

Hill Walking Skills



Course Outline

Training and Assessment

Stage 6

Version 1.2

January 2011

Acknowledgements

The material produced in this manual has been further developed by the Hillwalking Adventure Skills Team from a programme run by the then Fingal Region called 'Mountain Skills for Scouts'. The Hillwalking Adventure Skills Team would like to acknowledge the original programme and the leaders from Fingal who developed it.

A word of thanks must go to the members of the Hill Walking Adventure Skills team who were responsible for the production and editing of this manual.

Whilst this course and the 'level' it is aimed at is below the level of the Mountain Skills Award of B.O.S. the Mountain Leader Training Board, many of the techniques and material used had their origins in both B.O.S. and Tiglin (The former National Training Centre) and Scouting Ireland acknowledges the assistance that has been provided to them by both Mountaineering Ireland and its Training arm B.O.S..

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Preamble

This manual is intended as a recommended scheme of work for the training of both Scouts and Scouters to Stage 6 of the ONE Programme Hillwalking Adventure Skill.

There is no limitation in the scope of where this manual can be used, but the intended target is a County or Provincial skills training course, as well as a National Hillwalking Training Event and the Programme Centres. This does not preclude groups who have an interest and the availability of a course director from running them at local level.

This manual is a guide to running the course and not a manual on the specific skills. The course director should ensure that all instructors have appropriate qualifications and a full working knowledge of both the skills under instruction and the nine stages of the Hillwalking Adventure Skill.

Stage 6 is the first stage of the hillwalking adventure skill that must be assessed by the expert panel. Stages 1 to 5 are assessed at local level and as such are not moderated to the degree that the higher stages are. To ensure that all the prerequisite skills are moderated to this level the course will also include a recap of the skills required up to stage 5, as well as covering the common aspects with stage 7.

The minimum standard to be the course director for a stage 6 training and assessment course is to hold a Scout Hillwalking Adventure Skill stage 8 Award or hold a recognised Mountain Leader Award.

The minimum standard to be an instructor working under a course director for a stage 6 training and assessment course is to hold a Scout Hillwalking Adventure Skill stage 7 Award or hold a recognised Mountain Skills Award.

All instructors regardless of qualification must hold a current outdoor first aid cert and the most experienced at outdoor first aid should lead the session on Mountain Emergencies and First Aid.

The minimum standard for the instructors of the Leave No Trace sessions is that they must have completed a three hour LNT awareness session, but it is recommended that the lead instructor on this element should be a qualified Leave No Trace trainer.

There is no necessity for any stage candidate to attend this or any other course if they have the skills already or if they have developed them in the course of their normal scout programme. However to be awarded the stage they must clearly demonstrate the required skills to a Hillwalking stage 8 or stage 9 award holder.

Index

1. Prerequisites to attend the course
2. Introduction to the Course
3. Outline of Course content
4. Scheme of Work (Sample)
 - Weekend One
 - First Set of Projects
 - Weekend Two
 - Second set of Projects
 - Weekend Three
 - Logbooks
5. Celebration
6. Instruction & Assessment Ratios
7. Appendices
 - Sample Log Book

1. Prerequisites to attend the course

These should be submitted a minimum of 2 weeks prior to the course to allow the course staff to review and develop individually tailored work plans.

Prior to attending the course each participant must be assessed to stage 5 at local level.

A log should be submitted clearly showing (Sample Log in Appendix).

- When stage 5 was awarded and who was the awarding assessor
- The 3 hikes required for stage 4

To include the required overnight (need not necessarily be a camp) & a clear indication of the hike leg that they led to gain their stage 4 award

- The 3 hikes required for stage 5

To include the required 2 night mountain camp and a copy of the route card that they completed for one of the hikes

In certain instances where the students have previous experience the course director can run the stage 5 assessment prior to the start of the course.

Note to Course Directors

If a Scout / Scouter presents themselves after been awarded the stage 5 at local level and the logs / skills clearly indicate that they have not reached the required level, the course director should speak to the 'awarding' assessor. If they cannot be contacted then the Group Leader of the Scout / Scouter should be contacted to prevent the possibility of a misunderstanding of the requirements for the pre-course logs.

If that contact does not resolve the issue the course director should refuse participation and refer the matter to both the relevant CPC and to the Hillwalking Adventure Skill Team.

Should a course director be uncertain or wishes to consult then they should contact the Hillwalking Adventure Skill Team.

2. Introduction to the Course

This Course is intended to be run as three weekends but could also be run as a full week course. The first two weekends (4 days) are the training element and the last weekend (3 days) is the expedition where the skills can be demonstrated.

Within each of the two training weekends there is a workshop day and a hike day. The workshop day is intended to teach and develop the skills and the hike days are to put them into practice.

The timetable & scheme of work is not rigid and there are opportunities to cover elements at the lunch stops on the hike or on bases - such as pacing on the hillside.

The concept is that the students will work with different instructors over the course to experience the different styles and methods of the individual instructors

The projects are very important to the course as they cover elements and re-enforce others. A student's interaction with the projects will clearly identify to the course instructors the student's level of interest and their ability to work independently - which is a skill under consideration in stage 6.

The entire course is leading up to the expedition and this should be treated as the highlight of the course rather than as the assessment. The method of assessment should be based on leading legs, discussion and observation of the student over the course of the expedition. Should the assessor feel that the student needs a bit more work on a certain area then this should be facilitated.

Depending on the nature of the course the presentation of the awards may be done on the last morning of the expedition (MPC Style) or at a more formal occasion a few weeks later (max 3 weeks).

At present the stage 6 badges and certificates are only available from the Hillwalking Adventure Skill team so a course director will need to apply in advance for a set of badges and certificates.

If the course is being run over three weekends the recommended time between each weekend is 4 weeks. This will keep the focus but not overcrowd the schedule.

3. Outline of Course Content

Weekend One

Day One

9:30 Registration and Introductions

9:45 Self Assessment Paper

10:00 Skills Builder

11:00 Break

11:20 Mountain Equipment – Day Hike

11:40 Mountain Clothing

12:00 Outside Projects

Pacing & Compass Training Circle

13:00 Lunch

14:00 Leave No Trace Awareness Session (3 Hours)

17:00 Briefing on Sunday Hike

Hand out Projects (each Scout to complete both)

Project One – Mountain Weather

Project Two – Route Card for an MPC/Sionnach – Both Tabular and Visual
Formats (Sample of completed ones provided)

Day Two

8:00 – 18:00 Day Hike minimum of 6 hours on hillside

The activity should not be persistent training as the Scouts should enjoy the hike. However the instructors should ensure that all participants get an opportunity to lead using map compass, timing and pacing along with skills such as re-location (re-section), aspect of slope and other navigation tools such as aiming off/catchment features and hand rails.

Projects

Between weekend one and weekend two the participants should work on the two assigned projects. (As outlined above)

Weekend Two

- 9:30 Review of Progress to Date
- 9:45 Review Self Assessment (what have I learnt and what do I still need to learn)
- 10:00 Review of Projects
- 10:30 Mountain Camping Equipment
- 11:00 Break
- 11:20 Tent Pitching & Striking – Low Light / Blindfolded
- 12:00 Cook Lunch on Mountain Stove
- 13:30 Menu Planning
- 14:00 Mountain Emergencies & First Aid
- 15:30 Break
- 15:50 Mountain Hazards & Escape Routes
- 16:20 Discussion on Group Awareness
- 16:40 Projects

Project One – Menu Planning for Expedition

Project Two – Route Card for Expedition

Day Two

8:00 – 18:00 Day Hike minimum of 6 hours on hillside

The activity should not be persistent training as the Scouts should enjoy the hike. However the instructors should ensure that all participants get an opportunity to lead using map compass, timing and pacing along with skills such as re-location (re-section), aspect of slope and other navigation tools such as aiming off/catchment features and hand rails.

Projects

Between weekend two and the expedition weekend the participants should work on the two assigned projects. (As outlined above)

Weekend Three

Expedition Weekend

A two night mountain camping trip using a low and a high camp using all the skills learned to date.

The entire course is leading up to the expedition and this should be treated as the highlight of the course rather than as the assessment. The method of assessment should be based on leading legs, discussion and observation of the student over the course of the expedition. Should the assessor feel that the student needs a bit more work on a certain area, this should be facilitated.

This activity should be run as a training and assessment exercise for all involved and not as a test of stamina and endurance. It therefore not recommended that full MPC / Sionnach routes should be re-run although the campsite used on these events may be useful, and modified versions of these routes may prove useful.

There is however no need to reuse old routes if there are new and / or local ones that the Course Director is familiar with.

It is recommended that a full reconnaissance of the both the route and campsites be done in advance of the course.

Depending on the nature of the course the presentation of the awards may be done on the last morning of the expedition (MPC Style) or at a more formal occasion a few weeks later (max 3 weeks).

4. Scheme of Work

Weekend One

The first weekend is to get to know the students and their abilities. It will cover the basics of navigational skills and the whole concept of 'Leave No Trace'.

It should be run in a fun but firm manner with the students under no illusion that they can 'brag' their way to this stage and that the whole concept behind the ONE Programme Adventure Skills is to 'Demonstrate' at each and every stage.

The next pages are a suggested scheme of work for the weekend based on the timetable in the previous section.

Hillwalking Stage 6 Training Candidate Self Appraisal Form

Name:

Stage of Course:

Date:

Skills / Knowledge	Very Competent	At Level 6 Standard	New skill or need to work at.
Navigation			
Self location			
Feature Recognition			
Timing			
Pacing			
Route Finding			
Grid References			
Map Features & Scale			
Personal Equipment			
Group Safety Equipment			
Navigation tactics			
Crossing Steep Ground			
Mountain Weather			
Mountain Safety			
Aspect of Slope			
Use of compass			
Taking a bearing			
Following a bearing			
Navigation at night			
Lightweight Camping			
Lightweight Cooking			
Food for Hiking			
Emergency Procedure			
Mountain First Aid			
Log Book			
Group management while navigating (Responsibility)			

Skill Builder Workbook Number 1 Barnacullian

Note - The map included in this workbook, was original printed in colour from Geolives Mapping Software. As it was then marked and rescanned the scale of the map may well have become modified therefore it should only be used as a reference guide to establish the reference points and all work should be done on a Discovery Map Sheet 56 or on a Geolives printout that the scale has been checked on.

1. Give the following bearings
 - a. Grid Bearing from A to U _____
 - b. Grid Bearing from B to C _____
 - c. Magnetic Bearing from C to D _____

2. State the time to travel, in a straight line, between the points listed below. Travelling at 4 kph and one minute for every 10 meters ascent.
 - a. Time in minutes from J to K _____
 - b. Time in minutes from K to J _____

3. Match each one of the following points N,O,P,R,S,T,U to the feature below which best describes that point
 - a. Broad, flat topped ridge _____
 - b. Broad Spur _____
 - c. Hanging Valley _____
 - d. Steep Spur _____
 - e. U Shaped Valley _____
 - f. Pointed Summit _____
 - g. Saddle / Col _____

4. Indicate whether each of the pairs of points listed below are inter-visible, i.e. if standing at one of the points you can see the other point in the pair. Write 'Yes' if they are inter-visible and 'No' if not.
 - a. Y & Z _____
 - b. AA & AB _____
 - c. AB & AC _____

5. For each of the points listed below please indicate which of the eight cardinal directions (e.g. North, Northeast, East), most closely represents the direction in which the slope at that point faces. Note: the direction in which a slope faces is always the direction in which you would be facing, while descending that slope facing outwards.
 - a. AE _____
 - b. AD _____

6. If you had just left AJ and were travelling on magnetic bearing 177 you would expect to be _____
- Going straight up the slope
 - Going straight down the slope
 - Contouring
 - Crossing the slope and losing height at the same time
 - Crossing the slope and gaining height at the same time
7. As above but you are leaving AK on magnetic bearing 269 you would expect to be _____
8. Give the 6 figure grid reference for point X1 _____
9. Give the 4 figure grid reference for point X2 _____
10. You are walking along the ridge marked Y1, Y2, Y3, and Y4. The magnetic bearing from you to point J is 146. Indicate which of the following Y1, Y2, Y3, Y4 is closest to your position _____
11. Give a clear indication of the meaning for the following terms in relation to map reading and mountain navigation.

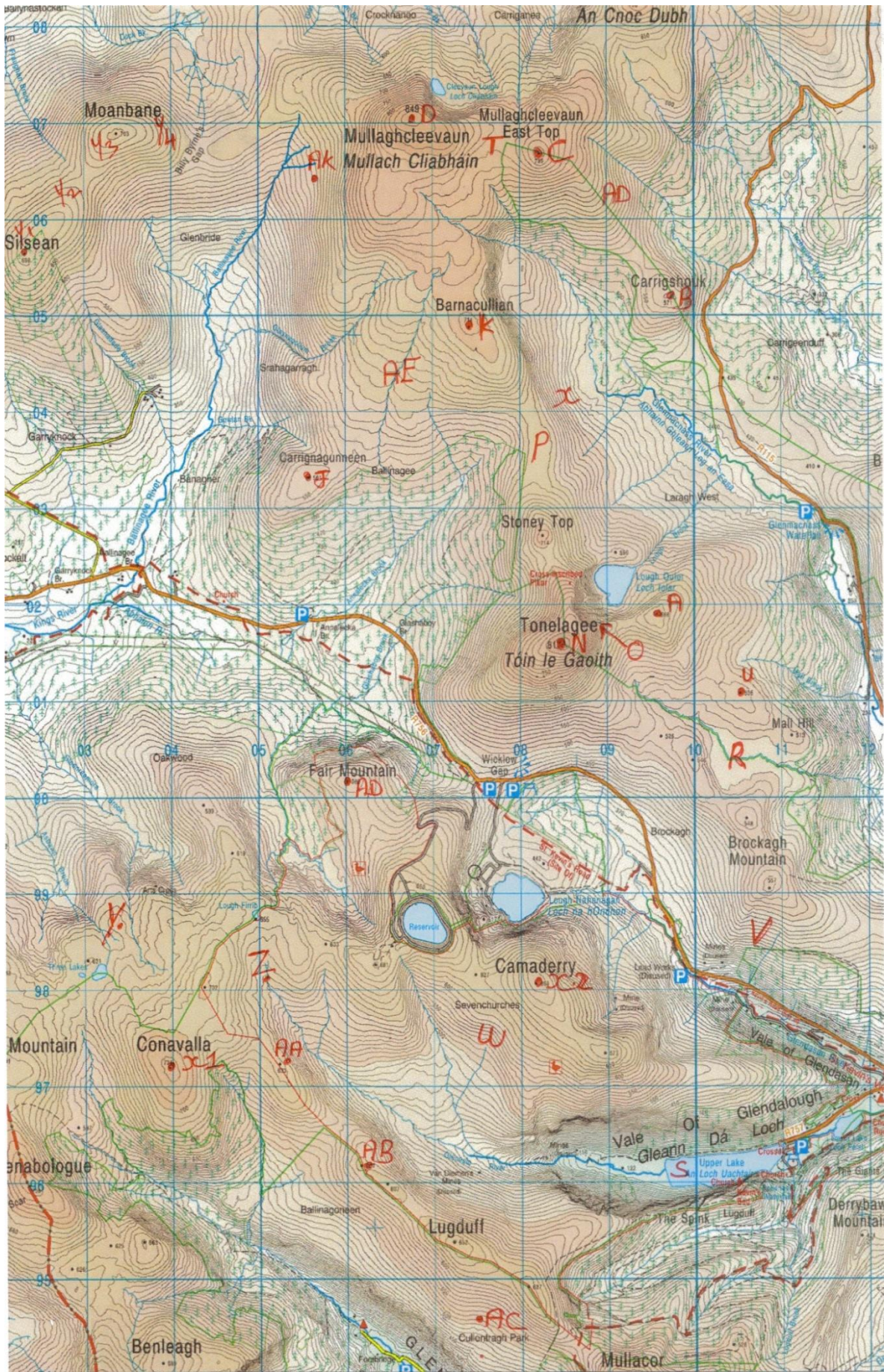
Magnetic North _____

Grid North _____

True North _____

Magnetic Variation _____

12. What is the Current Magnetic Variation in Wicklow Today _____
13. Travelling at 5 kph and 600 meters ascent per hour, how long will it take to do a leg that involves 2.2 centimetres on a 1:50,000 map with an ascent of 40 meters. _____
15. At 7:00am on a summer's morning, the sun is to your left, at right angles to the direction in which you are facing. Which of the following are closest to the direction you are facing? _____
- North, South, East, West.



Mountain Equipment – Day Hike

Discussion in a semi circle with a packed rucksack with good examples of gear and perhaps the odd red herring to start a discussion and create a memory in the students (example electric razor or teddy bear). Encourage input from the students and write up their recommended gear list on a board as well as having a handout.

Mountain Clothing

Discussion in a semi circle with a packed rucksack with good examples and perhaps the odd red herring to start a discussion and create a memory in the students (example cotton t-shirt or silk underwear). Encourage input from the students and write up their recommended clothing list on a board as well as having a handout.

At this point depending on the group a laminated A6 card with recommended equipment on one side and recommended clothing on the other can be handed out, or the students can be encouraged to make their own one.

With some groups this can be demonstrated with a fashion show with some inappropriate dressed models leading up to a correctly dressed one.

Instructions for Pacing Base

Flag out a level course of 100 meters with a start and end point. It is recommended that an architect's measure or a measured rope should be used to ensure that the course is exactly 100m.

Each participant should 'pace' the course 3 times counting every footfall on one or other of their feet. This is referred to as a 'double pace', which is the standard count for mountain pacing. The average of the three runs will establish their base line. (All three counts should be very similar). Write these up on a board for the record. Next, encourage them to repeat the exercise with heavy bags. The counts should increase, as will running it on an uphill incline.

Introduce the pace beads and explain their use

Example (all individuals are different)

- Base line pace is 65 double paces per 100 meters
- Heavy Bag pace is 70 double paces per 100 meters (+5 double paces)
- Uphill Pace is 71 double paces per 100 meters (+6 double paces)
- Uphill with Heavy Bag pace is 76 double paces per 100 meters (+5+6=11 double paces)

This exercise should be run on the hikes as well to develop the candidates' understanding of both the principle and their own unique numbers for 100 meters.

A handy trick is to have 25m of string in your training kit so you can quickly set up a 100m (25x4 repeats) course at the start of a trip or at a lunch stop - or if your route crosses some unusual ground (i.e. peat hags).

Instructions for Compass Training Circle

This is a basic compass training exercise that can be played in any open space. The exercise helps the candidate to be able to find a direction with a compass once given a bearing. All the candidates are within the circle for the duration of the exercise.

Equipment Required:

A sighting compass such as a Silva 15 or 54 is the best for laying out the course, whilst Silva type 3,4 or 7 are all good for use on the course the recommendation is for Silva type 4 (non military) as they are the best all round map reading compass, as they have an extended base plate and roamer. Eight marked stakes as below; one unmarked centre stake and a piece of 20 metre sisal/string.

Game Cards labelled 1-90 & Pencil and paper for each participant

The Hillwalking Adventure Skill team have a copy of this game that they can loan out; they also have all the card data on a spreadsheet that can be emailed, to enable a course director to manufacture their own set. There is also a Silva training pack of 28 compasses and 2 large training compasses available, as well as orienteering flags and punches.

Preparing the Circle

It is very important to place the stakes carefully as the accuracy of the cards will depend on this and also to ensure that there are no other magnetic influences in the area.

Place the unmarked stake in the centre of the area to be used. Attach the string (20m long). Working from the centre stake each time lay out the course as shown in the diagram below, the bearing is taken from the centre position and the string should be used to its full extent. The radius can be changed to either 10m for a more difficult test and 20m for an easier one.

Remove the Centre Stake before starting

Running the Exercise

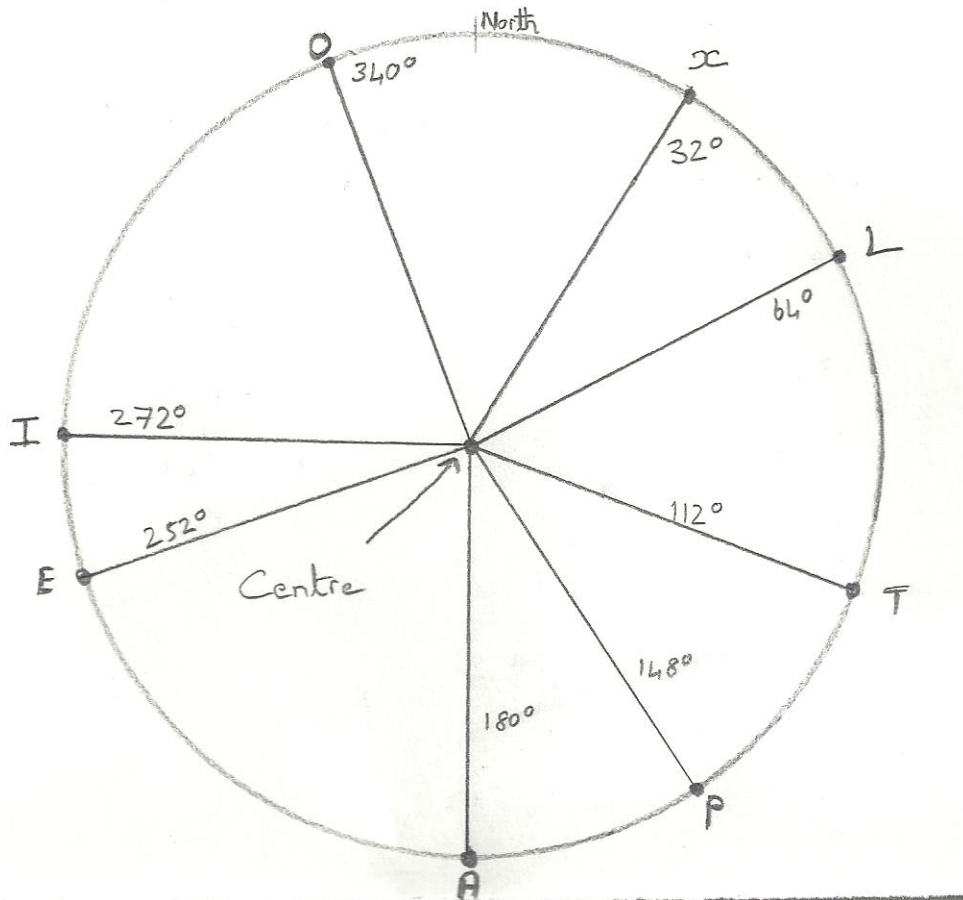
Each participant receives an instruction card as shown below.



The card tells the player their starting position as well as the bearings to follow from marker to marker around the course. Each participant copies down the letters on each marker along their route (including the start one). The six letter code word is checked against the answer sheet (in the appendix) for accuracy.

It is recommended that each participant should complete three 'clear' rounds.

Compass Training Circle Layout



Leave No Trace Awareness Session

The Seven Principles need to be covered

- 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

However as part of a hillwalking course the emphases should be placed on the

- Plan Ahead and Prepare
- Travel and Camp on Durable Ground
- Dispose of Waste Properly
- Minimise the Effects of Fire

But all principles can be covered in an appropriate manner to the age group present.

It is recommended that the LNT Ireland ??? be shown at the start to get the topic going. This is available from LNT Ireland.

For ideas on instruction see

<http://www.leavenotraceireland.org/WaysToTeach.aspx>

The Hillwalking Adventure Skill team have a full LNT training pack including the videos and additional material aimed at teenagers. This is available to loan out.

Briefing on Sunday Hike

This should be done in a clear and concise manner to ensure that every candidate understands the briefing. The importance of route preparation including memorising both the basic route and the surrounding mountains and valleys should be emphasised.

Projects

One: Mountain Weather

1. Over a five-day period, cut out the weather charts and forecasts from a daily paper or download from the internet and put in your logbook. Write a report on the changing weather pattern over the five days. It should include information on:

- Wind Speed and Direction
- Sunshine
- Cloud Cover
- Precipitation (Rain / Snow)
- Frontal movements
- Temperature
- Atmospheric Pressure

2. Find out about the lapse rate and how it would affect you at the summit of a 3000-foot mountain than if you were standing at sea level.

3. Find out about the wind chill factor and how it affects you when hillwalking. Is there a difference at different altitudes and does it vary in wet or dry air?

Two: Route Card

Draw up a route card using both the classic and visual methods of a MPC/Sionnach Route. The course director should choose a route with at least 20 legs. The one below is of the Connaught MPC (Benbulbin Sligo) and with the attached classic and visual formal. A handout should be given on how to do route cards so the students have a reference point. The copy below shows the technical detail and does not include the weather or group information or start / finish times.

Mountain Pursuit Challenge

Connaught 2009 Benbulbin, Co. Sligo

MAP: Discovery Series No.16. Scale 1:50000, Magnetic Variation 5° (as of 2009)

Introduction

This autumn we welcome you to the area of Benbulbin which with its impressive profile has always been an eye-catching attraction in that part of the country. The range itself consists of a large, undulating plateau, which spurs off at various points to create the summits of Benbulbin, Benwiskin, Kings Mountain, Truskmore and Tievebaun. Dramatic escarpments provide wonderful views over the surrounding counties and the Atlantic. Unfortunately, a part of the range is difficult to access due to issues of access with land-owners in the area; the Gleniff valley to the north (“the horseshoe road”) in particular has borne the brunt of this.

Our route for the weekend will consist of a standing camp on the North side of the range with a day hike on Saturday up and around the plateau (availability of water on the plateau cannot be guaranteed and the access issues and steep cliffs negate any possibility of a high camp).

If visibility is good, the route will give you a chance to see many interesting features of the area. Watch out for caves and ‘sink holes’ and in particular the rocky ‘canyon’ visible just to the South East of Kings Mountain.

In bad weather - or poor visibility due to mist - navigation on the plateau will be particularly difficult. Regardless of visibility the lack of prominent features and/or ridges on the plateau will call for careful compass work, pacing and timing and distance in order to keep on route. We would ask everyone to ensure they practise these skills in advance of the weekend itself.

FRIDAY

Instructions to Start (690 472)

Follow the main Sligo to Bundoran road (N 15) to the junction at 656 472 (sign posted for Ballinatrillick). Travel in a north easterly direction along this minor road to the junction at 677 478. Turn right here and continue on to forest at 690 472. Parking is available in the forest at your own risk. Please arrive between 20:00 and 22:00, if you arrive early do not leave until you have checked out with a member of staff.

Start to Base Camp (706 459)

After check in, follow the road to Lukes Bridge (698 472). Cross the bridge and follow the track leading off to the right as far as the bridge at 703 468. Cross this bridge and follow the path which gradually peters out into boggy ground. The base camp is at 706 459. Make sure to check in with a member of staff before settling down for the night.

SATURDAY

As this will be a day hike you should leave your tents in position and take what you need (i.e.: food and personal equipment) for the day. This should be evenly distributed among the team - it is not a good idea to bring one rucksack and pass it around.

Base camp to bottom of stream (714 475)

After checking out make your way along the base of the valley to the stream at 714 475. Take care when crossing this area as some parts are quite boggy.

Bottom of stream to Spot height 508m (719 479)

On reaching the stream, turn right and proceed to make your way up the high ground to the spot height 508. Take your time when ascending as most of your height for the day will be gained on this leg.

Spot height 508m to Spot Height 597m (728 463)

On reaching spot height 508m, make sure to take in the views (especially Benwhiskin to the North) and also plenty of water as this will be one of the last stops on the route to fill water bottles. From spot height 508m make your way up to spot height 597m, as you traverse this route care must be taken as there are sink holes across the plateau equally you must be mindful and careful of the steep drops/cliffs and a gully to the North of you. Visibility permitting you will have great views of both the Gleniff valley to your North, as well as part of the main plateau of Benbulbin itself.

Spot height 597m to Glencarbury (732 455)

On leaving spot height 597m you will observe a fence coming into view. Keeping this fence to your left you begin to make your descent to Glencarbury (732 455) care must be taken as there are areas of loose shale under foot when descending.

Glencarbury was the location of one of only two barite mines in Ireland. Barite was mined here from 1894 to 1979, with approx. 50,000 tonnes per year being extracted in the latter years of the mining operation. Barite is used as a weighing agent in paint, but in recent times as drilling mud in the oil exploration industry. There is a significant amount of the mine shafts collapsed and as a result the mines themselves are out of bounds.

Glencarbury to Spot height 566m (721 458)

This is open ground with no distinct features so care must be taken when navigating this leg. By practicing "contouring around" (pick a point in the distance of a similar height and walk to it) you will save on energy and also save you from additional height lost. Spot height 566m is marked by a small cairn.

Spot height 566m to Spot height 436m (711 436)

From spot height 566m descend to spot height 436m and again care must be taken when navigating this leg as there are no distinct features which to navigate from. Visibility

permitting there are great views of the Crockauns across the Glencar valley as you descend, while at spot height 436m, you will be able to see the famous Glencar Lake with its crannogs at either end, as well as the valley itself.

Spot height 436m to Spot height 438m (709 439)

Make your way across the river and onto spot height 438m. There is steep ground/drop to your West so care must be taken when traversing to spot height 438m.

Spot Height 438m to Kings Mountain (462m) (704 442)

There is steep ground/gully between spot height 439m and Kings Mountain so you should head in a northerly direction and cross the river at a more shallow point which will make for an easier traverse to Kings Mountain. Kings Mountain is a distinct feature and from its top makes for great viewing on a clear day.

Kings Mountain to Spot Height 459m (703 447)

Descend carefully the side of Kings Mountain and proceed to the spot height 459m, once again the ground has little if any distinctive features, so is an excellent opportunity, regardless of visibility to continue with your compass work including timing, distance and pacing.

Spot height 459m to Cartonwillamoge (701 455)

Once again the ground between Spot Height and Cartonwillamoge is featureless, so good navigation is essential, particularly if visibility is impaired.

Cartonwillamoge itself is quite narrow and care must be taken as there is an escarpment/cliff to its immediate North West side.

Cartonwillamoge to Benbulbin (692 463)

You can with great care not to get too close to the edge use the escarpment/cliff as a hand rail, to proceed towards Benbulbin. On reaching the top of Benbulbin, the ground levels out so be aware at all times of where you are on the map, especially if in poor visibility.

There is a trig point at the summit itself which is back from the cliffs giving you no sense of being on a dramatic escarpment. However, you will not be disappointed by the views from here; with good visibility you have a 360 degree panorama. To the North/North West across Donegal Bay lie the Blue Stacks and Slieve League; away to the East is Truskmore with its TV mast which is the highest point in Sligo; to the South West is Knocknarea, crowned by a massive cairn (which is reputed to be the tomb containing the remains of Queen Meabh –she of the “Tain” and other exploits); to the South Lough Gill and the Curlew Mountains and northern shores of Co. Mayo. Beneath you and to the north is Streedagh Point where the Spanish Armada famously came to grief in 1592 with the loss of hundreds of lives. If the weather is fine and calm then you may wish to proceed to the top of the escarpment/cliffs a little further on at 697 465. You and your team must be very careful here and not go too close to the edge of the escarpment/cliff. If you or your team take the option to go to the top of the escarpment/cliff, you must check in with staff in the area when you return from the cliff and before proceeding back towards Cartonwillamoge.

Benbulbin to Cartonwilliamoge (701 455)

Retrace your steps from Benbulbin to Cartonwilliamoge, you can with great care not to get too close to the edge use the escarpment/cliff to your North East as a hand rail, to proceed towards Cartonwilliamoge.

Cartonwilliamoge to Top of Stream (706 454)

From Cartonwilliamoge and continuing to keep the escarpment/cliff on your left hand side make your way around the top of the stream.

Top of Stream to Camp (706 459)

Care must be taken when making the descent to camp as the ground under foot might be slippery. When you arrive at camp be sure to check in with a member of staff.

SUNDAY

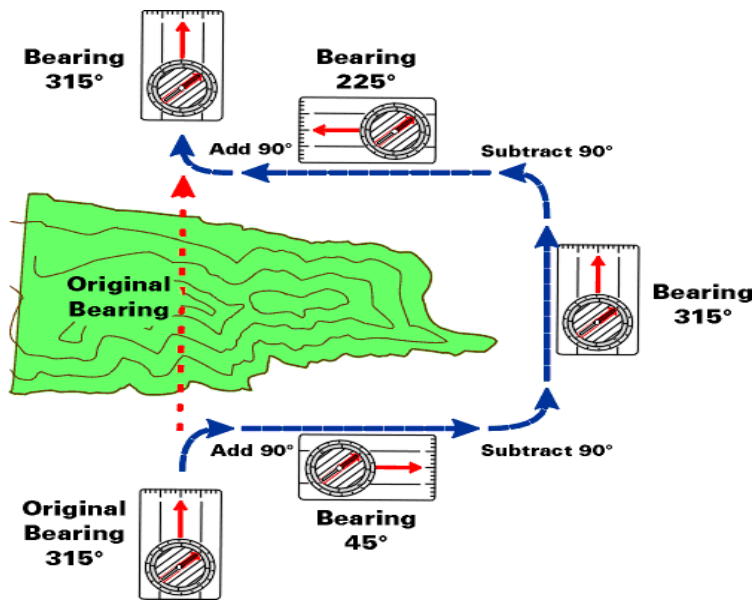
Camp to Finish (690 472)

On breaking camp pack all your gear and ensure that your site(s) are clean and completely litter free, only leave when your site(s) have been inspected and you have been checked out by a member of staff. Remember that all litter must be taken away.

Our route out is along the same route that we took in on the Friday night. Be sure to check in with a member of staff when you get back to the finish.

Well done on completing the Connaught MPC 2009.

Note one of the Saturday legs is shown as going over a cliff edge. It is important for the students to realise this and learn the principle that a bearing gives a direction but that on a specific bearing that there are often obstacles that need to be bypassed as in the graphic below



Basic Route Card for Hikes and Expeditions

Name, Age, and Phone Number of Leader and Team Members

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

LOCATION	GRID REF	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

Date : 18th to 20 September 2009
 Event : MPC Connaught
 Location : Sligo - Benbulbin

Maps / Scale 1:50,000
 Magnetic Variation : 6
 Sunrise / Sunset : 7:12 / 19:43
 Route Speed (KPH) 3

Friday Night

Location	Easting	Northing	Height	Distance(m)	Compass Bearing	Height Gain	Distance Time	Height Time	Leg Time
Start	G 690	472	150						
				806	89	30	16	3	19
Track Bend	G 698	473	180	707	141	70	14	7	21
Track Junction	G 703	468	250	632	168	10	13	1	14
End of Track	g 705	462	260	316	168		6	0	6
High Camp	G 706	459	260						
TOTALS				2461		110	49	11	60

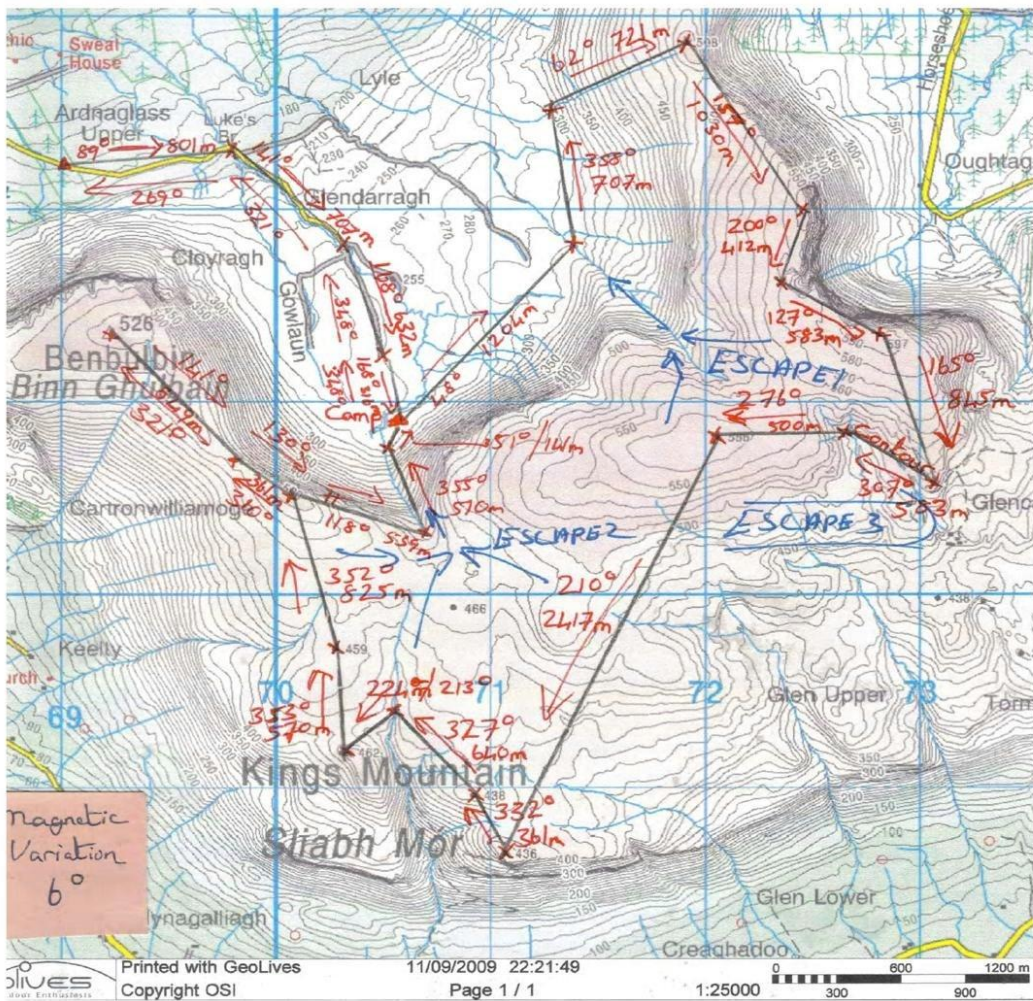
Saturday Hike

Location	Easting	Northing	Height	Distance(m)	Compass Bearing	Height Gain	Distance Time	Height Time	Leg Time
High Camp	G 706	459	260						
				1204	48	40	24	4	28
River from Gully	G 714	468	300	707	358		14	0	14
Bottom of Stream	G 713	475	300	721	62	208	14	21	35
Spot 508	G 719	479	508	1030	157	72	21	7	28
Contour 580	G 724	470	580	412	200		8	0	8
Back of Gully	G 723	466	570	583	127	27	12	3	15
Spot 597	G 728	463	597	854	165		17	0	17
Glencarbury	G 731	455	490	583	307		12	0	12
Contour Dog leg	G 726	458	490	500	276	76	10	8	18
Spot 566	G 721	458	566	2417	210		48	0	48
Spot 436	G 711	436	436	361	332	2	7	0	7
Spot 438	G 709	439	438	640	327		13	0	13
River Crossing	G 705	444	410	224	213	52	4	5	9
Kings Mountain	G 704	442	462	510	355		10	0	10
Spot 459	G 703	447	459	825	352	41	17	4	21
Cartonwilliamige	G 701	455	500	361	310		7	0	7
Col - Dog Leg	G 698	457	480	849	321	46	17	5	22
Benbulbin	G 692	463	526	849	141		17	0	17
Col - Dog Leg	G 698	457	480	361	130	20	7	2	9
Cartonwilliamige	G 701	455	500	539	118		11	0	11
Top of Stream	G 706	453	430	510	355		10	0	10
Base Of Gully	G 705	458	260	141	51		3	0	3
High Camp	G 706	459	260						
TOTALS				13991		584	279	58	337

Sunday Walk Out

Location	Easting	Northing	Height	Distance(m)	Compass Bearing	Height Gain	Distance Time	Height Time	Leg Time
High Camp	G 706	459	260						
End of Track	g 705	462	260	316	348		6	0	6
Track Junction	G 703	468	250	632	348		13	0	13
Track Bend	G 698	473	180	707	321		14	0	14
Start	G 690	472	150	806	269		16	0	16
TOTALS				2461		0	49	0	49

Calculations : The time and distance calculation on this route card are calculated at a speed of 3 kph and 1 minute for each 10 metres climbed. No allowance is made for height loss. The timing is 20 minutes per 1000 meters (1km) or 50 metres per minute. No allowance has being made for breaks.



Day Two

Day Hike minimum of 6 hours on hillside.

The activity should not be persistent training as the Scouts should enjoy the hike. However the instructors should ensure that all participants get an opportunity to lead using map, compass, timing and pacing.

The following are a list of practical exercises that should be undertaken with each group.

Map Reading

- Be able to identify all major map symbols
- Be able to set a map by linear features
- Understand the principles of contour lines & features
- Walk to a steep slope, assess the ground, and relate the ground to the map
- Walk to a shallow angled slope, assess the ground, and relate the ground to the map
- Walk to a spur, assess the ground, and relate the ground to the map
- Walk to a re-entrant, assess the ground, and relate the ground to the map
- Walk to a hilltop, assess the ground, and relate the ground to the map
- Choose a distant feature (500m-1 km), Calculate distance and estimate how long the journey might take. Walk & reassess
- Self-location, a systematic approach. Analyse the ground using down slope, up slope, to the left and to the right. Relate that information to the map
- Choose a Col, 500m-1km distant, estimate distance, and estimate how long the journey might take. Walk & reassess
- Stand on the Col, assess the ground, and relate the ground to the map
- Introduction to the national grid, 1km on the side 1.5km on the diagonal
- Practice rough distance measurement
- Walk to a distinct change of slope, assess the ground, and relate the ground to the map
- Walk to a feature out of sight using a tick list to find the way. Choose a
- Collecting feature or a 'one feature too far'

Timing and Pacing

- Pacing exercise on flat ground
- Measurement of distance using the romer
- Measure the distance to a feature on the hill; circa 200m-300m. Over easier Terrain. PACE. Instructor offers guidance to 'roughly what is 100 200 300
- Measure the distance to a feature on the hill; circa 200-300m, travelling uphill. Compare to previous results
- Measure the distance to a feature on the hill; circa 200-300m, travelling down hill
- Introduction to timing. Easier timed legs, more than 500m. Try to keep the height time much less than the distance time
- Over lunch, introduction to the compass, initially map setting then taking basic bearings.
- Navigating to features out of sight approx. 500m away using timing, Pacing, map setting using the compass and using a tick list
- Navigating to features out of sight more than 500m away using timing, pacing, following an elementary bearing and using a tick list. (General Direction not compass bearing)

Compass work

- Revision of map reading, self-location, timing and pacing
- Revision of compass work, introduction to magnetic variation
- Combined navigation techniques; choosing the correct technique for a given leg
- Aiming off and collecting features
- Converting magnetic bearings back to grid bearings
- Grid references

Weekend Two

Review of Progress to Date

This should be a brief discussion and feedback session with the opportunity to clarify any arising issues.

Review Self Assessment (what I have learnt and what do I still need to learn)

Ask the students to review their sheets and in a different colour pen ask them to see if they would change any of their ticks in columns. Then have a discussion on the changes. Depending on the grouping / trainers this may well have increased towards the very competent, from a low base, as the students have learnt on the first weekend and over the projects. Or it may well have reduced because students who have self assessed at a competent level have realised that there is a lot more to the skill than they thought.

Review of Projects

Review the two projects: Weather and Route Card. Have a handout on weather available to give out and a copy of the completed route card in both classic and visual formats.

Mountain Camping Equipment

Discussion in a semi circle with a fully packed expedition rucksack with good examples and perhaps the odd red herring to start a discussion and create a memory in the students (example very heavy gas stove). Encourage input from the students and write up their recommended gear list on a board as well as having a handout.

A concentration should be made on readily available / price affordable equipment such as Trangias (gas version) and platypus drinking systems that enhance the experience on the hills by making life a lot easier for a Scout on an expedition.

Tent Pitching & Striking – Low Light / Blindfolded

Students should bring their own tent (troops) and pitch it. The second pitch should be done blindfolded (to see if a student really knows their tent). The main trick here is recognising the poles and where they go. A simple extra piece of material can be clipped to one of the peg points to allow the student to ID their position around the tent. This requires lots of space.

Cook Lunch on Mountain Stove

Students should prepare and cook their lunch on a mountain stove. This will show the limitations of the model (i.e. frying on a meths Trangia will take hours), as well as what the stove is capable of. A full meal should be cooked from scratch and not a pot noodle. This also includes cleaning up. Instructors should also discuss the safety aspects of some of the commonly available stoves and fuel bottles

As part of the Equipment Talk a Trangia or other stove & pot system should be shown with a pot scrub, a small bottle of washing up liquid and a rubbish bag packed inside it.

Menu Planning

This should cover the whole food pyramid, and emergency planning to deal with hypoglycaemia and hypothermia. Include the LNT concept of Plan ahead and Prepare where all rubbish is left at home, and the concept of cook at home and reheat. Also cover the number of pots and pans available and what wash up is required, important in cold weather, and also foods that taint the pots if not very well washed.

Mountain Emergencies & First Aid

Recap of Basic First Aid preferably using the REC (Rescue Emergency Care) ABCDE method. The Specific Skills required to stage 6 are:

Calling the Emergency Services

Simple Strains and Blisters

Wilderness Triad (Hypothermia / Hypoglycaemia & Dehydration)

Sunstroke & Heat related injuries

Asthma

Buddy System & following the Instruction of the leader

These should all be recapped in the session, if the student wants further knowledge then they should do an outdoor first aid cert to level 2 (2 days) at a minimum

The Hillwalking Adventure Skill team have both Mountain Leader First Aid Kits and survival shelters that are available to loan out.

Mountain Hazards & Escape Routes

Cover in some detail including when to use an escape route.

Discussion on Group Awareness

Group Discussion introducing the stage 6 requirements 'I know the limitations of my team'

Projects

Project One – Menu Planning for Expedition

Set the project to develop the menu for the expedition weekend and to look at both the calorific intake and the cost (budget aspect of skill badge). The students should also have calculated the cook times and the required fuel needed. In an ideal situation the 'pots & pan' utilisation should also be calculated as well as the total weight of food / fuel carried.

Project Two – Route Card for Expedition

Give the students the route plan for the expedition in a similar format to the one for the Sligo MPC above and have them create route cards (classic and visual) for the expedition weekend.

Day Two

Day Hike minimum of 6 hours on hillside.

This should be run in the same way as Day Two of Weekend One

Weekend Three

Expedition Weekend

A two night mountain camping trip using a low and a high camp and using all the skills learned to date

The entire course is leading up to the expedition and this should be treated as the highlight of the course rather than as the assessment. The method of assessment should be based on leading legs, discussion and observation of the student over the course of the expedition. Should the assessor feel that the student needs a bit more work on a certain area they should be facilitated.

This activity should be run as a training and assessment exercise for all involved and not as a test of stamina and endurance. It is therefore not recommended that full MPC / Sionnach routes should be re-run although the campsites used on these events may be useful, and modified versions of these routes may prove useful.

The Assessors should ensure that each student is capable of

Map Reading

- Be able to identify all major map symbols
- Be able to set a map by linear features
- Understand the principles of contour lines & features
- Walk to a steep slope, assess the ground, and relate the ground to the map
- Walk to a shallow angled slope, assess the ground, and relate the ground to the map
- Walk to a spur, assess the ground, and relate the ground to the map
- Walk to a re-entrant, assess the ground, and relate the ground to the map
- Walk to a hilltop, assess the ground, and relate the ground to the map
- Choose a distant feature (500m-1 km), calculate distance and estimate how long the journey might take. Walk & reassess
- Self-location, a systematic approach. Analyse the ground using down slope, up slope, to the left and to the right. Relate that information to the map
- Choose a Col, 500m-1km distant, estimate distance, and estimate how long the journey might take. Walk & reassess
- Stand on the Col, assess the ground, and relate the ground to the map
- Introduction to the national grid, 1km on the side 1.5km on the diagonal
- Practice rough distance measurement
- Walk to a distinct change of slope, assess the ground, and relate the ground to the map
- Walk to a feature out of sight using a tick list to find the way.
- Choose a collecting feature or a 'one feature too far'

Timing and Pacing

- Pacing exercise on flat ground
- Measurement of distance using the romer

- Measure the distance to a feature on the hill; circa 200m-300m. Over easier Terrain. PACE. Instructor offers guidance to 'roughly what is 100 200 300
- Measure the distance to a feature on the hill; circa 200-300m, travelling uphill. Compare to previous results
- Measure the distance to a feature on the hill; circa 200-300m, travelling down hill
- Introduction to timing. Easier timed legs, more than 500m. Try to keep the height time much less than the distance time
- Over lunch, introduction to the compass, initially map setting then taking basic bearings.
- Navigating to features out of sight approx. 500m away using timing, pacing, map setting using the compass and using a tick list
- Navigating to features out of sight more than 500m away using timing, pacing, following an elementary bearing and using a tick list. (General Direction not compass bearing)

Compass work

- Revision of map reading, self-location, timing and pacing
- Revision of compass work, introduction to magnetic variation
- Combined navigation techniques; choosing the correct technique for a given leg
- Aiming off and collecting features
- Converting magnetic bearings back to grid bearings
- Grid references

Camping and Cooking

- Pick a good camp site and review the possibility of flooding and LNT principles (Durable Ground)
- Pitch their tent well with attention paid to wind direction
- Cook an edible and nutritious meal on a mountain stove and be able to clean up and dispose of waste properly (LNT)

Mountain Safety & Emergencies

- Whilst hiking discuss with the assessor an emergency action plan for a scenario incident at that point on the route
- Develop an escape route from this point

5 Celebration

Depending on the nature of the course the presentation of the awards may be done on the last morning of the expedition (MPC Style) or at a more formal occasion a few weeks later (max 3 weeks).

All logs should be submitted for signing as they are necessary for level 7

6 Instruction and Assessment Ratios

In order to assure that the best quality instruction the recommended ration of instructors to students should be 1 to 4, with an absolute maximum of 6 to one.

Where stage seven instructors are working under a stage 8/9 course director there should be no more that 2 stage 7's per every stage 8/9. This would mean that the recommended ratio would be 12 students per stage 8/9 instructor with a maximum of 18

In order to assure that the course is not a crowd control exercise the recommended maximum number per course is 24 Students as this requires 2 stage 8/9 instructors, they should work as joint course directors.

Hillwalking Adventure Skills – Logbook

NAME: _____

ADDRESS: _____

PHONE: (H) _____ (M) _____

E MAIL ADDRESS: _____

How long have you been hill walking? _____

Have you any rock climbing experience? _____

How many different hills higher than 600m have you ascended? _____

How many different hills higher than 800m have you ascended? _____

How many different hills higher than 1000m. have you ascended? _____

Have you any mountaineering experience abroad? _____

If so, where? _____

DATES OF SKILLS COURSES ATTENDED

Organiser's Signature

Date:	Course	Organiser	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Hillwalking Stages Awarded

Assessor's Signature

Stage:	Date:	Location:	Assessor:	
Five	_____	_____	_____	_____
Six	_____	_____	_____	_____
Seven	_____	_____	_____	_____

FIRST AID CERT:

Level of Cert _____ Issuing Body _____

Date of Cert _____ Valid until _____

Example Logbook Entry

Hike Number 1	Date 21/09/2010	
Area - Glenbride, Co Wicklow	Map: Sheet 56 1:50,000	
Number in Party: 4	Leader: Andy White	
Weather: Mild, Light winds with low clouds and showers		
Total Distance 15km	Total Time: 6 Hours	Campsite Location N/A
Route	Route Notes	
Glenbride Lodge		
Spot 698m	Marked as Silsean on some maps	
Moanbane		
Billy Byrne's Gap		
Mullaghcleevaun	I led this Leg	
Barnacullian		
Spot 561m	Marked as Carrignagunneen on some Maps	
Glenbride Lodge		

Sketch Map of Route

If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Hillwalking Stage 4 Hike Number 1

Hike Number		Date
Area -		Map:
Number in Party:		Leader:
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Hillwalking Stage 4 Hike Number 2

Hike Number	Date	
Area -	Map:	
Number in Party:	Leader:	
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Hillwalking Stage 4 Hike Number 3

Hike Number		Date
Area -		Map:
Number in Party:		Leader:
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Hillwalking Stage 5 Hike Number 1

Hike Number	Date	
Area -	Map:	
Number in Party:	Leader:	
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Hillwalking Stage 5 Hike Number 2

Hike Number	Date	
Area -	Map:	
Number in Party:	Leader:	
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Hillwalking Stage 5 Hike Number 3

Hike Number		Date
Area -		Map:
Number in Party:		Leader:
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Additional Logs (Photo Copy as Necessary)

Hike Number	Date	
Area -	Map:	
Number in Party:	Leader:	
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Additional Logs (Photo Copy as Necessary)

Hike Number	Date	
Area -	Map:	
Number in Party:	Leader:	
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

Additional Logs (Photo Copy as Necessary)

Hike Number	Date	
Area -	Map:	
Number in Party:	Leader:	
Weather:		
Total Distance	Total Time:	Campsite Location:
Route	Route Notes	

Sketch Map of Route



If there is insufficient space on the page please photocopy and write on the back

Full route cards should be submitted where necessary

