

Hill walking Stages 5 & 6

Training Notes

Know how to pack a rucksack for a hill walking expedition.

The Scout should demonstrate an understanding of the difficulties/challenges of a hill walking expedition. Everything needs to be carried in and out of the hiking environment. This knowledge should be evident in how the packing of a rucksack is approached.

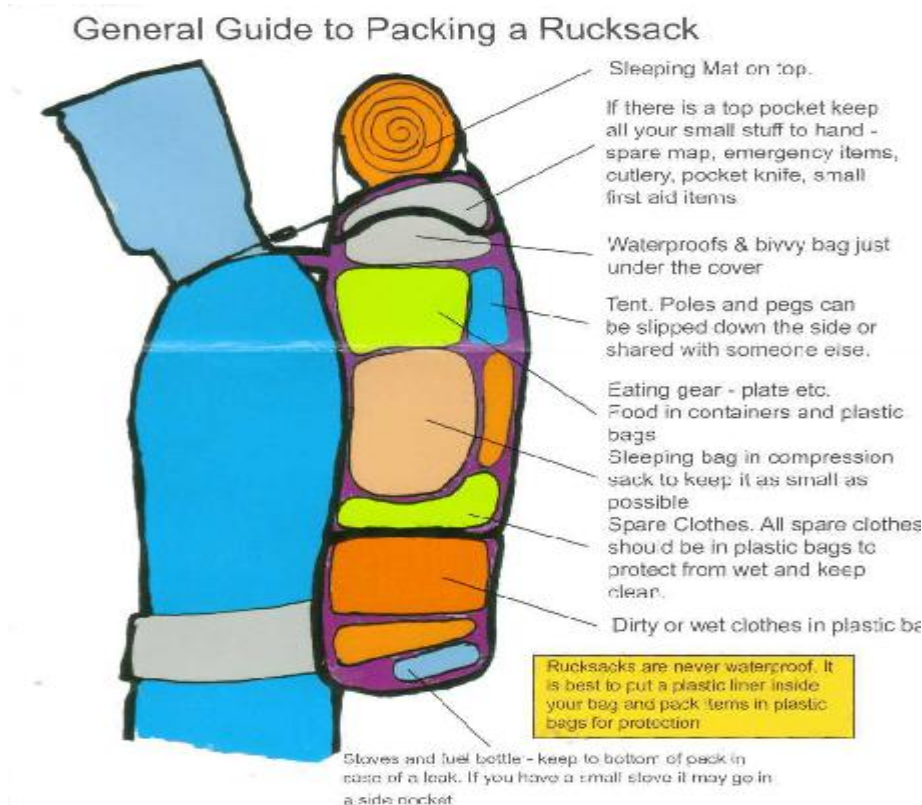
- **The overall weight of the pack - 13Kg – 15Kg - The age of the scout in Kilos**
- **What are necessary and unnecessary items**
- **Use of Waterproof liners**
- **Apply the 'leave no trace' principle of Plan ahead and Prepare by removing all excess packaging and depositing of it correctly**

Start packing by placing all the items to be packed on your bed and check off the list. When all items are present then pack. Work on the principle of LAST IN FIRST OUT and IF IT DOESN'T FIT IN THE SACK IT'S NOT GOING and don't carry anything that you don't need. If at all possible do not carry any items on the outside of the pack and if absolute necessary to carry on the outside keep the items tied down and tidy, using the wand pockets and compression straps. Make sure however that you have all the essential items. Use your own judgement as to whether you really need that campfire blanket on an overnight bivvy. Another consideration when carrying your pack is to distribute the weight in the bag so that the heavier items tend to be near your back in the middle of the pack. This will help to stabilise your pack particularly when travelling over rough terrain. If possible use a single bag size dry bag inside the rucksack, or else pack all items in individual plastic bags to avoid them getting wet. Whilst rain covers will keep most if the rain out it will keep the equipment dry if immersed.



With Reference to the Guide Below ensure the rucksack is packed 'balanced' and with the items needed first and 'in a hurry' like rain gear easily accessible

- **The placement of heavy items**
- **The placement of soft items**
- **The placement of fuel and cooking equipment**
- **The placement and storage of foodstuffs**
- **The placement of tentage etc.**



Don't waste space...the inside of pots and mugs can be used for storage. Pack your rucksack as neatly and compactly rucksack should as possible Check that your rucksack straps are comfortably adjusted and that they won't loosen. You have an internal frame and a load carrying waist belt - DON'T bring a rucksack with a 1970's external frame and no waist belt that you found in your granddad's attic! Your shoulders will be in agony trying to carry it and you'll be in misery for the duration of the weekend

Scouting Trail Page 56

Know how to care for and maintain my equipment.

The Scout needs to show how to care for this equipment and how to repair or improvise repairs to enable him/her to return to safety.

Know how to use duct tape

Know how to sew

Know how to improvise items that have been damaged to enable safe return to base

Know how to clean and take care of personal equipment

Scouting Trail 'Preparing for Adventure' chapter.

PERSONAL GEAR:	S/L	P/L	Scout	Scout	Scout
* Hiking Boots					
Socks					
Trousers (No jeans)					
Underclothes					
Shirts					
Warm Jumper					
* Gloves					
Kneckerchief					
* WoolyHat					
* Waterproof Jacket with hood					
* Waterproof Overtrousers					
Light Jacket and/or Extra jumper					
Foam Mat					
* Bivvy Bag (= survival bag)					
Toilet requisites (including toilet paper!)					
Towel					
Plate, Mug, Cutlery					
Plastic Bags (Lots)					
* Rucksack (Modern, with Internal frame & Waist belt)					
Watch					
* Torch					
* Whistle					
* First Aid Kit					
Emergency Rations					
Reflector for Road					
Binbag Liner for Rucksack					
* Sleeping Bag					
PATROL GEAR:					
* Maps					
* Mapcases					
* Compasses (minimum two per team)					
Tent and Pegs/Poles					
Cooking Equipment					
Fuel					
Matches (Waterproofed)					
Flask					
Spare Pegs/Tent Guys					
Food Supplies					
Pot Cleaning Gear					

Know how to care for, store and maintain our Patrol equipment.

The Scout needs to firstly demonstrate knowledge of the additional equipment a Patrol needs to bring on an expedition. With regards to storage - the scout should again demonstrate and discuss the methods used in preparing equipment for storage particularly with regards to tentage and fuel.

Know how all the patrol equipment works particularly stoves

Know how to pitch mountain tents be able to repair all patrol equipment

Know how to repair tent poles and ripped canvas

Cooking Equipment

Trangia type stoves with gas burners (butane/propane mix) s are to be recommended as an efficient, dependable and sheltered heat source for cooking in wet 'n' windy conditions. They have the added advantage that you are provided with a compact set of pots to boot! Whatever you use to cook with be sure that all the team know how to use them safely. The top of a mountain in bad weather is not the place to learn to use a stove for the first time or to experiment or mess with meths or gas! Always refill and light stoves away from tents and avoid cooking near your tent if at all possible. Don't lean over an appliance as you light it unless you want to use your eyebrows (or worse) Don't forget to bring along some washing up gear!

Your tent is your home on the hills...which you will be carrying on your back from the start to base camp, then to high camp, and from high camp to the finish. There will probably be two tents per team; unless you are lucky enough to have a mountain grade 4 person tent. Your tents will probably suffer punishment from the weather so here's a few tips to help them survive high winds and lashing rain if necessary (no guarantees though!!!)

Check the tent thoroughly before the start of the expedition

- All seams should be strong and taped – you can repair these with additional silicon sealant as they wear
- Peg loops not torn or damaged – bring a extra one or two in the tent repair kit
- Zips or ties all intact
- No missing guys - bring a extra one or two in the tent repair kit
- Poles undamaged – make sure to have a pole repair sleeve in the repair kit with some tape
- All pegs accounted for and unbent with a few extra for double-pegging
- All pegs preferably of the Y-type or V-type rather than wire pegs
- No tears in the flysheet
- No tears in the groundsheet

Improve your tents survival chances by

- Sewing extra guys to the seam at the bottom of the fly-sheet and half way up the side seams
- Pegging properly all pegs at 45 degrees and double peg where appropriate)
- Pitching the tent with the door away from the wind and in as sheltered a spot as possible
- Using rocks to prevent pegs being pulled out by the wind (be careful that you don't damage the tent though!)

Scouting Trail Page 45-47, 'Preparing for Adventure' chapter.

Know what Group emergency equipment we should carry, and how to use it.

The Scout is aware of the difference between 'general Patrol equipment' and the items which are solely for emergency use.

Safety rope with slings – Ability to do a classic abseil

Signalling Devices – Whistles, strobe, flares

Survival bags

First aid kit

KISU / Bothy

Scouting Trail Page 211.

I know how to organise the transport required.

The Scout should have been in partnership with other members of his/her Patrol in the planning of prior hill walking treks before explaining in detail how they would organize transport to a location set by the leader for this part of the requirement.

Know how to budget for Patrol hikes.

These level hillwalking badges are at weekend expedition level so we expect the scout to devise a budget taking into account all elements of the expedition, transport, food, fuel, emergencies, extra equipment.

Preparation and planning

Prepare a budget

Keep a log of expenditure and costs

Allow for unknowns

Produce a set of accounts after the expedition

Know what types of food to bring hill walking and why.

Expedition hill walking or weekend hill walking carrying heavy rucksacks over rough terrain requires energy providing food. The Scout needs to show an understanding of this fact and the need for the menu and snacks to reflect that need. The Scout also needs to demonstrate a knowledge of the weight consideration and the time and methods that will be used to cook the food.

Types of food to include on a menu

High energy snacks while travelling

Water carrying and water treatment and purification

Suggested main meals and lunches for an expedition

Weight consideration of different food types

Know why you bring certain food and drinks on hikes

Hydration (the one people tend to forget about so we put it first)

To remain healthy the average person needs 30mls of water per kilogram of body weight per day – about 2 litres. But on a hot day while you are hiking you could need up to three times this amount to prevent yourself becoming dehydrated (you'll feel very very sick) Remember coke and other minerals will all make your kidneys work faster and also take water from the body to dilute the highly concentrated sugars

in them resulting in dehydration which is why we don't recommend fizzy drinks on hikes and Coke is the worst for this. Plain water is absorbed faster than orange squash, but some people don't like plain water so squash is a lesser evil; isotonic drinks have salts and sugars in them to aid their absorption by the body but are expensive, you can work around this by adding a sachet of dyoralite to your drink, this has the advantage of replacing the electrolytes lost when you sweat and re-balances the body in a way that water on its own can not. Camelbags and platapus bags are a great way of keeping drinks while on the move. Warm drinks such as tea, coffee, hot chocolate, soup, squash are comforting great on a cold day, a flask with hot water and soup, hot chocolate, coffee sachets +/- tea bags gives me the choice throughout the day. – For an expedition carrying a heavy ruck sack the recommendation is a 2 liter platapus with water, 2 sachets of dyoralite and a bit of squash for flavour, and bring a small bottle of squash and two more sachets of dyoralite to allow you to refill the platapus.

Food

Food is fuel and when you are hiking you use a lot of fuel. The first rule is to ensure you have enough fuel onboard before you start hiking – that means having a good breakfast at least an hour before you leave and we're not talking a small bowl of cocopops here.. We want foods which are high in carbohydrates and light to carry such as sandwiches, cereal bars or flapjacks, fruit cake, fruit or dried fruit especially bananas, and nuts. On an average day mountain hiking a scout will need about 4000 calories.

Eating well is essential for health and good spirits, but unless you want to break your back you must try to keep weight to a comfortable minimum. The secret is a well planned menu and some organisation in dividing the food out for packing

- Avoid food with long cooking times, it wastes fuel and keeps you hanging around, which is the last thing you want to do if it's lashing rain!
- Try organising your menu so that all you need to do is boil water! This makes cooking convenient and eliminates washing up of pots.
- Bring pre-cooked food which only needs heating up and use boil-in-the-bag rice or curry to add instant interest.
- Water from boiling "boil-in-the-bag" food, etc, can be used for wash up to save time, fuel & water.
- Frys can be inadvisable as they create messy washing up and too much grease will stick in your stomach...not the best if you've a long hike ahead of you.
- Boil all stream water before drinking it (Use a filter or sterilising tablets as well)
- Use your common sense to cut down weight, for instance.... Don't bring eighty tea bags when twenty is more than enough; don't bring a loaf of bread bought in a shop on the Friday night, it'll get soaked and squashed... everyone should have their own ration of sandwiches organised.

Organise your food on the basis of the following criteria:

- Nourishment value (you will need to eat well when hillwalking for energy) Convenience of cooking and preparation Minimum weight and bulk (remove unnecessary packaging) Maximum appeal! (try to make your meals appetising despite the constraints)
- Don't plan your menu on the basis of one of these, take them all into account! In general:
- Pack everything, as compactly as possible (into small containers or see-through plastic bags) Bring nothing made of glass
- Ensure all liquids are stored in sealed containers and in compartments/bags separate from food, etc (bring a small roll of tape in case of problems?) Discard all unnecessary packaging.

Emergency Rations

What happens if the fog comes down and you have to shelter for the night, someone in the group has an injury, you miss the bus, or someone simply needs gets cold and tired and needs an energy boost. This is where our emergency rations come in – a couple of mars bars, and some chocolate, some glucose

sweets: whatever you like but it must be put into a separate container or plastic bag not to be touched unless in the emergency situation .

Know where to get weather forecasts and I understand the effect the weather might have on our expedition.

The Scout should be able to list weather forecast sources for different location.

Discuss the local weather conditions of an area

Discuss how wind speed and coolness of temperature can cause wind chill

Discuss how high rainfall might impact on an adventure with regards to travel times, tentage and river crossing

Scouting Trail Page 141

Wet, windy and/or very cold weather conditions contribute to excessive fatigue (both physical tiredness and low morale) and lowering of body temperature. This can lead to exposure (also called hypothermia) if you are unfit, do not have the necessary gear with you to stay warm or you have not eaten properly.

So to help prevent the problem: *Bring the right gear; Keep as dry as possible; Eat properly; don't lengthen your journey unnecessarily through bad navigation; Work as a team - share the load and the work*

Additional Material on Weather is been prepared

Know the limitations of your group.

A Patrol is made up of individuals of various strengths and weaknesses. The Scout should discuss how a Patrol moves over open countryside and how to recognize when people are tired or out of their skill level. The Scout should show a deep understanding of the make up of his/her Patrol and be aware of their capabilities.

Be able to discuss the abilities of the members of your Patrol

Show an understanding of difficulty levels on mountains

Discuss how to plan for escape routes and shortening of an adventure if over stretched

Know how to be in the mountains without leaving a trace.

'Leave nothing but your footprints' this concept needs to be fully understood and practiced by the Scout.

Plan Ahead and Prepare

Be Considerate of Others

Respect Farm Animals and Wildlife

Travel and Camp on Durable Ground

Leave What You Find

Dispose of Waste Properly

Minimise the Effects of Fire

Scouting Trail Page 42. Sea Scout Book Page 131-132.

Know how to be active in the out of doors, without disturbing the balance of nature

The scout should display knowledge of the mountainside or wild countryside environment and suggest ways that fun, and adventure can be accomplished without disturbing the nature within that environment.

Sanitation

Take care to minimise water pollution.

- All washing should be done well away from any water source. Any fouled water should not be returned to the water source, but poured into vegetation at least 100m from a water source. Soap isn't essential, but if you must use it, choose a bio-degradable type.
- Toilet waste should be buried in a shallow hole at 5cm deep within the top soil layer at least 100m from a water source. The soil should be replaced and trodden in..
- Even biodegradable items such as apple butts, banana skins and orange peel should be taken home.
- When washing pots avoid leaving bits of cooked food in streams or in the grass. Put it into an empty lunch box and bring it home for proper disposal.

How long will litter last?			
Research	has shown that	litter will be around	long time
Cigarette butts	1 -5 years	Nylon fabric	30-40 years
Aluminium cans	500 years	Leather	50 years
Glass bottles	1000 years	Wool	1-5 years
Plastic bags	10-20 years	Banana peel/Orange	0-4 years
Plastic coated bags	5 years	Tin cans	50 years
Plastic film	20 -30 years	Plastic bottle, Styrofoam	Indefinite

Scouting Trail Page 42. Sea Scout Book Page 131-132.

Skills

I can use a route card.

A Scout should complete a route card and follow it on a 'real' hike or expedition.

The scout should be comfortable with the route card method and be aware of small tweaks and considerations as the terrain changes during an adventure.

Prepare and plan should be a function of route card preparation

Scouting Trail Page 78

Name, Age, and Phone Number of Leader and Team Members		
Maps Used:	WEATHER FORECAST	Escape Routes:
	Wind:	
	Rain/Snow:	
DO YOU KNOW : The dangers/signs of exposure ? Survival Procedures ? First Aid ? The capabilities of your group ? If everyone has equipment? Navigation Techniques?	Temp:	
	Outlook:	
	Sunrise:	Sunset:

		1	2	3	4	5	6	1	8	9
LOCATION	GRID	Bearing or Feature	Distance in Km	Height climbed	Speed Estimate	Distance Time	Height Time	Walk Time	Stage Time inc. rests	Actual time on route
TOTALS :										
NOTES FOR CHART ABOVE						1. Magnetic Variation :				
2. Measured on map scale :						3. Height measured in meters.				
4. 2 km/h = slow 3km/h = moderate 4km/h = fast						5. Divide speed into distance.				
6. 1 minute per 10 meters						7. No rests included				
8. Stage time = walk time + rest time. (15mins rest per						9. Timed on the route for future reference				

Plan escape routes.

Knowledge of the dangers of a chosen route or routes needs to be displayed

How weather or injury to a team member can play a part. This knowledge should then lead to the understanding of incorporating quick escape routes to safety or help into the planning process.

Be able to identify possible escape routes on a select expedition route

Navigate at night, in poor visibility, and do micro navigation.

The Scout needs to display a competency in navigation in night or poor visibility conditions. This should be demonstrated in a practical situation via a night time exercise in open countryside.

- o **The Scout should be able to find precise points or grid reference points over varied terrain. Timing and accuracy are important skills to recognize in this requirement.**
- o **Take part in an MS style night navigation exercise successfully leading a least two legs.**

Scouting Trail 'On the Move' chapter

Responsibility

The Scout should have acted in a leadership position on a number of hill walking adventures and be able to indicate the necessary responsible actions, checks and measures required to conduct the adventure safely.

Your team should be able to cope with a number of potential accidents...anything from burns due to careless use of a stove (practice and perfect cooking before taking to the hills!) to fractures and sprains due to falls (wear decent boots and take care) if the patient can't be moved or you are afraid to attempt it due to a bad accident then make them as comfortable as possible, treat them for shock, create shelter and get help.

There should be at least five in any hillwalking group so it should be possible to send two able navigators for help provided conditions allow it. Ensure those going for help take note of the exact position of the shelter and can explain exactly what is wrong with the patient.

Attempting to carry a patient or using an improvised stretcher is ill advised except over short distances to get the patient to a safe location in emergencies or if you are very close to "home".

If you are lost, tired out, have an accident or find yourself in dangerous terrain

- ***Stop -- Stay together***
- ***Get as comfortable as possible***
- ***Never send anyone for help***
- ***Give distress signals on whistles***
- ***Help will not be far away*** Whistle distress call: six long blasts...pause...six long blasts, and so on. **Only use your whistle in emergencies**

It is by no means unusual for backpacking hill walkers to be tired and wet, but be on the lookout for certain signs which indicate that someone is starting to suffer from exposure rather than just fatigue. Watch out for clumsy or irrational behaviour, shivering and stumbling. Speech may be slurred and the person will be ice cold. If the person actually collapses then stop straight away and create warmth and shelter for the patient...

- 1. Put the patient in a sleeping bag and bivvy bag**
- 2. Put up a tent or shelter**
- 3. Reassure the patient**

Get help by sending whistle signals

Route card preparation and time spent at home looking at the map are important. Here in the comfort of your home you can do the bad weather calculations such as bearings, times and escape routes in an environment where you are less likely to make errors.

Coping with Terrain

The map will not tell you what the ground is going to be like under foot. It could be boggy, scree or thick heather. As long as you stick to well-used paths such as the way marked trail you should have few problems with terrain except for the occasional badly-eroded or very boggy section. Backpackers are less nimble than day walkers, due to their heavier loads, so skipping lightly around bog holes or over streams isn't so easy.

Heavy packs can make steep terrain much more difficult to cope with. Climbing with a full load can be tiring and needs to be taken slowly at a steady pace. ZIG ZAG up and down steep slopes... it makes your journey longer... but you will be far more comfortable and energy efficient.

Oddly perhaps, descending, particularly on steep ground, is even more demanding. If you feel unhappy or insecure during a descent, turn back and find a safer route. Before starting a descent, it is worth checking both map and terrain for potential hazards and try to pick out a safe way down.

Read Your Map

Always keep your map handy and orientated and never pass up a good opportunity to confirm your position.

Minimal Impact

Trails are easy to damage and destroy. Avoid harming the environment, stick to the trail even if it's muddy, rather than walking along the edges, as this only widens it. Paths on steep slopes are particularly vulnerable to erosion and it's important not to short-cut zig-zags. Many good paths have been destroyed by people doing this.

If you leave the trail behind to go cross country, aim to leave no sign of your passing. Don't mark your route with cairns. On soft terrain, spread out and walk apart so that you don't create the beginnings of a path which will soon become clearer as others follow.

Group Leadership

When leading a group ensure you walk at the pace of the slowest member and stay together. That way every one will benefit from rest stops as well as being involved in the group's navigation. Appoint someone experienced to bring up the rear who can ensure that no one is being left lagging behind and occasionally check that you are still on your bearing. The group splitting up and not staying together is one of the main reasons for mountain rescue callouts and fatalities in the Irish hills.

River crossing

Rivers and streams can be dangerous. The advice here is simple: if the water is fast-flowing and much more than shin deep, don't cross. Moving water is very powerful and a soaking can easily lead to hypothermia. When route planning remember that rivers can go into spate after heavy rain particularly in mountains where there is a lot of run-off. So aim to avoid them when route planning. If you do come across a stream in spate, head downhill to a bridge or upstream to where the river divides and the flow of water is less.

Scouting Trail 'Preparing for Adventure'. 'On the Move', Emergencies' chapter. Sea Scout Book pages as listed above.