 rocks			
 pebbles			
 sticks			
 grass			

At the end of the trail make the sign for gone home.



## Gadget Ideas (cont.)



## Dome Tents

### Pitching the Tent:

1. Lay out tarp.
2. Unfold tent and lay it out on top of the tarp. Read tent directions if you are raising it for the first time.
3. Carefully feed the tent poles through the outside casings on the top of the tent - going diagonally from one person on either end.
4. Using the top pole, put one end in the tent bottom corner flap outside hole. One person holds the top pole up while the other person puts the pole into the correct hole. Repeat this process for the other pole. The tent is now standing.
5. Once the tent is up, tie or fasten the poles to the tent.
6. If your tent fly has a pole, attach it to the fly. Throw the fly over the tent and clip the fly to the "D" rings at the bottom corners of the tent. If no other pole is required, peg out the fly guide lines all the way around.



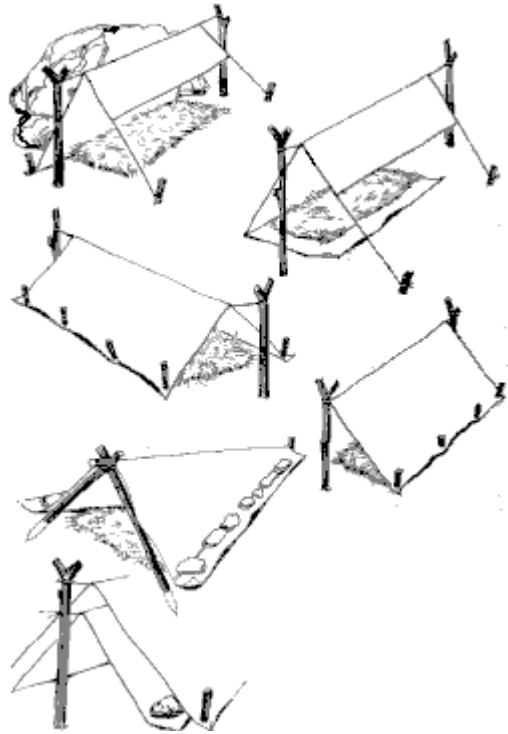
### Striking the tent:

1. Clean the tent and close windows and doors. Leave at least 1 door unzipped to allow air to escape.
2. Repeat the above process in reverse.
3. Make sure that the pegs and poles are placed in a single spot as they are removed.
4. Place the poles and pegs into their respective bags.
5. Lay the fly over the flat tent.
6. Carefully fold the tent using your body to squeeze out the extra air.
7. Put the tent in the bag.
8. Place the bagged poles and pegs into any into the tent bag.

**When using tents always be careful when opening the zippers. Do not enter tents without fully opening the zipper as this is the biggest cause of damage to the tents.**

# Tarp Shelters

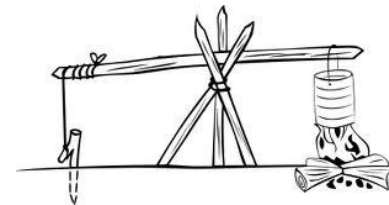
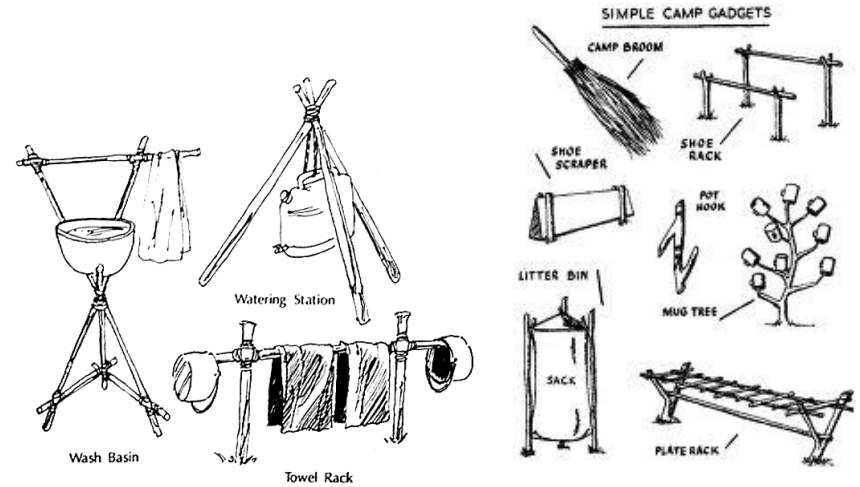
Use a waterproof poncho, groundsheet, plastic sheeting or tarp to make yourself a shelter. Observe your surroundings and select the proper location.



- Make use of natural shelter to help act as a wind break.
- Stake or weigh down edges. If it is long enough, curl the sheeting below you, running downhill.
- Use dry grass or bracken as bedding. A closely woven fabric will keep out most rain if set at a steep angle.
- Fit one shelter within another – rain rarely penetrates both layers. Avoid touching the inner surface of woven fabric during rain – this draws water through.

# Gadget Ideas

Put your knot tying skills to use to make a variety of gadgets around your campsite. Various forms of lashing are used for the basis of most gadgets.

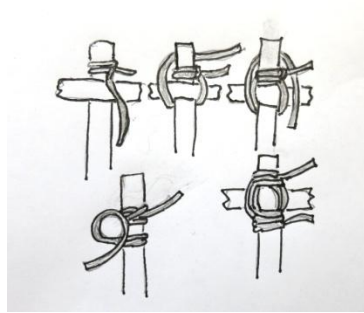


# Lashings

Methods of lashings differ according to the position of the components. These techniques are invaluable in making all gadgets.

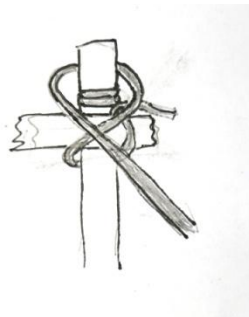
## Square Lashings

Used for joining sticks at right angles. Make a clove hitch to start at the top. Bring the working end down over the horizontal stick and behind the vertical stick. After 3 or 4 circuits go around, under the horizontal stick (frapping). Tie off your end with a clove hitch or a reef knot.



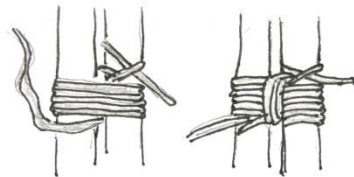
## Diagonal Lashings

Used when the spars (sticks) do not cross at right angles or when spars need to be pulled towards one another for tying. Begin with a timber hitch or clove hitch. Lash in the same method as the square lashing except that you move diagonally over the centre. Start with a clove hitch on the top spar. Go over the centre then wrap it under the bottom spar. You will be making a cross on the top spar. After 3 or 4 rounds, wrap in a circular motion between the two sticks.

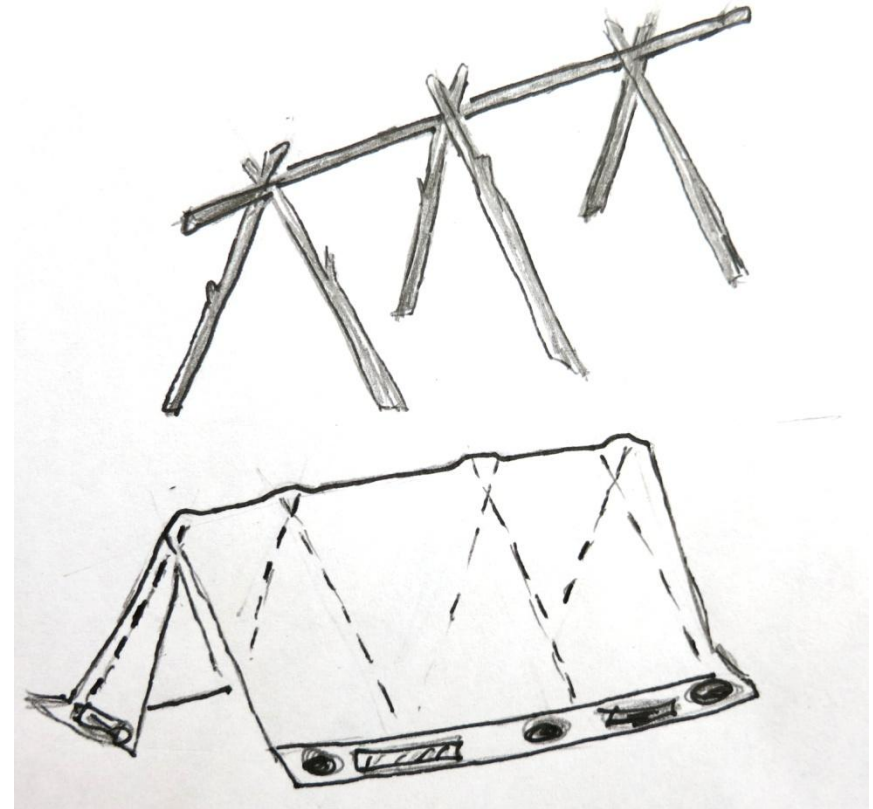


## Shear Lashing

Use shear lashing to tie two or more poles together in a parallel fashion. For example, you may need a long pole but have only short ones. Shear lash them. Lay the poles beside each other as shown. Start with a clove hitch on one pole. Wind the cord around both poles tightly for about 10 cm (or more, depending on the size of the poles). Frap and end with a clove hitch on one pole. Tuck the end in. This can also be used in making a tripod.



# Tarp Shelters (cont.)



e. If suitable growth is available, select two lines of live saplings, clear the ground between them of obstructions and lash the tops together to form a frame for sheeting. Weigh down the edges of the sheeting with rocks or timber. If live saplings are not available, a similar shelter can be made from pliable branches driven into the ground and lashed together, as shown above.

# Types of Fires

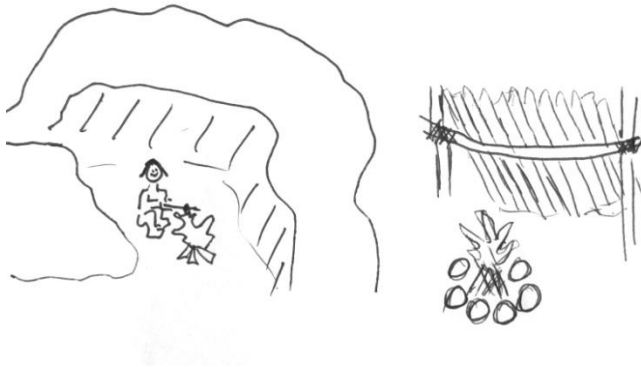
## Fires for warmth

Only surfaces facing an outdoor fire are warmed by it.

Reflectors can be built to help keep you warm.



Placing your campfire close to a large rock or wind break will help hold the heat and reflect it back to you.



## Trench Fires and Trench Type fires

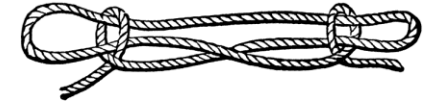
Trench fires are dug into the ground. You can also raise a fire to form a type of trench.



# Knots (cont.)

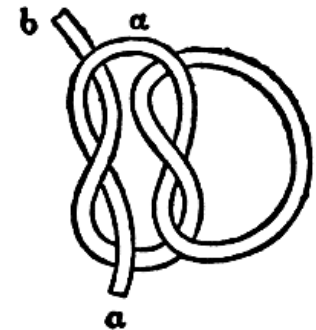
## Sheepshank

This knot is used to shorten a rope that is fastened at both ends. Take up the slack, then make an underhand loop and slide it over the bight and pull tight. Do the same to the other end to complete the knot. The sheepshank is only a temporary knot as it stands but it can be made more permanent by adding a second half hitch to each end.



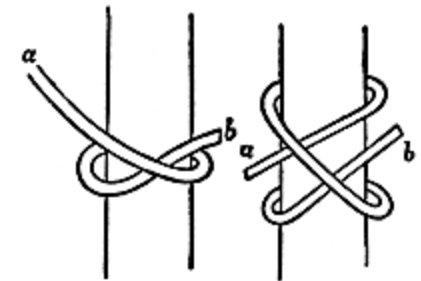
## Reef Knot

This is used to join the two ends of the same rope or bandage. ("Right over left – left over right") This is an easy knot to tie. It is good for securing non-critical items. It should not be trusted to join two ropes together or to hold down something that absolutely has to stay put. This knot will "capsize" or jam under load and will also untie itself under movement.



## Clove Hitch

This is a good binding knot but should be used with caution because it can slip or come undone if the object it is tied to rotates or if constant pressure is not maintained on the line.

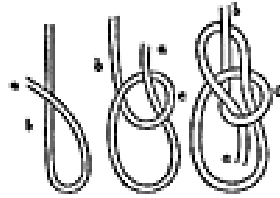




# Knots

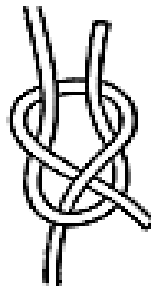
## Bowline

The Bowline is one of the most useful knots. If you were to commit only one knot to memory, this should probably be the one. The bowline forms a secure loop that will not jam and is easy to tie and untie. It can be tied around objects, can be tied into any size loop, and even after being under load can be untied easily.



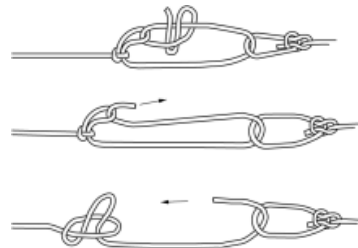
## Sheet Bend

The Sheet Bend is a good knot for tying two lines together. Strong and easy to tie, it works particularly well joining lines of differing sizes. In its doubled form this knot will even hold in slippery nylon rope.



## Trucker's Hitch

The Trucker's Hitch is a great knot that provides a lot of tension in the rope. It is easily adjusted and can be untied very quickly. It can be used in many different applications such as tarp and tent erection, tying a canoe on a trailer or to form a tight clothesline. Once you know this knot, you'll wonder how you ever got by without it.



## Grates and Skewers

Turn the meat on the skewer to keep from burning. Arrange the spit slightly to the side of the fire and use a drip tray



Use rocks to balance a grate.

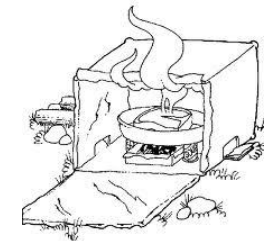


## Buddy Burners and Tin Can Stoves

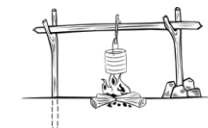
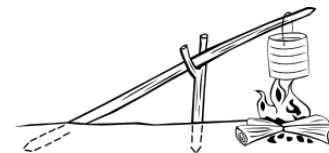
Roll strips of cardboard and place them in a tuna tin. Pour melted wax over the cardboard strips. Place this under a larger tin can



## Foil Dinners and Box Ovens



## Branches used to aid in cooking



# There's More To Outdoor Cooking Than Cooking!

1. Build a fireplace to fit your pots/pans and be sure they rest firmly.
2. Make a good woodpile of:



Tinder      Kindling      Fuel

3. Build a **small** fire. Keep it going steadily. Types of fires are:



Teepee



Criss Cross – long burning



Trench type

4. Clean up.
  - Scatter unused wood as naturally as possible.
  - Push unburned ends of wood into the fire as it burns down so it is all consumed.
  - When coals have burned to ash, soak well with water and make sure it is completely out. Use water rather than dirt to put out the fire.
  - Collect the cold ash and scatter it over a large area well away from the camp site.

# Garbage and Recycling at Camp

1. Garbage at camp needs to be sorted and dealt with so that animals aren't attracted to your campsite.
2. Garbage control starts before you ever get to camp in your packing and planning stages – consider how items are packaged and minimize what comes to camp with you.

## Tips for Garbage and Recycling

- Remove labels from cans, wash and flatten them and take them home.
- Wash bottles and plastic containers and recycle.
- Use aluminum foil sparingly and take home with the cans
- Set up a bucket at dishwashing time for food scraps and compost these.
- If fires are permitted, burn all paper products.
- Have 3 containers set up – one for compost, one for metals and plastics, one for burnables. Label each to avoid confusion.

## Animal Proofing both Food and Garbage

- Animal proof your garbage – raccoons can pry off lids and untie knots. Mice and other small creatures can chew through garbage bags. In bear country use even greater care.
- Food and garbage can be hung from trees in cache bags to discourage animals. Make sure that you choose an area away from your camp.
- Weight down garbage can lids at night with a heavy rock or, if possible, lock garbage in your car trunk.
- Make sure kitchen area is washed down and all food is stored properly

# Setting up for Dishes

1. Find an area outside the main kitchen where a little water spilt won't get in the way but close enough to a place to dump grey water.
2. The grey water pit is used for all liquid waste. It is where dish water will be dumped. Set it up by placing a clean screen cloth on the pit. This cloth needs to be changed on a regular basis to avoid animals.
3. Start with 2 buckets for kitchen waste – one for garbage and the other for compost. Put out a spatula to allow the plates to be scraped. The better scraped, the fewer times the water will need changing.
4. Set out 3 wash basins, each with about 2 inches of water. Use water hot enough to clean grease but not so hot as to burn the girls.
5. The first basin is for washing. Use a small amount of biodegradable soap.
6. The second basin is for rinsing and contains just water.
7. The third basin is for disinfecting. In this basin put a small amount of bleach (half a capful is lots).
8. Dishes are then hung in a drawstring bag to drip dry.
9. The dishwasher is then disposed of in the grey water pit. Pour out the wash basin first. Dump the rinse water into the wash basin and pour this into the grey water pit. Then dump the bleach water into the rinse basin and then into the wash basin before dumping it into the grey water pit. This way all the basins will be disinfected.



# Helps in Outdoor Cooking

## Soap the Pot

Smear soap all over the outside before using your pot over an open fire. This protects the pot and makes it easier to clean

## For Quick Heating

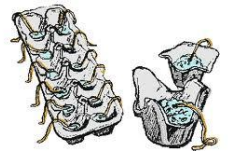
Use a tepee fire and small pieces of wood for quick heating. Concentrate heat where you need it. Replenish often with small sticks.

## For Even Heating

Cook over coals whenever you can. This creates even heat that cooks evenly and avoids burning. Pots will be easier to clean.

## Fire Helps

Prepare fire starters before camp. Keep a bag of shavings near the fire place to perk up a fire. Tie tiny twigs in bundles and have ready at fireplace for starting or encouraging a fire. Lint and wax, cotton balls and Vaseline, shaved sticks, candle ends, old crayons, or commercial starters all work well.



## Prepackage

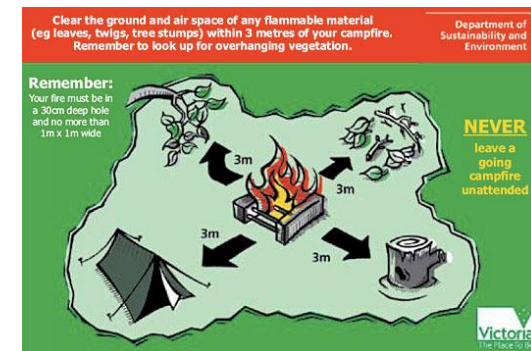
Mix dry ingredients for pancakes, bannock, etc. and place in measured quantities in small plastic bags. Use these bags as mixing bowls. Remove extra packaging from other foods.

## Use Foil sparingly

Save box ovens from one year to the next. Check the foil prior to each use and "patch" as needed. Also, save any buddy burners and tin can stoves from year to year.

## Practice Fire Safety

Always have water and/or dirt close to the fire. Be sure all long hair and loose clothing are tied back.



# Camp Stoves

## Propane Stoves

1. Set the stove up on a flat surface away from all flammable items.
2. Propane stoves can either be hooked up to small canisters or with the adapter cable, hooked up to a large propane tank.
3. Before lighting the stove make sure the propane bottle is turned on and the gauge on the stove burner is turned to the off position.
4. Light the match then slowly turn on the burner till the flame ignites.



## White Gas Stoves

1. The tanks on these stoves must be filled with fuel. Use only a funnel kept especially for this use. Fill the tank only three quarters full. **Never fill the tank when it is attached to the stove.**
2. Pressurize the fuel by pumping air into the tank with the small pump attached to the end of the tank. 15-20 times should be enough.
3. Check that the stove is turned off. Strike the match then slowly turn on the burner till the flame ignites.
4. As the fuel burns pressure in the tank decreases and it will be necessary to pump the stove again. This can be done while it is burning.



## Safety Notes

1. Single canister propane bottles will often make a noise when they are almost empty and they will develop a frost on the outside. This is nothing to be alarmed about but is a good sign to watch for if you are in the middle of cooking.
2. Propane and gas fires can be extinguished by smothering the flames. In the event that you have a fire use extreme caution and act immediately. If the propane bottle gets too hot, it could explode! If possible, turn off the stove and smother the fire with whatever you have available. Sand and dirt will work but **never use water on a gas or propane fire.**
3. Fill white gas tanks well away from the stove site. Wash hands after.
4. Store un-used propane bottles upright, out of direct sunlight and well away from any open flame.
5. Dispose of empty propane bottles correctly.

# Lanterns

## Propane Lanterns

1. Set the lantern up on a flat surface away from all flammable items. Lanterns can be hung up once they are lit.
2. Make sure the propane bottle is turned off.
3. Light the match then insert it up through the hole in the bottom metal plate just above the propane bottle.
4. Slowly turn on the fuel till the mantle ignites.
5. Caution: the wire hanger will get hot very quickly so if you're going to hang the lantern it should be done right after lighting.



## White Gas Lanterns

1. Gas lanterns have to be filled with fuel. Use a fuel funnel to fill the lantern. Make sure you are well away from the area where you will be cooking or using the lantern. Clean up any gas that spills. Wash your hands before lighting the lantern.
2. Pump up the fuel about 15-20 times to build up the pressure in the lantern. Lock off the valve in the closed position.
3. Light a match and place it up through the hole in the metal plate. Slowly turn up the fuel.
4. Use the same caution as with Propane lanterns.

## Changing Mantels on Lanterns

1. Remove the top and globe from the lantern.
2. Take off all old parts remaining from the mantle.
3. Take the new mantle and tie it in place on the lantern (it will look like it is way too large for the lantern.)
4. Using a match carefully light the new mantle on fire. Do not touch the mantle with the match.
5. When it is finished burning it will look much smaller. Carefully reassemble the lantern without touching the mantle.

