

Pathfinder

CAMPCRAFT

Specialty

Resource Material

CAMPCRAFT

Specialty Activities

+ This activity has a campout activity component.

C1 Participate in a discussion on the essentials of camp planning.

C2 Participate in a discussion on the essentials of camp programming. As a group prepare a camp program for your next camp.

C3 What are the guidelines for choosing a good campsite and conducting a good camp?

C4 Know and be able to use the following:
triangle bandage to the head bandage to hand and foot
arm sling collar and cuff sling

C5 Know and be able to use the following:
compression bandage bandage to the wrist or ankle
finger bandage

C6 + Be familiar with the use of a two way radio.

C7 + Discuss and put into practice principles of camp sanitation and hygiene.

C8 + Explain how the following forces can be beneficial and/or dangerous in the areas in which you live in summer and winter: wind, rain and sun.

C9 Know the first aid for the following camp emergencies:
bites and stings fractured collarbone
fractured lower arm fractured upper arm
food poisoning

C10 Know the first aid for the following camp emergencies:
sprains and strains blisters
burns shock
hyperventilation hyperthermia
hypothermia

Campout

C11 + State what health and personal relationship principles are essential when a group of people camp together.

C12 + Build and demonstrate the use of a reflector oven by cooking at least one article of food in it.

C13 + Revise the different types of cooking fires, including the advantages of using gas and fuel stoves, and cook a separate meals on four different types of fires.

C14 + Revise or learn eight things to do when lost.

ACTIVITY C1

Participate in a discussion on the essentials of camp planning.

OUTLINE

This activity is closely related to that of camp programming activity C2. Have each Pathfinder assume that they are camp leaders and responsible for making plans for a camp. Have them plan a camp and then discuss the following information with them for consideration in their camp plans.

RESOURCE MATERIAL

Pathfinder camp planning commences when the Pathfinder calendar is prepared at the beginning of the year with the camping dates decided. This is a good idea for all camping groups as it gives time to properly plan a camp. For a camp to be successful it must be well planned.

The things that a camp leader will need to know when planning a camp is the purpose of the camp, the camp type, the camp location, the camp program, required camp equipment, transportation, food and food preparation, sleeping arrangements, and the notification of the appropriate people.

Camp Purpose

The first thing a camp leader should know is for what reason we are having the camp. Why are we going? This reason or purpose for the camp is the most important need-to-know information that a camp leader requires. This information guides the camp leader in making decisions on the other things required for camp planning. A camp cannot be successful if you do not know why you are going. In other words if you don't know why you are going camping how can you enjoy it. There is usually more than one purpose for having a camp, especially in Pathfinder camping. The purpose of the camp can be as simple as to have a good time, (a purpose for all Pathfinder camps), or be something more complex as in achieving one or more specific goals. In Pathfinder camping there are many different reasons for camping, for just having fun as in club 'fun' camps, to recreational camps such as canoeing, abseiling or caving etc camps, to specific goal achieving camps such as those done to accomplish Pathfinder requirements.

Types of Camps

Once the purpose of the camp has been decided, deciding on the type of camp is very easy as it relates directly to the purpose. By the type of camp we mean is the camp going to be stationary drive to camp, or a hiking camp, or a canoe camp etc. The type of camp is decided upon as the best type of camp to help you achieve you camp purpose. If

the only purpose for the camp is to relax and have fun then the type of camp to choose is a drive to stationary camp to where you can take all the luxuries, like your armchairs, water beds, colour TV and spar pool etc., so that you can relax and enjoy. If the purpose of the camp is to gain a new type of experience then you might choose a hiking camp, horse riding camp or canoe camp etc.

Location of the Camp

Once again making this decision is made easy if the purpose of the camp has been decided. It is no good having a camp at the beach if the purpose of the camp is to study alpine flowers, or having a camp in the mountains if you want to study marine invertebrates. The location of the camp is decided upon as the best place that can best help you achieve the purpose of the camp.

Camp Program

This will be discussed but it is worthwhile to mention that a camp program is vital for the success of a camp. Time has to be allocated for 'general house keeping duties' such as eating, cleaning, sleeping etc., as well as for achieving the purpose of the camp.

Equipment for the Camp

Some activities require special equipment and a decision will need to be made on the type and amount of equipment required. There is group equipment such as tents, cooking pots, first aid kits, flies, ropes etc., and consideration needs to be given to individual camper's equipment. It is no good taking ten people on a horse riding camp if only three campers can acquire horses. Education of campers on camping equipment is also a consideration for some types of camps, ie abseiling. When planning a camp, consideration needs to be given to the equipment that will be required, from where the equipment will come and who will be responsible for acquiring, caring for and returning the equipment when the camp is over.

Transportation

Consideration needs to be given to the transportation of the campers to and from the camp site. The best arrangements for transportation is for each camper to make their own arrangements. This is not always possible for Pathfinder camps, therefore transport arrangements need to be made by the camp leader. When considering transportation to a camp site, it is advisable to choose a method that is most economical but yet is satisfactory for getting all campers and equipment to the site. Train travel is probably the cheapest mode of transportation but is impractical when going on a canoe camp with ten canoes. Bus travel is another option. Private cars is the most common, either those of parents or leaders. The camp leader must ensure that satisfactory arrangements are made for all campers and that all campers are advised of the arrangements.

Food and Food Preparation

The camp leader needs to decide on how the food preparation on the camp is to be done. There are several options for the preparation of the food. How food is prepared will depend upon the type of camp and the experience of the campers, and the camp leader will need to be aware of these conditions. Food can be prepared on camp by several methods:

Special cooks (persons appointed to do the cooking)

- full club camps
- special activity camps
- first time campers

Club cooking (all club prepares and eats a combined meal)

- full club camps
- special activity camps
- first time campers

Unit cooking (unit groups prepare combined meals)

- full club camps
- unit camps

Small group cooking (cooking in pairs)

- full club camps
- unit camps
- experienced campers

Individual cooking

- full club camps
- unit camps
- experienced campers

For all types of cooking the camp leader should supply a suggested menu and the times available for each meal so that the campers know how long they have to prepare meals. Also for all types of cooking other than for individual cooking (preferred method), the camp leader must organise time for the campers to get together to work out a menu and to share the food to be bought.

Sleeping Arrangements

When organising a camp for a group of people the camp leader must give consideration to the sleeping arrangements. They will need to consider the type of sleeping equipment that will be required for the type of camp, ie will they take only flies on a hiking camp or will they take tents. Also the camp leader will need to consider how the tents or flies etc are going to be shared, ie who is going to sleep in the same tent. On full club camps the camp leader has to give consideration to how the camp is going to be set up as to where the campers are going to sleep.

Notification of Persons Involved

One important thing that the camp leader has to do when planning a camp, that is often forgotten, is to notify persons involved in a group going camping. There are three main groups of people that need to be informed; these are the campers themselves, they need to know the camp is on and when it will finish, the type of camp, what to bring, and how they are going to get to and from the camp site. The next group of people, where applicable is the parents of the campers. They will need to be given as much information about the camp as possible including what has been given to the campers. The last group to notify is the people that own the camp site where you are planning to camp.

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Campcraft Handout 1.

Camp Planning - Things to Consider

1. Camp Purpose
Why are we going?
2. Type of Camp
Backpacking or
Canoeing or
Stationary or
Other?
3. Location of the Camp
Where are we going to have the camp?
4. Camp program
What are we going to do?
5. Equipment for the camp
What special equipment do we need?
6. Transportation
How are we going to get to and from the camp?
7. Food and Food Preparation
Are we going to eat as a group or
individually?
8. Sleeping arrangements
What equipment and who is going to share them?
9. Notification of Persons Involved
Who do we have to tell about the camp?

ACTIVITY C2

Participate in a discussion on the essentials of camp programming. As a group prepare a camp program for your next camp.

OUTLINE

Give each Pathfinder a piece of paper and a pen and ask them to put together a camp program, with times, for a week-end camp. Give them no more information than that, so that they might realise what information is required to make a camp program. Then give out the handout sheet and as a group discuss the need-to-know information and the basic program. If time permits have the Pathfinders do another program with the information given on handout 3.

RESOURCE MATERIAL

What you need to know before you can prepare a camp program.

There are always certain activities that are always done on a campout irrespective of the type of camp. These activities are associated with sleeping, eating, personal hygiene, worships and free time, and will occupy a great deal of the camp time. These activities and activities associated with the purpose of the camp form the basis of a camp program. There is no basic camp program that is suitable for all camps. This is because the program revolves around the purpose or goals for the camp which will change from camp to camp. However, a typical basic program from which camp programs can be adapted to suit the camp purpose is given following.

1. Purpose for the camp

The most important thing that you need to know when making a camp program is why you are going. The whole program revolves around this information. It will decide the amount of time that will need to be spent on each activity in order to achieve the purpose of the camp.

2. Arrival and departure times

You will need to know the estimated time of arrival at the campsite and the estimated time when you will be leaving the campsite. This information will tell you when your camp program will start and when it will finish.

3. Sunset times

This information is required not only to tell you the correct times for Friday and Saturday Sabbath observance, but it will give you information on what time to program evening meals if lighting is a consideration.

4. Worships

You will need to decide on the type of worships and the time given for each worship. Worships are very important and should not be deleted from the program. The type of worship that is given can be altered to suit the camp purpose. Combined worships require a minimum of 30 minutes, and this is the type of worship that should at least be organised for opening and closing Sabbath. Small group worships require less time and should not exceed 15 minutes.

5. Church and Sabbath School activities

Before you make your camp program you will need to know if, when, where, what type and for how long these activities are going to last. You may decide that you are going to have both a Sabbath School and Church program. You may have just one of these activities and a Bible nature game. You may decide that you are going to take the group on a walk and have Sabbath School in some remote place, therefore time for the walk needs to be allocated. You may decide to hold Church in the morning but have an afternoon Sabbath School activity.

6. Lights out and rise time.

You will need to know at what time the Pathfinders are required to be in bed. This will tell you at what time your evening activity will need to finish. The lights out time may vary from evening to evening depending on your activities for the next day. Also your rise time will need to be decided. This will tell you at what time to start your daily program. Again this may vary depending on your activities.

7. Free time.

All camp programs require free time for the Pathfinders.

8. Meal times.

Except for light consideration for the evening meal, the time of the meal is not that important. However the length of time of the meal is important to your program. The evening meal requires the longest time, followed by breakfast, with lunch being the short quick meal. The evening meal could take up to 120 minutes.

Basic Daily Program

7.00 am	Rise
7.00 - 7.30 am	Wake-up (dress wash etc)
7.30 - 8.30 am	Worship
8.30 - 9.30 am	Breakfast
9.30 -12.00 pm	Activity
12.00 - 1.30 pm	Lunch
1.30 - 4.00 pm	Activity
4.00 - 5.00 pm	Free time
5.00 - 7.00 pm	Tea
7.00 - 9.30 pm	Activity
9.30 -10.00 pm	Bed
10.00 pm	Lights out

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Campcraft Handout 2.

CAMP PROGRAM - Need-to-Know Information

1. Purpose of the Camp
2. Arrival and Departure Times
3. Sunset Times
4. Worship Information
5. Church and Sabbath School Information
6. Lights out and Rise Time Information
7. Free Time
8. Meal Time Information

Basic Daily Program

7.00 am	Rise
7.00 - 7.30 am	Wake-up (dress wash etc)
7.30 - 8.30 am	Worship
8.30 - 9.30 am	Breakfast
9.30 -12.00 pm	Activity
2.00 - 1.30 pm	Lunch
1.30 - 4.00 pm	Activity
4.00 - 5.00 pm	Free time
5.00 - 7.00 pm	Tea
7.00 - 9.30 pm	Activity
9.30 -10.00 pm	Bed
10.00 pm	Lights out

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Campcraft Handout 3.

CAMP PROGRAM - Sample of Need-to-Know Information.

1. Purpose of the Camp

- Map and Compass Honour
- Build Reflector oven and cook something
- Make a rope from natural material

2. Arrival and Departure Times

- Arrive at campsite at 5.30pm Friday
- Leave campsite at 3.00pm on Sunday

3. Sunset Times

- Sunset time is about 7.03pm daylight saving time

4. Worship Information

- Combined opening and closing Sabbath worship for 30 minutes.
- Small group morning worships for 15 minutes.

5. Church and Sabbath School Information

- Formal Sabbath School in morning for 60 minutes.
- Sabbath School requires an additional 30 minutes walk each way to chosen

site.

6. Lights out and Rise Time Information

- Friday night lights out 10.30 pm.
- Saturday morning rise 7.00 am.
- Saturday night lights out 10.30 pm.
- Sunday Morning rise 6.30 am.

7. Free Time

- At least 60 minutes of free time on Saturday

8. Meal Time Information

- Tea Friday - Packed tea from home
- Breakfasts - 90 minutes
- Lunches - 90 minutes
- Tea Saturday - 120 minutes

ACTIVITY C3

Give the guidelines for choosing a good campsite and conducting a good camp.

OUTLINE

Present the following information. Add in some case studies for the Pathfinders to discuss.

RESOURCE MATERIAL

Some Guidelines for Choosing a Good Campsite

1. Choose well drained level ground.
2. Choose a dry area. Always check the ground carefully for if it is the least bit damp, the warmth of a body in a sleeping bag will bring the moisture up from the ground and through the bag. Of course, a ground sheet should always be used under a sleeping bag, even if the ground is dry, for there is always a certain amount of moisture in the soil.
3. Stay away from mosquito-infested swamps if at all possible.
4. Never camp under an overhanging ledge or cliff. There is danger of landslides or falling rocks. You may build your campfire near the face of the cliff and take advantage of the reflected heat.
5. In setting up a campsite in a wooded area, be sure the tents are not placed under the trees with large dead branches that might break off in the wind.
6. Pick a warm area. Remember that water and cold air both run downhill, and that warm air runs uphill. Because of this law of cold air drainage, where would be the best place to choose a campsite - a hilltop, a hillside or a basin? A hilltop would be warmer and drier, and it would also have strong breezes to keep away mosquitoes. A hillside would be a little colder, but not too bad, and if very strong winds were blowing, this might be the best spot. In a basin? - never, for here the dampness of fog will lie, and the cold frost crystals will form. Also, in a heavy rain such a campsite would be flooded.
7. Hard, rocky, dusty terrain makes a poor campsite.
8. Pitch your tent toward the south east so that the morning sun will help keep it dry.
9. If there is a prevailing wind, pitch the tent with the door away from the wind.
10. A plentiful wood supply is important.
11. Pick a camping area where plenty a safe drinking water is available.

Some Suggestions for Conducting a Good Camp

There is one secret word that can insure the success of any camp. This word is **COOPERATION**. Cooperation with other members of your camping group, cooperation with other campers at the same site and cooperation with camp site owners.

Getting on with other camp members.

A camp is much more enjoyable if party members cooperate with each other and with the camp leader. Each party member should be willing to pull his/her weight in carrying out the chores at the campsite. These chores will include collecting water and firewood, erecting tents or flies, cooking and cleaning up at meal time etc. The camp leader has dedicated a great deal of time to plan and organise a camp members, so an enthusiastic cooperation to the camp program will not only make a good camp for the camp members but also for the camp leader. A camp can be so easily turned into a bad camp for all campers by one member who refuses to cooperate in part of the camp program.

Getting on with other campers.

Campers should not infringe on the enjoyment of other camping parties. When coming into a campsite where other campers are already camping, it is courteous to seek permission from the other party before camping near them, except where campsites are restricted.

Noise is probably the most common problem that occurs between camping parties. Excessive loud talking or singing, particularly at night, can cause problems if the other campers are trying to sleep. Radios and loud noises are not in keeping with the natural environment of the camp setting and should be left at home.

Entering into or passing through other campsites without permission infringes on the other camper's enjoyment of the bush and exhibits a disrespect for the other campers. At no time should campers enter the campsite of other campers without permission, even if it is on the way to the toilets and you are in a hurry.

Of course cooperation with other campers needs to be observed even if there is no other campers camping there at the time you are there. The campsite must be left in a better condition than when you found it. All rubbish must be removed, there should be no remaining signs of fireplaces or that the site has ever been camped on.

Cooperation with the site owner.

This is very simple, you must obey all the rules that the site owner places on the use of the site. This will include such things as seeking permission, sanitation, rubbish disposal, fireplaces, camp costs, etc.

THE SUCCESS OF A CAMP IS NOT JUST THE RESPONSIBILITY OF THE CAMP LEADER BUT IS DEPENDENT UPON THE COOPERATION OF EVERY CAMP MEMBER.

Short answer to case study 1:

Campers have a moral obligation to ensure that the area they use is left unaffected by human presence. This will ensure that future campers and generations will enjoy the area in the same way as we do now. Even though you and your party didn't create the mess, it would be your responsibility to return the site to as near its natural condition as possible.

Short answer to case study 2:

The camp leader has no authority to physically force anyone to do anything in a Pathfinder camp situation unless that person is in some physical danger. If the camp member wishes not to participate in camp chores even after encouragement and talks from the leader, there is only one thing that can be done to stop the future camps from turning into bad camps and that is to leave the uncooperative camper at home.

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Campcraft Handout 4.

The secret word that ensures a successful camp is:

COOPERATION

THE SUCCESS OF A CAMP IS NOT JUST THE RESPONSIBILITY OF THE CAMP LEADER BUT IS DEPENDENT UPON THE COOPERATION OF EVERY CAMP MEMBER.

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Campcraft Handout 5.

Case Study 1:

You are heading down to a campsite you visited two years previously. You remember a wide grassy flat next to the river with ample firewood, a suitable swimming pool and minimal evidence of previous use. Just as you reach the bottom of the spur you notice a transformation of the campsite has taken place. Numerous stone rings around blackened charcoal can be seen. In the midst of each ring is a pile of aluminium foil, plastic containers and aluminium cans. The swimming hole is carpeted with broken glass and live trees have been savagely butchered for firewood.

WHAT WOULD YOU DO?

CAMPCRAFT

Campcraft Handout 6.

Case Study 2:

You are out with a group of campers on a camp that you have planned as a group and have been looking forward to for ages. As the camp progresses another of the camp members refuses to participate in any of the meal time duties even after repeated encouragement and talks by the camp leader. Even though he participates in all other activities enthusiastically, and he enjoys eating the meals, he feels that meal duties are not for him as he does not have to do them at home. You and the other camp members (being cooperative persons) are therefore required to share his duties as well as do your own. By the end of the camp bad feelings are running high and the camp atmosphere has taken on an unpleasant and uncooperative feel.

WHAT COULD YOU SUGGEST TO DO TO STOP THIS FROM HAPPENING AGAIN IN ONE OF YOUR FUTURE CAMPS?

ACTIVITY C4

Know and be able to use the following:

triangle bandage to the head

bandage to hand and foot

arm sling

collar and cuff sling

OUTLINE

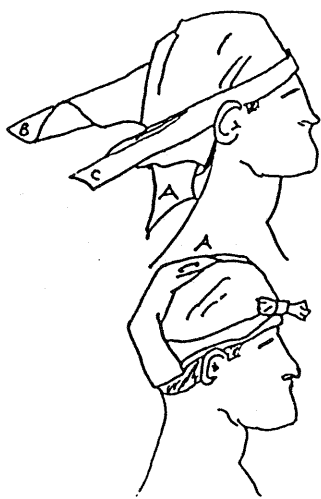
This bandage activity is just an informative requirement for the campcraft specialty. Present the bandages and have the Pathfinders practice them. This is not a first aid lesson.

RESOURCE MATERIAL

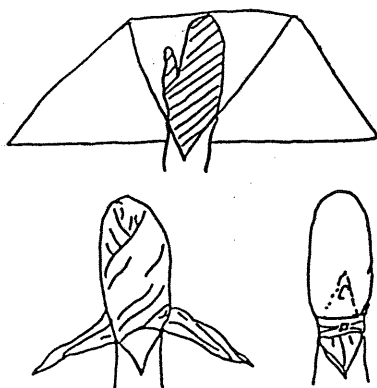
Resource material for all of this activity can be found in the First Aid Specialty. The following handout sheets show what the bandages should look like.

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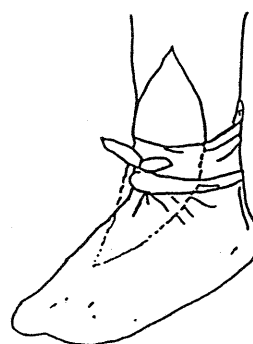
Campcraft Handout 7.



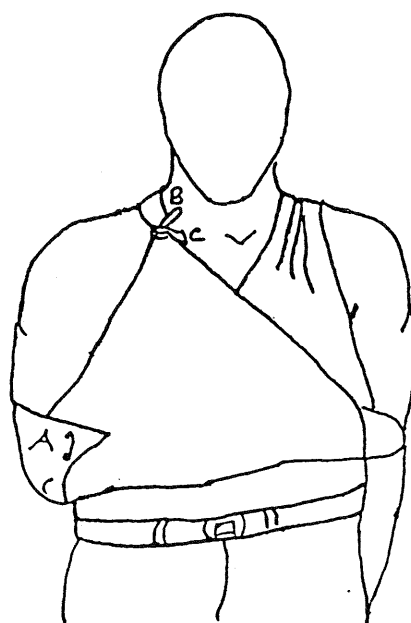
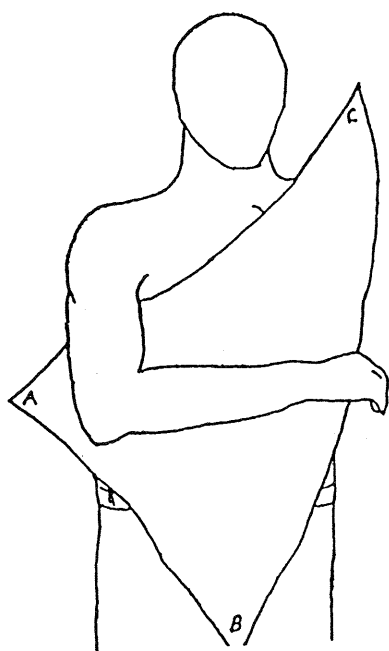
Head



Hand

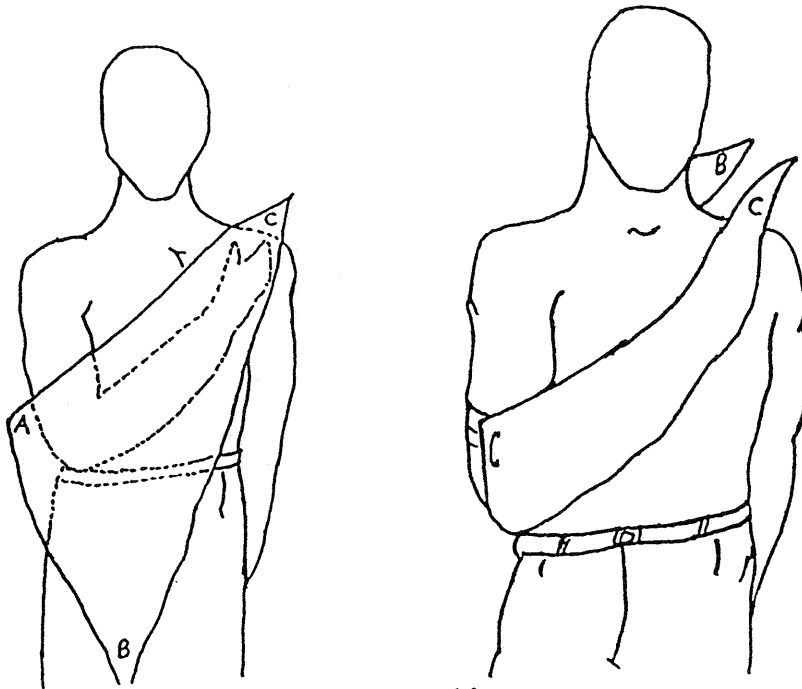


Foot

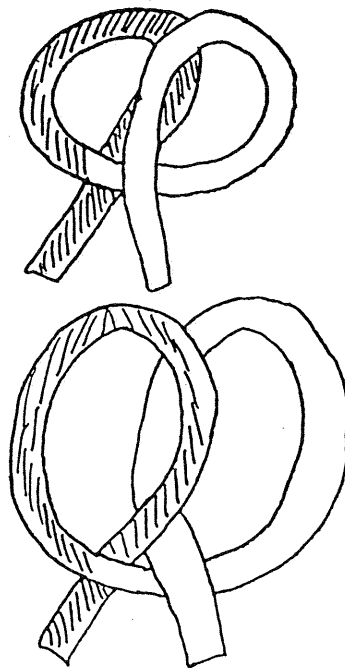
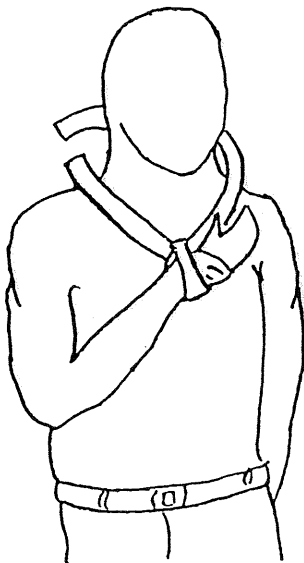


Arm Sling

Campcraft Handout 8.



St. Johns Sling



Collar and Cuff Sling

ACTIVITY C5

Know and be able to use the following:

compression bandage

bandage to the wrist or ankle

finger bandage

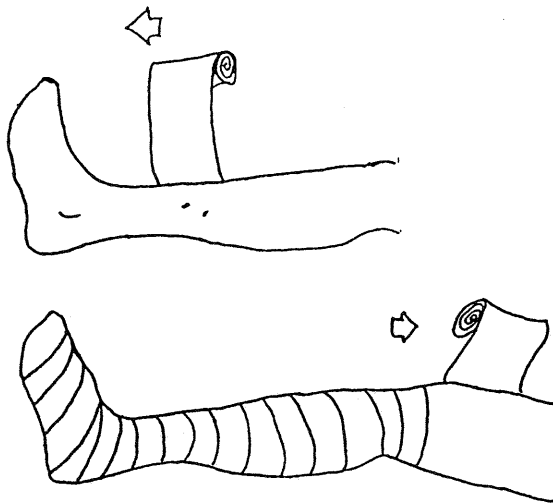
OUTLINE

This bandage activity is just an informative requirement for the campcraft specialty. Present the bandages and have the Pathfinders practice them. This is not a first aid lesson.

RESOURCE MATERIAL

Resource material for all of this activity can be found in the First Aid Specialty. The following handout sheets show what the bandages should look like.

Campcraft Handout 9.



Compression Bandage.



Hand/Wrist Bandage.

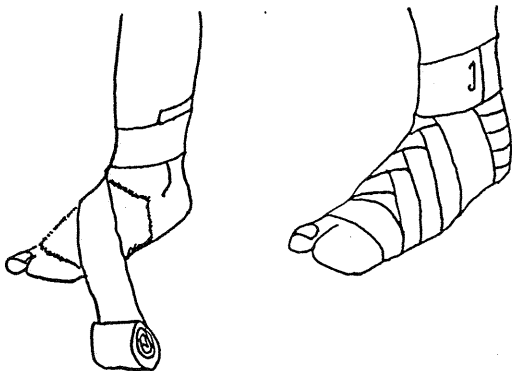


Figure 8 Bandage to Foot/Ankle



Finger Bandage

ACTIVITY C6

Be familiar with the use of a two way radio.

OUTLINE

Hand out the block diagram of a transceiver and discuss the following information with the Pathfinders. This is not a physics lesson on electronics so don't get too complicated. It is important that the Pathfinders be familiar with the components of the transceiver. You will need to relate each component of the diagram to a transceiver that you have on hand. After discussing the components of the radio have some practice using them.

RESOURCE MATERIAL

The transceiver consists basically of four groups of circuitry. The power supply, the tuning circuit, the transmitter and the receiver.

Transmitter Circuitry

The transmitter is a secondary function of the transceiver, and the transmitter switch has to be engaged before transmission can commence.

Transmission Switch

The transmission switch when engaged, moves the transceiver out of receive mode, where it normally resides, into transmission mode. The transmitter is only engaged as long as the switch is held on. Once the switch is released the transceiver returns to the receiver mode.

Microphone

The microphone is the place where the transceiver receives the 'data' or message which is to be transmitted. For the transceiver to function in the transmitter mode and for the microphone to function, the transmitter switch needs to be turned on.

When talking into the microphone, the mouth needs to be between 40 and 75 mm away. The transmission switch needs to be turned on for about one or two seconds before the message commences. The message is completed with the word '*OVER*', meaning 'over to you', before the transmission switch is released. At this time the person sending the message needs to wait for a short period of time for a response (with the transmission switch released). Once a response is received you should not transmit until the response is finished. If you try to transmit while receiving, you will not be able to hear the response and the person giving the response will not receive your transmission as their

transceiver will be in transmit mode. When transmitting messages, it has become common practice to use a code or slang language. This is not a good idea as you must assume that the person receiving the message is familiar with and is using the same code as you are and this is not always the case. When talking into the microphone talk slowly and clearly and use every day language.

Amplifier

Once the data is picked up by the microphone it is only a very weak signal and therefore it is passed to the amplifier circuitry where it is amplified.

On/Off Volume Switch

The on/off volume switch is essential in both the transmission and receiver modes as neither of them will function unless there is power received from the power supply. The volume control is really part of the amplifier circuit as it controls the amount of amplification that is given by the amplifier. The greater the 'volume' the greater the amount of amplification that the amplifier gives to the signal received by the microphone.

Transmitter

The signal that is received from the microphone is an audio frequency (AF) signal, that is it is a sound wave. Sound waves are compression waves, that is you can feel them as well as hear them. This is evident if you stand in front of a base speaker when it is operating. Because sound waves are compression waves the transceiver needs to convert the AF signal into a form that can be sent through the air without interfering with the atmosphere. This is where the transmitter comes in.

The transmitter consists basically of an oscillator circuit which produces a radio frequency (RF) signal. This RF signal is called the carrier wave because the original AF signal is transposed onto it before transmitting the signal. The carrier wave can be varied to produce different radio frequencies giving you your different channels. In smaller walkie talkies, the oscillator is based on a set frequency crystal and changing the channel means changing the crystal.

The transmitter takes the AF signal and imposes it onto the carrier RF signal by changing the amplitude of the carrier signal. The carrier wave is then called an amplitude modulated signal or an AM signal. A FM signal is a frequency modulated signal. The AM or FM signal is then sent to the aerial and transmitted.

The frequency of a wave is the number of wavelengths that pass a given point in one second. Refer to handout for an explanation of wavelength, amplitude, and the different types of wave forms.

External Microphone Socket

Some transceivers have an external microphone socket that allows the use of a hand held microphone. These hand held microphones have the transmission switch on the handpiece.

Tuning Circuit and Aerial

Channel Selector

The channel selector allows the user to decide at what frequency the oscillator is to produce the carrier wave for transmission or at what frequency the receiver is to look for a signal. For multi channel transceiver there is usually a decided 'calling' channel for contacting other users. Once contact is made the users need to shift to another channel so that they do not interfere with others trying to make contact. The calling channel or frequency needs to be decided upon when there is a group of people using transceivers, this is so the receivers can be set to receive a signal.

Aerial

The aerial is very important to the transceiver and the transceiver will not work unless the aerial is intact and fully extended. Signals can only be received and transmitted by the transceiver, with a wavelength governed by the length of the aerial. If the aerial is not fully extended you effectively reduce the quality of the signal that could be received if the aerial was fully extended. Some walkie talkies have a coil on the aerial. This effectively increases the length of the aerial allowing for the use of longer wavelength signals.

External Aerial Socket

Some walkie talkies have an external aerial socket. This allows the user to connect the transceiver to a larger aerial, increasing the range of frequencies that can be received.

Receiver Circuitry

Receiver

The receiver works in reverse to the transmitter. It takes the modulated RF signal that is received on the aerial and splits off the carrier wave and produces an AF wave, which is your sound wave.

Amplifier

The amplifier at this stage amplifies the signal so that it can drive a speaker at an audible level.

Filter

After the signal is amplified it is then passed through a signal filter. This removes any 'noise' or 'static' that the signal may have picked in transmission. The amount of filtering can be controlled by the squelch control. The lowest level of filtering of a signal produces the best signal. Filtering at high levels may also cause loss of some of the signal.

Speaker

After filtering the AF signal is then passed to a audio speaker and the message transmitted is reproduced.

External Speaker Socket

Some transceivers have external speaker socket to allow the use of head phones.

The Power Supply

All portable transceivers require a portable power source. This following section is not applicable for mains powered transceivers.

Batteries

All portable transceivers are powered by batteries. The number of batteries required is dependant upon power (watts) that is required by the transceiver. The maximum power allowable in a transceiver at the present time is 5 watts.

The power rating of a transceiver dictates to some degree, the distance that a signal can cover. The greater the power rating the greater the distance than the signal can cover. Another factor that determines the distance from which a signal can be received is the terrain between the transmitter and the receiver. The signal will not go through mountains or obstacles etc nor will they go around corners very well. The best situation for transceivers is a direct line of sight. Therefore if possible it is best to transmit from a high position as the signal will cover more ground.

Batteries do not last for ever so it is very important to conserve the batteries as much as possible. Even when the transceiver is in receive mode and no signal is coming in power is being consumed so it is not advisable to leave the transceiver turned on at all times. What is required is a 'sched' system. This is short for a schedule calling system. Arrange with all parties in the group with transceivers a time schedule for when the transceivers will be turned on. This may be on the even hour for 15 minutes between 6.00 am to 8.00 pm.

Battery Level Indicator

All portable transceivers have a battery level indicator. This should be monitored at all times and reported to other receivers when in an organised group, when the batteries are becoming low. This will stop any problems when you go off the air that might be caused if you went off the air and others didn't know why. On some instruments the battery level indicator also indicates the strength of the receiving RF signal.

Hi/Low Power Switch

Some instruments have a high/low power switch. When used on low the transceiver only uses power at half the rate as when on high. The transceiver should only be used on high power when extra power is required to send or receive messages. This might be the case when there are large distances, or there is bad terrain between the transmitter and receiver. To prolong the life of the batteries low power should be used when ever possible.

External Power Socket

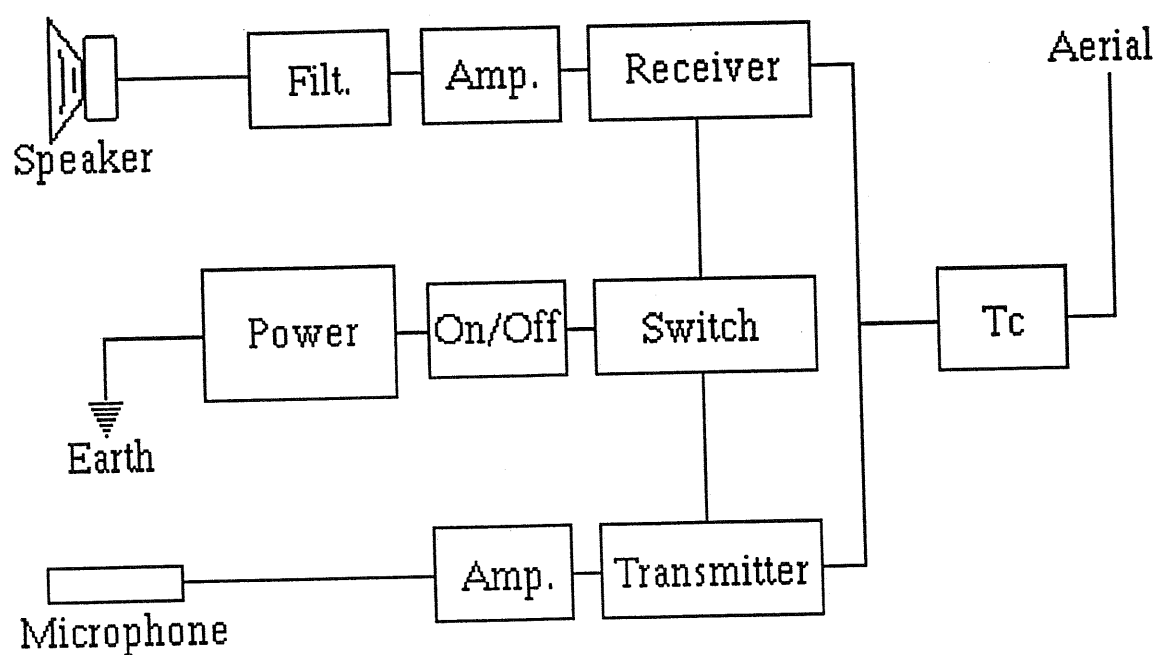
When connected to mains power on external battery (or mains) power through the external power socket, the portable transceiver can be used in a base position without any drain on the internal batteries.

Battery Charger Socket

Some transceivers have the facilities for re-charging batteries. Most transceivers do not have a built in charging system so an external charger is required. You must make sure that the batteries that you are trying to recharge are rechargeable.

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Camcraft Handout 10.

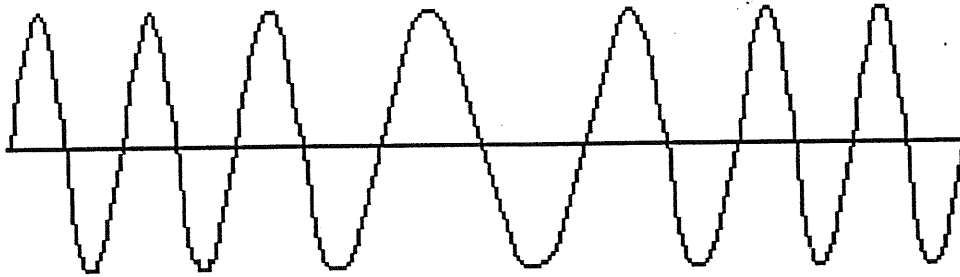


Filt. = Filter circuit
Amp. = Amplifier circuit
On/Off = On/Off switch
Switch = Transmission switch
Tc = Tuning Circuit

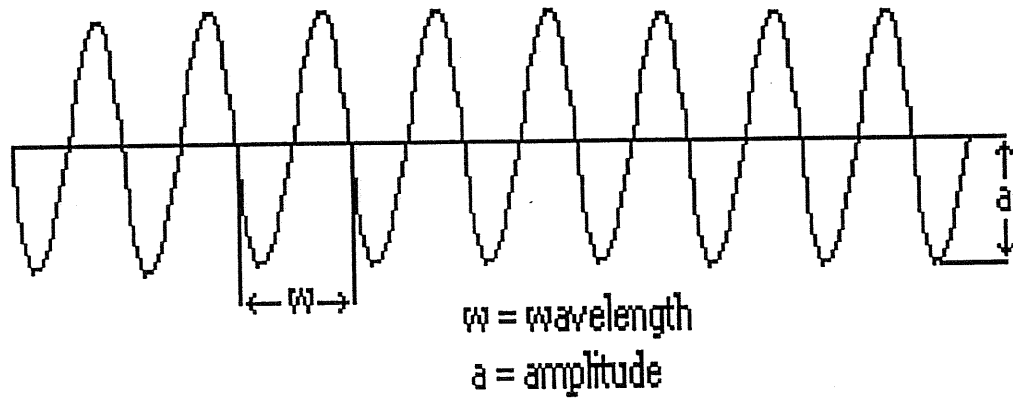
CAMPCRAFT

Campcraft Handout 11.

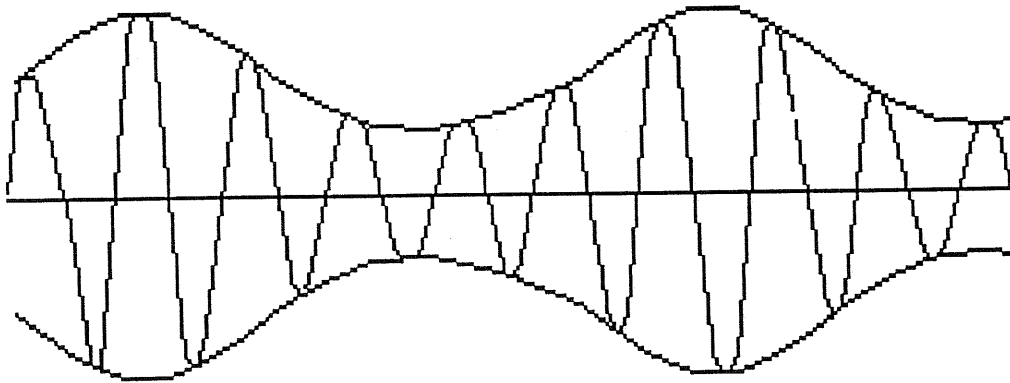
1



2



3



- 1 = Sound or Compression Wave
- 2 = Radio Wave
- 3 = Amplitude Modulated Wave

ACTIVITY C7

Discuss and put into practice the principles of camp sanitation and hygiene.

OUTLINE

Have the Pathfinders discuss what they think is important when considering camp sanitation and hygiene, and what effects bad sanitation and hygiene can have on a camp. Guide the Pathfinders discussion through the following information.

RESOURCE MATERIAL

Whilst you might not wash as often in the bush or have a latrine in your pack, this is no reason to drop your standard of hygiene and sanitation. Most sickness in the bush is of the gastro-intestinal variety and much of this could be reduced if personal hygiene, eating equipment, rubbish and toiletry habits were correctly cared for.

Camp hygiene and sanitation is the responsibility of every camper.

Personal Hygiene

Personal hygiene on a stationary camp is a resultant on the equipment that you have brought from home. As there is usually not much of a problem with the amount of gear that you can bring (within reason), there is no excuse for the lack of personal hygiene or for the lack of the equipment to maintain that hygiene.

Washing

If the campsite where you are camping does not have shower or washing facilities, then one should be set up. The main thing to remember is not to pollute water ways with soap. Body soap is not biodegradable and can pollute drinking water and kill marine life.

A wash basin is probably the most important communal piece of equipment at the camp. A basin should be provided with a supply of water, soap, towel and a method of disposing of the waste water so that campers can practice good camp hygiene at all times. This wash basin is used for the washing of hands, face and teeth etc., but should not double as a wash basin for dishes and pots. This wash basin should be situated far from the water ways but near the waste water disposal site.

It is possible to wash all over using a billy or two of water. Soap up away from the water ways and rinse off with the water from the billy. Don't pollute the streams with soap.

Showers are very easily set up. Portable showers consisting of a water container and rose head can easily be made or bought from most camp supply shops.

For the simplest type of shower, what is required is a flat, well drained area at least 50 metres from water ways, ample water, a water container with holes in the bottom, a tree with a convenient branch to which to tie the water container, and a person willing to have a shower. An enclosure can be made for privacy, or persons using the shower can wear their swimming costume.

Eating Equipment

Kitchen facilities need to be provided for. All cooking and eating equipment should be properly cleaned and stored after each meal. Eating off plates with the last meals leftovers still on it, as some Pathfinders do, is asking for some form of gastro trouble.

A kitchen sink needs to be provided for the washing of dishes. This can be as simple as a dish on the table or it can be something that the Pathfinders have constructed.

Water ways are not sewers, so don't wash up in them. All washing up of plates and billies etc should be done in the campsite. If kitchen facilities are not provided, the washing of plates etc can easily be done at the fire. Start with the billy by heating about 10 mm of water and a pinch of laundry soap powder. Scour with an abrasive cloth then rinse the soap away. This amount of water boils so quickly that repeats with cleaner water are very easy. Further, the water may be disposed of into the fire without putting it out - indeed, if the fire is hot, the water will immediately turn into steam. When the billy is clean, repeat the process with cutlery and plates. No food, grease or soap need find its way into the water supply.

Rubbish

For solid waste ie plastic, metal foil etc., at a stationary camp the rule is, nothing goes into the fire or gets buried. With the number of persons using the camping areas, it is no longer acceptable to 'burn, bash or bury'. For back pack camps the rule is if *you can carry it in, you can carry it out*. Always carry home your rubbish and, when found, a bit of someone else's. A garbage receptacle needs to be supplied as part of the kitchen furniture. All food scraps and paper must go into it.

Waste water from the kitchen and from the wash basin needs to be disposed of correctly. Again the water must not be allowed to contaminate the water ways. One method to dispose of waste water is, if allowed dig a hole about 50 metres from the nearest water way, about 500 mm deep and 300 to 400 mm wide. All waste water can be carefully poured into this hole. The earth acts as a filter to filter out the impurities in the water before the water gets back to the water way. Always remember to fill in the hole before leaving the campsite.

At some campsites it is not possible to dispose of water in this fashion due to campsite restrictions, clay/stony soils etc. Also some argue that it is not ecologically sound to concentrate waste water contaminates ie soap, into one place. The alternative to the waste water hole is to simply broadcast the waste water onto the surface of the ground. This method also has problems, the site of broadcast must be as far away from the water ways as possible to prevent run off. This distance must be greater than 50 metres. Another problem is finding an area large enough in which to broadcast the waste water so that the ground does not become soggy and where it will not interfere with the movement

and rights of all the campers.

Latrines

At most of the established campsites there is some form of toilet facility. If there isn't then one will need to be provided.

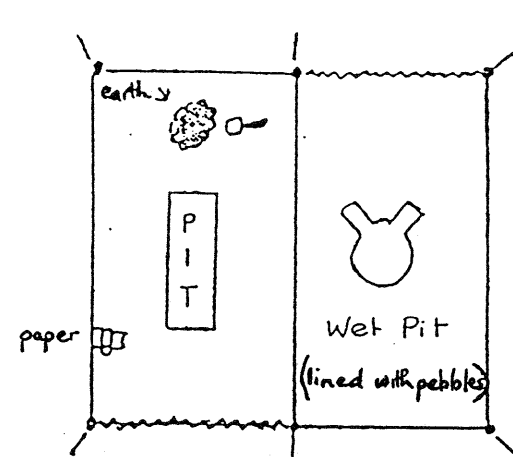
Choose a site for your latrine some little distance away from the camp and on the other side from the kitchen. The site will need to be several hundred metres from any water. Whilst the trunk of the trees may be a help in erecting the screen, proximity to the tree may make the digging of the whole a hard job owing to the roots. The hole or trench should be about one metre long, 300 mm wide and about 300 mm deep. There is no need to dig deeper, in fact the bacteria are less active at a lower level so a longer time is required to clear everything up. Under cut the sides of the trench slightly to prevent fouling. A seat is placed over one end of the trench and is moved along as the trench fills. It is very important that each time this trench latrine is used a good shovelful of earth is deposited; when this is done there is no need for any disinfectant. When the camp is finished it is important to make sure that the trench is completely filled in and that a foul ground marker is placed on the site. When a latrine is available it is expected to be used by all persons on the camp and for all reasons. However, if a latrine is not available it is usually acceptable to urinate just about anywhere, though not where people walk or sit. When defecating, leave the camp area and look for a place where a small hole can be dug with a shovel or a stick.

Always be careful to avoid contaminating water ways by going well away from the water courses, running or dry. Generally it is better to go up hill, not upstream of where water may be taken. Remember that others may be camping downstream so you may need to go quite some distance.

Tampons and sanitary pads must not be left in the bush. Either in a latrine or buried, animals can dig them up leaving a mess. The solution to this problem is to place them into plastic bags and carry them home.

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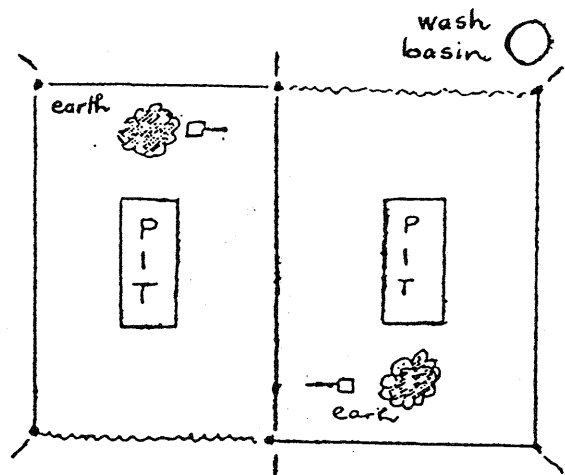
Campcraft Handout 12.



grass sods

Wash basin

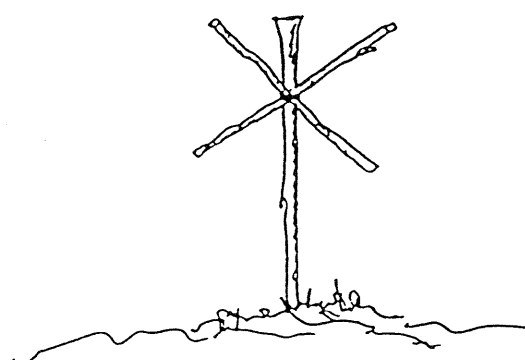
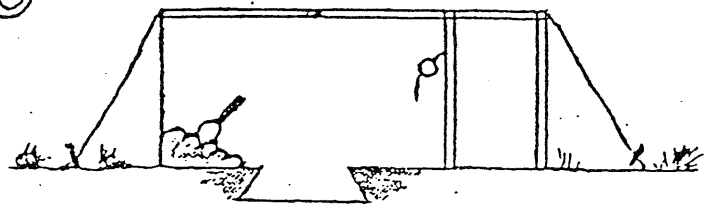
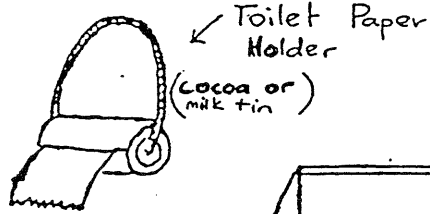
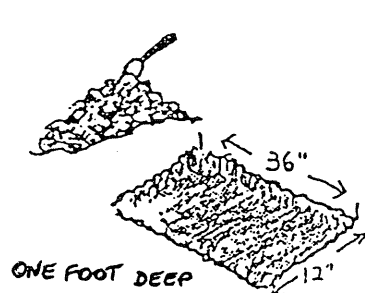
UNIT BOYS' LATRINE



SODS

Wash basin

UNIT GIRLS' TOILET



FOUL GROUND MARKER

**Camp hygiene
and sanitation
is the
responsibility
of every
camper**

ACTIVITY C8

Explain how the following forces can be beneficial and/or dangerous in the area in which you live in summer and winter: wind, rain and sun.

OUTLINE

The object of this activity is to help the Pathfinders understand that the forces of nature can be both beneficial and harmful and for them to see the need of assessing these forces and the effect that they can have on a campout, and to help them to be able to prepare for them.

RESOURCE MATERIAL

Wind, rain and sunshine are forces of nature that the camper cannot control. These forces, although they can be useful, can destroy a camp. Campers should be aware of how to best prepare for and how to recognise the effects of these natural forces.

Wind

Campers should always be prepared for wind. Wind is usually a problem for campers no matter whether it is summer or winter but it is more a problem in the winter. However, wind can have some advantages. In the summer, a gentle breeze can often have a cooling effect on a hot summers day. This is because the air movement about a sweating body causes the sweat to evaporate leaving a cooling effect on the surface of the body. A gentle breeze can help dry dew from equipment etc., but the best benefit from wind is in the winter and this beneficial wind, is the wind produced from air movement due to thermal drift. Thermal drift is the movement of warm and cold air. Warm air rises and cold air falls. Campers need to beware of this principle and be able to take advantage of it. The morning breeze (*anabatic breeze* if you want to be technical) blows up the valley because the warm air of the valley floor rises; and the evening breeze (*katabatic breeze*) blows down the valley, because by afternoon the valley temperature falls faster than that of the higher areas.

As stated earlier wind is usually a problem more so than an advantage. Along the east coast of Australia campers can expect strong winds in the August and September months and through the summer. When selecting a campsite position the tent or fly in a position that is best sheltered from the wind. The best campsite has a natural wind break behind it such as dense foliage or a rock face. Do not select a site that is on top of a hill or in a dry gully because these are areas of high wind possibility. When erecting a tent, position the tent so that the opening of the tent is at 90° to the wind or if the tent has NO opening in the back, have the back to the wind. If a tent is pitched correctly in this position than it can withstand quite a bit of breeze. However if the tent is pitched with an

opening facing the wind, the wind will rush into the tent and have nowhere to go and therefore lift the tent off the ground. No tent or pitching method will be able to withstand the wind.

When selecting a fire site the wind and its intensity, needs to be considered. The type of fire built and its position depends upon the wind. For strong wind areas campers need to build fires that are protected from the wind. The amount of protection for the fire varies depending on the strength of the wind. For high wind areas, the hunters fire or the trench fire needs to be built.

Wind in the winter time causes another problem. While lower temperatures are obviously dangerous, wind drains heat away from the body very fast. See the wind chill chart on the handout sheet. An air temperature of 10° celsius is cool, but not overtly dangerous. However, if a mild wind of 30 km per hour is blowing, heat will be lost at a rate experienced in a still air temperature only one degree above freezing. For these conditions you do not have to be in the mountains in winter. Wind chill obviously has a more pronounced effect when the temperature is lower. All campers should be on the lookout for loss of body heat in themselves and in other campers as it can lead to hypothermia.

Rain

Rain is never an advantage on a campout in summer or in winter. Rain can spoil a camp and can cause medical problems if campers are exposed to it for long periods of time.

During summer weather conditions can change quickly. A day that started out as warm and sunny, can quickly turn into rain and cold. All campers need to be prepared for rainy conditions even if rain is not in the forecast, (and especially if the weather man says it won't rain!).

In winter, rain when added to wind can cause the wind chill factor to drop a couple of degrees, increasing the danger of hypothermia. Water conducts heat about 15 times faster than dry air. In addition, the process of drying (evaporation) is always accompanied by a cooling effect. The need to remain dry should be clearly apparent when the weather is cold.

In wet weather fire lighting is not so easy. Useful tricks to remember are to look for dry tinder under logs and at the base of larger trees; dead leaves and twigs on standing bushes are drier than those on the ground. Some plants such as '*Melaleucas*' (paper-barks) or '*Pandannus*' (in Tasmania) have volatile oils which will burn when fairly wet. Once the fire is lit, place other wood near the fire to dry out. With a bit of patience, experienced walkers can get a blazing fire going in the wettest of rainforest conditions.

When packing your gear for a camp special consideration should be given to waterproofing certain essential equipment by placing them in water tight containers. Matches need to be placed into a waterproof container. A set of clothes needs to be sealed into water proof bags. These dry clothes may save your life if you are caught in the wet.

During rainy conditions, sweating is less obvious, but the loss of body moisture does occur during these conditions. The selection of rain protection is therefore important. The raincoat must be windproof and waterproof yet not be so hermetic as to leave the wearer drenched in sweat. A cloth that allows sweat vapour out, but stops rain getting in, is said to breath.

We hear a lot about exposure or hypothermia in wet and cold conditions. Yet it is possible, and not uncommon, for a camper to suffer from heat stroke or hyperthermia in these conditions. Excessive exercise, like strenuous walking and carrying a pack, on a wet and cold day, with extra clothing for warmth, and a raincoat that does not breath correctly or not at all, can lead to heat stroke.

Sun

Sunshine, glorious sunshine, is always welcome on a camp. However too much sunshine and unprepared campers can lead to trouble.

Summertime, when the UV levels are at their highest, is the most important time to prepare oneself for sunburn. The skin becomes hot, red and itchy as exposure to the sun dilates the blood vessels in the skin. The best cure for sunburn is prevention. Always wear a hat, clothing and a sun screen. Slip, slop, slap as they say.

Sunburn can lead to the body overheating. People exercising in temperatures over about 30 degrees (bushwalking for example), are liable to suffer a number of conditions related to overheating. These include heat cramps, heat exhaustion and heat stroke all of which appear to be an intensification of the same underlying problem: inability of the body to cool itself adequately and an imbalance of salts and water.

Keeping a water balance is VERY important for all campers in all weather conditions, but especially when it is hot.

A person sitting exposed in an open boat in the tropics for 24 hours may lose up to 6 litres of water, mostly as sweat. That person could die of dehydration within 3 days if no more than a litre of water a day were available. If a person is walking in the tropics, his body may lose more than 14 litres, mainly sweat. More than two million sweat glands, which work unnoticed in the body at normal temperatures, increase their activity when it becomes overheated and large amounts of water may be lost as the sweat evaporates and cools the body.

It is clear the water taken in by the body is not stored there. Water is consumed and excreted throughout the day and the body is continually balancing the amount of water it contains. When water is drunk it is absorbed into the bloodstream. If too much is drunk, some is withdrawn by the kidneys and passed as urine. If too little is available, the body begins to dehydrate. One of the functions of the kidneys is to help maintain this balance. To survive, a person must balance the loss of water by taking in corresponding amounts.

In an equable environment a person may need only about a litre of water a day whereas a minimum of 4 litres a day may be needed in a hot desert. But those 4 litres

can be made to go further if certain basic conservation practices are followed. The best way to conserve your water is to control your sweating. The rule is: Ration your sweat, not your water. To do this:

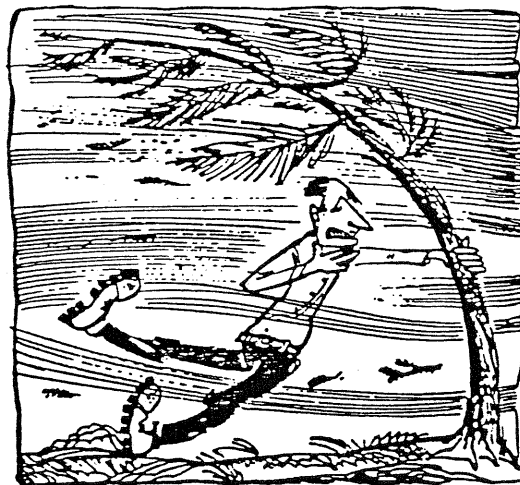
- * Keep your clothes on so that your perspiration evaporates slowly and you get the maximum cooling effect. Loosen the clothing at the neck, waist, wrist and ankles to give maximum ventilation.
- * Wear light coloured clothing if possible, because it reflects the sun.
- * Cover as much of your body as possible to avoid sunburn, as blisters cause loss of water.
- * If water rations are low do as little as possible during the day. A person standing still in the hot sun needs three times more water as someone standing in the shade.
- * When you move, move slowly.
- * Try not to rest on the ground. The temperature may be 16°C cooler 300 mm above the ground than it is on the ground.
- * Take advantage of a cool breeze.
- * If you have sickness tablets use them to prevent vomiting.

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Campcraft Handout 14.

WIND

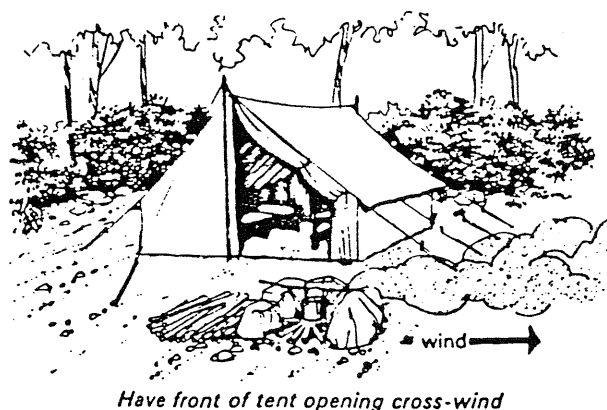
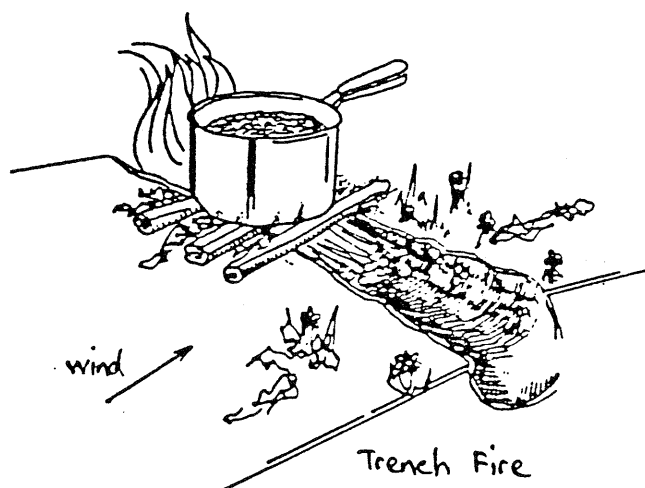
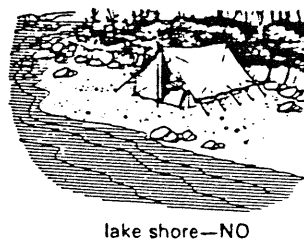
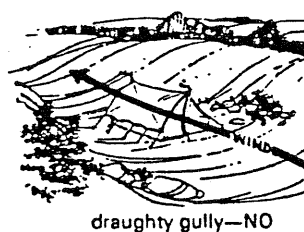
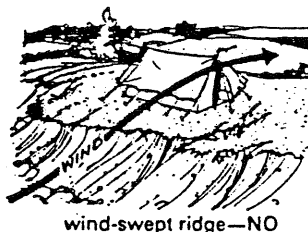
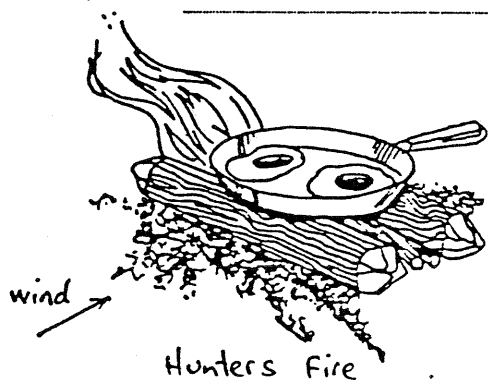
Windchill Temperatures



Wind Speed

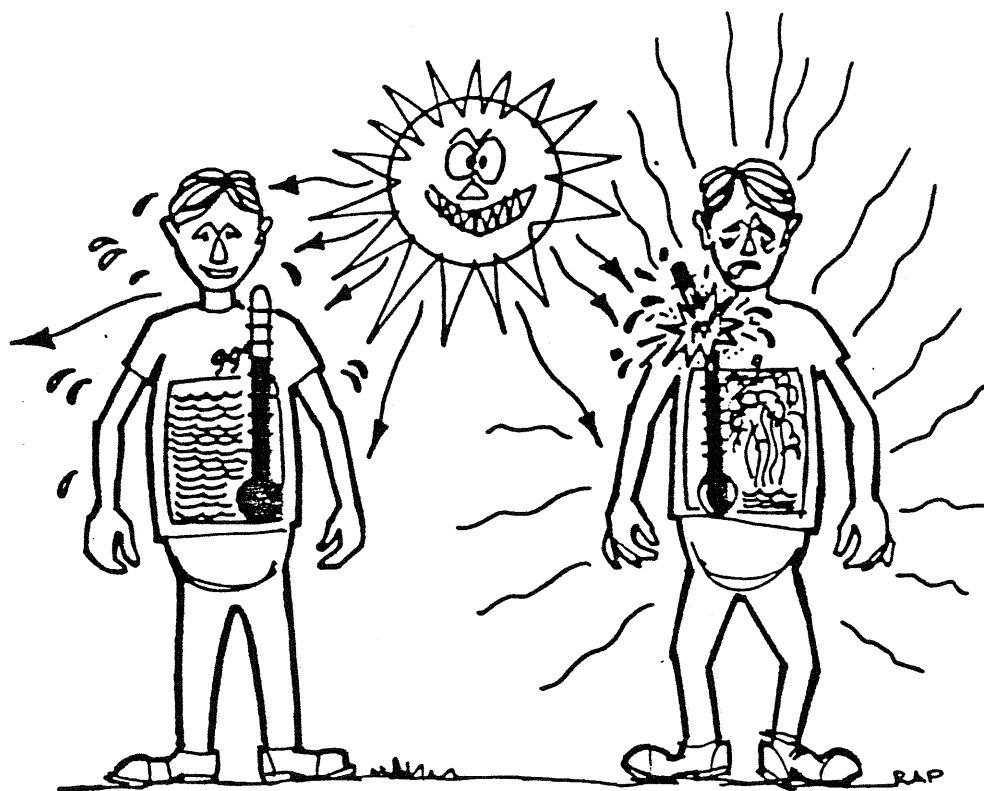
Still air Temperature

km/h	+10	0	-10	-20
0	10	0	-10	-20
10	7	-3	-14	-27
30	1	-14	-26	-41
60	-3	-21	-33	-49

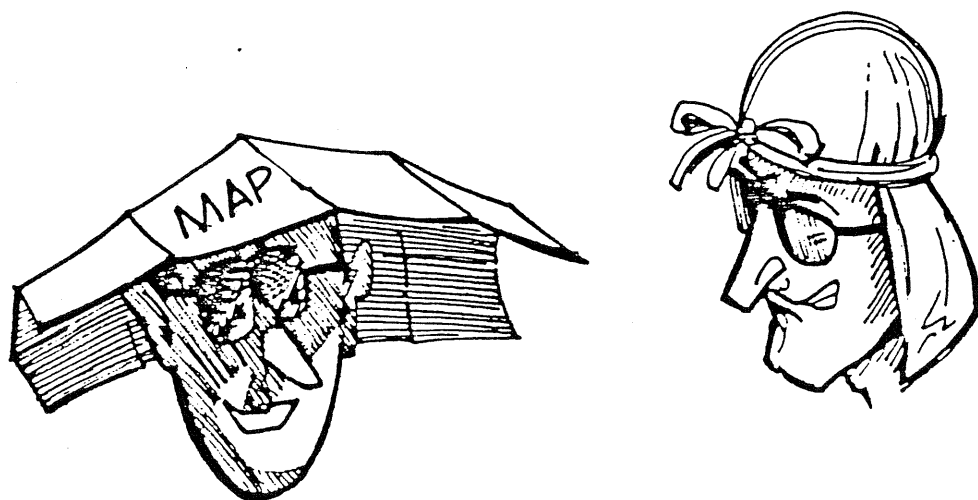


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Campcraft Handout 15.



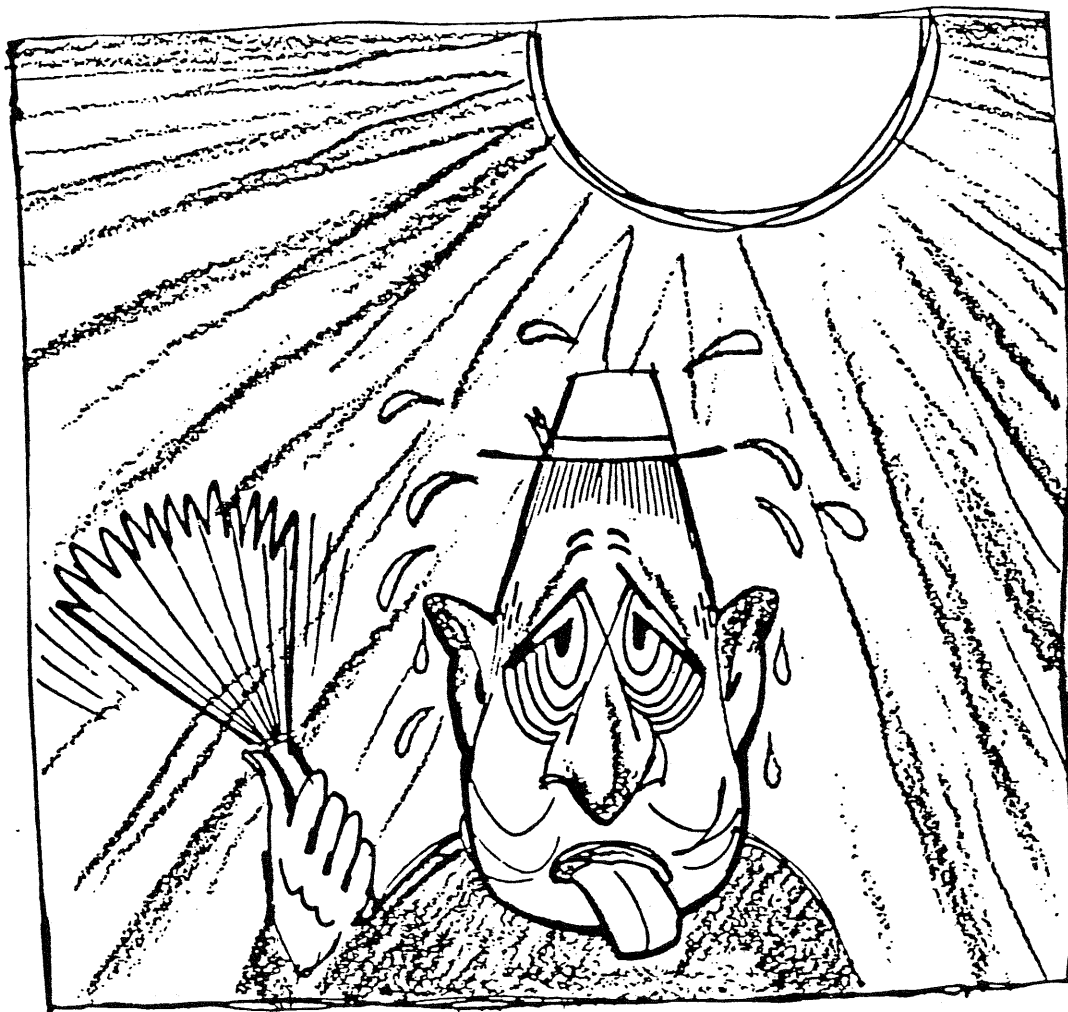
BODY WATER IS LIMITED
Excessive perspiration can limit your life.



IMPROVISED SHADE

CAMPCRAFT

Camcraft Handout 16.



RATION YOUR SWEAT . . . NOT YOUR WATER



The choice of clothing depends on the worst weather expected. Note hood and length of parka.

Hot

Cold

Wet & windy

CAMPCRAFT

Campcraft Handout 17.



IMPROVISE, IT'S YOUR LIFE!

ACTIVITY C9

Know the first aid for the following camp emergencies:

bites and stings	fractured collarbone
fractured lower arm	fractured upper arm
food poisoning	

OUTLINE

This is not a first aid lesson, however the campcraft specialist should be familiar with the principles of first aid as it relates to the camping situation.

RESOURCE MATERIAL

Bite and stings

In the bush there are a lot of things that can give a nasty sting or bite. Each camper should carry some form of anti-histamine to obtain relief from such attacks. Some of the more common bites and their treatment is given following:

Ticks

1. Apply methylated spirits to the tick for 5-10 min.
2. Using tweezers, (or a piece of thread with an overhand knot), grasp the tick as close to the skin as possible. Do not squeeze the body of the tick.
3. Gently lever out the tick - including the head.
BEST OF LUCK - TICKS ARE NOTORIOUSLY STUBBORN!!
4. After removal dress the wound with sticking plaster.
5. The area around the bite will be itchy for several days.

Leeches

Leeches are cunning little creatures. Their saliva contains a mild anaesthetic so almost no pain is felt when the leech is attaching. The saliva also contains an anti-clotting agent so that when the leech falls off the victim bleeds freely.

1. Remove the leech by touching it with a lighted match, glowing twig or a liberal dose of salt on the free end of the leech. RID spray is excellent as well. Spray shoes and sox with RID to discourage leeches.
2. Direct pressure and a bandaid will usually control the bleeding.

Bee and Wasp Stings

1. DO NOT PULL THE STING STRAIGHT OUT as it has a barb and will result in the injection of more venom. Remove by either pulling or flicking the tail sideways with the fingernail.
2. Apply a cold compress to reduce swelling and give a pain reliever.
3. Watch closely for signs of severe allergic reactions -
 - a. raised red swelling, or rash over large area
 - b. difficulty in speech, swallowing or breathing
 - c. swelling around head, face and neck.At first sign of these seek medical aid URGENTLY

Ant Bites

1. Wash the skin and apply a hot/cold compress
2. Give a pain reliever
3. Sometimes a dab of ammonia (smelling salts) gives relief.

Fractured Collarbone

Refer to First Aid Specialty (Refer Handout 18)

Fractured Lower Arm

Refer to First Aid Specialty (Refer Handout 18)

Fractured Upper Arm

Refer to First Aid Specialty (Refer Handout 18)

Food Poisoning

Food poisoning is "an acute inflammation of the stomach and intestines", caused by certain bacteria. These bacteria have contaminated the hands and/or food of the camper and have subsequently been ingested.

Signs/Symptoms

1. Sudden onset of frequent, large bowel motions followed by very frequent watery diarrhoea.
2. Abdominal cramps, nausea and vomiting
3. Headache and fever

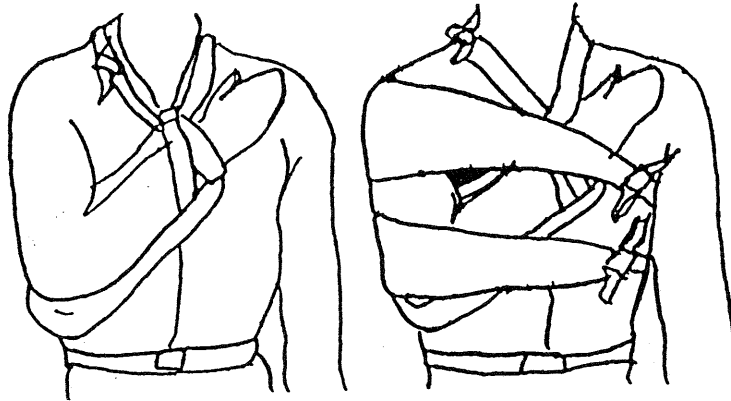
The term food poisoning is also used by people to describe acute diarrhoea and cramping which is directly attributable to some irritating substance that they have ingested. eg. unripe fruit. This is not true food poisoning but the first aid treatment will be the same for the camper.

Treatment

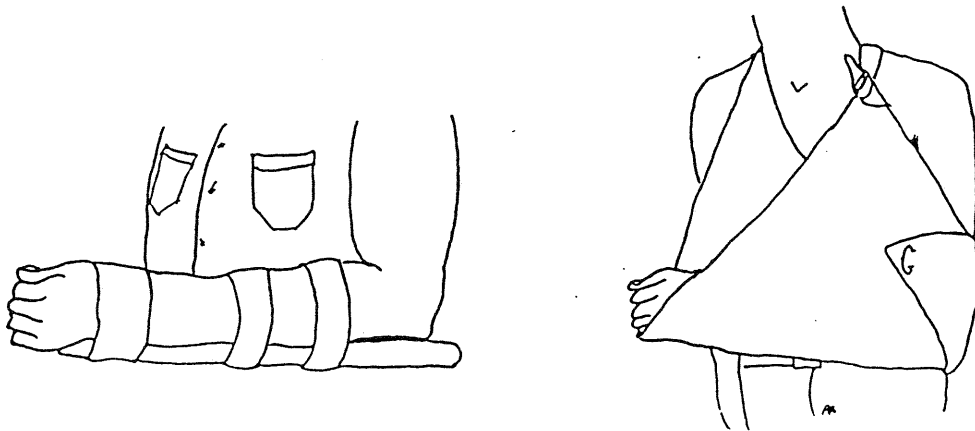
1. Restrict food intake until abdominal pain subsides
2. Clear fluids such as water or water with cordial added should be offered. (dehydration can occur quickly if symptoms are severe)
3. Give about 12 grams of activated charcoal (from first aid kit) in sufficient water to make a thick soup - this relieves diarrhoea.
If activated charcoal is not available try blackening 2-3 slices of toast and eat every 2-3 hours.
4. Codeine tablets often relieve diarrhoea as well as pain. Do not administer if charcoal has been recently given as the charcoal will absorb it.
5. If patients condition fails to improve within 8-12 hours, medical aid should be sought.

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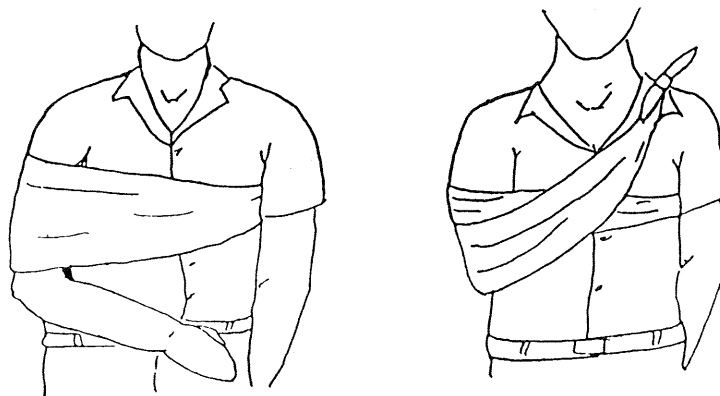
Campcraft Handout 18.



Fracture of the Humerus



Fracture of the Forearm and Wrist



Fracture of the Clavicle

ACTIVITY C10

Know the first aid for the following camp emergencies:

strains and sprains	blisters
burns	shock
hyperventilation	hyperthermia
hypothermia	

OUTLINE

This is not a first aid lesson, however the campcraft specialist should be familiar with the principles of first aid as it relates to the camping situation.

RESOURCE MATERIAL

Strains and Sprains

A strain occurs when a muscle is over stretched. A Sprain occurs when ligaments and tissue connected with a joint are wrenched or torn.

Treatment of strains

1. Control haemorrhage and swelling
2. Prevent further over stretching and damage
3. Support the injured muscle with a pressure bandage
4. Encourage GENTLE exercise to reduce painful spasms and shortening of the muscle.
5. AVOID ALL MASSAGE

Treatment of sprains

1. Rest the joint in the most comfortable position
2. Elevate the limb
3. Expose the joint and apply a firm bandage
Do not remove the shoe if the ankle is sprained. Bandage shoe and all.
4. Apply ice pack or cold compress over the joint.
5. Limited, careful exercise is best after rest.
6. If in doubt about the severity, treat as a fracture.

Blisters

The bush walkers curse. Blisters commonly occur because of ill-fitting/inappropriate footwear, or foreign matter in the socks. "Hot spots" on the foot are a sure sign of a blister developing.

Treatment

1. Prevention is better than cure - as soon as you feel a hot spot developing cover it with a large piece of smooth sticking plaster such as "waterproof leucoplast".
2. Normally it is not a good idea to burst blister as this can lead to water loss from the body and the opened blister can be an opening for infection. However, a foot with a blister on it can lead to more serious trouble through continued irritation if the blister is not taken care of. Therefore under these conditions the blister needs to be burst.
 - a. clean your hands thoroughly
 - b. clean the skin around the blister thoroughly
 - c. sterilise a needle by flame and prick the edge of the blister
 - d. squeeze out the fluid. Great care should be taken to ensure cleanliness during this procedure.
 - e. apply an antiseptic cream or powder and then cover with sticking plaster
 - f. ensure that the sticking plaster does not stick to the blister.

Burns and Scalds

Campers are always getting burnt around the campfire, either directly from the fire or from cooking utensils. There is little point discussing the type and degree of burns, as the treatment for our purpose, remains the same.

Treatment

1. Immediately immerse the affected part in cold water. If this is not possible apply clean, cold wet clothing. Keep the part cool until pain subsides.
2. Remove any rings, shoes or tight fitting clothing prior to the part swelling. DO NOT remove clothing if it is stuck to the burn.
3. Cover the burn with a clean dressing or cloth and secure with a bandage.

NEVER, NEVER, NEVER USE OINTMENTS, OIL OR GREASE ON A BURN. NEVER USE COTTON WOOL ON BURNS (or any wound) AS IT PROMOTES INFECTION.

Shock

Shock is a reduced circulating blood volume. It accompanies many different injuries and conditions. Its effect ranges from negligible to being the principle cause of death.

Shock will be present where:

- * Blood is lost internally/externally
- * Blood 'pools' in the limbs - overdose, poisoning, blood poisoning, - 'septic shock'
- * Fluid and body salts are lost through severe burns, diarrhoea, vomiting and dehydration.

Signs/Symptoms

- 1) Skin is pale, cold and clammy, sometimes associated with profuse sweating.
- 2) The pulse becomes rapid and hard to detect as shock progresses.
- 3) The patient may feel weak, dizzy, cold, nauseous and sleepy.
- 4) In severe shock the patient's level of consciousness will deteriorate.

Action

- 1) Ensure that the patient has a good airway and that breathing is maintained.
- 2) Ensure that external bleeding is controlled.
- 3) Elevate the legs.
- 4) Cover the patient with a blanket if shivering/cold but do not overheat as this exacerbates the problem by diverting blood away from the essential organs to the skin.
- 5) Seek medical aid immediately.

Hyperventilation

Hyperventilation is rapid deep breathing which lowers the carbon dioxide levels in the blood to a level that produces the physical signs/symptoms described below.

Signs/Symptoms

- 1) Respiratory rate rises to 30-40 breaths per minute.
- 2) Patients are often hysterical, feel as though they cannot breathe and believe that they are dying.
- 3) As the hyperventilation continues the patient becomes pale and sweaty. The patient may develop a tight feeling in the chest, tingling and spasms in the hands and feet. Many patients finally sit down, close their eyes and will not communicate sensibly unless dealt with firmly but gently.

Action

- 1) Have the patient place a paper bag over their mouth and nose. Do not place it over the patient's whole head.
- 2) The patient must re-breathe their expired air until all the signs and symptoms disappear, to return the carbon dioxide level in the blood to normal.
- 3) Place a cool washer on the patient's forehead for symptomatic relief.
- 4) Have the patient open their eyes during the treatment. They may refuse to do so but in a firm gentle way insist that they do so. Experience has shown that whilst ever the patient keeps their eyes closed and does not come to terms with their environment, (and reality), they will continue to hyperventilate.
- 5) Instruct the patient to slow their breathing down but don't become frustrated if they don't - some simply cannot - just persist with the paper bag and reassurance until the signs/symptoms are relieved.

Note: Always make sure that it is hyperventilation that you are dealing with and not some other pre-existing medical condition.

Hyperthermia - Overheating

Hyperthermia is caused by vigorous exercise (bushwalking) in temperatures greater than 30°C.

Signs/Symptoms

1. Early - cramps, weakness, pale skin, dizzy, headache, rapid pulse, profuse sweating. Fainting is common.
2. Later - nausea, vomiting, high temp., personality changes.
3. Very Late - unconsciousness, very high temperature, sweating ceases, skin feels very hot. Death can result very rapidly.

Treatment

1. Place the patient at complete rest in a cool place.
2. Remove as much clothing as possible. Cool the body with water;
 - a. by immersion
 - b. by wrapping in a wet sheet and fanning vigorously if immersion is not possible.
3. Gently stretch out cramped muscles.
4. If conscious; give plenty of water to drink, laced with salt (half teaspoon to one litre of water).
5. If the temperature does not fall or the level of consciousness deteriorates, seek medical aid immediately.

Hypothermia

Hypothermia is the condition of lowering the temperature of the body core (heart, lungs, brain, abdominal contents) to a point where they can no longer function efficiently. There are two basic causes of hypothermia, these are:

- a. The loss of body heat through;
 - environment
 - inadequate clothing
 - poor fitness level/fatigue
 - drugs, alcohol and sedatives which slow down the bodies heat producing metabolism
- b. Inability to replace body heat due to;
 - incorrect/ inadequate diet
 - meals at correct times
 - insufficient fluid intake

Signs/Symptoms

Warning Signs

1. Tiredness, increasing complaints, slowing of progress interspersed with bursts of unexpected energetic activity.
2. Shivering
3. Be suspicious of hypothermia if you are 5-6hrs out from your last shelter. These are subtle signs - if they begin to occur, STOP and consider all the factors mentioned.

Danger Signs

4. Clumsiness/stumbling, lethargy, mental and physical fails to respond to simple directions.
5. Personality changes - irrational/unreasonable/argumentative behaviour
6. Slurred speech/disturbance of vision. Uncontrollable shivering.

NOTE: people have died of hypothermia without ever complaining of the cold. Indeed, the real danger is that the patient and/or their friend usually fail to recognise the danger. SO BE ALERT.

Treatment

1. **STOP** and find shelter for the patient and the others of the group (or you might have more than one patient).
2. **Reduce the heat loss:**
Lie the patient down and wrap in as many layers of clothing as possible -then in a sleeping bag. In severe cases do not remove wet clothing, wrap them in a waterproof layer first then wrap in dry clothing. In milder cases, remove the wet clothing but never while exposed to the elements. If dry clothing is not available another human can be used as a source of warmth. Wrap the patient in a ground sheet or space/rescue blanket to protect from any wind. Don't forget to cover the head which is the major source of heat loss in a hypothermia patient.

ACTIVITY C11

What health and personal relationship regulations are essential when a group of people camp together.

+ This is a campout activity

OUTLINE

This is a compilation and revision of Activities C2 and C3. Discussion can also be given to camp rules.

RESOURCE MATERIAL

The resource material can be found under Activities C2 and C3. Have the pathfinders make up their own set of camp rules, and discuss personal relationships and understanding when a group of people are together.

ACTIVITY C12

Build and demonstrate the use of a reflector oven by cooking at least one article of food in it.

+ This is a campout activity

OUTLINE

This is an activity that can be done at a meal time.

RESOURCE MATERIAL

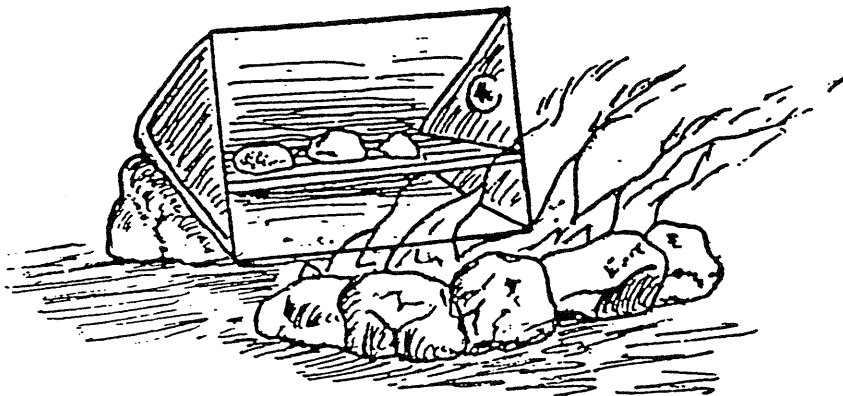
A reflector oven is simple to make by cutting a square petrol or kerosene tin in halves, diagonally, fitting a wire shelf to hold the food, and placing it close to the fire.

Camp Recipe for Biscuits

2 fistfuls flour
2 2-finger pinches salt
2 3-finger pinches baking powder
2 1-finger margarines or butter
Enough water to make dough

Shape dough into biscuits.
Place on a greased sheet.
Bake in reflector oven.

Many other foods, such as apple crumble can be cooked using this method.



ACTIVITY C13

Revise the different types of cooking fires, including the advantages of using gas and fuel stoves, and cook meals on four different types of fires.

+ This is a campout activity

OUTLINE

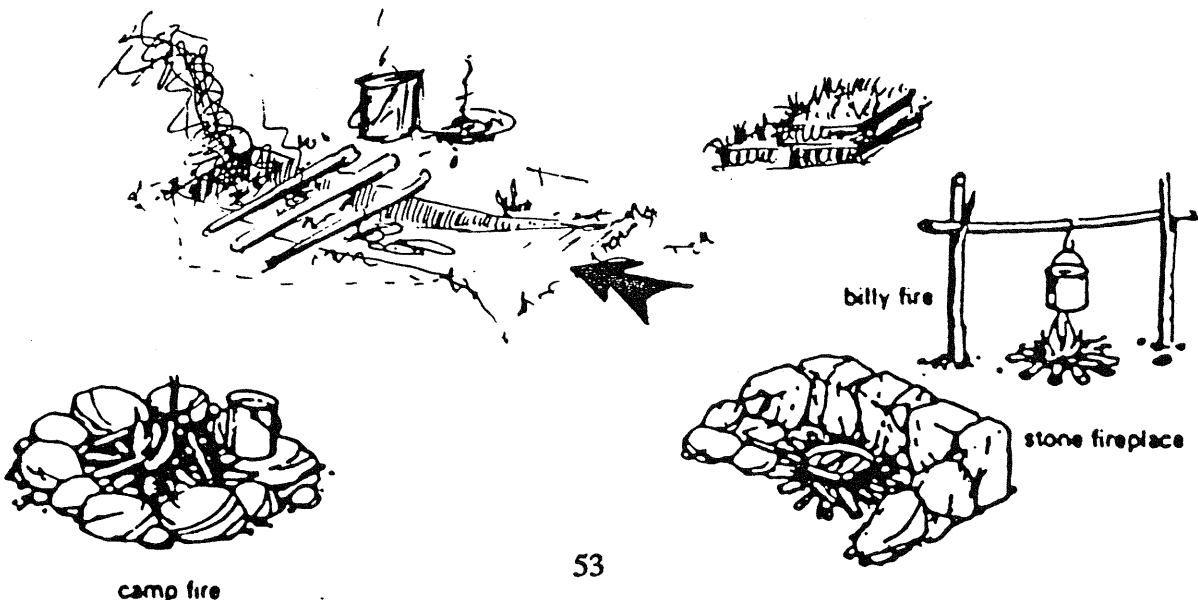
This is an activity that can be done at a meal time.

RESOURCE MATERIAL

FIRES

Fires are not always permitted in many areas where pathfinders go camping and bushwalking. Always ensure that you have permission to use fires whenever you plan a campout, and if you do, then the following rules need to be understood and kept by all campers:

1. Observe all fire regulations.
2. Light them in existing fireplaces wherever possible.
3. Keep them small.
4. Keep all rubbish out of the fireplace.
5. Use only dead, fallen wood, and use it sparingly.
6. Scatter any unused firewood when you leave.
7. Ensure that the fire is totally extinguished when you leave.
8. If there is no existing fireplace, then a trench fireplace would be the best to use. Remove the turf and replace it when you have finished so that the camping place is as it was before you came. If you use any stone barriers, return them to where they came from.



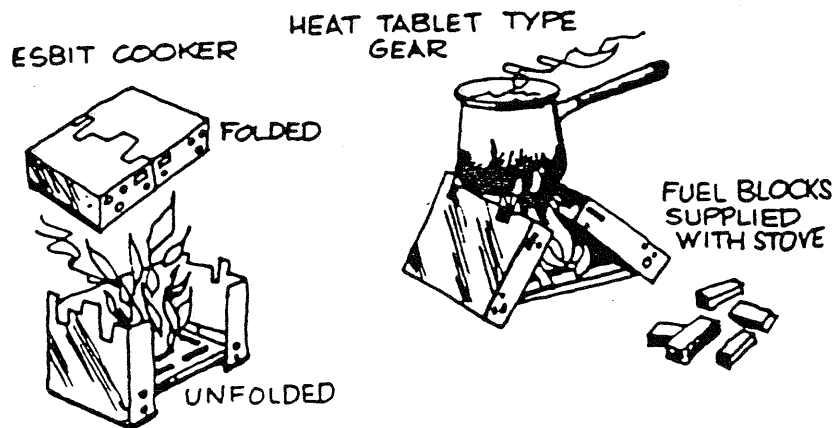
FUEL STOVES

Fuel Stoves are the environmentally acceptable way to cook in the bush. They are reliable, and do not disturb the environment. Some advantages of Fuel Stoves over Campfires are:

1. Does not disturb the environment.
2. Campfires are banned in many National Parks in New Zealand and Australia.
3. Modern technology has made lightweight efficient stoves.
4. Saves such cooking hassles as, 'smoke in the eyes' or 'charcoal in the stew.'
5. Fuel Stoves can be used anywhere whether in the snow, rain forest, desert or on a wet day. Saves the hassle of finding dry timber.
6. Easy to extinguish.

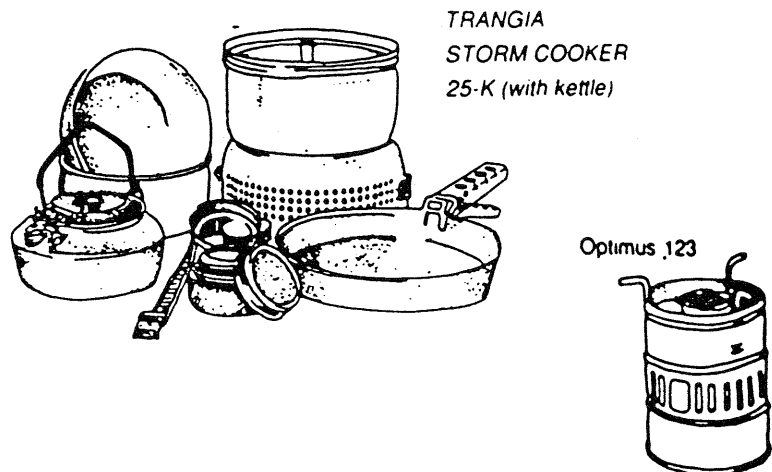
MAIN TYPES OF LIGHTWEIGHT FUEL STOVES

SOLID CHEMICAL



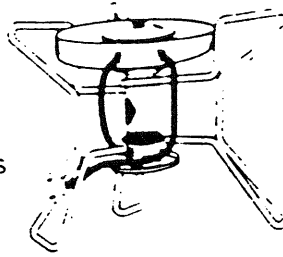
METHYLATED SPIRITS

Trangia Storm Cookers are a great value combination of billy and stove and the K model has a little kettle which makes a great teapot. They run on metho, so are safe and easy to operate but not as powerful as the MSRs.

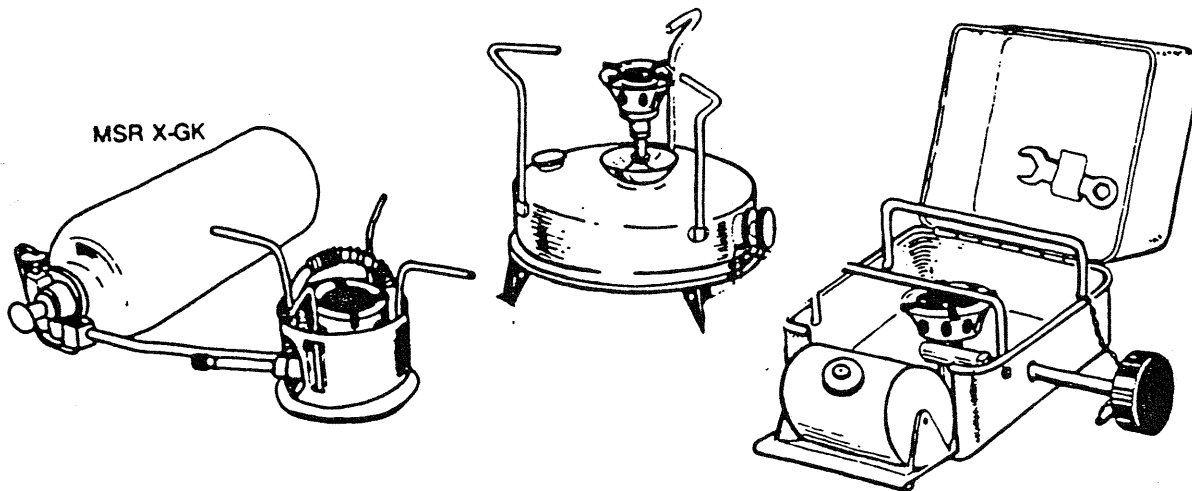


SHELLITE

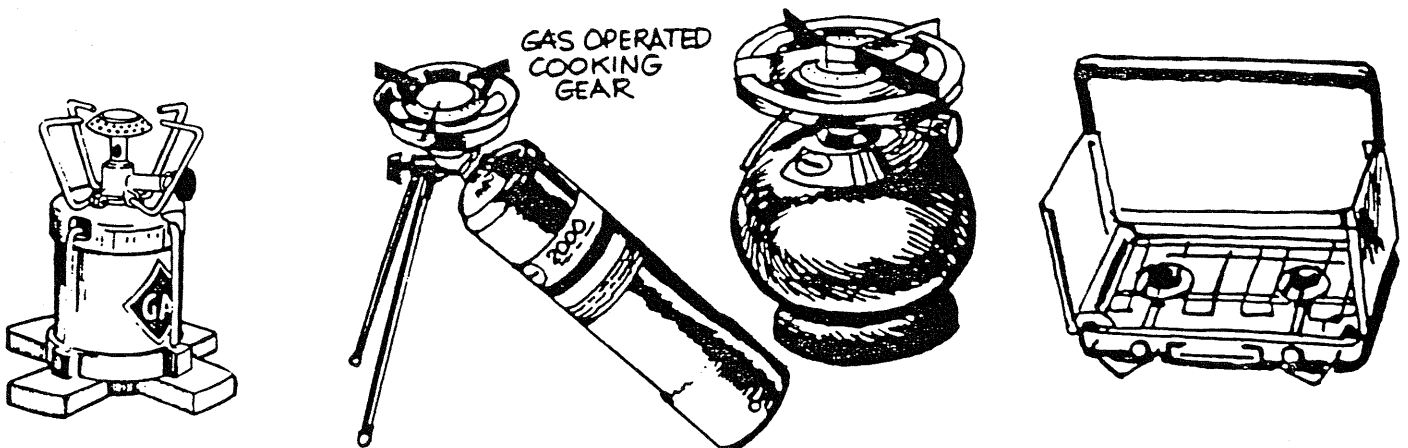
The **Whisperlite** burns Shellite or unleaded petrol. The **Whisperlite Internationale** also burns kero. The Whisperlites are quiet and lighter and more compact than the MSR X G K stove. All come complete with a windscreen, and instructions. An MSR fuel bottle (not included) acts as the fuel tank providing stability and allowing easy refuelling. Another big plus with the MSR stoves is that most parts can be repaired/replaced in the field with the optional maintenance kit.



MSR WHISPER LITE



GAS



KEROSENE

All stoves use highly flammable and explosive fuels. They are a potential fire hazard and care should be taken in their use. The use of a stove inside a tent or a hut calls for the utmost care. The following should be noted when using such a stove.

1. Always try a new stove out at home before taking it on a campout for the first time.
2. Always use the correct fuel, and know how to refuel the stove correctly and safely.
3. Refill the stove outside the hut or tent.
4. Never refill or attempt to prime a hot stove.
5. Ensure that the filler cap is always screwed down properly. Never unscrew the cap while the stove is alight.
6. Store the fuel bottle well away from the stove.
7. To avoid using an excessive amount of priming fuel, use an eye dropper to place fuel in the priming cup or use priming paste. A pump accessory is convenient and safe for priming.
8. Stand the stove on a firm base in a position where it will be unlikely to be knocked over.
9. When using a stove in a tent or snow shelter, make sure there is adequate ventilation to prevent poisonous gas build up.
10. Never leave a burning stove unattended.
11. Use a leak-proof container for fuel. Clearly mark fuel containers for safety.

If using an LP Gas stove, remove all gas cylinders from the tent before going to sleep. Gas is heavier than air and if it escapes will lurk at ground level.

All shellite stoves are fitted with a safety valve. If the stove over-heats this will release built up pressure; the escaping fuel will ignite resulting in a pencil of flame. Don't panic; it is most unlikely the fuel in the tank will explode. Turn off the jet, and blow out the flame on the safety valve. If all fails then quickly remove the stove outside.

COMPARISON OF FUELS USED IN SMALL CAMPING STOVES.

	Shellite	Methylated Spirits	Kerosene	Gas	Solid Chemical
What it is	Untreated petrol called white gas in USA.	Denatured alcohol	Called paraffin overseas	Liquefied petroleum gas	Metaldehyde
Burning	Clean and Hot	Fairly clean and Hot. Half as much heat as others.	Hot Fairly Clean	Clean Hot	Slow and Dirty
Safety	Explodes easily. Very dangerous.	Safe (water extinguishes)	Safe	Fairly Safe	Safe
Availability	Mostly in Australia, USA, New Zealand & Europe. Third World hard or impossible.	Almost everywhere.	Everywhere. Only fuel in some parts of Third World.	Poor	Poor
Affected by Cold	No	Slightly	No	Badly	Slightly
Evaporation if Split	Fast and Clean	Fast and Clean	Slow and Smelly. Contaminates Food.		
Cost	Fairly Cheap	Fairly Cheap	Cheap	Very High	Very High
Comments	Traditionally most widely used.	Least efficient. Safest.	Needs other fuel to prime. Generally bulkier and heavier.	Wasteful disposable cartridges. Cannot gauge how much is left.	Practical only for emergency or starting fires.

ACTIVITY C14

Revise or learn eight things to do when lost.

+ This is a campout activity

OUTLINE

Sometimes things go wrong, even with the best made plans, and people may get lost. By following a few simple rules, this need not be as serious as it seems. Every group should have a code or set of rules that each member knows thoroughly. This will enable others to know just what a person is going to do in case they do get lost and will enable others to find them more easily.

RESOURCE MATERIAL

1. Sit down and think, don't panic. You will think of many fearful things, like being attacked by wild animals, or slowly dying of starvation. Most people think such thoughts during the first anxious moments after they realise they don't know where they are. But suppress them as quickly as you can, for they are foolish. You are certain to be found.

Force yourself to sit still until you can think clearly. Don't try to remember details, but general landmarks. Work out whether it would be better to go on, go back, or stay put. If you have food and water it will probably be better to stay put, and try and attract attention with a fire - a smoky fire during the day, and a blazing fire at night.

2. Pray. Kneel down and talk to God. Remember some of His promises: "I am with you always." "The angel of the Lord encampeth round about them that fear Him, and delivereth them." Jesus is watching over you. The angels are taking care of you.
3. Mark the spot where you are at the moment. Don't move from the point where you are until you mark it well. Blaze a tree, place a rag on a stick in the ground, or put your hat on a stump. Do something to mark your spot. This will aid searchers when looking for you, if you move on.
4. Climb a tree or hill. From the top you may see a landmark that you recognise. If so, and you are now sure which way to go to get you back safely, proceed towards that landmark. But if you are not sure of any landmarks, **STAY WHERE YOU ARE.**

At the same time, when you are up at your high point, look for smoke. This usually means people are there.

5. Use your map and compass. If you are smart enough to have brought a map and compass, use them. Spread out the map and orient it, either with the compass or by checking the landmarks.

Think of the last landmark you passed. That bridge, perhaps an old cabin, a hill, a sharp turn in the trail. find it on the map. With your compass mark out a route, to the recognised landmark on your map. Follow the compass to the recognised landmark. Again, if you are not sure completely where the landmark is on the map, or you are not sure how to use a map and compass, **STAY WHERE YOU ARE**.

6. **STAY WHERE YOU ARE.** If you are unable to locate a familiar landmark that can lead you home either by sight or by map and compass, **STAY WHERE YOU ARE.** Wait for help to come. Listen for the calls of searchers. Collect enough wood to build a signal fire and to last you through the night if required. If you have to leave the position for some reason, such as shelter or water, etc. mark clearly the direction in which you have gone, and mark clearly the trail as you move.
7. Light a fire. Build a safe fire. Have enough wood on hand to keep it going all night if required. During the day, once the fire is established, add green leaves to create smoke. Send your own smoke signals. At night keep the fire burning bright, it will create warmth and also the glow will attract attention. Keep an eye on your fuel, you may need it later.

8. Give out distress signals. The following are some search and rescue signals:

Distress signal by lost party:

Three signals together, regularly spaced.

Searchers looking for lost party:

One signal at irregular intervals.

Acknowledgment of distress signal:

Searchers will give one signal.

Recall Signal:

Two signals at short intervals, followed by a minute without, and then repeated.

Form of signals:

These may be given by smoke, ie blanketing a smoky fire, or by shouts, shots, whistles, flashing of mirror or torch, or by distinctive waving of cloth. The chief characteristic of these signals is their regularity, and any signal repeated at any regular interval should be investigated.